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# Amazon SageMaker

## Amazon Sagemaker API Reference



## Amazon SageMaker: Amazon Sagemaker API Reference

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# Welcome

## Amazon SageMaker Service

Provides APIs for creating and managing SageMaker resources.

Other Resources:

- [SageMaker Developer Guide](#)
- [Amazon Augmented AI Runtime API Reference](#)

## Amazon SageMaker Runtime

The Amazon SageMaker runtime API.

## Amazon Sagemaker Edge Manager

SageMaker Edge Manager dataplane service for communicating with active agents.

## Amazon SageMaker Feature Store Runtime

Contains all data plane API operations and data types for the Amazon SageMaker Feature Store. Use this API to put, delete, and retrieve (get) features from a feature store.

Use the following operations to configure your OnlineStore and OfflineStore features, and to create and manage feature groups:

- [CreateFeatureGroup](#)
- [DeleteFeatureGroup](#)
- [DescribeFeatureGroup](#)
- [ListFeatureGroups](#)

## Amazon SageMaker geospatial capabilities

Provides APIs for creating and managing SageMaker geospatial resources.

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- [DeleteStudioLifecycleConfig \(p. 311\)](#)
- [DeleteTags \(p. 313\)](#)
- [DeleteTrial \(p. 315\)](#)
- [DeleteTrialComponent \(p. 317\)](#)
- [DeleteUserProfile \(p. 319\)](#)
- [DeleteWorkforce \(p. 321\)](#)
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- [DeregisterDevices \(p. 325\)](#)
- [DescribeAction \(p. 327\)](#)
- [DescribeAlgorithm \(p. 331\)](#)
- [DescribeApp \(p. 337\)](#)
- [DescribeAppImageConfig \(p. 341\)](#)
- [DescribeArtifact \(p. 344\)](#)
- [DescribeAutoMLJob \(p. 348\)](#)
- [DescribeCodeRepository \(p. 354\)](#)
- [DescribeCompilationJob \(p. 356\)](#)
- [DescribeContext \(p. 361\)](#)

- [DescribeDataQualityJobDefinition \(p. 365\)](#)
- [DescribeDevice \(p. 369\)](#)
- [DescribeDeviceFleet \(p. 373\)](#)
- [DescribeDomain \(p. 376\)](#)
- [DescribeEdgeDeploymentPlan \(p. 383\)](#)
- [DescribeEdgePackagingJob \(p. 387\)](#)
- [DescribeEndpoint \(p. 391\)](#)
- [DescribeEndpointConfig \(p. 398\)](#)
- [DescribeExperiment \(p. 402\)](#)
- [DescribeFeatureGroup \(p. 405\)](#)
- [DescribeFeatureMetadata \(p. 410\)](#)
- [DescribeFlowDefinition \(p. 413\)](#)
- [DescribeHub \(p. 416\)](#)
- [DescribeHubContent \(p. 419\)](#)
- [DescribeHumanTaskUi \(p. 424\)](#)
- [DescribeHyperParameterTuningJob \(p. 426\)](#)
- [DescribeImage \(p. 435\)](#)
- [DescribeImageVersion \(p. 438\)](#)
- [DescribeInferenceExperiment \(p. 441\)](#)
- [DescribeInferenceRecommendationsJob \(p. 446\)](#)
- [DescribeLabelingJob \(p. 451\)](#)
- [DescribeLineageGroup \(p. 457\)](#)
- [DescribeModel \(p. 460\)](#)
- [DescribeModelBiasJobDefinition \(p. 463\)](#)
- [DescribeModelCard \(p. 467\)](#)
- [DescribeModelCardExportJob \(p. 471\)](#)
- [DescribeModelExplainabilityJobDefinition \(p. 474\)](#)
- [DescribeModelPackage \(p. 478\)](#)
- [DescribeModelPackageGroup \(p. 486\)](#)
- [DescribeModelQualityJobDefinition \(p. 489\)](#)
- [DescribeMonitoringSchedule \(p. 493\)](#)
- [DescribeNotebookInstance \(p. 498\)](#)
- [DescribeNotebookInstanceLifecycleConfig \(p. 503\)](#)
- [DescribePipeline \(p. 506\)](#)
- [DescribePipelineDefinitionForExecution \(p. 510\)](#)
- [DescribePipelineExecution \(p. 512\)](#)
- [DescribeProcessingJob \(p. 516\)](#)
- [DescribeProject \(p. 522\)](#)
- [DescribeSpace \(p. 525\)](#)
- [DescribeStudioLifecycleConfig \(p. 529\)](#)
- [DescribeSubscribedWorkteam \(p. 532\)](#)
- [DescribeTrainingJob \(p. 534\)](#)
- [DescribeTransformJob \(p. 545\)](#)
- [DescribeTrial \(p. 550\)](#)
- [DescribeTrialComponent \(p. 553\)](#)
- [DescribeUserProfile \(p. 558\)](#)

- [DescribeWorkforce \(p. 562\)](#)
- [DescribeWorkteam \(p. 564\)](#)
- [DisableSagemakerServicecatalogPortfolio \(p. 566\)](#)
- [DisassociateTrialComponent \(p. 567\)](#)
- [EnableSagemakerServicecatalogPortfolio \(p. 569\)](#)
- [GetDeviceFleetReport \(p. 570\)](#)
- [GetLineageGroupPolicy \(p. 573\)](#)
- [GetModelPackageGroupPolicy \(p. 575\)](#)
- [GetSagemakerServicecatalogPortfolioStatus \(p. 577\)](#)
- [GetSearchSuggestions \(p. 578\)](#)
- [ImportHubContent \(p. 580\)](#)
- [ListActions \(p. 584\)](#)
- [ListAlgorithms \(p. 587\)](#)
- [ListAppImageConfigs \(p. 590\)](#)
- [ListApps \(p. 593\)](#)
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- [ListAssociations \(p. 599\)](#)
- [ListAutoMLJobs \(p. 603\)](#)
- [ListCandidatesForAutoMLJob \(p. 607\)](#)
- [ListCodeRepositories \(p. 611\)](#)
- [ListCompilationJobs \(p. 615\)](#)
- [ListContexts \(p. 619\)](#)
- [ListDataQualityJobDefinitions \(p. 622\)](#)
- [ListDeviceFleets \(p. 625\)](#)
- [ListDevices \(p. 628\)](#)
- [ListDomains \(p. 631\)](#)
- [ListEdgeDeploymentPlans \(p. 633\)](#)
- [ListEdgePackagingJobs \(p. 637\)](#)
- [ListEndpointConfigs \(p. 641\)](#)
- [ListEndpoints \(p. 644\)](#)
- [ListExperiments \(p. 647\)](#)
- [ListFeatureGroups \(p. 650\)](#)
- [ListFlowDefinitions \(p. 653\)](#)
- [ListHubContents \(p. 656\)](#)
- [ListHubContentVersions \(p. 660\)](#)
- [ListHubs \(p. 664\)](#)
- [ListHumanTaskUis \(p. 667\)](#)
- [ListHyperParameterTuningJobs \(p. 670\)](#)
- [ListImages \(p. 674\)](#)
- [ListImageVersions \(p. 677\)](#)
- [ListInferenceExperiments \(p. 680\)](#)
- [ListInferenceRecommendationsJobs \(p. 684\)](#)
- [ListInferenceRecommendationsJobSteps \(p. 687\)](#)
- [ListLabelingJobs \(p. 690\)](#)
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- [ListLineageGroups \(p. 697\)](#)

- [ListModelBiasJobDefinitions \(p. 700\)](#)
- [ListModelCardExportJobs \(p. 703\)](#)
- [ListModelCards \(p. 707\)](#)
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- [ListModelExplainabilityJobDefinitions \(p. 713\)](#)
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- [ListModel \(p. 728\)](#)
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- [ListPipelineParametersForExecution \(p. 760\)](#)
- [ListPipelines \(p. 763\)](#)
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- [ListProjects \(p. 769\)](#)
- [ListSpaces \(p. 772\)](#)
- [ListStageDevices \(p. 775\)](#)
- [ListStudioLifecycleConfigs \(p. 778\)](#)
- [ListSubscribedWorkteams \(p. 782\)](#)
- [ListTags \(p. 784\)](#)
- [ListTrainingJobs \(p. 786\)](#)
- [ListTrainingJobsForHyperParameterTuningJob \(p. 790\)](#)
- [ListTransformJobs \(p. 793\)](#)
- [ListTrialComponents \(p. 796\)](#)
- [ListTrials \(p. 800\)](#)
- [ListUserProfiles \(p. 803\)](#)
- [ListWorkforces \(p. 806\)](#)
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- [PutModelPackageGroupPolicy \(p. 812\)](#)
- [QueryLineage \(p. 814\)](#)
- [RegisterDevices \(p. 818\)](#)
- [RenderUiTemplate \(p. 820\)](#)
- [RetryPipelineExecution \(p. 823\)](#)
- [Search \(p. 826\)](#)
- [SendPipelineExecutionStepFailure \(p. 860\)](#)
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- [StartEdgeDeploymentStage \(p. 864\)](#)
- [StartInferenceExperiment \(p. 866\)](#)
- [StartMonitoringSchedule \(p. 868\)](#)

- [StartNotebookInstance \(p. 870\)](#)
- [StartPipelineExecution \(p. 872\)](#)
- [StopAutoMLJob \(p. 875\)](#)
- [StopCompilationJob \(p. 877\)](#)
- [StopEdgeDeploymentStage \(p. 879\)](#)
- [StopEdgePackagingJob \(p. 881\)](#)
- [StopHyperParameterTuningJob \(p. 882\)](#)
- [StopInferenceExperiment \(p. 884\)](#)
- [StopInferenceRecommendationsJob \(p. 887\)](#)
- [StopLabelingJob \(p. 889\)](#)
- [StopMonitoringSchedule \(p. 891\)](#)
- [StopNotebookInstance \(p. 893\)](#)
- [StopPipelineExecution \(p. 895\)](#)
- [StopProcessingJob \(p. 897\)](#)
- [StopTrainingJob \(p. 899\)](#)
- [StopTransformJob \(p. 901\)](#)
- [UpdateAction \(p. 903\)](#)
- [UpdateAppImageConfig \(p. 906\)](#)
- [UpdateArtifact \(p. 908\)](#)
- [UpdateCodeRepository \(p. 911\)](#)
- [UpdateContext \(p. 913\)](#)
- [UpdateDeviceFleet \(p. 916\)](#)
- [UpdateDevices \(p. 918\)](#)
- [UpdateDomain \(p. 920\)](#)
- [UpdateEndpoint \(p. 924\)](#)
- [UpdateEndpointWeightsAndCapacities \(p. 928\)](#)
- [UpdateExperiment \(p. 930\)](#)
- [UpdateFeatureGroup \(p. 932\)](#)
- [UpdateFeatureMetadata \(p. 934\)](#)
- [UpdateHub \(p. 936\)](#)
- [UpdateImage \(p. 939\)](#)
- [UpdateInferenceExperiment \(p. 942\)](#)
- [UpdateModelCard \(p. 945\)](#)
- [UpdateModelPackage \(p. 948\)](#)
- [UpdateMonitoringAlert \(p. 951\)](#)
- [UpdateMonitoringSchedule \(p. 954\)](#)
- [UpdateNotebookInstance \(p. 958\)](#)
- [UpdateNotebookInstanceLifecycleConfig \(p. 963\)](#)
- [UpdatePipeline \(p. 965\)](#)
- [UpdatePipelineExecution \(p. 968\)](#)
- [UpdateProject \(p. 971\)](#)
- [UpdateSpace \(p. 974\)](#)
- [UpdateTrainingJob \(p. 977\)](#)
- [UpdateTrial \(p. 980\)](#)
- [UpdateTrialComponent \(p. 982\)](#)
- [UpdateUserProfile \(p. 986\)](#)

- [UpdateWorkforce \(p. 989\)](#)
- [UpdateWorkteam \(p. 992\)](#)

## AddAssociation

Service: Amazon SageMaker Service

Creates an *association* between the source and the destination. A source can be associated with multiple destinations, and a destination can be associated with multiple sources. An association is a lineage tracking entity. For more information, see [Amazon SageMaker ML Lineage Tracking](#).

## Request Syntax

```
{  
    "AssociationType": "string",  
    "DestinationArn": "string",  
    "SourceArn": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### **AssociationType (p. 17)**

The type of association. The following are suggested uses for each type. Amazon SageMaker places no restrictions on their use.

- ContributedTo - The source contributed to the destination or had a part in enabling the destination. For example, the training data contributed to the training job.
- AssociatedWith - The source is connected to the destination. For example, an approval workflow is associated with a model deployment.
- DerivedFrom - The destination is a modification of the source. For example, a digest output of a channel input for a processing job is derived from the original inputs.
- Produced - The source generated the destination. For example, a training job produced a model artifact.

Type: String

Valid Values: ContributedTo | AssociatedWith | DerivedFrom | Produced

Required: No

### **DestinationArn (p. 17)**

The Amazon Resource Name (ARN) of the destination.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-\-]*:sagemaker:[a-z0-9\-\-]*:[0-9]{12}:(experiment|experiment-trial-component|artifact|action|context)/.*`

Required: Yes

### **SourceArn (p. 17)**

The ARN of the source.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-\-]\*:sagemaker:[a-z0-9\-\-]\*:[0-9]{12}:(experiment|experiment-trial-component|artifact|action|context)/\*

Required: Yes

## Response Syntax

```
{  
    "DestinationArn": "string",  
    "SourceArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### **DestinationArn (p. 18)**

The Amazon Resource Name (ARN) of the destination.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-\-]\*:sagemaker:[a-z0-9\-\-]\*:[0-9]{12}:(experiment|experiment-trial-component|artifact|action|context)/\*

### **SourceArn (p. 18)**

The ARN of the source.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-\-]\*:sagemaker:[a-z0-9\-\-]\*:[0-9]{12}:(experiment|experiment-trial-component|artifact|action|context)/\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## AddTags

Service: Amazon SageMaker Service

Adds or overwrites one or more tags for the specified SageMaker resource. You can add tags to notebook instances, training jobs, hyperparameter tuning jobs, batch transform jobs, models, labeling jobs, work teams, endpoint configurations, and endpoints.

Each tag consists of a key and an optional value. Tag keys must be unique per resource. For more information about tags, see [For more information, see AWS Tagging Strategies](#).

### Note

Tags that you add to a hyperparameter tuning job by calling this API are also added to any training jobs that the hyperparameter tuning job launches after you call this API, but not to training jobs that the hyperparameter tuning job launched before you called this API. To make sure that the tags associated with a hyperparameter tuning job are also added to all training jobs that the hyperparameter tuning job launches, add the tags when you first create the tuning job by specifying them in the Tags parameter of [CreateHyperParameterTuningJob \(p. 106\)](#)

### Note

Tags that you add to a SageMaker Studio Domain or User Profile by calling this API are also added to any Apps that the Domain or User Profile launches after you call this API, but not to Apps that the Domain or User Profile launched before you called this API. To make sure that the tags associated with a Domain or User Profile are also added to all Apps that the Domain or User Profile launches, add the tags when you first create the Domain or User Profile by specifying them in the Tags parameter of [CreateDomain \(p. 66\)](#) or [CreateUserProfile \(p. 229\)](#).

## Request Syntax

```
{  
    "ResourceArn": "string",  
    "Tags": [  
        {  
            "Key": "string",  
            "Value": "string"  
        }  
    ]  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### ResourceArn (p. 20)

The Amazon Resource Name (ARN) of the resource that you want to tag.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z-]*:sagemaker:[a-z0-9-]*:[0-9]{12}:[.]+`

Required: Yes

### Tags (p. 20)

An array of key-value pairs. You can use tags to categorize your AWS resources in different ways, for example, by purpose, owner, or environment. For more information, see [Tagging AWS Resources](#).

Type: Array of [Tag \(p. 1749\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: Yes

## Response Syntax

```
{  
    "Tags": [  
        {  
            "Key": "string",  
            "Value": "string"  
        }  
    ]  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [Tags \(p. 21\)](#)

A list of tags associated with the SageMaker resource.

Type: Array of [Tag \(p. 1749\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## AssociateTrialComponent

Service: Amazon SageMaker Service

Associates a trial component with a trial. A trial component can be associated with multiple trials. To disassociate a trial component from a trial, call the [DisassociateTrialComponent \(p. 567\)](#) API.

### Request Syntax

```
{  
    "TrialComponentName": "string",  
    "TrialName": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [TrialComponentName \(p. 22\)](#)

The name of the component to associate with the trial.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,119\}

Required: Yes

#### [TrialName \(p. 22\)](#)

The name of the trial to associate with.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,119\}

Required: Yes

### Response Syntax

```
{  
    "TrialArn": "string",  
    "TrialComponentArn": "string"  
}
```

### Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [TrialArn \(p. 22\)](#)

The Amazon Resource Name (ARN) of the trial.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-\-]*:sagemaker:[a-z0-9\-\-]*:[0-9]{12}:experiment-trial/.*`

### [TrialComponentArn \(p. 22\)](#)

The Amazon Resource Name (ARN) of the trial component.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-\-]*:sagemaker:[a-z0-9\-\-]*:[0-9]{12}:experiment-trial-component/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# BatchDescribeModelPackage

Service: Amazon SageMaker Service

This action batch describes a list of versioned model packages

## Request Syntax

```
{  
    "ModelPackageArnList": [ "string" ]  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### ModelPackageArnList (p. 24)

The list of Amazon Resource Name (ARN) of the model package groups.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: arn:aws[a-z\-]\*:sagemaker:[a-z0-9\-]\*:[0-9]{12}:model-package/.\*

Required: Yes

## Response Syntax

```
{  
    "BatchDescribeModelPackageErrorMap": {  
        "string" : {  
            "ErrorCode": "string",  
            "ErrorResponse": "string"  
        }  
    },  
    "ModelPackageSummaries": {  
        "string" : {  
            "CreationTime": number,  
            "InferenceSpecification": {  
                "Containers": [  
                    {  
                        "ContainerHostname": "string",  
                        "Environment": {  
                            "string" : "string"  
                        },  
                        "Framework": "string",  
                        "FrameworkVersion": "string",  
                        "Image": "string",  
                        "ImageDigest": "string",  
                        "ModelDataURL": "string",  
                        "ModelError": {  
                            "DataInputConfig": "string"  
                        }  
                    }  
                ]  
            }  
        }  
    }  
}
```

```
        },
        "NearestModelName": "string",
        "ProductId": "string"
    },
    "SupportedContentTypes": [ "string" ],
    "SupportedRealtimeInferenceInstanceTypes": [ "string" ],
    "SupportedResponseMIMETypes": [ "string" ],
    "SupportedTransformInstanceTypes": [ "string" ]
},
"ModelApprovalStatus": "string",
"ModelPackageArn": "string",
"ModelPackageDescription": "string",
"ModelPackageGroupName": "string",
"ModelPackageStatus": "string",
"ModelPackageVersion": number
}
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [BatchDescribeModelPackageErrorMap \(p. 24\)](#)

A map of the resource and BatchDescribeModelPackageError objects reporting the error associated with describing the model package.

Type: String to [BatchDescribeModelPackageError \(p. 1180\)](#) object map

Key Length Constraints: Minimum length of 1. Maximum length of 2048.

Key Pattern: arn:aws[a-z\-\]\*:sagemaker:[a-z0-9\-\-]\*:[0-9]{12}:model-package/.<sup>\*</sup>

### [ModelPackageSummaries \(p. 24\)](#)

The summaries for the model package versions

Type: String to [BatchDescribeModelPackageSummary \(p. 1181\)](#) object map

Key Length Constraints: Minimum length of 1. Maximum length of 2048.

Key Pattern: arn:aws[a-z\-\]\*:sagemaker:[a-z0-9\-\-]\*:[0-9]{12}:model-package/.<sup>\*</sup>

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## CreateAction

Service: Amazon SageMaker Service

Creates an *action*. An action is a lineage tracking entity that represents an action or activity. For example, a model deployment or an HPO job. Generally, an action involves at least one input or output artifact. For more information, see [Amazon SageMaker ML Lineage Tracking](#).

## Request Syntax

```
{  
    "ActionName": "string",  
    "ActionType": "string",  
    "Description": "string",  
    "MetadataProperties": {  
        "CommitId": "string",  
        "GeneratedBy": "string",  
        "ProjectId": "string",  
        "Repository": "string"  
    },  
    "Properties": {  
        "string" : "string"  
    },  
    "Source": {  
        "SourceId": "string",  
        "SourceType": "string",  
        "SourceUri": "string"  
    },  
    "Status": "string",  
    "Tags": [  
        {  
            "Key": "string",  
            "Value": "string"  
        }  
    ]  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### ActionName (p. 27)

The name of the action. Must be unique to your account in an AWS Region.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9]){0,119}

Required: Yes

### ActionType (p. 27)

The action type.

Type: String

Length Constraints: Maximum length of 256.

Required: Yes

#### [Description \(p. 27\)](#)

The description of the action.

Type: String

Length Constraints: Maximum length of 3072.

Pattern: .\*

Required: No

#### [MetadataProperties \(p. 27\)](#)

Metadata properties of the tracking entity, trial, or trial component.

Type: [MetadataProperties \(p. 1465\)](#) object

Required: No

#### [Properties \(p. 27\)](#)

A list of properties to add to the action.

Type: String to string map

Map Entries: Maximum number of 30 items.

Key Length Constraints: Maximum length of 256.

Key Pattern: .\*

Value Length Constraints: Maximum length of 256.

Value Pattern: .\*

Required: No

#### [Source \(p. 27\)](#)

The source type, ID, and URI.

Type: [ActionSource \(p. 1109\)](#) object

Required: Yes

#### [Status \(p. 27\)](#)

The status of the action.

Type: String

Valid Values: Unknown | InProgress | Completed | Failed | Stopping | Stopped

Required: No

#### [Tags \(p. 27\)](#)

A list of tags to apply to the action.

Type: Array of [Tag \(p. 1749\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## Response Syntax

```
{  
    "ActionArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### ActionArn (p. 29)

The Amazon Resource Name (ARN) of the action.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-\-]\*:sagemaker:[a-z0-9\-\-]\*:[0-9]{12}:action/.\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### ResourceLimitExceeded

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreateAlgorithm

Service: Amazon SageMaker Service

Create a machine learning algorithm that you can use in SageMaker and list in the AWS Marketplace.

## Request Syntax

```
{  
    "AlgorithmDescription": "string",  
    "AlgorithmName": "string",  
    "CertifyForMarketplace": boolean,  
    "InferenceSpecification": {  
        "Containers": [  
            {  
                "ContainerHostname": "string",  
                "Environment": {  
                    "string" : "string"  
                },  
                "Framework": "string",  
                "FrameworkVersion": "string",  
                "Image": "string",  
                "ImageDigest": "string",  
                "ModelDataURL": "string",  
                "ModelInput": {  
                    "DataInputConfig": "string"  
                },  
                "NearestModelName": "string",  
                "ProductId": "string"  
            }  
        ],  
        "SupportedContentTypes": [ "string" ],  
        "SupportedRealtimeInferenceInstanceTypes": [ "string" ],  
        "SupportedResponseMIMETypes": [ "string" ],  
        "SupportedTransformInstanceTypes": [ "string" ]  
    },  
    "Tags": [  
        {  
            "Key": "string",  
            "Value": "string"  
        }  
    ],  
    "TrainingSpecification": {  
        "MetricDefinitions": [  
            {  
                "Name": "string",  
                "Regex": "string"  
            }  
        ],  
        "SupportedHyperParameters": [  
            {  
                "DefaultValue": "string",  
                "Description": "string",  
                "IsRequired": boolean,  
                "IsTunable": boolean,  
                "Name": "string",  
                "Range": {  
                    "CategoricalParameterRangeSpecification": {  
                        "Values": [ "string" ]  
                    },  
                    "ContinuousParameterRangeSpecification": {  
                        "MaxValue": "string",  
                        "MinValue": "string"  
                    },  
                }  
            }  
        ]  
    }  
}
```

```

        "IntegerParameterRangeSpecification": {
            "MaxValue": "string",
            "MinValue": "string"
        }
    },
    "Type": "string"
},
],
"SupportedContentTypes": [ "string" ],
"SupportedTuningJobObjectiveMetrics": [
{
    "MetricName": "string",
    "Type": "string"
}
],
"SupportsDistributedTraining": boolean,
"TrainingChannels": [
{
    "Description": "string",
    "IsRequired": boolean,
    "Name": "string",
    "SupportedCompressionTypes": [ "string" ],
    "SupportedContentTypes": [ "string" ],
    "SupportedInputModes": [ "string" ]
}
],
"TrainingImage": "string",
"TrainingImageDigest": "string"
},
"ValidationSpecification": {
    "ValidationProfiles": [
{
        "ProfileName": "string",
        "TrainingJobDefinition": {
            "HyperParameters": {
                "string": "string"
            },
            "InputDataConfig": [
{
                "ChannelName": "string",
                "CompressionType": "string",
                "ContentType": "string",
                "DataSource": {
                    "FileSystemDataSource": {
                        "DirectoryPath": "string",
                        "FileSystemAccessMode": "string",
                        "FileSystemId": "string",
                        "FileSystemType": "string"
                    },
                    "S3DataSource": {
                        "AttributeNames": [ "string" ],
                        "InstanceGroupNames": [ "string" ],
                        "S3DataDistributionType": "string",
                        "S3DataType": "string",
                        "S3Uri": "string"
                    }
                },
                "InputMode": "string",
                "RecordWrapperType": "string",
                "ShuffleConfig": {
                    "Seed": number
                }
}
]
},
"OutputDataConfig": {
    "KmsKeyId": "string",

```

```

        "S3OutputPath": "string"
    },
    "ResourceConfig": {
        "InstanceCount": number,
        "InstanceGroups": [
            {
                "InstanceCount": number,
                "InstanceGroupName": "string",
                "InstanceType": "string"
            }
        ],
        "InstanceType": "string",
        "KeepAlivePeriodInSeconds": number,
        "VolumeKmsKeyId": "string",
        "VolumeSizeInGB": number
    },
    "StoppingCondition": {
        "MaxRuntimeInSeconds": number,
        "MaxWaitTimeInSeconds": number
    },
    "TrainingInputMode": "string"
},
"TransformJobDefinition": {
    "BatchStrategy": "string",
    "Environment": {
        "string" : "string"
    },
    "MaxConcurrentTransforms": number,
    "MaxPayloadInMB": number,
    "TransformInput": {
        "CompressionType": "string",
        "ContentType": "string",
        "DataSource": {
            "S3DataSource": {
                "S3DataType": "string",
                "S3Uri": "string"
            }
        },
        "SplitType": "string"
    },
    "TransformOutput": {
        "Accept": "string",
        "AssembleWith": "string",
        "KmsKeyId": "string",
        "S3OutputPath": "string"
    },
    "TransformResources": {
        "InstanceCount": number,
        "InstanceType": "string",
        "VolumeKmsKeyId": "string"
    }
}
],
"ValidationRole": "string"
}
}

```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### [AlgorithmDescription \(p. 30\)](#)

A description of the algorithm.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: [\p{L}\p{M}\p{Z}\p{S}\p{N}\p{P}]\*

Required: No

### [AlgorithmName \(p. 30\)](#)

The name of the algorithm.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

### [CertifyForMarketplace \(p. 30\)](#)

Whether to certify the algorithm so that it can be listed in AWS Marketplace.

Type: Boolean

Required: No

### [InferenceSpecification \(p. 30\)](#)

Specifies details about inference jobs that the algorithm runs, including the following:

- The Amazon ECR paths of containers that contain the inference code and model artifacts.
- The instance types that the algorithm supports for transform jobs and real-time endpoints used for inference.
- The input and output content formats that the algorithm supports for inference.

Type: [InferenceSpecification \(p. 1423\)](#) object

Required: No

### [Tags \(p. 30\)](#)

An array of key-value pairs. You can use tags to categorize your AWS resources in different ways, for example, by purpose, owner, or environment. For more information, see [Tagging AWS Resources](#).

Type: Array of [Tag \(p. 1749\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

### [TrainingSpecification \(p. 30\)](#)

Specifies details about training jobs run by this algorithm, including the following:

- The Amazon ECR path of the container and the version digest of the algorithm.
- The hyperparameters that the algorithm supports.
- The instance types that the algorithm supports for training.
- Whether the algorithm supports distributed training.
- The metrics that the algorithm emits to Amazon CloudWatch.

- Which metrics that the algorithm emits can be used as the objective metric for hyperparameter tuning jobs.
- The input channels that the algorithm supports for training data. For example, an algorithm might support `train`, `validation`, and `test` channels.

Type: [TrainingSpecification \(p. 1773\)](#) object

Required: Yes

#### [ValidationSpecification \(p. 30\)](#)

Specifies configurations for one or more training jobs and that SageMaker runs to test the algorithm's training code and, optionally, one or more batch transform jobs that SageMaker runs to test the algorithm's inference code.

Type: [AlgorithmValidationSpecification \(p. 1125\)](#) object

Required: No

## Response Syntax

```
{  
    "AlgorithmArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

#### [AlgorithmArn \(p. 34\)](#)

The Amazon Resource Name (ARN) of the new algorithm.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `arn:aws[a-z\-\-]*:sagemaker:[a-z0-9\-\-]*:[0-9]{12}:algorithm/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)

- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## CreateApp

Service: Amazon SageMaker Service

Creates a running app for the specified UserProfile. This operation is automatically invoked by Amazon SageMaker Studio upon access to the associated Domain, and when new kernel configurations are selected by the user. A user may have multiple Apps active simultaneously.

## Request Syntax

```
{  
    "AppName": "string",  
    "AppType": "string",  
    "DomainId": "string",  
    "ResourceSpec": {  
        "InstanceType": "string",  
        "LifecycleConfigArn": "string",  
        "SageMakerImageArn": "string",  
        "SageMakerImageVersionArn": "string"  
    },  
    "SpaceName": "string",  
    "Tags": [  
        {  
            "Key": "string",  
            "Value": "string"  
        }  
    ],  
    "UserProfileName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### AppName (p. 36)

The name of the app.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9]){0,62}

Required: Yes

### AppType (p. 36)

The type of app.

Type: String

Valid Values: JupyterServer | KernelGateway | TensorBoard | RStudioServerPro | RSessionGateway

Required: Yes

### DomainId (p. 36)

The domain ID.

Type: String

Length Constraints: Maximum length of 63.

Required: Yes

#### [ResourceSpec \(p. 36\)](#)

The instance type and the Amazon Resource Name (ARN) of the SageMaker image created on the instance.

##### **Note**

The value of InstanceType passed as part of the ResourceSpec in the CreateApp call overrides the value passed as part of the ResourceSpec configured for the user profile or the domain. If InstanceType is not specified in any of those three ResourceSpec values for a KernelGateway app, the CreateApp call fails with a request validation error.

Type: [ResourceSpec \(p. 1707\)](#) object

Required: No

#### [SpaceName \(p. 36\)](#)

The name of the space.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: No

#### [Tags \(p. 36\)](#)

Each tag consists of a key and an optional value. Tag keys must be unique per resource.

Type: Array of [Tag \(p. 1749\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

#### [UserProfileName \(p. 36\)](#)

The user profile name.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: No

## Response Syntax

```
{  
    "AppArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [AppArn \(p. 37\)](#)

The Amazon Resource Name (ARN) of the app.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-\-]*:sagemaker:[a-z0-9\-\-]*:[0-9]{12}:app/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceInUse**

Resource being accessed is in use.

HTTP Status Code: 400

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## CreateAppImageConfig

Service: Amazon SageMaker Service

Creates a configuration for running a SageMaker image as a KernelGateway app. The configuration specifies the Amazon Elastic File System (EFS) storage volume on the image, and a list of the kernels in the image.

### Request Syntax

```
{  
    "AppImageConfigName": "string",  
    "KernelGatewayImageConfig": {  
        "FileSystemConfig": {  
            "DefaultGid": number,  
            "DefaultUid": number,  
            "MountPath": "string"  
        },  
        "KernelSpecs": [  
            {  
                "DisplayName": "string",  
                "Name": "string"  
            }  
        ],  
        "Tags": [  
            {  
                "Key": "string",  
                "Value": "string"  
            }  
        ]  
    }  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [AppImageConfigName \(p. 39\)](#)

The name of the AppImageConfig. Must be unique to your account.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: Yes

#### [KernelGatewayImageConfig \(p. 39\)](#)

The KernelGatewayImageConfig. You can only specify one image kernel in the AppImageConfig API. This kernel will be shown to users before the image starts. Once the image runs, all kernels are visible in JupyterLab.

Type: [KernelGatewayImageConfig \(p. 1437\)](#) object

Required: No

### Tags (p. 39)

A list of tags to apply to the AppImageConfig.

Type: Array of [Tag \(p. 1749\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## Response Syntax

```
{  
    "AppImageConfigArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [AppImageConfigArn \(p. 40\)](#)

The Amazon Resource Name (ARN) of the AppImageConfig.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:app-image-config/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceInUse**

Resource being accessed is in use.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)

- [AWS SDK for Ruby V3](#)

## CreateArtifact

Service: Amazon SageMaker Service

Creates an *artifact*. An artifact is a lineage tracking entity that represents a URI addressable object or data. Some examples are the S3 URI of a dataset and the ECR registry path of an image. For more information, see [Amazon SageMaker ML Lineage Tracking](#).

## Request Syntax

```
{  
    "ArtifactName": "string",  
    "ArtifactType": "string",  
    "MetadataProperties": {  
        "CommitId": "string",  
        "GeneratedBy": "string",  
        "ProjectId": "string",  
        "Repository": "string"  
    },  
    "Properties": {  
        "string" : "string"  
    },  
    "Source": {  
        "SourceTypes": [  
            {  
                "SourceIdType": "string",  
                "Value": "string"  
            }  
        ],  
        "SourceUri": "string"  
    },  
    "Tags": [  
        {  
            "Key": "string",  
            "Value": "string"  
        }  
    ]  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### ArtifactName (p. 42)

The name of the artifact. Must be unique to your account in an AWS Region.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,119\}

Required: No

### ArtifactType (p. 42)

The artifact type.

Type: String

Length Constraints: Maximum length of 256.

Required: Yes

#### [MetadataProperties \(p. 42\)](#)

Metadata properties of the tracking entity, trial, or trial component.

Type: [MetadataProperties \(p. 1465\)](#) object

Required: No

#### [Properties \(p. 42\)](#)

A list of properties to add to the artifact.

Type: String to string map

Map Entries: Maximum number of 30 items.

Key Length Constraints: Maximum length of 256.

Key Pattern: .\*

Value Length Constraints: Maximum length of 256.

Value Pattern: .\*

Required: No

#### [Source \(p. 42\)](#)

The ID, ID type, and URI of the source.

Type: [ArtifactSource \(p. 1143\)](#) object

Required: Yes

#### [Tags \(p. 42\)](#)

A list of tags to apply to the artifact.

Type: Array of [Tag \(p. 1749\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## Response Syntax

```
{  
    "ArtifactArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [ArtifactArn \(p. 43\)](#)

The Amazon Resource Name (ARN) of the artifact.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-\-]*:sagemaker:[a-z0-9\-\-]*:[0-9]{12}:artifact/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## CreateAutoMLJob

Service: Amazon SageMaker Service

Creates an Autopilot job.

Find the best-performing model after you run an Autopilot job by calling [DescribeAutoMLJob \(p. 348\)](#).

For information about how to use Autopilot, see [Automate Model Development with Amazon SageMaker Autopilot](#).

## Request Syntax

```
{  
    "AutoMLJobConfig": {  
        "CandidateGenerationConfig": {  
            "FeatureSpecificationS3Uri": "string"  
        },  
        "CompletionCriteria": {  
            "MaxAutoMLJobRuntimeInSeconds": number,  
            "MaxCandidates": number,  
            "MaxRuntimePerTrainingJobInSeconds": number  
        },  
        "DataSplitConfig": {  
            "ValidationFraction": number  
        },  
        "Mode": "string",  
        "SecurityConfig": {  
            "EnableInterContainerTrafficEncryption": boolean,  
            "VolumeKmsKeyId": "string",  
            "VpcConfig": {  
                "SecurityGroupIds": [ "string" ],  
                "Subnets": [ "string" ]  
            }  
        }  
    },  
    "AutoMLJobName": "string",  
    "AutoMLJobObjective": {  
        "MetricName": "string"  
    },  
    "GenerateCandidateDefinitionsOnly": boolean,  
    "InputDataConfig": [  
        {  
            "ChannelType": "string",  
            "CompressionType": "string",  
            "ContentType": "string",  
            "DataSource": {  
                "S3DataSource": {  
                    "S3DataType": "string",  
                    "S3Uri": "string"  
                }  
            },  
            "TargetAttributeName": "string"  
        }  
    ],  
    "ModelDeployConfig": {  
        "AutoGenerateEndpointName": boolean,  
        "EndpointName": "string"  
    },  
    "OutputDataConfig": {  
        "KmsKeyId": "string",  
        "S3OutputPath": "string"  
    },  
    "ProblemType": "string",  
}
```

```
"RoleArn": "string",
"Tags": [
  {
    "Key": "string",
    "Value": "string"
  }
]
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### [AutoMLJobConfig \(p. 45\)](#)

A collection of settings used to configure an AutoML job.

Type: [AutoMLJobConfig \(p. 1167\)](#) object

Required: No

### [AutoMLJobName \(p. 45\)](#)

Identifies an Autopilot job. The name must be unique to your account and is case-insensitive.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,31\}

Required: Yes

### [AutoMLJobObjective \(p. 45\)](#)

Defines the objective metric used to measure the predictive quality of an AutoML job. You provide an [AutoMLJobObjective:MetricName \(p. 1169\)](#) and Autopilot infers whether to minimize or maximize it.

Type: [AutoMLJobObjective \(p. 1169\)](#) object

Required: No

### [GenerateCandidateDefinitionsOnly \(p. 45\)](#)

Generates possible candidates without training the models. A candidate is a combination of data preprocessors, algorithms, and algorithm parameter settings.

Type: Boolean

Required: No

### [InputDataConfig \(p. 45\)](#)

An array of channel objects that describes the input data and its location. Each channel is a named input source. Similar to InputDataConfig supported by [HyperParameterTrainingJobDefinition \(p. 1385\)](#). Format(s) supported: CSV, Parquet. A minimum of 500 rows is required for the training dataset. There is not a minimum number of rows required for the validation dataset.

Type: Array of [AutoMLChannel \(p. 1159\)](#) objects

Array Members: Minimum number of 1 item. Maximum number of 2 items.

Required: Yes

#### [ModelDeployConfig \(p. 45\)](#)

Specifies how to generate the endpoint name for an automatic one-click Autopilot model deployment.

Type: [ModelDeployConfig \(p. 1501\)](#) object

Required: No

#### [OutputDataConfig \(p. 45\)](#)

Provides information about encryption and the Amazon S3 output path needed to store artifacts from an AutoML job. Format(s) supported: CSV.

Type: [AutoMLOutputDataConfig \(p. 1174\)](#) object

Required: Yes

#### [ProblemType \(p. 45\)](#)

Defines the type of supervised learning available for the candidates. For more information, see [Amazon SageMaker Autopilot problem types and algorithm support](#).

Type: String

Valid Values: BinaryClassification | MulticlassClassification | Regression

Required: No

#### [RoleArn \(p. 45\)](#)

The ARN of the role that is used to access the data.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: ^arn:aws[a-z\-\]\*:iam::\d{12}:role/?[a-zA-Z\_0-9+=,.@\-\\_/\]+\$

Required: Yes

#### [Tags \(p. 45\)](#)

Each tag consists of a key and an optional value. Tag keys must be unique per resource.

Type: Array of [Tag \(p. 1749\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## Response Syntax

```
{  
    "AutoMLJobArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

#### [AutoMLJobArn \(p. 47\)](#)

The unique ARN assigned to the AutoML job when it is created.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `arn:aws[a-z\-\-]*:sagemaker:[a-z0-9\-\-]*:[0-9]{12}:automl-job/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceInUse**

Resource being accessed is in use.

HTTP Status Code: 400

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreateCodeRepository

Service: Amazon SageMaker Service

Creates a Git repository as a resource in your SageMaker account. You can associate the repository with notebook instances so that you can use Git source control for the notebooks you create. The Git repository is a resource in your SageMaker account, so it can be associated with more than one notebook instance, and it persists independently from the lifecycle of any notebook instances it is associated with.

The repository can be hosted either in [AWS CodeCommit](#) or in any other Git repository.

## Request Syntax

```
{  
    "CodeRepositoryName": "string",  
    "GitConfig": {  
        "Branch": "string",  
        "RepositoryUrl": "string",  
        "SecretArn": "string"  
    },  
    "Tags": [  
        {  
            "Key": "string",  
            "Value": "string"  
        }  
    ]  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### **CodeRepositoryName (p. 49)**

The name of the Git repository. The name must have 1 to 63 characters. Valid characters are a-z, A-Z, 0-9, and - (hyphen).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

### **GitConfig (p. 49)**

Specifies details about the repository, including the URL where the repository is located, the default branch, and credentials to use to access the repository.

Type: [GitConfig \(p. 1347\)](#) object

Required: Yes

### **Tags (p. 49)**

An array of key-value pairs. You can use tags to categorize your AWS resources in different ways, for example, by purpose, owner, or environment. For more information, see [Tagging AWS Resources](#).

Type: Array of [Tag \(p. 1749\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## Response Syntax

```
{  
    "CodeRepositoryArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [CodeRepositoryArn \(p. 50\)](#)

The Amazon Resource Name (ARN) of the new repository.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:code-repository/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## CreateCompilationJob

Service: Amazon SageMaker Service

Starts a model compilation job. After the model has been compiled, Amazon SageMaker saves the resulting model artifacts to an Amazon Simple Storage Service (Amazon S3) bucket that you specify.

If you choose to host your model using Amazon SageMaker hosting services, you can use the resulting model artifacts as part of the model. You can also use the artifacts with AWS IoT Greengrass. In that case, deploy them as an ML resource.

In the request body, you provide the following:

- A name for the compilation job
- Information about the input model artifacts
- The output location for the compiled model and the device (target) that the model runs on
- The Amazon Resource Name (ARN) of the IAM role that Amazon SageMaker assumes to perform the model compilation job.

You can also provide a Tag to track the model compilation job's resource use and costs. The response body contains the `CompilationJobArn` for the compiled job.

To stop a model compilation job, use [StopCompilationJob \(p. 877\)](#). To get information about a particular model compilation job, use [DescribeCompilationJob \(p. 356\)](#). To get information about multiple model compilation jobs, use [ListCompilationJobs \(p. 615\)](#).

## Request Syntax

```
{  
    "CompilationJobName": "string",  
    "InputConfig": {  
        "DataInputConfig": "string",  
        "Framework": "string",  
        "FrameworkVersion": "string",  
        "S3Uri": "string"  
    },  
    "ModelPackageVersionArn": "string",  
    "OutputConfig": {  
        "CompilerOptions": "string",  
        "KmsKeyId": "string",  
        "S3OutputLocation": "string",  
        "TargetDevice": "string",  
        "TargetPlatform": {  
            "Accelerator": "string",  
            "Arch": "string",  
            "Os": "string"  
        }  
    },  
    "RoleArn": "string",  
    "StoppingCondition": {  
        "MaxRuntimeInSeconds": number,  
        "MaxWaitTimeInSeconds": number  
    },  
    "Tags": [  
        {  
            "Key": "string",  
            "Value": "string"  
        }  
    ],  
    "VpcConfig": {  
        "Subnets": ["string"],  
        "SecurityGroupIds": ["string"]  
    }  
}
```

```
    "SecurityGroupIds": [ "string" ],  
    "Subnets": [ "string" ]  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### [CompilationJobName \(p. 51\)](#)

A name for the model compilation job. The name must be unique within the AWS Region and within your AWS account.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

### [InputConfig \(p. 51\)](#)

Provides information about the location of input model artifacts, the name and shape of the expected data inputs, and the framework in which the model was trained.

Type: [InputConfig \(p. 1425\)](#) object

Required: No

### [ModelPackageVersionArn \(p. 51\)](#)

The Amazon Resource Name (ARN) of a versioned model package. Provide either a ModelPackageVersionArn or an InputConfig object in the request syntax. The presence of both objects in the CreateCompilationJob request will return an exception.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: arn:aws[a-zA-Z-]\*:sagemaker:[a-zA-Z0-9-]\*:[0-9]\{12\}:model-package/.\*

Required: No

### [OutputConfig \(p. 51\)](#)

Provides information about the output location for the compiled model and the target device the model runs on.

Type: [OutputConfig \(p. 1597\)](#) object

Required: Yes

### [RoleArn \(p. 51\)](#)

The Amazon Resource Name (ARN) of an IAM role that enables Amazon SageMaker to perform tasks on your behalf.

During model compilation, Amazon SageMaker needs your permission to:

- Read input data from an S3 bucket
- Write model artifacts to an S3 bucket
- Write logs to Amazon CloudWatch Logs
- Publish metrics to Amazon CloudWatch

You grant permissions for all of these tasks to an IAM role. To pass this role to Amazon SageMaker, the caller of this API must have the `iam:PassRole` permission. For more information, see [Amazon SageMaker Roles](#).

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-zA-Z-]*:iam::\d{12}:role/?[a-zA-Z_0-9+=,.@/-/_/]+$`

Required: Yes

#### [StoppingCondition \(p. 51\)](#)

Specifies a limit to how long a model compilation job can run. When the job reaches the time limit, Amazon SageMaker ends the compilation job. Use this API to cap model training costs.

Type: [StoppingCondition \(p. 1742\)](#) object

Required: Yes

#### [Tags \(p. 51\)](#)

An array of key-value pairs. You can use tags to categorize your AWS resources in different ways, for example, by purpose, owner, or environment. For more information, see [Tagging AWS Resources](#).

Type: Array of [Tag \(p. 1749\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

#### [VpcConfig \(p. 51\)](#)

A [VpcConfig \(p. 1829\)](#) object that specifies the VPC that you want your compilation job to connect to. Control access to your models by configuring the VPC. For more information, see [Protect Compilation Jobs by Using an Amazon Virtual Private Cloud](#).

Type: [NeoVpcConfig \(p. 1578\)](#) object

Required: No

## Response Syntax

```
{  
    "CompilationJobArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### **CompilationJobArn (p. 53)**

If the action is successful, the service sends back an HTTP 200 response. Amazon SageMaker returns the following data in JSON format:

- **CompilationJobArn**: The Amazon Resource Name (ARN) of the compiled job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:compilation-job/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceInUse**

Resource being accessed is in use.

HTTP Status Code: 400

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## CreateContext

Service: Amazon SageMaker Service

Creates a context. A context is a lineage tracking entity that represents a logical grouping of other tracking or experiment entities. Some examples are an endpoint and a model package. For more information, see [Amazon SageMaker ML Lineage Tracking](#).

### Request Syntax

```
{  
    "ContextName": "string",  
    "ContextType": "string",  
    "Description": "string",  
    "Properties": {  
        "string" : "string"  
    },  
    "Source": {  
        "SourceId": "string",  
        "SourceType": "string",  
        "SourceUri": "string"  
    },  
    "Tags": [  
        {  
            "Key": "string",  
            "Value": "string"  
        }  
    ]  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### **ContextName (p. 55)**

The name of the context. Must be unique to your account in an AWS Region.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9]){0,119}

Required: Yes

#### **ContextType (p. 55)**

The context type.

Type: String

Length Constraints: Maximum length of 256.

Required: Yes

#### **Description (p. 55)**

The description of the context.

Type: String

Length Constraints: Maximum length of 3072.

Pattern: . \*

Required: No

#### [Properties \(p. 55\)](#)

A list of properties to add to the context.

Type: String to string map

Map Entries: Maximum number of 30 items.

Key Length Constraints: Maximum length of 256.

Key Pattern: . \*

Value Length Constraints: Maximum length of 256.

Value Pattern: . \*

Required: No

#### [Source \(p. 55\)](#)

The source type, ID, and URI.

Type: [ContextSource \(p. 1228\)](#) object

Required: Yes

#### [Tags \(p. 55\)](#)

A list of tags to apply to the context.

Type: Array of [Tag \(p. 1749\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## Response Syntax

```
{  
    "ContextArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

#### [ContextArn \(p. 56\)](#)

The Amazon Resource Name (ARN) of the context.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-\-]*:sagemaker:[a-z0-9\-\-]*:[0-9]{12}:context/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### ResourceLimitExceeded

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreateDataQualityJobDefinition

Service: Amazon SageMaker Service

Creates a definition for a job that monitors data quality and drift. For information about model monitor, see [Amazon SageMaker Model Monitor](#).

## Request Syntax

```
{  
    "DataQualityAppSpecification": {  
        "ContainerArguments": [ "string" ],  
        "ContainerEntrypoint": [ "string" ],  
        "Environment": {  
            "string" : "string"  
        },  
        "ImageUri": "string",  
        "PostAnalyticsProcessorSourceUri": "string",  
        "RecordPreprocessorSourceUri": "string"  
    },  
    "DataQualityBaselineConfig": {  
        "BaseliningJobName": "string",  
        "ConstraintsResource": {  
            "S3Uri": "string"  
        },  
        "StatisticsResource": {  
            "S3Uri": "string"  
        }  
    },  
    "DataQualityJobInput": {  
        "BatchTransformInput": {  
            "DataCapturedDestinationS3Uri": "string",  
            "DatasetFormat": {  
                "Csv": {  
                    "Header": boolean  
                },  
                "Json": {  
                    "Line": boolean  
                },  
                "Parquet": {  
                }  
            },  
            "EndTimeOffset": "string",  
            "FeaturesAttribute": "string",  
            "InferenceAttribute": "string",  
            "LocalPath": "string",  
            "ProbabilityAttribute": "string",  
            "ProbabilityThresholdAttribute": number,  
            "S3DataDistributionType": "string",  
            "S3InputMode": "string",  
            "StartTimeOffset": "string"  
        },  
        "EndpointInput": {  
            "EndpointName": "string",  
            "EndTimeOffset": "string",  
            "FeaturesAttribute": "string",  
            "InferenceAttribute": "string",  
            "LocalPath": "string",  
            "ProbabilityAttribute": "string",  
            "ProbabilityThresholdAttribute": number,  
            "S3DataDistributionType": "string",  
            "S3InputMode": "string",  
            "StartTimeOffset": "string"  
        }  
    }  
}
```

```
        },
        "DataQualityJobOutputConfig": {
            "KmsKeyId": "string",
            "MonitoringOutputs": [
                {
                    "S3Output": {
                        "LocalPath": "string",
                        "S3UploadMode": "string",
                        "S3Uri": "string"
                    }
                }
            ]
        },
        "JobDefinitionName": "string",
        "JobResources": {
            "ClusterConfig": {
                "InstanceCount": number,
                "InstanceType": "string",
                "VolumeKmsKeyId": "string",
                "VolumeSizeInGB": number
            }
        },
        "NetworkConfig": {
            "EnableInterContainerTrafficEncryption": boolean,
            "EnableNetworkIsolation": boolean,
            "VpcConfig": {
                "SecurityGroupIds": [ "string" ],
                "Subnets": [ "string" ]
            }
        },
        "RoleArn": "string",
        "StoppingCondition": {
            "MaxRuntimeInSeconds": number
        },
        "Tags": [
            {
                "Key": "string",
                "Value": "string"
            }
        ]
    }
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### [DataQualityAppSpecification \(p. 58\)](#)

Specifies the container that runs the monitoring job.

Type: [DataQualityAppSpecification \(p. 1242\)](#) object

Required: Yes

### [DataQualityBaselineConfig \(p. 58\)](#)

Configures the constraints and baselines for the monitoring job.

Type: [DataQualityBaselineConfig \(p. 1244\)](#) object

Required: No

### [DataQualityJobInput \(p. 58\)](#)

A list of inputs for the monitoring job. Currently endpoints are supported as monitoring inputs.

Type: [DataQualityJobInput \(p. 1245\)](#) object

Required: Yes

### [DataQualityJobOutputConfig \(p. 58\)](#)

The output configuration for monitoring jobs.

Type: [MonitoringOutputConfig \(p. 1565\)](#) object

Required: Yes

### [JobDefinitionName \(p. 58\)](#)

The name for the monitoring job definition.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\*\$

Required: Yes

### [JobResources \(p. 58\)](#)

Identifies the resources to deploy for a monitoring job.

Type: [MonitoringResources \(p. 1567\)](#) object

Required: Yes

### [NetworkConfig \(p. 58\)](#)

Specifies networking configuration for the monitoring job.

Type: [MonitoringNetworkConfig \(p. 1563\)](#) object

Required: No

### [RoleArn \(p. 58\)](#)

The Amazon Resource Name (ARN) of an IAM role that Amazon SageMaker can assume to perform tasks on your behalf.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: ^arn:aws[a-zA-Z-]\*:iam::\d{12}:role/[a-zA-Z0-9+=,.@/\_-]+\$

Required: Yes

### [StoppingCondition \(p. 58\)](#)

A time limit for how long the monitoring job is allowed to run before stopping.

Type: [MonitoringStoppingCondition \(p. 1576\)](#) object

Required: No

### Tags (p. 58)

(Optional) An array of key-value pairs. For more information, see [Using Cost Allocation Tags](#) in the *AWS Billing and Cost Management User Guide*.

Type: Array of [Tag \(p. 1749\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## Response Syntax

```
{  
    "JobDefinitionArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### JobDefinitionArn (p. 61)

The Amazon Resource Name (ARN) of the job definition.

Type: String

Length Constraints: Maximum length of 256.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### ResourceInUse

Resource being accessed is in use.

HTTP Status Code: 400

### ResourceLimitExceeded

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## CreateDeviceFleet

Service: Amazon SageMaker Service

Creates a device fleet.

### Request Syntax

```
{  
    "Description": "string",  
    "DeviceFleetName": "string",  
    "EnableIoTRoleAlias": boolean,  
    "OutputConfig": {  
        "KmsKeyId": "string",  
        "PresetDeploymentConfig": "string",  
        "PresetDeploymentType": "string",  
        "S3OutputLocation": "string"  
    },  
    "RoleArn": "string",  
    "Tags": [  
        {  
            "Key": "string",  
            "Value": "string"  
        }  
    ]  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### Description (p. 63)

A description of the fleet.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 800.

Pattern: [\S\s]+

Required: No

#### DeviceFleetName (p. 63)

The name of the fleet that the device belongs to.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

#### EnableIoTRoleAlias (p. 63)

Whether to create an AWS IoT Role Alias during device fleet creation. The name of the role alias generated will match this pattern: "SageMakerEdge-{DeviceFleetName}".

For example, if your device fleet is called "demo-fleet", the name of the role alias will be "SageMakerEdge-demo-fleet".

Type: Boolean

Required: No

#### [OutputConfig \(p. 63\)](#)

The output configuration for storing sample data collected by the fleet.

Type: [EdgeOutputConfig \(p. 1291\)](#) object

Required: Yes

#### [RoleArn \(p. 63\)](#)

The Amazon Resource Name (ARN) that has access to AWS Internet of Things (IoT).

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: ^arn:aws[a-z\-\]\*:iam::\d{12}:role/?[a-zA-Z\_0-9+=,.@\-\/\_]+\$

Required: No

#### [Tags \(p. 63\)](#)

Creates tags for the specified fleet.

Type: Array of [Tag \(p. 1749\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceInUse**

Resource being accessed is in use.

HTTP Status Code: 400

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## CreateDomain

Service: Amazon SageMaker Service

Creates a Domain used by Amazon SageMaker Studio. A domain consists of an associated Amazon Elastic File System (EFS) volume, a list of authorized users, and a variety of security, application, policy, and Amazon Virtual Private Cloud (VPC) configurations. An AWS account is limited to one domain per region. Users within a domain can share notebook files and other artifacts with each other.

### EFS storage

When a domain is created, an EFS volume is created for use by all of the users within the domain. Each user receives a private home directory within the EFS volume for notebooks, Git repositories, and data files.

SageMaker uses the AWS Key Management Service (AWS KMS) to encrypt the EFS volume attached to the domain with an AWS managed key by default. For more control, you can specify a customer managed key. For more information, see [Protect Data at Rest Using Encryption](#).

### VPC configuration

All SageMaker Studio traffic between the domain and the EFS volume is through the specified VPC and subnets. For other Studio traffic, you can specify the AppNetworkAccessType parameter. AppNetworkAccessType corresponds to the network access type that you choose when you onboard to Studio. The following options are available:

- PublicInternetOnly - Non-EFS traffic goes through a VPC managed by Amazon SageMaker, which allows internet access. This is the default value.
- VpcOnly - All Studio traffic is through the specified VPC and subnets. Internet access is disabled by default. To allow internet access, you must specify a NAT gateway.

When internet access is disabled, you won't be able to run a Studio notebook or to train or host models unless your VPC has an interface endpoint to the SageMaker API and runtime or a NAT gateway and your security groups allow outbound connections.

#### Important

NFS traffic over TCP on port 2049 needs to be allowed in both inbound and outbound rules in order to launch a SageMaker Studio app successfully.

For more information, see [Connect SageMaker Studio Notebooks to Resources in a VPC](#).

## Request Syntax

```
{  
    "AppNetworkAccessType": "string",  
    "AppSecurityGroupManagement": "string",  
    "AuthMode": "string",  
    "DefaultSpaceSettings": {  
        "ExecutionRole": "string",  
        "JupyterServerAppSettings": {  
            "CodeRepositories": [  
                {  
                    "RepositoryUrl": "string"  
                }  
            ],  
            "DefaultResourceSpec": {  
                "InstanceType": "string",  
                "LifecycleConfigArn": "string",  
            },  
        },  
    },  
}
```

```

        "SageMakerImageArn": "string",
        "SageMakerImageVersionArn": "string"
    },
    "LifecycleConfigArns": [ "string" ]
},
"KernelGatewayAppSettings": {
    "CustomImages": [
        {
            "AppImageConfigName": "string",
            "ImageName": "string",
            "ImageVersionNumber": number
        }
    ],
    "DefaultResourceSpec": {
        "InstanceType": "string",
        "LifecycleConfigArn": "string",
        "SageMakerImageArn": "string",
        "SageMakerImageVersionArn": "string"
    },
    "LifecycleConfigArns": [ "string" ]
},
"SecurityGroups": [ "string" ]
},
"DefaultUserSettings": {
    "CanvasAppSettings": {
        "TimeSeriesForecastingSettings": {
            "AmazonForecastRoleArn": "string",
            "Status": "string"
        }
    },
    "ExecutionRole": "string",
    "JupyterServerAppSettings": {
        "CodeRepositories": [
            {
                "RepositoryUrl": "string"
            }
        ],
        "DefaultResourceSpec": {
            "InstanceType": "string",
            "LifecycleConfigArn": "string",
            "SageMakerImageArn": "string",
            "SageMakerImageVersionArn": "string"
        },
        "LifecycleConfigArns": [ "string" ]
    },
    "KernelGatewayAppSettings": {
        "CustomImages": [
            {
                "AppImageConfigName": "string",
                "ImageName": "string",
                "ImageVersionNumber": number
            }
        ],
        "DefaultResourceSpec": {
            "InstanceType": "string",
            "LifecycleConfigArn": "string",
            "SageMakerImageArn": "string",
            "SageMakerImageVersionArn": "string"
        },
        "LifecycleConfigArns": [ "string" ]
    },
    "RSessionAppSettings": {
        "CustomImages": [
            {
                "AppImageConfigName": "string",
                "ImageName": "string",
                "ImageVersionNumber": number
            }
        ],
        "DefaultResourceSpec": {
            "InstanceType": "string",
            "LifecycleConfigArn": "string",
            "SageMakerImageArn": "string",
            "SageMakerImageVersionArn": "string"
        },
        "LifecycleConfigArns": [ "string" ]
    }
}

```

```

        "ImageVersionNumber": number
    }
],
"DefaultResourceSpec": {
    "InstanceType": "string",
    "LifecycleConfigArn": "string",
    "SageMakerImageArn": "string",
    "SageMakerImageVersionArn": "string"
}
},
"RStudioServerProAppSettings": {
    "AccessStatus": "string",
    "UserGroup": "string"
},
"SecurityGroups": [ "string" ],
"SharingSettings": {
    "NotebookOutputOption": "string",
    "S3KmsKeyId": "string",
    "S3OutputPath": "string"
},
"TensorBoardAppSettings": {
    "DefaultResourceSpec": {
        "InstanceType": "string",
        "LifecycleConfigArn": "string",
        "SageMakerImageArn": "string",
        "SageMakerImageVersionArn": "string"
    }
}
},
"DomainName": "string",
"DomainSettings": {
    "ExecutionRoleIdentityConfig": "string",
    "RStudioServerProDomainSettings": {
        "DefaultResourceSpec": {
            "InstanceType": "string",
            "LifecycleConfigArn": "string",
            "SageMakerImageArn": "string",
            "SageMakerImageVersionArn": "string"
        },
        "DomainExecutionRoleArn": "string",
        "RStudioConnectUrl": "string",
        "RStudioPackageManagerUrl": "string"
    },
    "SecurityGroupIds": [ "string" ]
},
"HomeEfsFileSystemKmsKeyId": "string",
"KmsKeyId": "string",
"SubnetIds": [ "string" ],
"Tags": [
    {
        "Key": "string",
        "Value": "string"
    }
],
"VpcId": "string"
}

```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### [AppNetworkAccessType \(p. 66\)](#)

Specifies the VPC used for non-EFS traffic. The default value is PublicInternetOnly.

- PublicInternetOnly - Non-EFS traffic is through a VPC managed by Amazon SageMaker, which allows direct internet access
- VpcOnly - All Studio traffic is through the specified VPC and subnets

Type: String

Valid Values: PublicInternetOnly | VpcOnly

Required: No

### [AppSecurityGroupManagement \(p. 66\)](#)

The entity that creates and manages the required security groups for inter-app communication in VPCOnly mode. Required when CreateDomain.AppNetworkAccessType is VPCOnly and DomainSettings.RStudioServerProDomainSettings.DomainExecutionRoleArn is provided.

Type: String

Valid Values: Service | Customer

Required: No

### [AuthMode \(p. 66\)](#)

The mode of authentication that members use to access the domain.

Type: String

Valid Values: SSO | IAM

Required: Yes

### [DefaultSpaceSettings \(p. 66\)](#)

The default settings used to create a space.

Type: [DefaultSpaceSettings \(p. 1255\)](#) object

Required: No

### [DefaultUserSettings \(p. 66\)](#)

The default settings to use to create a user profile when UserSettings isn't specified in the call to the CreateUserProfile API.

SecurityGroups is aggregated when specified in both calls. For all other settings in UserSettings, the values specified in CreateUserProfile take precedence over those specified in CreateDomain.

Type: [UserSettings \(p. 1825\)](#) object

Required: Yes

### [DomainName \(p. 66\)](#)

A name for the domain.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9]){\0,62}

Required: Yes

#### [DomainSettings \(p. 66\)](#)

A collection of Domain settings.

Type: [DomainSettings \(p. 1273\)](#) object

Required: No

#### [HomeEfsFileSystemKmsKeyId \(p. 66\)](#)

*This parameter has been deprecated.*

Use KmsKeyId.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: .\*

Required: No

#### [KmsKeyId \(p. 66\)](#)

SageMaker uses AWS KMS to encrypt the EFS volume attached to the domain with an AWS managed key by default. For more control, specify a customer managed key.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: .\*

Required: No

#### [SubnetIds \(p. 66\)](#)

The VPC subnets that Studio uses for communication.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 16 items.

Length Constraints: Maximum length of 32.

Pattern: [-0-9a-zA-Z]+

Required: Yes

#### [Tags \(p. 66\)](#)

Tags to associate with the Domain. Each tag consists of a key and an optional value. Tag keys must be unique per resource. Tags are searchable using the Search API.

Tags that you specify for the Domain are also added to all Apps that the Domain launches.

Type: Array of [Tag \(p. 1749\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

### VpcId (p. 66)

The ID of the Amazon Virtual Private Cloud (VPC) that Studio uses for communication.

Type: String

Length Constraints: Maximum length of 32.

Pattern: [-0-9a-zA-Z]+

Required: Yes

## Response Syntax

```
{  
    "DomainArn": "string",  
    "Url": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### DomainArn (p. 71)

The Amazon Resource Name (ARN) of the created domain.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-\-]\*:sagemaker:[a-z0-9\-\-]\*:[0-9]{12}:domain/.\*

### Url (p. 71)

The URL to the created domain.

Type: String

Length Constraints: Maximum length of 1024.

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### ResourceInUse

Resource being accessed is in use.

HTTP Status Code: 400

### ResourceLimitExceeded

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreateEdgeDeploymentPlan

Service: Amazon SageMaker Service

Creates an edge deployment plan, consisting of multiple stages. Each stage may have a different deployment configuration and devices.

## Request Syntax

```
{  
    "DeviceFleetName": "string",  
    "EdgeDeploymentPlanName": "string",  
    "ModelConfigs": [  
        {  
            "EdgePackagingJobName": "string",  
            "ModelHandle": "string"  
        }  
    ],  
    "Stages": [  
        {  
            "DeploymentConfig": {  
                "FailureHandlingPolicy": "string"  
            },  
            "DeviceSelectionConfig": {  
                "DeviceNameContains": "string",  
                "DeviceNames": [ "string" ],  
                "DeviceSubsetType": "string",  
                "Percentage": number  
            },  
            "StageName": "string"  
        }  
    ],  
    "Tags": [  
        {  
            "Key": "string",  
            "Value": "string"  
        }  
    ]  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### DeviceFleetName (p. 73)

The device fleet used for this edge deployment plan.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

### EdgeDeploymentPlanName (p. 73)

The name of the edge deployment plan.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

#### [ModelConfigs \(p. 73\)](#)

List of models associated with the edge deployment plan.

Type: Array of [EdgeDeploymentModelConfig \(p. 1282\)](#) objects

Required: Yes

#### [Stages \(p. 73\)](#)

List of stages of the edge deployment plan. The number of stages is limited to 10 per deployment.

Type: Array of [DeploymentStage \(p. 1258\)](#) objects

Required: No

#### [Tags \(p. 73\)](#)

List of tags with which to tag the edge deployment plan.

Type: Array of [Tag \(p. 1749\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## Response Syntax

```
{  
    "EdgeDeploymentPlanArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

#### [EdgeDeploymentPlanArn \(p. 74\)](#)

The ARN of the edge deployment plan.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: ^arn:aws[a-zA-Z-]\*:sagemaker:[a-zA-Z-]\*:\d{12}:edge-deployment/?[a-zA-Z\_0-9+=,.@\\-/\_]+\$

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### ResourceLimitExceeded

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreateEdgeDeploymentStage

Service: Amazon SageMaker Service

Creates a new stage in an existing edge deployment plan.

## Request Syntax

```
{  
    "EdgeDeploymentPlanName": "string",  
    "Stages": [  
        {  
            "DeploymentConfig": {  
                "FailureHandlingPolicy": "string"  
            },  
            "DeviceSelectionConfig": {  
                "DeviceNameContains": "string",  
                "DeviceNames": [ "string" ],  
                "DeviceSubsetType": "string",  
                "Percentage": number  
            },  
            "StageName": "string"  
        }  
    ]  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### EdgeDeploymentPlanName ([p. 76](#))

The name of the edge deployment plan.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

### Stages ([p. 76](#))

List of stages to be added to the edge deployment plan.

Type: Array of [DeploymentStage \(p. 1258\)](#) objects

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### ResourceLimitExceeded

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreateEdgePackagingJob

Service: Amazon SageMaker Service

Starts a SageMaker Edge Manager model packaging job. Edge Manager will use the model artifacts from the Amazon Simple Storage Service bucket that you specify. After the model has been packaged, Amazon SageMaker saves the resulting artifacts to an S3 bucket that you specify.

## Request Syntax

```
{  
    "CompilationJobName": "string",  
    "EdgePackagingJobName": "string",  
    "modelName": "string",  
    "ModelVersion": "string",  
    "OutputConfig": {  
        "KmsKeyId": "string",  
        "PresetDeploymentConfig": "string",  
        "PresetDeploymentType": "string",  
        "S3OutputLocation": "string"  
    },  
    "ResourceKey": "string",  
    "RoleArn": "string",  
    "Tags": [  
        {  
            "Key": "string",  
            "Value": "string"  
        }  
    ]  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### [CompilationJobName \(p. 78\)](#)

The name of the SageMaker Neo compilation job that will be used to locate model artifacts for packaging.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

### [EdgePackagingJobName \(p. 78\)](#)

The name of the edge packaging job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

### [ModelName \(p. 78\)](#)

The name of the model.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

### [ModelVersion \(p. 78\)](#)

The version of the model.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 30.

Pattern: [a-zA-Z0-9\\ \\\_.]+

Required: Yes

### [OutputConfig \(p. 78\)](#)

Provides information about the output location for the packaged model.

Type: [EdgeOutputConfig \(p. 1291\)](#) object

Required: Yes

### [ResourceKey \(p. 78\)](#)

The AWS KMS key to use when encrypting the EBS volume the edge packaging job runs on.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: .\*

Required: No

### [RoleArn \(p. 78\)](#)

The Amazon Resource Name (ARN) of an IAM role that enables Amazon SageMaker to download and upload the model, and to contact SageMaker Neo.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: ^arn:aws[a-zA-Z-]\*:iam::\d{12}:role/?[a-zA-Z\_0-9+=,.@-\_/.]+\$

Required: Yes

### [Tags \(p. 78\)](#)

Creates tags for the packaging job.

Type: Array of [Tag \(p. 1749\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### ResourceLimitExceeded

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## CreateEndpoint

Service: Amazon SageMaker Service

Creates an endpoint using the endpoint configuration specified in the request. SageMaker uses the endpoint to provision resources and deploy models. You create the endpoint configuration with the [CreateEndpointConfig \(p. 85\)](#) API.

Use this API to deploy models using SageMaker hosting services.

For an example that calls this method when deploying a model to SageMaker hosting services, see the [Create Endpoint example notebook](#).

### Note

You must not delete an `EndpointConfig` that is in use by an endpoint that is live or while the `UpdateEndpoint` or `CreateEndpoint` operations are being performed on the endpoint. To update an endpoint, you must create a new `EndpointConfig`.

The endpoint name must be unique within an AWS Region in your AWS account.

When it receives the request, SageMaker creates the endpoint, launches the resources (ML compute instances), and deploys the model(s) on them.

### Note

When you call [CreateEndpoint \(p. 81\)](#), a load call is made to DynamoDB to verify that your endpoint configuration exists. When you read data from a DynamoDB table supporting [Eventually Consistent Reads](#), the response might not reflect the results of a recently completed write operation. The response might include some stale data. If the dependent entities are not yet in DynamoDB, this causes a validation error. If you repeat your read request after a short time, the response should return the latest data. So retry logic is recommended to handle these possible issues. We also recommend that customers call [DescribeEndpointConfig \(p. 398\)](#) before calling [CreateEndpoint \(p. 81\)](#) to minimize the potential impact of a DynamoDB eventually consistent read.

When SageMaker receives the request, it sets the endpoint status to `Creating`. After it creates the endpoint, it sets the status to `InService`. SageMaker can then process incoming requests for inferences. To check the status of an endpoint, use the [DescribeEndpoint \(p. 391\)](#) API.

If any of the models hosted at this endpoint get model data from an Amazon S3 location, SageMaker uses AWS Security Token Service to download model artifacts from the S3 path you provided. AWS STS is activated in your IAM user account by default. If you previously deactivated AWS STS for a region, you need to reactivate AWS STS for that region. For more information, see [Activating and Deactivating AWS STS in an AWS Region](#) in the [AWS Identity and Access Management User Guide](#).

### Note

To add the IAM role policies for using this API operation, go to the [IAM console](#), and choose Roles in the left navigation pane. Search the IAM role that you want to grant access to use the [CreateEndpoint \(p. 81\)](#) and [CreateEndpointConfig \(p. 85\)](#) API operations, add the following policies to the role.

- Option 1: For a full SageMaker access, search and attach the `AmazonSageMakerFullAccess` policy.
- Option 2: For granting a limited access to an IAM role, paste the following Action elements manually into the JSON file of the IAM role:

```
"Action": ["sagemaker:CreateEndpoint",
"sagemaker:CreateEndpointConfig"]

"Resource": [
"arn:aws:sagemaker:region:account-id:endpoint/endpointName"
```

```
"arn:aws:sagemaker:region:account-id:endpoint-config/  
endpointConfigName"  
]
```

For more information, see [SageMaker API Permissions: Actions, Permissions, and Resources Reference](#).

## Request Syntax

```
{  
    "DeploymentConfig": {  
        "AutoRollbackConfiguration": {  
            "Alarms": [  
                {  
                    "AlarmName": "string"  
                }  
            ]  
        },  
        "BlueGreenUpdatePolicy": {  
            "MaximumExecutionTimeoutInSeconds": number,  
            "TerminationWaitInSeconds": number,  
            "TrafficRoutingConfiguration": {  
                "CanarySize": {  
                    "Type": "string",  
                    "Value": number  
                },  
                "LinearStepSize": {  
                    "Type": "string",  
                    "Value": number  
                },  
                "Type": "string",  
                "WaitIntervalInSeconds": number  
            }  
        }  
    },  
    "EndpointConfigName": "string",  
    "EndpointName": "string",  
    "Tags": [  
        {  
            "Key": "string",  
            "Value": "string"  
        }  
    ]  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### DeploymentConfig (p. 82)

The deployment configuration for an endpoint, which contains the desired deployment strategy and rollback configurations.

Type: [DeploymentConfig \(p. 1257\)](#) object

Required: No

#### [EndpointConfigName \(p. 82\)](#)

The name of an endpoint configuration. For more information, see [CreateEndpointConfig \(p. 85\)](#).

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: Yes

#### [EndpointName \(p. 82\)](#)

The name of the endpoint. The name must be unique within an AWS Region in your AWS account. The name is case-insensitive in `CreateEndpoint`, but the case is preserved and must be matched in [InvokeEndpoint \(p. 995\)](#).

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: Yes

#### [Tags \(p. 82\)](#)

An array of key-value pairs. You can use tags to categorize your AWS resources in different ways, for example, by purpose, owner, or environment. For more information, see [Tagging AWS Resources](#).

Type: Array of [Tag \(p. 1749\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## Response Syntax

```
{  
    "EndpointArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

#### [EndpointArn \(p. 83\)](#)

The Amazon Resource Name (ARN) of the endpoint.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: arn:aws[a-zA-Z-]\*:sagemaker:[a-zA-Z0-9-]\*:[0-9]{12}:endpoint/.\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## CreateEndpointConfig

Service: Amazon SageMaker Service

Creates an endpoint configuration that SageMaker hosting services uses to deploy models. In the configuration, you identify one or more models, created using the [CreateModel API](#), to deploy and the resources that you want SageMaker to provision. Then you call the [CreateEndpoint \(p. 81\)](#) API.

### Note

Use this API if you want to use SageMaker hosting services to deploy models into production.

In the request, you define a `ProductionVariant`, for each model that you want to deploy. Each `ProductionVariant` parameter also describes the resources that you want SageMaker to provision. This includes the number and type of ML compute instances to deploy.

If you are hosting multiple models, you also assign a `VariantWeight` to specify how much traffic you want to allocate to each model. For example, suppose that you want to host two models, A and B, and you assign traffic weight 2 for model A and 1 for model B. SageMaker distributes two-thirds of the traffic to Model A, and one-third to model B.

### Note

When you call [CreateEndpoint \(p. 81\)](#), a load call is made to DynamoDB to verify that your endpoint configuration exists. When you read data from a DynamoDB table supporting [Eventually Consistent Reads](#), the response might not reflect the results of a recently completed write operation. The response might include some stale data. If the dependent entities are not yet in DynamoDB, this causes a validation error. If you repeat your read request after a short time, the response should return the latest data. So retry logic is recommended to handle these possible issues. We also recommend that customers call [DescribeEndpointConfig \(p. 398\)](#) before calling [CreateEndpoint \(p. 81\)](#) to minimize the potential impact of a DynamoDB eventually consistent read.

## Request Syntax

```
{  
    "AsyncInferenceConfig": {  
        "ClientConfig": {  
            "MaxConcurrentInvocationsPerInstance": number  
        },  
        "OutputConfig": {  
            "KmsKeyId": "string",  
            "NotificationConfig": {  
                "ErrorTopic": "string",  
                "SuccessTopic": "string"  
            },  
            "S3OutputPath": "string"  
        }  
    },  
    "DataCaptureConfig": {  
        "CaptureContentTypeHeader": {  
            "CsvContentTypes": [ "string " ],  
            "JsonContentTypes": [ "string " ]  
        },  
        "CaptureOptions": [  
            {  
                "CaptureMode": "string"  
            }  
        ],  
        "DestinationS3Uri": "string",  
        "EnableCapture": boolean,  
        "InitialSamplingPercentage": number,  
        "KmsKeyId": "string"  
    },  
}
```

```

"EndpointConfigName": "string",
"ExplainerConfig": {
    "ClarifyExplainerConfig": {
        "EnableExplanations": "string",
        "InferenceConfig": {
            "ContentTemplate": "string",
            "FeatureHeaders": [ "string" ],
            "FeaturesAttribute": "string",
            "FeatureTypes": [ "string" ],
            "LabelAttribute": "string",
            "LabelHeaders": [ "string" ],
            "LabelIndex": number,
            "MaxPayloadInMB": number,
            "MaxRecordCount": number,
            "ProbabilityAttribute": "string",
            "ProbabilityIndex": number
        },
        "ShapConfig": {
            "NumberOfSamples": number,
            "Seed": number,
            "ShapBaselineConfig": {
                "MimeType": "string",
                "ShapBaseline": "string",
                "ShapBaselineUri": "string"
            },
            "TextConfig": {
                "Granularity": "string",
                "Language": "string"
            },
            "UseLogit": boolean
        }
    }
},
"KmsKeyId": "string",
"ProductionVariants": [
    {
        "AcceleratorType": "string",
        "ContainerStartupHealthCheckTimeoutInSeconds": number,
        "CoreDumpConfig": {
            "DestinationS3Uri": "string",
            "KmsKeyId": "string"
        },
        "InitialInstanceCount": number,
        "InitialVariantWeight": number,
        "InstanceType": "string",
        "ModelDataDownloadTimeoutInSeconds": number,
        "modelName": "string",
        "ServerlessConfig": {
            "MaxConcurrency": number,
            "MemorySizeInMB": number
        },
        "VariantName": "string",
        "VolumeSizeInGB": number
    }
],
"ShadowProductionVariants": [
    {
        "AcceleratorType": "string",
        "ContainerStartupHealthCheckTimeoutInSeconds": number,
        "CoreDumpConfig": {
            "DestinationS3Uri": "string",
            "KmsKeyId": "string"
        },
        "InitialInstanceCount": number,
        "InitialVariantWeight": number,
        "InstanceType": "string",
        "ModelDataDownloadTimeoutInSeconds": number,
        "modelName": "string",
        "ServerlessConfig": {
            "MaxConcurrency": number,
            "MemorySizeInMB": number
        }
    }
]
}

```

```
"ModelDataDownloadTimeoutInSeconds": number,
"modelName": "string",
"ServerlessConfig": {
    "MaxConcurrency": number,
    "MemorySizeInMB": number
},
"VariantName": "string",
"VolumeSizeInGB": number
},
],
"Tags": [
    {
        "Key": "string",
        "Value": "string"
    }
]
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### [AsyncInferenceConfig \(p. 85\)](#)

Specifies configuration for how an endpoint performs asynchronous inference. This is a required field in order for your Endpoint to be invoked using [InvokeEndpointAsync](#).

Type: [AsyncInferenceConfig \(p. 1150\)](#) object

Required: No

### [DataCaptureConfig \(p. 85\)](#)

Configuration to control how SageMaker captures inference data.

Type: [DataCaptureConfig \(p. 1235\)](#) object

Required: No

### [EndpointConfigName \(p. 85\)](#)

The name of the endpoint configuration. You specify this name in a [CreateEndpoint \(p. 81\)](#) request.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: Yes

### [ExplainerConfig \(p. 85\)](#)

A member of [CreateEndpointConfig](#) that enables explainers.

Type: [ExplainerConfig \(p. 1323\)](#) object

Required: No

### [KmsKeyId \(p. 85\)](#)

The Amazon Resource Name (ARN) of a AWS Key Management Service key that SageMaker uses to encrypt data on the storage volume attached to the ML compute instance that hosts the endpoint.

The KmsKeyId can be any of the following formats:

- Key ID: 1234abcd-12ab-34cd-56ef-1234567890ab
- Key ARN: arn:aws:kms:us-west-2:111122223333:key/1234abcd-12ab-34cd-56ef-1234567890ab
- Alias name: alias/ExampleAlias
- Alias name ARN: arn:aws:kms:us-west-2:111122223333:alias/ExampleAlias

The KMS key policy must grant permission to the IAM role that you specify in your CreateEndpoint, UpdateEndpoint requests. For more information, refer to the AWS Key Management Service section [Using Key Policies in AWS KMS](#)

**Note**

Certain Nitro-based instances include local storage, dependent on the instance type. Local storage volumes are encrypted using a hardware module on the instance. You can't request a KmsKeyId when using an instance type with local storage. If any of the models that you specify in the ProductionVariants parameter use nitro-based instances with local storage, do not specify a value for the KmsKeyId parameter. If you specify a value for KmsKeyId when using any nitro-based instances with local storage, the call to CreateEndpointConfig fails.

For a list of instance types that support local instance storage, see [Instance Store Volumes](#). For more information about local instance storage encryption, see [SSD Instance Store Volumes](#).

Type: String

Length Constraints: Maximum length of 2048.

Pattern: .\*

Required: No

**ProductionVariants (p. 85)**

An array of ProductionVariant objects, one for each model that you want to host at this endpoint.

Type: Array of [ProductionVariant \(p. 1651\)](#) objects

Array Members: Minimum number of 1 item. Maximum number of 10 items.

Required: Yes

**ShadowProductionVariants (p. 85)**

An array of ProductionVariant objects, one for each model that you want to host at this endpoint in shadow mode with production traffic replicated from the model specified on ProductionVariants. If you use this field, you can only specify one variant for ProductionVariants and one variant for ShadowProductionVariants.

Type: Array of [ProductionVariant \(p. 1651\)](#) objects

Array Members: Minimum number of 1 item. Maximum number of 10 items.

Required: No

**Tags (p. 85)**

An array of key-value pairs. You can use tags to categorize your AWS resources in different ways, for example, by purpose, owner, or environment. For more information, see [Tagging AWS Resources](#).

Type: Array of [Tag \(p. 1749\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## Response Syntax

```
{  
    "EndpointConfigArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [EndpointConfigArn \(p. 89\)](#)

The Amazon Resource Name (ARN) of the endpoint configuration.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:endpoint-config/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## CreateExperiment

Service: Amazon SageMaker Service

Creates an SageMaker *experiment*. An experiment is a collection of *trials* that are observed, compared and evaluated as a group. A trial is a set of steps, called *trial components*, that produce a machine learning model.

The goal of an experiment is to determine the components that produce the best model. Multiple trials are performed, each one isolating and measuring the impact of a change to one or more inputs, while keeping the remaining inputs constant.

When you use SageMaker Studio or the SageMaker Python SDK, all experiments, trials, and trial components are automatically tracked, logged, and indexed. When you use the AWS SDK for Python (Boto), you must use the logging APIs provided by the SDK.

You can add tags to experiments, trials, trial components and then use the [Search \(p. 826\)](#) API to search for the tags.

To add a description to an experiment, specify the optional `Description` parameter. To add a description later, or to change the description, call the [UpdateExperiment \(p. 930\)](#) API.

To get a list of all your experiments, call the [ListExperiments \(p. 647\)](#) API. To view an experiment's properties, call the [DescribeExperiment \(p. 402\)](#) API. To get a list of all the trials associated with an experiment, call the [ListTrials \(p. 800\)](#) API. To create a trial call the [CreateTrial \(p. 222\)](#) API.

## Request Syntax

```
{  
    "Description": "string",  
    "DisplayName": "string",  
    "ExperimentName": "string",  
    "Tags": [  
        {  
            "Key": "string",  
            "Value": "string"  
        }  
    ]  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### Description (p. 90)

The description of the experiment.

Type: String

Length Constraints: Maximum length of 3072.

Pattern: .\*

Required: No

### [DisplayName \(p. 90\)](#)

The name of the experiment as displayed. The name doesn't need to be unique. If you don't specify DisplayName, the value in ExperimentName is displayed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,119\}

Required: No

### [ExperimentName \(p. 90\)](#)

The name of the experiment. The name must be unique in your AWS account and is not case-sensitive.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,119\}

Required: Yes

### [Tags \(p. 90\)](#)

A list of tags to associate with the experiment. You can use [Search \(p. 826\)](#) API to search on the tags.

Type: Array of [Tag \(p. 1749\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## Response Syntax

```
{  
    "ExperimentArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [ExperimentArn \(p. 91\)](#)

The Amazon Resource Name (ARN) of the experiment.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-zA-Z-]\*:sagemaker:[a-zA-Z0-9-]\*:[0-9]\{12\}:experiment/.\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## CreateFeatureGroup

Service: Amazon SageMaker Service

Create a new FeatureGroup. A FeatureGroup is a group of Features defined in the FeatureStore to describe a Record.

The FeatureGroup defines the schema and features contained in the FeatureGroup. A FeatureGroup definition is composed of a list of Features, a RecordIdentifierFeatureName, an EventTimeFeatureName and configurations for its OnlineStore and OfflineStore. Check [AWS service quotas](#) to see the FeatureGroups quota for your AWS account.

### Important

You must include at least one of OnlineStoreConfig and OfflineStoreConfig to create a FeatureGroup.

## Request Syntax

```
{  
    "Description": "string",  
    "EventTimeFeatureName": "string",  
    "FeatureDefinitions": [  
        {  
            "FeatureName": "string",  
            "FeatureType": "string"  
        }  
    ],  
    "FeatureGroupName": "string",  
    "OfflineStoreConfig": {  
        "DataCatalogConfig": {  
            "Catalog": "string",  
            "Database": "string",  
            "TableName": "string"  
        },  
        "DisableGlueTableCreation": boolean,  
        "S3StorageConfig": {  
            "KmsKeyId": "string",  
            "ResolvedOutputS3Uri": "string",  
            "S3Uri": "string"  
        },  
        "TableFormat": "string"  
    },  
    "OnlineStoreConfig": {  
        "EnableOnlineStore": boolean,  
        "SecurityConfig": {  
            "KmsKeyId": "string"  
        }  
    },  
    "RecordIdentifierFeatureName": "string",  
    "RoleArn": "string",  
    "Tags": [  
        {  
            "Key": "string",  
            "Value": "string"  
        }  
    ]  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### Description (p. 93)

A free-form description of a FeatureGroup.

Type: String

Length Constraints: Maximum length of 128.

Required: No

### EventTimeFeatureName (p. 93)

The name of the feature that stores the EventTime of a Record in a FeatureGroup.

An EventTime is a point in time when a new event occurs that corresponds to the creation or update of a Record in a FeatureGroup. All Records in the FeatureGroup must have a corresponding EventTime.

An EventTime can be a String or Fractional.

- Fractional: EventTime feature values must be a Unix timestamp in seconds.
- String: EventTime feature values must be an ISO-8601 string in the format. The following formats are supported yyyy-MM-dd'T'HH:mm:ssZ and yyyy-MM-dd'T'HH:mm:ss.SSSZ where yyyy, MM, and dd represent the year, month, and day respectively and HH, mm, ss, and if applicable, SSS represent the hour, month, second and milliseconds respectively. 'T' and Z are constants.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: ^[a-zA-Z0-9]([-\_]\*[a-zA-Z0-9])\{0,63\}

Required: Yes

### FeatureDefinitions (p. 93)

A list of Feature names and types. Name and Type is compulsory per Feature.

Valid feature FeatureTypes are Integral, Fractional and String.

FeatureNames cannot be any of the following: is\_deleted, write\_time, api\_invocation\_time

You can create up to 2,500 FeatureDefinitions per FeatureGroup.

Type: Array of [FeatureDefinition \(p. 1325\)](#) objects

Array Members: Minimum number of 1 item. Maximum number of 2500 items.

Required: Yes

### FeatureGroupName (p. 93)

The name of the FeatureGroup. The name must be unique within an AWS Region in an AWS account. The name:

- Must start and end with an alphanumeric character.
- Can only contain alphanumeric character and hyphens. Spaces are not allowed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,63\}

Required: Yes

#### [OfflineStoreConfig \(p. 93\)](#)

Use this to configure an OfflineFeatureStore. This parameter allows you to specify:

- The Amazon Simple Storage Service (Amazon S3) location of an OfflineStore.
- A configuration for an AWS Glue or AWS Hive data catalog.
- An KMS encryption key to encrypt the Amazon S3 location used for OfflineStore. If KMS encryption key is not specified, by default we encrypt all data at rest using AWS KMS key. By defining your [bucket-level key](#) for SSE, you can reduce AWS KMS requests costs by up to 99 percent.
- Format for the offline store table. Supported formats are Glue (Default) and [Apache Iceberg](#).

To learn more about this parameter, see [OfflineStoreConfig \(p. 1588\)](#).

Type: [OfflineStoreConfig \(p. 1588\)](#) object

Required: No

#### [OnlineStoreConfig \(p. 93\)](#)

You can turn the OnlineStore on or off by specifying True for the EnableOnlineStore flag in OnlineStoreConfig; the default value is False.

You can also include an AWS KMS key ID (KMSKeyId) for at-rest encryption of the OnlineStore.

Type: [OnlineStoreConfig \(p. 1595\)](#) object

Required: No

#### [RecordIdentifierFeatureName \(p. 93\)](#)

The name of the Feature whose value uniquely identifies a Record defined in the FeatureStore. Only the latest record per identifier value will be stored in the OnlineStore. RecordIdentifierFeatureName must be one of feature definitions' names.

You use the RecordIdentifierFeatureName to access data in a FeatureStore.

This name:

- Must start and end with an alphanumeric character.
- Can only contains alphanumeric characters, hyphens, underscores. Spaces are not allowed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: ^[a-zA-Z0-9]([-\_]\*[a-zA-Z0-9])\{0,63\}

Required: Yes

#### [RoleArn \(p. 93\)](#)

The Amazon Resource Name (ARN) of the IAM execution role used to persist data into the OfflineStore if an OfflineStoreConfig is provided.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: ^arn:aws[a-zA-Z-]\*:iam::\d{12}:role/?[a-zA-Z\_0-9+=,.@-\_/.]+\$

Required: No

#### Tags (p. 93)

Tags used to identify Features in each FeatureGroup.

Type: Array of [Tag \(p. 1749\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## Response Syntax

```
{  
    "FeatureGroupArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

#### FeatureGroupArn (p. 96)

The Amazon Resource Name (ARN) of the FeatureGroup. This is a unique identifier for the feature group.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:feature-group/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

#### ResourceInUse

Resource being accessed is in use.

HTTP Status Code: 400

#### ResourceLimitExceeded

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)

- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## CreateFlowDefinition

Service: Amazon SageMaker Service

Creates a flow definition.

### Request Syntax

```
{  
    "FlowDefinitionName": "string",  
    "HumanLoopActivationConfig": {  
        "HumanLoopActivationConditionsConfig": {  
            "HumanLoopActivationConditions": "string"  
        }  
    },  
    "HumanLoopConfig": {  
        "HumanTaskUiArn": "string",  
        "PublicWorkforceTaskPrice": {  
            "AmountInUsd": {  
                "Cents": number,  
                "Dollars": number,  
                "TenthFractionsOfACent": number  
            }  
        },  
        "TaskAvailabilityLifetimeInSeconds": number,  
        "TaskCount": number,  
        "TaskDescription": "string",  
        "TaskKeywords": [ "string" ],  
        "TaskTimeLimitInSeconds": number,  
        "TaskTitle": "string",  
        "WorkteamArn": "string"  
    },  
    "HumanLoopRequestSource": {  
        "AwsManagedHumanLoopRequestSource": "string"  
    },  
    "OutputConfig": {  
        "KmsKeyId": "string",  
        "S3OutputPath": "string"  
    },  
    "RoleArn": "string",  
    "Tags": [  
        {  
            "Key": "string",  
            "Value": "string"  
        }  
    ]  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### FlowDefinitionName (p. 98)

The name of your flow definition.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9]){\0,62}

Required: Yes

#### [HumanLoopActivationConfig \(p. 98\)](#)

An object containing information about the events that trigger a human workflow.

Type: [HumanLoopActivationConfig \(p. 1357\)](#) object

Required: No

#### [HumanLoopConfig \(p. 98\)](#)

An object containing information about the tasks the human reviewers will perform.

Type: [HumanLoopConfig \(p. 1358\)](#) object

Required: Yes

#### [HumanLoopRequestSource \(p. 98\)](#)

Container for configuring the source of human task requests. Use to specify if Amazon Rekognition or Amazon Textract is used as an integration source.

Type: [HumanLoopRequestSource \(p. 1363\)](#) object

Required: No

#### [OutputConfig \(p. 98\)](#)

An object containing information about where the human review results will be uploaded.

Type: [FlowDefinitionOutputConfig \(p. 1344\)](#) object

Required: Yes

#### [RoleArn \(p. 98\)](#)

The Amazon Resource Name (ARN) of the role needed to call other services on your behalf. For example, arn:aws:iam::1234567890:role/service-role/AmazonSageMaker-ExecutionRole-20180111T151298.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: ^arn:aws[a-zA-Z-]\*:iam::\d{12}:role/?[a-zA-Z\_0-9+=,.@\\-\_/.]+\$

Required: Yes

#### [Tags \(p. 98\)](#)

An array of key-value pairs that contain metadata to help you categorize and organize a flow definition. Each tag consists of a key and a value, both of which you define.

Type: Array of [Tag \(p. 1749\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## [Response Syntax](#)

```
{
```

```
    "FlowDefinitionArn": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [FlowDefinitionArn \(p. 99\)](#)

The Amazon Resource Name (ARN) of the flow definition you create.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: arn:aws[a-z\-]\*:sagemaker:[a-z0-9\-]\*:[0-9]{12}:flow-definition/.\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceInUse**

Resource being accessed is in use.

HTTP Status Code: 400

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## CreateHub

Service: Amazon SageMaker Service

Create a hub.

### Request Syntax

```
{  
    "HubDescription": "string",  
    "HubDisplayName": "string",  
    "HubName": "string",  
    "HubSearchKeywords": [ "string" ],  
    "S3StorageConfig": {  
        "S3OutputPath": "string"  
    },  
    "Tags": [  
        {  
            "Key": "string",  
            "Value": "string"  
        }  
    ]  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### **HubDescription (p. 101)**

A description of the hub.

Type: String

Length Constraints: Maximum length of 1023.

Pattern: .\*

Required: Yes

#### **HubDisplayName (p. 101)**

The display name of the hub.

Type: String

Length Constraints: Maximum length of 255.

Pattern: .\*

Required: No

#### **HubName (p. 101)**

The name of the hub to create.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9]){\0,62}

Required: Yes

#### [HubSearchKeywords \(p. 101\)](#)

The searchable keywords for the hub.

Type: Array of strings

Array Members: Maximum number of 50 items.

Length Constraints: Maximum length of 255.

Pattern: ^[^A-Z]\*\$

Required: No

#### [S3StorageConfig \(p. 101\)](#)

The Amazon S3 storage configuration for the hub.

Type: [HubS3StorageConfig \(p. 1355\)](#) object

Required: No

#### [Tags \(p. 101\)](#)

Any tags to associate with the hub.

Type: Array of [Tag \(p. 1749\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## Response Syntax

```
{  
    "HubArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

#### [HubArn \(p. 102\)](#)

The Amazon Resource Name (ARN) of the hub.

Type: String

Length Constraints: Maximum length of 255.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceInUse**

Resource being accessed is in use.

HTTP Status Code: 400

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## CreateHumanTaskUi

Service: Amazon SageMaker Service

Defines the settings you will use for the human review workflow user interface. Reviewers will see a three-panel interface with an instruction area, the item to review, and an input area.

### Request Syntax

```
{  
    "HumanTaskUiName": "string",  
    "Tags": [  
        {  
            "Key": "string",  
            "Value": "string"  
        }  
    ],  
    "UiTemplate": {  
        "Content": "string"  
    }  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [HumanTaskUiName \(p. 104\)](#)

The name of the user interface you are creating.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\*

Required: Yes

#### [Tags \(p. 104\)](#)

An array of key-value pairs that contain metadata to help you categorize and organize a human review workflow user interface. Each tag consists of a key and a value, both of which you define.

Type: Array of [Tag \(p. 1749\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

#### [UiTemplate \(p. 104\)](#)

The Liquid template for the worker user interface.

Type: [UiTemplate \(p. 1819\)](#) object

Required: Yes

## Response Syntax

```
{  
    "HumanTaskUiArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### **HumanTaskUiArn** (p. 105)

The Amazon Resource Name (ARN) of the human review workflow user interface you create.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: arn:aws[a-z\-]\*:sagemaker:[a-z0-9\-]\*:[0-9]{12}:human-task-ui/.\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceInUse**

Resource being accessed is in use.

HTTP Status Code: 400

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## CreateHyperParameterTuningJob

Service: Amazon SageMaker Service

Starts a hyperparameter tuning job. A hyperparameter tuning job finds the best version of a model by running many training jobs on your dataset using the algorithm you choose and values for hyperparameters within ranges that you specify. It then chooses the hyperparameter values that result in a model that performs the best, as measured by an objective metric that you choose.

A hyperparameter tuning job automatically creates Amazon SageMaker experiments, trials, and trial components for each training job that it runs. You can view these entities in Amazon SageMaker Studio. For more information, see [View Experiments, Trials, and Trial Components](#).

### Important

Do not include any security-sensitive information including account access IDs, secrets or tokens in any hyperparameter field. If the use of security-sensitive credentials are detected, SageMaker will reject your training job request and return an exception error.

## Request Syntax

```
{  
    "HyperParameterTuningJobConfig": {  
        "HyperParameterTuningJobObjective": {  
            "MetricName": "string",  
            "Type": "string"  
        },  
        "ParameterRanges": {  
            "CategoricalParameterRanges": [  
                {  
                    "Name": "string",  
                    "Values": [ "string" ]  
                }  
            ],  
            "ContinuousParameterRanges": [  
                {  
                    ".MaxValue": "string",  
                    ".MinValue": "string",  
                    "Name": "string",  
                    "ScalingType": "string"  
                }  
            ],  
            "IntegerParameterRanges": [  
                {  
                    ".MaxValue": "string",  
                    ".MinValue": "string",  
                    "Name": "string",  
                    "ScalingType": "string"  
                }  
            ]  
        },  
        "ResourceLimits": {  
            "MaxNumberOfTrainingJobs": number,  
            "MaxParallelTrainingJobs": number  
        },  
        "Strategy": "string",  
        "StrategyConfig": {  
            "HyperbandStrategyConfig": {  
                "MaxResource": number,  
                "MinResource": number  
            }  
        },  
        "TrainingJobEarlyStoppingType": "string",  
        "TuningJobCompletionCriteria": {  
    }
```

```
        "TargetObjectiveMetricValue": number
    },
    "HyperParameterTuningJobName": "string",
    "Tags": [
        {
            "Key": "string",
            "Value": "string"
        }
    ],
    "TrainingJobDefinition": {
        "AlgorithmSpecification": {
            "AlgorithmName": "string",
            "MetricDefinitions": [
                {
                    "Name": "string",
                    "Regex": "string"
                }
            ],
            "TrainingImage": "string",
            "TrainingInputMode": "string"
        },
        "CheckpointConfig": {
            "LocalPath": "string",
            "S3Uri": "string"
        },
        "DefinitionName": "string",
        "EnableInterContainerTrafficEncryption": boolean,
        "EnableManagedSpotTraining": boolean,
        "EnableNetworkIsolation": boolean,
        "HyperParameterRanges": {
            "CategoricalParameterRanges": [
                {
                    "Name": "string",
                    "Values": [ "string" ]
                }
            ],
            "ContinuousParameterRanges": [
                {
                    "MaxValue": "string",
                    "MinValue": "string",
                    "Name": "string",
                    "ScalingType": "string"
                }
            ],
            "IntegerParameterRanges": [
                {
                    "MaxValue": "string",
                    "MinValue": "string",
                    "Name": "string",
                    "ScalingType": "string"
                }
            ]
        },
        "HyperParameterTuningResourceConfig": {
            "AllocationStrategy": "string",
            "InstanceConfigs": [
                {
                    "InstanceCount": number,
                    "InstanceType": "string",
                    "VolumeSizeInGB": number
                }
            ],
            "InstanceCount": number,
            "InstanceType": "string",
            "VolumeKmsKeyId": "string"
        }
    }
}
```

```

        "VolumeSizeInGB": number
    },
    "InputDataConfig": [
        {
            "ChannelName": "string",
            "CompressionType": "string",
            "ContentType": "string",
            "DataSource": {
                "FileSystemDataSource": {
                    "DirectoryPath": "string",
                    "FileSystemAccessMode": "string",
                    "FileSystemId": "string",
                    "FileSystemType": "string"
                },
                "S3DataSource": {
                    "AttributeNames": [ "string" ],
                    "InstanceGroupNames": [ "string" ],
                    "S3DataDistributionType": "string",
                    "S3DataType": "string",
                    "S3Uri": "string"
                }
            },
            "InputMode": "string",
            "RecordWrapperType": "string",
            "ShuffleConfig": {
                "Seed": number
            }
        }
    ],
    "OutputDataConfig": {
        "KmsKeyId": "string",
        "S3OutputPath": "string"
    },
    "ResourceConfig": {
        "InstanceCount": number,
        "InstanceGroups": [
            {
                "InstanceCount": number,
                "InstanceGroupName": "string",
                "InstanceType": "string"
            }
        ],
        "InstanceType": "string",
        "KeepAlivePeriodInSeconds": number,
        "VolumeKmsKeyId": "string",
        "VolumeSizeInGB": number
    },
    "RetryStrategy": {
        "MaximumRetryAttempts": number
    },
    "RoleArn": "string",
    "StaticHyperParameters": {
        "string" : "string"
    },
    "StoppingCondition": {
        "MaxRuntimeInSeconds": number,
        "MaxWaitTimeInSeconds": number
    },
    "TuningObjective": {
        "MetricName": "string",
        "Type": "string"
    },
    "VpcConfig": {
        "SecurityGroupIds": [ "string" ],
        "Subnets": [ "string" ]
    }
}

```

```

},
"TrainingJobDefinitions": [
{
    "AlgorithmSpecification": {
        "AlgorithmName": "string",
        "MetricDefinitions": [
            {
                "Name": "string",
                "Regex": "string"
            }
        ],
        "TrainingImage": "string",
        "TrainingInputMode": "string"
    },
    "CheckpointConfig": {
        "LocalPath": "string",
        "S3Uri": "string"
    },
    "DefinitionName": "string",
    "EnableInterContainerTrafficEncryption": boolean,
    "EnableManagedSpotTraining": boolean,
    "EnableNetworkIsolation": boolean,
    "HyperParameterRanges": [
        "CategoricalParameterRanges": [
            {
                "Name": "string",
                "Values": [ "string" ]
            }
        ],
        "ContinuousParameterRanges": [
            {
                "MaxValue": "string",
                "MinValue": "string",
                "Name": "string",
                "ScalingType": "string"
            }
        ],
        "IntegerParameterRanges": [
            {
                "MaxValue": "string",
                "MinValue": "string",
                "Name": "string",
                "ScalingType": "string"
            }
        ]
    ],
    "HyperParameterTuningResourceConfig": {
        "AllocationStrategy": "string",
        "InstanceConfigs": [
            {
                "InstanceCount": number,
                "InstanceType": "string",
                "VolumeSizeInGB": number
            }
        ],
        "InstanceCount": number,
        "InstanceType": "string",
        "VolumeKmsKeyId": "string",
        "VolumeSizeInGB": number
    },
    "InputDataConfig": [
        {
            "ChannelName": "string",
            "CompressionType": "string",
            "ContentType": "string",
            "DataSource": {

```

```

    "FileSystemDataSource": {
        "DirectoryPath": "string",
        "FileSystemAccessMode": "string",
        "FileSystemId": "string",
        "FileSystemType": "string"
    },
    "S3DataSource": {
        "AttributeNames": [ "string" ],
        "InstanceGroupNames": [ "string" ],
        "S3DataDistributionType": "string",
        "S3DataType": "string",
        "S3Uri": "string"
    }
},
"InputMode": "string",
"RecordWrapperType": "string",
"ShuffleConfig": {
    "Seed": number
}
}
],
"OutputDataConfig": {
    "KmsKeyId": "string",
    "S3OutputPath": "string"
},
"ResourceConfig": {
    "InstanceCount": number,
    "InstanceGroups": [
        {
            "InstanceCount": number,
            "InstanceGroupName": "string",
            "InstanceType": "string"
        }
    ],
    "InstanceType": "string",
    "KeepAlivePeriodInSeconds": number,
    "VolumeKmsKeyId": "string",
    "VolumeSizeInGB": number
},
"RetryStrategy": {
    "MaximumRetryAttempts": number
},
"RoleArn": "string",
"StaticHyperParameters": {
    "string" : "string"
},
"StoppingCondition": {
    "MaxRuntimeInSeconds": number,
    "MaxWaitTimeInSeconds": number
},
"TuningObjective": {
    "MetricName": "string",
    "Type": "string"
},
"VpcConfig": {
    "SecurityGroupIds": [ "string" ],
    "Subnets": [ "string" ]
}
}
],
"WarmStartConfig": {
    "ParentHyperParameterTuningJobs": [
        {
            "HyperParameterTuningJobName": "string"
        }
    ]
},

```

```
        "WarmStartType": "string"  
    }  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### [HyperParameterTuningJobConfig \(p. 106\)](#)

The [HyperParameterTuningJobConfig \(p. 1394\)](#) object that describes the tuning job, including the search strategy, the objective metric used to evaluate training jobs, ranges of parameters to search, and resource limits for the tuning job. For more information, see [How Hyperparameter Tuning Works](#).

Type: [HyperParameterTuningJobConfig \(p. 1394\)](#) object

Required: Yes

### [HyperParameterTuningJobName \(p. 106\)](#)

The name of the tuning job. This name is the prefix for the names of all training jobs that this tuning job launches. The name must be unique within the same AWS account and AWS Region. The name must have 1 to 32 characters. Valid characters are a-z, A-Z, 0-9, and : + = @ \_ % - (hyphen). The name is not case sensitive.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,31\}

Required: Yes

### [Tags \(p. 106\)](#)

An array of key-value pairs. You can use tags to categorize your AWS resources in different ways, for example, by purpose, owner, or environment. For more information, see [Tagging AWS Resources](#).

Tags that you specify for the tuning job are also added to all training jobs that the tuning job launches.

Type: Array of [Tag \(p. 1749\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

### [TrainingJobDefinition \(p. 106\)](#)

The [HyperParameterTrainingJobDefinition \(p. 1385\)](#) object that describes the training jobs that this tuning job launches, including static hyperparameters, input data configuration, output data configuration, resource configuration, and stopping condition.

Type: [HyperParameterTrainingJobDefinition \(p. 1385\)](#) object

Required: No

### [TrainingJobDefinitions \(p. 106\)](#)

A list of the [HyperParameterTrainingJobDefinition \(p. 1385\)](#) objects launched for this tuning job.

Type: Array of [HyperParameterTrainingJobDefinition \(p. 1385\)](#) objects

Array Members: Minimum number of 1 item. Maximum number of 10 items.

Required: No

#### [WarmStartConfig \(p. 106\)](#)

Specifies the configuration for starting the hyperparameter tuning job using one or more previous tuning jobs as a starting point. The results of previous tuning jobs are used to inform which combinations of hyperparameters to search over in the new tuning job.

All training jobs launched by the new hyperparameter tuning job are evaluated by using the objective metric. If you specify IDENTICAL\_DATA\_AND\_ALGORITHM as the WarmStartType value for the warm start configuration, the training job that performs the best in the new tuning job is compared to the best training jobs from the parent tuning jobs. From these, the training job that performs the best as measured by the objective metric is returned as the overall best training job.

##### **Note**

All training jobs launched by parent hyperparameter tuning jobs and the new hyperparameter tuning jobs count against the limit of training jobs for the tuning job.

Type: [HyperParameterTuningJobWarmStartConfig \(p. 1403\)](#) object

Required: No

## Response Syntax

```
{  
    "HyperParameterTuningJobArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

#### [HyperParameterTuningJobArn \(p. 112\)](#)

The Amazon Resource Name (ARN) of the tuning job. SageMaker assigns an ARN to a hyperparameter tuning job when you create it.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-\]\*:sagemaker:[a-z0-9\-\]\*:[0-9]{12}:hyper-parameter-tuning-job/.\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

#### **ResourceInUse**

Resource being accessed is in use.

HTTP Status Code: 400

**ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## CreateImage

Service: Amazon SageMaker Service

Creates a custom SageMaker image. A SageMaker image is a set of image versions. Each image version represents a container image stored in Amazon Elastic Container Registry (ECR). For more information, see [Bring your own SageMaker image](#).

### Request Syntax

```
{  
    "Description": "string",  
    "DisplayName": "string",  
    "ImageName": "string",  
    "RoleArn": "string",  
    "Tags": [  
        {  
            "Key": "string",  
            "Value": "string"  
        }  
    ]  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### Description (p. 114)

The description of the image.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: .\*

Required: No

#### DisplayName (p. 114)

The display name of the image. If not provided, ImageName is displayed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: ^\S(.\*\S)?\$

Required: No

#### ImageName (p. 114)

The name of the image. Must be unique to your account.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9]([-.]?[a-zA-Z0-9])\{0,62\}\\$

Required: Yes

#### [RoleArn \(p. 114\)](#)

The Amazon Resource Name (ARN) of an IAM role that enables Amazon SageMaker to perform tasks on your behalf.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: ^arn:aws[a-zA-Z-]\*:iam::\d{12}:role/?[a-zA-Z\_0-9+=,.@\\-\_]+\\$

Required: Yes

#### [Tags \(p. 114\)](#)

A list of tags to apply to the image.

Type: Array of [Tag \(p. 1749\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## Response Syntax

```
{  
    "ImageArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

#### [ImageArn \(p. 115\)](#)

The Amazon Resource Name (ARN) of the image.

Type: String

Length Constraints: Maximum length of 256.

Pattern: ^arn:aws(-[\w]+)\*:sagemaker:.[0-9]\{12\}:image/[a-zA-Z0-9]([-.]?[a-zA-Z0-9])\*\\$

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

#### **ResourceInUse**

Resource being accessed is in use.

HTTP Status Code: 400

### ResourceLimitExceeded

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## CreateImageVersion

Service: Amazon SageMaker Service

Creates a version of the SageMaker image specified by `ImageName`. The version represents the Amazon Elastic Container Registry (ECR) container image specified by `BaseImage`.

### Request Syntax

```
{  
    "BaseImage": "string",  
    "ClientToken": "string",  
    "ImageName": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [BaseImage \(p. 117\)](#)

The registry path of the container image to use as the starting point for this version. The path is an Amazon Elastic Container Registry (ECR) URI in the following format:

<acct-id>.dkr.ecr.<region>.amazonaws.com/<repo-name[:tag] or [@digest]>

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: .\*

Required: Yes

#### [ClientToken \(p. 117\)](#)

A unique ID. If not specified, the AWS CLI and AWS SDKs, such as the SDK for Python (Boto3), add a unique value to the call.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 36.

Pattern: ^[a-zA-Z0-9-]+\$

Required: Yes

#### [ImageName \(p. 117\)](#)

The `ImageName` of the Image to create a version of.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9]([-.]?[a-zA-Z0-9])\{0,62\}\$

Required: Yes

## Response Syntax

```
{  
    "ImageVersionArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### **ImageVersionArn** (p. 118)

The Amazon Resource Name (ARN) of the image version.

Type: String

Length Constraints: Maximum length of 256.

Pattern: ^arn:aws(-[\w]+)\*:sagemaker:+:[0-9]{12}:image-version/[a-z0-9]([-.]?[a-z0-9])\*[/0-9]+\$

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceInUse**

Resource being accessed is in use.

HTTP Status Code: 400

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)

- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreateInferenceExperiment

Service: Amazon SageMaker Service

Creates an inference experiment using the configurations specified in the request.

Use this API to setup and schedule an experiment to compare model variants on a Amazon SageMaker inference endpoint. For more information about inference experiments, see [Shadow tests](#).

Amazon SageMaker begins your experiment at the scheduled time and routes traffic to your endpoint's model variants based on your specified configuration.

While the experiment is in progress or after it has concluded, you can view metrics that compare your model variants. For more information, see [View, monitor, and edit shadow tests](#).

## Request Syntax

```
{  
    "DataStorageConfig": {  
        "ContentType": {  
            "CsvContentTypes": [ "string" ],  
            "JsonContentTypes": [ "string" ]  
        },  
        "Destination": "string",  
        "KmsKey": "string"  
    },  
    "Description": "string",  
    "EndpointName": "string",  
    "KmsKey": "string",  
    "ModelVariants": [  
        {  
            "InfrastructureConfig": {  
                "InfrastructureType": "string",  
                "RealTimeInferenceConfig": {  
                    "InstanceCount": number,  
                    "InstanceType": "string"  
                }  
            },  
            "modelName": "string",  
            "VariantName": "string"  
        }  
    ],  
    "Name": "string",  
    "RoleArn": "string",  
    "Schedule": {  
        "EndTime": number,  
        "StartTime": number  
    },  
    "ShadowModeConfig": {  
        "ShadowModelVariants": [  
            {  
                "SamplingPercentage": number,  
                "ShadowModelVariantName": "string"  
            }  
        ],  
        "SourceModelVariantName": "string"  
    },  
    "Tags": [  
        {  
            "Key": "string",  
            "Value": "string"  
        }  
    ],  
}
```

```
    "Type": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### [DataStorageConfig \(p. 120\)](#)

The Amazon S3 location and configuration for storing inference request and response data.

This is an optional parameter that you can use for data capture. For more information, see [Capture data](#).

Type: [InferenceExperimentDataStorageConfig \(p. 1414\)](#) object

Required: No

### [Description \(p. 120\)](#)

A description for the inference experiment.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: .\*

Required: No

### [EndpointName \(p. 120\)](#)

The name of the Amazon SageMaker endpoint on which you want to run the inference experiment.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: Yes

### [KmsKey \(p. 120\)](#)

The AWS Key Management Service (AWS KMS) key that Amazon SageMaker uses to encrypt data on the storage volume attached to the ML compute instance that hosts the endpoint. The KmsKey can be any of the following formats:

- KMS key ID

"1234abcd-12ab-34cd-56ef-1234567890ab"

- Amazon Resource Name (ARN) of a KMS key

"arn:aws:kms:us-west-2:111122223333:key/1234abcd-12ab-34cd-56ef-1234567890ab"

- KMS key Alias

"alias/ExampleAlias"

- Amazon Resource Name (ARN) of a KMS key Alias

"arn:aws:kms:us-west-2:111122223333:alias/ExampleAlias"

If you use a KMS key ID or an alias of your KMS key, the Amazon SageMaker execution role must include permissions to call kms:Encrypt. If you don't provide a KMS key ID, Amazon SageMaker uses the default KMS key for Amazon S3 for your role's account. Amazon SageMaker uses server-side encryption with KMS managed keys for OutputDataConfig. If you use a bucket policy with an s3:PutObject permission that only allows objects with server-side encryption, set the condition key of s3:x-amz-server-side-encryption to "aws:kms". For more information, see [KMS managed Encryption Keys](#) in the *Amazon Simple Storage Service Developer Guide*.

The KMS key policy must grant permission to the IAM role that you specify in your CreateEndpoint and UpdateEndpoint requests. For more information, see [Using Key Policies in AWS KMS](#) in the *AWS Key Management Service Developer Guide*.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: .\*

Required: No

#### **ModelVariants (p. 120)**

An array of ModelVariantConfig objects. There is one for each variant in the inference experiment. Each ModelVariantConfig object in the array describes the infrastructure configuration for the corresponding variant.

Type: Array of [ModelVariantConfig \(p. 1539\)](#) objects

Array Members: Minimum number of 1 item. Maximum number of 2 items.

Required: Yes

#### **Name (p. 120)**

The name for the inference experiment.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,119\}

Required: Yes

#### **RoleArn (p. 120)**

The ARN of the IAM role that Amazon SageMaker can assume to access model artifacts and container images, and manage Amazon SageMaker Inference endpoints for model deployment.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: ^arn:aws[a-zA-Z-]\*:iam::\d{12}:role/?[a-zA-Z\_0-9+=,.@\\-\_]+\$

Required: Yes

#### **Schedule (p. 120)**

The duration for which you want the inference experiment to run. If you don't specify this field, the experiment automatically starts immediately upon creation and concludes after 7 days.

Type: [InferenceExperimentSchedule \(p. 1415\)](#) object

Required: No

#### [ShadowModeConfig \(p. 120\)](#)

The configuration of ShadowMode inference experiment type. Use this field to specify a production variant which takes all the inference requests, and a shadow variant to which Amazon SageMaker replicates a percentage of the inference requests. For the shadow variant also specify the percentage of requests that Amazon SageMaker replicates.

Type: [ShadowModeConfig \(p. 1732\)](#) object

Required: Yes

#### [Tags \(p. 120\)](#)

Array of key-value pairs. You can use tags to categorize your AWS resources in different ways, for example, by purpose, owner, or environment. For more information, see [Tagging your AWS Resources](#).

Type: Array of [Tag \(p. 1749\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

#### [Type \(p. 120\)](#)

The type of the inference experiment that you want to run. The following types of experiments are possible:

- **ShadowMode**: You can use this type to validate a shadow variant. For more information, see [Shadow tests](#).

Type: String

Valid Values: ShadowMode

Required: Yes

## Response Syntax

```
{  
    "InferenceExperimentArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

#### [InferenceExperimentArn \(p. 123\)](#)

The ARN for your inference experiment.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:inference-experiment/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### ResourceInUse

Resource being accessed is in use.

HTTP Status Code: 400

### ResourceLimitExceeded

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## CreateInferenceRecommendationsJob

Service: Amazon SageMaker Service

Starts a recommendation job. You can create either an instance recommendation or load test job.

### Request Syntax

```
{  
    "InputConfig": {  
        "ContainerConfig": {  
            "Domain": "string",  
            "Framework": "string",  
            "FrameworkVersion": "string",  
            "NearestModelName": "string",  
            "PayloadConfig": {  
                "SamplePayloadUrl": "string",  
                "SupportedContentTypes": [ "string" ]  
            },  
            "SupportedInstanceTypes": [ "string" ],  
            "Task": "string"  
        },  
        "EndpointConfigurations": [  
            {  
                "EnvironmentParameterRanges": {  
                    "CategoricalParameterRanges": [  
                        {  
                            "Name": "string",  
                            "Value": [ "string" ]  
                        }  
                    ]  
                },  
                "InferenceSpecificationName": "string",  
                "InstanceType": "string"  
            }  
        ],  
        "Endpoints": [  
            {  
                "EndpointName": "string"  
            }  
        ],  
        "JobDurationInSeconds": number,  
        "ModelPackageVersionArn": "string",  
        "ResourceLimit": {  
            "MaxNumberOfTests": number,  
            "MaxParallelOfTests": number  
        },  
        "TrafficPattern": {  
            "Phases": [  
                {  
                    "DurationInSeconds": number,  
                    "InitialNumberOfUsers": number,  
                    "SpawnRate": number  
                }  
            ],  
            "TrafficType": "string"  
        },  
        "VolumeKmsKeyId": "string"  
    },  
    "JobDescription": "string",  
    "JobName": "string",  
    "JobType": "string",  
    "OutputConfig": {  
        "CompiledOutputConfig": {  
    }}
```

```
        "S3OutputUri": "string"
    },
    "KmsKeyId": "string"
},
"RoleArn": "string",
"StoppingConditions": {
    "MaxInvocations": number,
    "ModelLatencyThresholds": [
        {
            "Percentile": "string",
            "ValueInMilliseconds": number
        }
    ],
    "Tags": [
        {
            "Key": "string",
            "Value": "string"
        }
    ]
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### **InputConfig (p. 125)**

Provides information about the versioned model package Amazon Resource Name (ARN), the traffic pattern, and endpoint configurations.

Type: [RecommendationJobInputConfig \(p. 1688\)](#) object

Required: Yes

### **JobDescription (p. 125)**

Description of the recommendation job.

Type: String

Length Constraints: Maximum length of 128.

Required: No

### **JobName (p. 125)**

A name for the recommendation job. The name must be unique within the AWS Region and within your AWS account.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,63\}

Required: Yes

### **JobType (p. 125)**

Defines the type of recommendation job. Specify Default to initiate an instance recommendation and Advanced to initiate a load test. If left unspecified, Amazon SageMaker Inference Recommender will run an instance recommendation (DEFAULT) job.

Type: String

Valid Values: Default | Advanced

Required: Yes

#### [OutputConfig \(p. 125\)](#)

Provides information about the output artifacts and the KMS key to use for Amazon S3 server-side encryption.

Type: [RecommendationJobOutputConfig \(p. 1690\)](#) object

Required: No

#### [RoleArn \(p. 125\)](#)

The Amazon Resource Name (ARN) of an IAM role that enables Amazon SageMaker to perform tasks on your behalf.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: ^arn:aws[a-zA-Z-]\*:iam::\d{12}:role/?[a-zA-Z\_0-9+=,.@-\_/.]+\$

Required: Yes

#### [StoppingConditions \(p. 125\)](#)

A set of conditions for stopping a recommendation job. If any of the conditions are met, the job is automatically stopped.

Type: [RecommendationJobStoppingConditions \(p. 1693\)](#) object

Required: No

#### [Tags \(p. 125\)](#)

The metadata that you apply to AWS resources to help you categorize and organize them. Each tag consists of a key and a value, both of which you define. For more information, see [Tagging AWS Resources](#) in the AWS General Reference.

Type: Array of [Tag \(p. 1749\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## Response Syntax

```
{  
    "JobArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [JobArn \(p. 127\)](#)

The Amazon Resource Name (ARN) of the recommendation job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-\-]*:sagemaker:[a-z0-9\-\-]*:[0-9]{12}:inference-recommendations-job/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceInUse**

Resource being accessed is in use.

HTTP Status Code: 400

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## CreateLabelingJob

Service: Amazon SageMaker Service

Creates a job that uses workers to label the data objects in your input dataset. You can use the labeled data to train machine learning models.

You can select your workforce from one of three providers:

- A private workforce that you create. It can include employees, contractors, and outside experts. Use a private workforce when want the data to stay within your organization or when a specific set of skills is required.
- One or more vendors that you select from the AWS Marketplace. Vendors provide expertise in specific areas.
- The Amazon Mechanical Turk workforce. This is the largest workforce, but it should only be used for public data or data that has been stripped of any personally identifiable information.

You can also use *automated data labeling* to reduce the number of data objects that need to be labeled by a human. Automated data labeling uses *active learning* to determine if a data object can be labeled by machine or if it needs to be sent to a human worker. For more information, see [Using Automated Data Labeling](#).

The data objects to be labeled are contained in an Amazon S3 bucket. You create a *manifest file* that describes the location of each object. For more information, see [Using Input and Output Data](#).

The output can be used as the manifest file for another labeling job or as training data for your machine learning models.

You can use this operation to create a static labeling job or a streaming labeling job. A static labeling job stops if all data objects in the input manifest file identified in `ManifestS3Uri` have been labeled. A streaming labeling job runs perpetually until it is manually stopped, or remains idle for 10 days. You can send new data objects to an active (`InProgress`) streaming labeling job in real time. To learn how to create a static labeling job, see [Create a Labeling Job \(API\)](#) in the Amazon SageMaker Developer Guide. To learn how to create a streaming labeling job, see [Create a Streaming Labeling Job](#).

## Request Syntax

```
{  
    "HumanTaskConfig": {  
        "AnnotationConsolidationConfig": {  
            "AnnotationConsolidationLambdaArn": "string"  
        },  
        "MaxConcurrentTaskCount": number,  
        "NumberOfHumanWorkersPerDataObject": number,  
        "PreHumanTaskLambdaArn": "string",  
        "PublicWorkforceTaskPrice": {  
            "AmountInUsd": {  
                "Cents": number,  
                "Dollars": number,  
                "TenthFractionsOfACent": number  
            }  
        },  
        "TaskAvailabilityLifetimeInSeconds": number,  
        "TaskDescription": "string",  
        "TaskKeywords": [ "string" ],  
        "TaskTimeLimitInSeconds": number,  
        "TaskTitle": "string",  
        "UiConfig": {  
            "HumanTaskUiArn": "string",  
            "UiTemplate": "string"  
        }  
    }  
}
```

```

        "UiTemplateS3Uri": "string"
    },
    "WorkteamArn": "string"
},
"InputConfig": {
    "DataAttributes": {
        "ContentClassifiers": [ "string" ]
    },
    "DataSource": {
        "S3DataSource": {
            "ManifestS3Uri": "string"
        },
        "SnsDataSource": {
            "SnsTopicArn": "string"
        }
    }
},
"LabelAttributeName": "string",
"LabelCategoryConfigS3Uri": "string",
"LabelingJobAlgorithmsConfig": {
    "InitiateActiveLearningModelArn": "string",
    "LabelingJobAlgorithmSpecificationArn": "string",
    "LabelingJobResourceConfig": {
        "VolumeKmsKeyId": "string",
        "VpcConfig": {
            "SecurityGroupIds": [ "string" ],
            "Subnets": [ "string" ]
        }
    }
},
"LabelingJobName": "string",
"OutputConfig": {
    "KmsKeyId": "string",
    "S3OutputPath": "string",
    "SnsTopicArn": "string"
},
"RoleArn": "string",
"StoppingConditions": {
    "MaxHumanLabeledObjectCount": number,
    "MaxPercentageOfInputDatasetLabeled": number
},
"Tags": [
    {
        "Key": "string",
        "Value": "string"
    }
]
}

```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### [HumanTaskConfig \(p. 129\)](#)

Configures the labeling task and how it is presented to workers; including, but not limited to price, keywords, and batch size (task count).

Type: [HumanTaskConfig \(p. 1364\)](#) object

Required: Yes

### [InputConfig \(p. 129\)](#)

Input data for the labeling job, such as the Amazon S3 location of the data objects and the location of the manifest file that describes the data objects.

You must specify at least one of the following: S3DataSource or SnsDataSource.

- Use SnsDataSource to specify an SNS input topic for a streaming labeling job. If you do not specify an SNS input topic ARN, Ground Truth will create a one-time labeling job that stops after all data objects in the input manifest file have been labeled.
- Use S3DataSource to specify an input manifest file for both streaming and one-time labeling jobs. Adding an S3DataSource is optional if you use SnsDataSource to create a streaming labeling job.

If you use the Amazon Mechanical Turk workforce, your input data should not include confidential information, personal information or protected health information. Use ContentClassifiers to specify that your data is free of personally identifiable information and adult content.

Type: [LabelingJobInputConfig \(p. 1448\)](#) object

Required: Yes

### [LabelAttributeName \(p. 129\)](#)

The attribute name to use for the label in the output manifest file. This is the key for the key/value pair formed with the label that a worker assigns to the object. The LabelAttributeName must meet the following requirements.

- The name can't end with "-metadata".
- If you are using one of the following [built-in task types](#), the attribute name *must* end with "-ref". If the task type you are using is not listed below, the attribute name *must not* end with "-ref".
  - Image semantic segmentation (`SemanticSegmentation`), and adjustment (`AdjustmentSemanticSegmentation`) and verification (`VerificationSemanticSegmentation`) labeling jobs for this task type.
  - Video frame object detection (`VideoObjectDetection`), and adjustment and verification (`AdjustmentVideoObjectDetection`) labeling jobs for this task type.
  - Video frame object tracking (`VideoObjectTracking`), and adjustment and verification (`AdjustmentVideoObjectTracking`) labeling jobs for this task type.
  - 3D point cloud semantic segmentation (`3DPointCloudSemanticSegmentation`), and adjustment and verification (`Adjustment3DPointCloudSemanticSegmentation`) labeling jobs for this task type.
  - 3D point cloud object tracking (`3DPointCloudObjectTracking`), and adjustment and verification (`Adjustment3DPointCloudObjectTracking`) labeling jobs for this task type.

#### **Important**

If you are creating an adjustment or verification labeling job, you must use a *different* LabelAttributeName than the one used in the original labeling job. The original labeling job is the Ground Truth labeling job that produced the labels that you want verified or adjusted. To learn more about adjustment and verification labeling jobs, see [Verify and Adjust Labels](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 127.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])\{0,126\}`

Required: Yes

### [LabelCategoryConfigS3Uri \(p. 129\)](#)

The S3 URI of the file, referred to as a *label category configuration file*, that defines the categories used to label the data objects.

For 3D point cloud and video frame task types, you can add label category attributes and frame attributes to your label category configuration file. To learn how, see [Create a Labeling Category Configuration File for 3D Point Cloud Labeling Jobs](#).

For named entity recognition jobs, in addition to "labels", you must provide worker instructions in the label category configuration file using the "instructions" parameter: "instructions": {"shortInstruction": "<h1>Add header</h1><p>Add Instructions</p>", "fullInstruction": "<p>Add additional instructions.</p>"}]. For details and an example, see [Create a Named Entity Recognition Labeling Job \(API\)](#).

For all other [built-in task types](#) and [custom tasks](#), your label category configuration file must be a JSON file in the following format. Identify the labels you want to use by replacing label\_1, label\_2,...,label\_n with your label categories.

```
{  
    "document-version": "2018-11-28",  
    "labels": [{"label": "label_1"}, {"label": "label_2"}, ... {"label": "label_n"}]  
}
```

Note the following about the label category configuration file:

- For image classification and text classification (single and multi-label) you must specify at least two label categories. For all other task types, the minimum number of label categories required is one.
- Each label category must be unique, you cannot specify duplicate label categories.
- If you create a 3D point cloud or video frame adjustment or verification labeling job, you must include auditLabelAttributeName in the label category configuration. Use this parameter to enter the [LabelAttributeName](#) of the labeling job you want to adjust or verify annotations of.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: ^(<https://s3>)://([^\/]\*)/?(.\*)\$

Required: No

### [LabelingJobAlgorithmsConfig \(p. 129\)](#)

Configures the information required to perform automated data labeling.

Type: [LabelingJobAlgorithmsConfig \(p. 1442\)](#) object

Required: No

### [LabelingJobName \(p. 129\)](#)

The name of the labeling job. This name is used to identify the job in a list of labeling jobs. Labeling job names must be unique within an AWS account and region. LabelingJobName is not case sensitive. For example, Example-job and example-job are considered the same labeling job name by Ground Truth.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])\{0,62\}`

Required: Yes

#### [OutputConfig \(p. 129\)](#)

The location of the output data and the AWS Key Management Service key ID for the key used to encrypt the output data, if any.

Type: [LabelingJobOutputConfig \(p. 1450\)](#) object

Required: Yes

#### [RoleArn \(p. 129\)](#)

The Amazon Resource Number (ARN) that Amazon SageMaker assumes to perform tasks on your behalf during data labeling. You must grant this role the necessary permissions so that Amazon SageMaker can successfully complete data labeling.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-zA-Z-]*:iam::\d{12}:role/?[a-zA-Z_0-9+=,.@-_/.]+\$`

Required: Yes

#### [StoppingConditions \(p. 129\)](#)

A set of conditions for stopping the labeling job. If any of the conditions are met, the job is automatically stopped. You can use these conditions to control the cost of data labeling.

Type: [LabelingJobStoppingConditions \(p. 1456\)](#) object

Required: No

#### [Tags \(p. 129\)](#)

An array of key/value pairs. For more information, see [Using Cost Allocation Tags](#) in the *AWS Billing and Cost Management User Guide*.

Type: Array of [Tag \(p. 1749\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## Response Syntax

```
{  
    "LabelingJobArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [LabelingJobArn \(p. 133\)](#)

The Amazon Resource Name (ARN) of the labeling job. You use this ARN to identify the labeling job.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `arn:aws:[a-z\-\-]*:sagemaker:[a-z0-9\-\-]*:[0-9]{12}:labeling-job/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceInUse**

Resource being accessed is in use.

HTTP Status Code: 400

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## CreateModel

Service: Amazon SageMaker Service

Creates a model in SageMaker. In the request, you name the model and describe a primary container. For the primary container, you specify the Docker image that contains inference code, artifacts (from prior training), and a custom environment map that the inference code uses when you deploy the model for predictions.

Use this API to create a model if you want to use SageMaker hosting services or run a batch transform job.

To host your model, you create an endpoint configuration with the `CreateEndpointConfig` API, and then create an endpoint with the `CreateEndpoint` API. SageMaker then deploys all of the containers that you defined for the model in the hosting environment.

For an example that calls this method when deploying a model to SageMaker hosting services, see [Create a Model \(AWS SDK for Python \(Boto 3\)\)](#).

To run a batch transform using your model, you start a job with the `CreateTransformJob` API. SageMaker uses your model and your dataset to get inferences which are then saved to a specified S3 location.

In the request, you also provide an IAM role that SageMaker can assume to access model artifacts and docker image for deployment on ML compute hosting instances or for batch transform jobs. In addition, you also use the IAM role to manage permissions the inference code needs. For example, if the inference code access any other AWS resources, you grant necessary permissions via this role.

## Request Syntax

```
{  
    "Containers": [  
        {  
            "ContainerHostname": "string",  
            "Environment": {  
                "string" : "string"  
            },  
            "Image": "string",  
            "ImageConfig": {  
                "RepositoryAccessMode": "string",  
                "RepositoryAuthConfig": {  
                    "RepositoryCredentialsProviderArn": "string"  
                }  
            },  
            "InferenceSpecificationName": "string",  
            "Mode": "string",  
            "ModelDataUrl": "string",  
            "ModelPackageName": "string",  
            "MultiModelConfig": {  
                "ModelCacheSetting": "string"  
            }  
        }  
    ],  
    "EnableNetworkIsolation": boolean,  
    "ExecutionRoleArn": "string",  
    "InferenceExecutionConfig": {  
        "Mode": "string"  
    },  
    "modelName": "string",  
    "PrimaryContainer": {  
        "ContainerHostname": "string",  
        "Environment": {  
    
```

```

        "string" : "string"
    },
    "Image": "string",
    "ImageConfig": {
        "RepositoryAccessMode": "string",
        "RepositoryAuthConfig": {
            "RepositoryCredentialsProviderArn": "string"
        }
    },
    "InferenceSpecificationName": "string",
    "Mode": "string",
    "ModelDataUrl": "string",
    "ModelPackageName": "string",
    "MultiModelConfig": {
        "ModelCacheSetting": "string"
    }
},
"Tags": [
    {
        "Key": "string",
        "Value": "string"
    }
],
"VpcConfig": {
    "SecurityGroupIds": [ "string" ],
    "Subnets": [ "string" ]
}
}

```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### [Containers \(p. 135\)](#)

Specifies the containers in the inference pipeline.

Type: Array of [ContainerDefinition \(p. 1225\)](#) objects

Array Members: Maximum number of 15 items.

Required: No

### [EnableNetworkIsolation \(p. 135\)](#)

Isolates the model container. No inbound or outbound network calls can be made to or from the model container.

Type: Boolean

Required: No

### [ExecutionRoleArn \(p. 135\)](#)

The Amazon Resource Name (ARN) of the IAM role that SageMaker can assume to access model artifacts and docker image for deployment on ML compute instances or for batch transform jobs. Deploying on ML compute instances is part of model hosting. For more information, see [SageMaker Roles](#).

#### **Note**

To be able to pass this role to SageMaker, the caller of this API must have the `iam:PassRole` permission.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: ^arn:aws[a-z\-\]\*:iam::\d{12}:role/?[a-zA-Z\_0-9+=,.@\\-\_/\]+\$

Required: Yes

#### [InferenceExecutionConfig \(p. 135\)](#)

Specifies details of how containers in a multi-container endpoint are called.

Type: [InferenceExecutionConfig \(p. 1413\)](#) object

Required: No

#### [ModelName \(p. 135\)](#)

The name of the new model.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\*

Required: Yes

#### [PrimaryContainer \(p. 135\)](#)

The location of the primary docker image containing inference code, associated artifacts, and custom environment map that the inference code uses when the model is deployed for predictions.

Type: [ContainerDefinition \(p. 1225\)](#) object

Required: No

#### [Tags \(p. 135\)](#)

An array of key-value pairs. You can use tags to categorize your AWS resources in different ways, for example, by purpose, owner, or environment. For more information, see [Tagging AWS Resources](#).

Type: Array of [Tag \(p. 1749\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

#### [VpcConfig \(p. 135\)](#)

A [VpcConfig \(p. 1829\)](#) object that specifies the VPC that you want your model to connect to. Control access to and from your model container by configuring the VPC. VpcConfig is used in hosting services and in batch transform. For more information, see [Protect Endpoints by Using an Amazon Virtual Private Cloud](#) and [Protect Data in Batch Transform Jobs by Using an Amazon Virtual Private Cloud](#).

Type: [VpcConfig \(p. 1829\)](#) object

Required: No

## [Response Syntax](#)

```
{
```

```
    "ModelArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [ModelArn \(p. 137\)](#)

The ARN of the model created in SageMaker.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:model/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## CreateModelBiasJobDefinition

Service: Amazon SageMaker Service

Creates the definition for a model bias job.

### Request Syntax

```
{  
    "JobDefinitionName": "string",  
    "JobResources": {  
        "ClusterConfig": {  
            "InstanceCount": number,  
            "InstanceType": "string",  
            "VolumeKmsKeyId": "string",  
            "VolumeSizeInGB": number  
        }  
    },  
    "ModelBiasAppSpecification": {  
        "ConfigUri": "string",  
        "Environment": {  
            "string" : "string"  
        },  
        "ImageUri": "string"  
    },  
    "ModelBiasBaselineConfig": {  
        "BaseliningJobName": "string",  
        "ConstraintsResource": {  
            "S3Uri": "string"  
        }  
    },  
    "ModelBiasJobInput": {  
        "BatchTransformInput": {  
            "DataCapturedDestinationS3Uri": "string",  
            "DatasetFormat": {  
                "Csv": {  
                    "Header": boolean  
                },  
                "Json": {  
                    "Line": boolean  
                },  
                "Parquet": {  
                }  
            },  
            "EndTimeOffset": "string",  
            "FeaturesAttribute": "string",  
            "InferenceAttribute": "string",  
            "LocalPath": "string",  
            "ProbabilityAttribute": "string",  
            "ProbabilityThresholdAttribute": number,  
            "S3DataDistributionType": "string",  
            "S3InputMode": "string",  
            "StartTimeOffset": "string"  
        },  
        "EndpointInput": {  
            "EndpointName": "string",  
            "EndTimeOffset": "string",  
            "FeaturesAttribute": "string",  
            "InferenceAttribute": "string",  
            "LocalPath": "string",  
            "ProbabilityAttribute": "string",  
            "ProbabilityThresholdAttribute": number,  
            "S3DataDistributionType": "string",  
            "S3InputMode": "string",  
        }  
    }  
}
```

```

        "StartTimeOffset": "string"
    },
    "GroundTruthS3Input": {
        "S3Uri": "string"
    }
},
"ModelBiasJobOutputConfig": {
    "KmsKeyId": "string",
    "MonitoringOutputs": [
        {
            "S3Output": {
                "LocalPath": "string",
                "S3UploadMode": "string",
                "S3Uri": "string"
            }
        }
    ]
},
"NetworkConfig": {
    "EnableInterContainerTrafficEncryption": boolean,
    "EnableNetworkIsolation": boolean,
    "VpcConfig": {
        "SecurityGroupIds": [ "string" ],
        "Subnets": [ "string" ]
    }
},
"RoleArn": "string",
"StoppingCondition": {
    "MaxRuntimeInSeconds": number
},
"Tags": [
    {
        "Key": "string",
        "Value": "string"
    }
]
}

```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### [JobDefinitionName \(p. 139\)](#)

The name of the bias job definition. The name must be unique within an AWS Region in the AWS account.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\*\$

Required: Yes

### [JobResources \(p. 139\)](#)

Identifies the resources to deploy for a monitoring job.

Type: [MonitoringResources \(p. 1567\)](#) object

Required: Yes

#### [ModelBiasAppSpecification \(p. 139\)](#)

Configures the model bias job to run a specified Docker container image.

Type: [ModelBiasAppSpecification \(p. 1474\)](#) object

Required: Yes

#### [ModelBiasBaselineConfig \(p. 139\)](#)

The baseline configuration for a model bias job.

Type: [ModelBiasBaselineConfig \(p. 1475\)](#) object

Required: No

#### [ModelBiasJobInput \(p. 139\)](#)

Inputs for the model bias job.

Type: [ModelBiasJobInput \(p. 1476\)](#) object

Required: Yes

#### [ModelBiasJobOutputConfig \(p. 139\)](#)

The output configuration for monitoring jobs.

Type: [MonitoringOutputConfig \(p. 1565\)](#) object

Required: Yes

#### [NetworkConfig \(p. 139\)](#)

Networking options for a model bias job.

Type: [MonitoringNetworkConfig \(p. 1563\)](#) object

Required: No

#### [RoleArn \(p. 139\)](#)

The Amazon Resource Name (ARN) of an IAM role that Amazon SageMaker can assume to perform tasks on your behalf.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: ^arn:aws[a-z\-\]\*:iam::\d{12}:role/?[a-zA-Z\_0-9+=,.@\-\/\_]+\$

Required: Yes

#### [StoppingCondition \(p. 139\)](#)

A time limit for how long the monitoring job is allowed to run before stopping.

Type: [MonitoringStoppingCondition \(p. 1576\)](#) object

Required: No

#### [Tags \(p. 139\)](#)

(Optional) An array of key-value pairs. For more information, see [Using Cost Allocation Tags](#) in the [AWS Billing and Cost Management User Guide](#).

Type: Array of [Tag \(p. 1749\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## Response Syntax

```
{  
    "JobDefinitionArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [JobDefinitionArn \(p. 142\)](#)

The Amazon Resource Name (ARN) of the model bias job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceInUse**

Resource being accessed is in use.

HTTP Status Code: 400

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)

- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## CreateModelCard

Service: Amazon SageMaker Service

Creates an Amazon SageMaker Model Card.

For information about how to use model cards, see [Amazon SageMaker Model Card](#).

## Request Syntax

```
{  
    "Content": "string",  
    "ModelCardName": "string",  
    "ModelCardStatus": "string",  
    "SecurityConfig": {  
        "KmsKeyId": "string"  
    },  
    "Tags": [  
        {  
            "Key": "string",  
            "Value": "string"  
        }  
    ]  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### Content (p. 144)

The content of the model card. Content must be in [model card JSON schema](#) and provided as a string.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 100000.

Pattern: .\*

Required: Yes

### ModelCardName (p. 144)

The unique name of the model card.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

### ModelCardStatus (p. 144)

The approval status of the model card within your organization. Different organizations might have different criteria for model card review and approval.

- **Draft**: The model card is a work in progress.
- **PendingReview**: The model card is pending review.
- **Approved**: The model card is approved.
- **Archived**: The model card is archived. No more updates should be made to the model card, but it can still be exported.

Type: String

Valid Values: Draft | PendingReview | Approved | Archived

Required: Yes

#### [SecurityConfig \(p. 144\)](#)

An optional Key Management Service key to encrypt, decrypt, and re-encrypt model card content for regulated workloads with highly sensitive data.

Type: [ModelCardSecurityConfig \(p. 1484\)](#) object

Required: No

#### [Tags \(p. 144\)](#)

Key-value pairs used to manage metadata for model cards.

Type: Array of [Tag \(p. 1749\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## Response Syntax

```
{  
    "ModelCardArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

#### [ModelCardArn \(p. 145\)](#)

The Amazon Resource Name (ARN) of the successfully created model card.

Type: String

Length Constraints: Maximum length of 256.

Pattern: ^arn:aws[a-z\-]\*:sagemaker:[a-z0-9\-]{9,16}:[0-9]{12}:model-card/[a-zA-Z0-9](-\*[a-zA-Z0-9]){\emptyset,62}\\$

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ConflictException**

There was a conflict when you attempted to modify a SageMaker entity such as an Experiment or Artifact.

HTTP Status Code: 400

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## CreateModelCardExportJob

Service: Amazon SageMaker Service

Creates an Amazon SageMaker Model Card export job.

### Request Syntax

```
{  
    "ModelCardExportJobName": "string",  
    "ModelCardName": "string",  
    "ModelCardVersion": number,  
    "OutputConfig": {  
        "S3OutputPath": "string"  
    }  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [ModelCardExportJobName \(p. 147\)](#)

The name of the model card export job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9]){0,62}\$

Required: Yes

#### [ModelCardName \(p. 147\)](#)

The name of the model card to export.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9]){0,62}\$

Required: Yes

#### [ModelCardVersion \(p. 147\)](#)

The version of the model card to export. If a version is not provided, then the latest version of the model card is exported.

Type: Integer

Required: No

#### [OutputConfig \(p. 147\)](#)

The model card output configuration that specifies the Amazon S3 path for exporting.

Type: [ModelCardExportOutputConfig \(p. 1483\)](#) object

Required: Yes

## Response Syntax

```
{  
    "ModelCardExportJobArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### **ModelCardExportJobArn** (p. 148)

The Amazon Resource Name (ARN) of the model card export job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: ^arn:aws[a-z\-\-]\*:sagemaker:[a-zA-Z0-9\-\-]{9,16}:[0-9]{12}:model-card/[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}/export-job/[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ConflictException**

There was a conflict when you attempted to modify a SageMaker entity such as an Experiment or Artifact.

HTTP Status Code: 400

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

### **ResourceNotFoundException**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)

- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreateModelExplainabilityJobDefinition

Service: Amazon SageMaker Service

Creates the definition for a model explainability job.

## Request Syntax

```
{  
    "JobDefinitionName": "string",  
    "JobResources": {  
        "ClusterConfig": {  
            "InstanceCount": number,  
            "InstanceType": "string",  
            "VolumeKmsKeyId": "string",  
            "VolumeSizeInGB": number  
        }  
    },  
    "ModelExplainabilityAppSpecification": {  
        "ConfigUri": "string",  
        "Environment": {  
            "string" : "string"  
        },  
        "ImageUri": "string"  
    },  
    "ModelExplainabilityBaselineConfig": {  
        "BaseliningJobName": "string",  
        "ConstraintsResource": {  
            "S3Uri": "string"  
        }  
    },  
    "ModelExplainabilityJobInput": {  
        "BatchTransformInput": {  
            "DataCapturedDestinationS3Uri": "string",  
            "DatasetFormat": {  
                "Csv": {  
                    "Header": boolean  
                },  
                "Json": {  
                    "Line": boolean  
                },  
                "Parquet": {  
                }  
            },  
            "EndTimeOffset": "string",  
            "FeaturesAttribute": "string",  
            "InferenceAttribute": "string",  
            "LocalPath": "string",  
            "ProbabilityAttribute": "string",  
            "ProbabilityThresholdAttribute": number,  
            "S3DataDistributionType": "string",  
            "S3InputMode": "string",  
            "StartTimeOffset": "string"  
        },  
        "EndpointInput": {  
            "EndpointName": "string",  
            "EndTimeOffset": "string",  
            "FeaturesAttribute": "string",  
            "InferenceAttribute": "string",  
            "LocalPath": "string",  
            "ProbabilityAttribute": "string",  
            "ProbabilityThresholdAttribute": number,  
            "S3DataDistributionType": "string",  
            "S3InputMode": "string",  
        }  
    }  
}
```

```

        "StartTimeOffset": "string"
    },
    "ModelExplainabilityJobOutputConfig": {
        "KmsKeyId": "string",
        "MonitoringOutputs": [
            {
                "S3Output": {
                    "LocalPath": "string",
                    "S3UploadMode": "string",
                    "S3Uri": "string"
                }
            }
        ]
    },
    "NetworkConfig": {
        "EnableInterContainerTrafficEncryption": boolean,
        "EnableNetworkIsolation": boolean,
        "VpcConfig": {
            "SecurityGroupIds": [ "string" ],
            "Subnets": [ "string" ]
        }
    },
    "RoleArn": "string",
    "StoppingCondition": {
        "MaxRuntimeInSeconds": number
    },
    "Tags": [
        {
            "Key": "string",
            "Value": "string"
        }
    ]
}

```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### [JobDefinitionName \(p. 150\)](#)

The name of the model explainability job definition. The name must be unique within an AWS Region in the AWS account.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\*\$

Required: Yes

### [JobResources \(p. 150\)](#)

Identifies the resources to deploy for a monitoring job.

Type: [MonitoringResources \(p. 1567\)](#) object

Required: Yes

### [ModelExplainabilityAppSpecification \(p. 150\)](#)

Configures the model explainability job to run a specified Docker container image.

Type: [ModelExplainabilityAppSpecification \(p. 1504\)](#) object

Required: Yes

### [ModelExplainabilityBaselineConfig \(p. 150\)](#)

The baseline configuration for a model explainability job.

Type: [ModelExplainabilityBaselineConfig \(p. 1505\)](#) object

Required: No

### [ModelExplainabilityJobInput \(p. 150\)](#)

Inputs for the model explainability job.

Type: [ModelExplainabilityJobInput \(p. 1506\)](#) object

Required: Yes

### [ModelExplainabilityJobOutputConfig \(p. 150\)](#)

The output configuration for monitoring jobs.

Type: [MonitoringOutputConfig \(p. 1565\)](#) object

Required: Yes

### [NetworkConfig \(p. 150\)](#)

Networking options for a model explainability job.

Type: [MonitoringNetworkConfig \(p. 1563\)](#) object

Required: No

### [RoleArn \(p. 150\)](#)

The Amazon Resource Name (ARN) of an IAM role that Amazon SageMaker can assume to perform tasks on your behalf.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: ^arn:aws[a-z\-\:]\*:iam::\d{12}:role/?[a-zA-Z\_0-9+=,.@\\-\_/\]+\$

Required: Yes

### [StoppingCondition \(p. 150\)](#)

A time limit for how long the monitoring job is allowed to run before stopping.

Type: [MonitoringStoppingCondition \(p. 1576\)](#) object

Required: No

### [Tags \(p. 150\)](#)

(Optional) An array of key-value pairs. For more information, see [Using Cost Allocation Tags](#) in the *AWS Billing and Cost Management User Guide*.

Type: Array of [Tag \(p. 1749\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## Response Syntax

```
{  
    "JobDefinitionArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [JobDefinitionArn \(p. 153\)](#)

The Amazon Resource Name (ARN) of the model explainability job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceInUse**

Resource being accessed is in use.

HTTP Status Code: 400

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)

- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## CreateModelPackage

Service: Amazon SageMaker Service

Creates a model package that you can use to create SageMaker models or list on AWS Marketplace, or a versioned model that is part of a model group. Buyers can subscribe to model packages listed on AWS Marketplace to create models in SageMaker.

To create a model package by specifying a Docker container that contains your inference code and the Amazon S3 location of your model artifacts, provide values for `InferenceSpecification`. To create a model from an algorithm resource that you created or subscribed to in AWS Marketplace, provide a value for `SourceAlgorithmSpecification`.

### Note

There are two types of model packages:

- Versioned - a model that is part of a model group in the model registry.
- Unversioned - a model package that is not part of a model group.

## Request Syntax

```
{  
    "AdditionalInferenceSpecifications": [  
        {  
            "Containers": [  
                {  
                    "ContainerHostname": "string",  
                    "Environment": {  
                        "string" : "string"  
                    },  
                    "Framework": "string",  
                    "FrameworkVersion": "string",  
                    "Image": "string",  
                    "ImageDigest": "string",  
                    "ModelDataURL": "string",  
                    "ModelError": {  
                        "DataInputConfig": "string"  
                    },  
                    "Nearest modelName": "string",  
                    "ProductId": "string"  
                }  
            ],  
            "Description": "string",  
            "Name": "string",  
            "SupportedContentTypes": [ "string" ],  
            "SupportedRealtimeInferenceInstanceTypes": [ "string" ],  
            "SupportedResponseMIMETypes": [ "string" ],  
            "SupportedTransformInstanceTypes": [ "string" ]  
        }  
    ],  
    "CertifyForMarketplace": boolean,  
    "ClientToken": "string",  
    "CustomerMetadataProperties": {  
        "string" : "string"  
    },  
    "Domain": "string",  
    "DriftCheckBaselines": {  
        "Bias": {  
            "ConfigFile": {  
                "ContentDigest": "string",  
                "ContentType": "string",  
            }  
        }  
    }  
}
```

```

        "S3Uri": "string"
    },
    "PostTrainingConstraints": {
        "ContentDigest": "string",
        "ContentType": "string",
        "S3Uri": "string"
    },
    "PreTrainingConstraints": {
        "ContentDigest": "string",
        "ContentType": "string",
        "S3Uri": "string"
    }
},
"Explainability": {
    "ConfigFile": {
        "ContentDigest": "string",
        "ContentType": "string",
        "S3Uri": "string"
    },
    "Constraints": {
        "ContentDigest": "string",
        "ContentType": "string",
        "S3Uri": "string"
    }
},
"ModelError": {
    "Constraints": {
        "ContentDigest": "string",
        "ContentType": "string",
        "S3Uri": "string"
    },
    "Statistics": {
        "ContentDigest": "string",
        "ContentType": "string",
        "S3Uri": "string"
    }
},
"ModelDataQuality": {
    "Constraints": {
        "ContentDigest": "string",
        "ContentType": "string",
        "S3Uri": "string"
    },
    "Statistics": {
        "ContentDigest": "string",
        "ContentType": "string",
        "S3Uri": "string"
    }
},
"ModelQuality": {
    "Constraints": {
        "ContentDigest": "string",
        "ContentType": "string",
        "S3Uri": "string"
    },
    "Statistics": {
        "ContentDigest": "string",
        "ContentType": "string",
        "S3Uri": "string"
    }
}
},
"InferenceSpecification": {
    "Containers": [
        {
            "ContainerHostname": "string",
            "Environment": {
                "string" : "string"
            },
            "Framework": "string",
            "FrameworkVersion": "string",
            "Image": "string",
            "ImageDigest": "string",
            "ModelDataURL": "string",
            "ModelInput": {
                "DataInputConfig": "string"
            },
            "Nearest modelName": "string",
            "RuntimeConfig": {
                "string" : "string"
            }
        }
    ]
}
}

```

```

        "ProductId": "string"
    },
],
"SupportedContentTypes": [ "string" ],
"SupportedRealtimeInferenceInstanceTypes": [ "string" ],
"SupportedResponseMIMETypes": [ "string" ],
"SupportedTransformInstanceTypes": [ "string" ]
},
"MetadataProperties": {
    "CommitId": "string",
    "GeneratedBy": "string",
    "ProjectId": "string",
    "Repository": "string"
},
"ModelApprovalStatus": "string",
"ModelMetrics": {
    "Bias": {
        "PostTrainingReport": {
            "ContentDigest": "string",
            "ContentType": "string",
            "S3Uri": "string"
        },
        "PreTrainingReport": {
            "ContentDigest": "string",
            "ContentType": "string",
            "S3Uri": "string"
        },
        "Report": {
            "ContentDigest": "string",
            "ContentType": "string",
            "S3Uri": "string"
        }
    },
    "Explainability": {
        "Report": {
            "ContentDigest": "string",
            "ContentType": "string",
            "S3Uri": "string"
        }
    }
},
"ModelDataQuality": {
    "Constraints": {
        "ContentDigest": "string",
        "ContentType": "string",
        "S3Uri": "string"
    },
    "Statistics": {
        "ContentDigest": "string",
        "ContentType": "string",
        "S3Uri": "string"
    }
},
"ModelQuality": {
    "Constraints": {
        "ContentDigest": "string",
        "ContentType": "string",
        "S3Uri": "string"
    },
    "Statistics": {
        "ContentDigest": "string",
        "ContentType": "string",
        "S3Uri": "string"
    }
}
},
"ModelPackageDescription": "string",

```

```

"ModelPackageName": "string",
"SamplePayloadUrl": "string",
"SourceAlgorithmSpecification": {
    "SourceAlgorithms": [
        {
            "AlgorithmName": "string",
            "ModelDataUrl": "string"
        }
    ]
},
"Tags": [
    {
        "Key": "string",
        "Value": "string"
    }
],
"Task": "string",
"ValidationSpecification": {
    "ValidationProfiles": [
        {
            "ProfileName": "string",
            "TransformJobDefinition": {
                "BatchStrategy": "string",
                "Environment": {
                    "string" : "string"
                },
                "MaxConcurrentTransforms": number,
                "MaxPayloadInMB": number,
                "TransformInput": {
                    "CompressionType": "string",
                    "ContentType": "string",
                    "DataSource": {
                        "S3DataSource": {
                            "S3DataType": "string",
                            "S3Uri": "string"
                        }
                    },
                    "SplitType": "string"
                },
                "TransformOutput": {
                    "Accept": "string",
                    "AssembleWith": "string",
                    "KmsKeyId": "string",
                    "S3OutputPath": "string"
                },
                "TransformResources": {
                    "InstanceCount": number,
                    "InstanceType": "string",
                    "VolumeKmsKeyId": "string"
                }
            }
        }
    ],
    "ValidationRole": "string"
}
}

```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### [AdditionalInferenceSpecifications \(p. 155\)](#)

An array of additional Inference Specification objects. Each additional Inference Specification specifies artifacts based on this model package that can be used on inference endpoints. Generally used with SageMaker Neo to store the compiled artifacts.

Type: Array of [AdditionalInferenceSpecificationDefinition \(p. 1112\)](#) objects

Array Members: Minimum number of 1 item. Maximum number of 15 items.

Required: No

### [CertifyForMarketplace \(p. 155\)](#)

Whether to certify the model package for listing on AWS Marketplace.

This parameter is optional for unversioned models, and does not apply to versioned models.

Type: Boolean

Required: No

### [ClientToken \(p. 155\)](#)

A unique token that guarantees that the call to this API is idempotent.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 36.

Pattern: ^[a-zA-Z0-9-]+\$

Required: No

### [CustomerMetadataProperties \(p. 155\)](#)

The metadata properties associated with the model package versions.

Type: String to string map

Map Entries: Maximum number of 50 items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Key Pattern: ^([\p{L}\p{Z}\p{N}\_.:\v=+\-\e]\*){1,128}

Value Length Constraints: Minimum length of 1. Maximum length of 256.

Value Pattern: ^([\p{L}\p{Z}\p{N}\_.:\v=+\-\e]\*){1,256}

Required: No

### [Domain \(p. 155\)](#)

The machine learning domain of your model package and its components. Common machine learning domains include computer vision and natural language processing.

Type: String

Required: No

### [DriftCheckBaselines \(p. 155\)](#)

Represents the drift check baselines that can be used when the model monitor is set using the model package. For more information, see the topic on [Drift Detection against Previous Baselines in SageMaker Pipelines](#) in the *Amazon SageMaker Developer Guide*.

Type: [DriftCheckBaselines \(p. 1275\)](#) object

Required: No

#### [InferenceSpecification \(p. 155\)](#)

Specifies details about inference jobs that can be run with models based on this model package, including the following:

- The Amazon ECR paths of containers that contain the inference code and model artifacts.
- The instance types that the model package supports for transform jobs and real-time endpoints used for inference.
- The input and output content formats that the model package supports for inference.

Type: [InferenceSpecification \(p. 1423\)](#) object

Required: No

#### [MetadataProperties \(p. 155\)](#)

Metadata properties of the tracking entity, trial, or trial component.

Type: [MetadataProperties \(p. 1465\)](#) object

Required: No

#### [ModelApprovalStatus \(p. 155\)](#)

Whether the model is approved for deployment.

This parameter is optional for versioned models, and does not apply to unversioned models.

For versioned models, the value of this parameter must be set to Approved to deploy the model.

Type: String

Valid Values: Approved | Rejected | PendingManualApproval

Required: No

#### [ModelMetrics \(p. 155\)](#)

A structure that contains model metrics reports.

Type: [ModelMetrics \(p. 1513\)](#) object

Required: No

#### [ModelPackageDescription \(p. 155\)](#)

A description of the model package.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: [\\p{L}\\p{M}\\p{Z}\\p{S}\\p{N}\\p{P}]\*

Required: No

#### [ModelPackageGroupName \(p. 155\)](#)

The name or Amazon Resource Name (ARN) of the model package group that this model version belongs to.

This parameter is required for versioned models, and does not apply to unversioned models.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 170.

Pattern: (`arn:aws[a-z\-\]*:sagemaker:[a-zA-Z0-9\-\-]*:[0-9]{12}:[a-zA-Z\-\-]*\//)?([a-zA-Z0-9]([a-zA-Z0-9-])\{0,62\})(?<-\)$`

Required: No

#### [ModelPackageName \(p. 155\)](#)

The name of the model package. The name must have 1 to 63 characters. Valid characters are a-z, A-Z, 0-9, and - (hyphen).

This parameter is required for unversioned models. It is not applicable to versioned models.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^([a-zA-Z0-9](-*[a-zA-Z0-9])\{0,62\}$`

Required: No

#### [SamplePayloadUrl \(p. 155\)](#)

The Amazon Simple Storage Service (Amazon S3) path where the sample payload are stored. This path must point to a single gzip compressed tar archive (.tar.gz suffix).

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3)://(([^\/\]+)/*)(.*$`

Required: No

#### [SourceAlgorithmSpecification \(p. 155\)](#)

Details about the algorithm that was used to create the model package.

Type: [SourceAlgorithmSpecification \(p. 1737\)](#) object

Required: No

#### [Tags \(p. 155\)](#)

A list of key value pairs associated with the model. For more information, see [Tagging AWS resources](#) in the [AWS General Reference Guide](#).

Type: Array of [Tag \(p. 1749\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

#### [Task \(p. 155\)](#)

The machine learning task your model package accomplishes. Common machine learning tasks include object detection and image classification. The following tasks are supported by Inference Recommender: "IMAGE\_CLASSIFICATION" | "OBJECT\_DETECTION" | "TEXT\_GENERATION" | "IMAGE\_SEGMENTATION" | "FILL\_MASK" | "CLASSIFICATION" | "REGRESSION" | "OTHER".

Specify "OTHER" if none of the tasks listed fit your use case.

Type: String

Required: No

#### **ValidationSpecification (p. 155)**

Specifies configurations for one or more transform jobs that SageMaker runs to test the model package.

Type: [ModelPackageValidationSpecification \(p. 1531\)](#) object

Required: No

## Response Syntax

```
{  
    "ModelPackageArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

#### **ModelPackageArn (p. 162)**

The Amazon Resource Name (ARN) of the new model package.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:model-package/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

#### **ConflictException**

There was a conflict when you attempted to modify a SageMaker entity such as an Experiment or Artifact.

HTTP Status Code: 400

#### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## CreateModelPackageGroup

Service: Amazon SageMaker Service

Creates a model group. A model group contains a group of model versions.

### Request Syntax

```
{  
    "ModelPackageGroupDescription": "string",  
    "ModelPackageGroupName": "string",  
    "Tags": [  
        {  
            "Key": "string",  
            "Value": "string"  
        }  
    ]  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [ModelPackageGroupDescription \(p. 164\)](#)

A description for the model group.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: [\p{L}\p{M}\p{Z}\p{S}\p{N}\p{P}]\*

Required: No

#### [ModelPackageGroupName \(p. 164\)](#)

The name of the model group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

#### [Tags \(p. 164\)](#)

A list of key value pairs associated with the model group. For more information, see [Tagging AWS resources](#) in the [AWS General Reference Guide](#).

Type: Array of [Tag \(p. 1749\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## Response Syntax

```
{  
    "ModelPackageGroupArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [ModelPackageGroupArn \(p. 165\)](#)

The Amazon Resource Name (ARN) of the model group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: arn:aws[a-z\-]\*:sagemaker:[a-z0-9\-]\*:[0-9]{12}:model-package-group/.\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreateModelQualityJobDefinition

Service: Amazon SageMaker Service

Creates a definition for a job that monitors model quality and drift. For information about model monitor, see [Amazon SageMaker Model Monitor](#).

## Request Syntax

```
{  
    "JobDefinitionName": "string",  
    "JobResources": {  
        "ClusterConfig": {  
            "InstanceCount": number,  
            "InstanceType": "string",  
            "VolumeKmsKeyId": "string",  
            "VolumeSizeInGB": number  
        }  
    },  
    "ModelQualityAppSpecification": {  
        "ContainerArguments": [ "string" ],  
        "ContainerEntrypoint": [ "string" ],  
        "Environment": {  
            "string" : "string"  
        },  
        "ImageUri": "string",  
        "PostAnalyticsProcessorSourceUri": "string",  
        "ProblemType": "string",  
        "RecordPreprocessorSourceUri": "string"  
    },  
    "ModelQualityBaselineConfig": {  
        "BaseliningJobName": "string",  
        "ConstraintsResource": {  
            "S3Uri": "string"  
        }  
    },  
    "ModelQualityJobInput": {  
        "BatchTransformInput": {  
            "DataCapturedDestinationS3Uri": "string",  
            "DatasetFormat": {  
                "Csv": {  
                    "Header": boolean  
                },  
                "Json": {  
                    "Line": boolean  
                },  
                "Parquet": {  
                }  
            },  
            "EndTimeOffset": "string",  
            "FeaturesAttribute": "string",  
            "InferenceAttribute": "string",  
            "LocalPath": "string",  
            "ProbabilityAttribute": "string",  
            "ProbabilityThresholdAttribute": number,  
            "S3DataDistributionType": "string",  
            "S3InputMode": "string",  
            "StartTimeOffset": "string"  
        },  
        "EndpointInput": {  
            "EndpointName": "string",  
            "EndTimeOffset": "string",  
            "FeaturesAttribute": "string",  
            "InferenceAttribute": "string",  
        }  
    }  
}
```

```

        "LocalPath": "string",
        "ProbabilityAttribute": "string",
        "ProbabilityThresholdAttribute": number,
        "S3DataDistributionType": "string",
        "S3InputMode": "string",
        "StartTimeOffset": "string"
    },
    "GroundTruthS3Input": {
        "S3Uri": "string"
    }
},
"ModelQualityJobOutputConfig": {
    "KmsKeyId": "string",
    "MonitoringOutputs": [
        {
            "S3Output": {
                "LocalPath": "string",
                "S3UploadMode": "string",
                "S3Uri": "string"
            }
        }
    ]
},
"NetworkConfig": {
    "EnableInterContainerTrafficEncryption": boolean,
    "EnableNetworkIsolation": boolean,
    "VpcConfig": {
        "SecurityGroupIds": [ "string" ],
        "Subnets": [ "string" ]
    }
},
"RoleArn": "string",
"StoppingCondition": {
    "MaxRuntimeInSeconds": number
},
"Tags": [
    {
        "Key": "string",
        "Value": "string"
    }
]
}
}

```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### [JobDefinitionName \(p. 166\)](#)

The name of the monitoring job definition.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\*\$

Required: Yes

### [JobResources \(p. 166\)](#)

Identifies the resources to deploy for a monitoring job.

Type: [MonitoringResources \(p. 1567\)](#) object

Required: Yes

#### [ModelQualityAppSpecification \(p. 166\)](#)

The container that runs the monitoring job.

Type: [ModelQualityAppSpecification \(p. 1533\)](#) object

Required: Yes

#### [ModelQualityBaselineConfig \(p. 166\)](#)

Specifies the constraints and baselines for the monitoring job.

Type: [ModelQualityBaselineConfig \(p. 1535\)](#) object

Required: No

#### [ModelQualityJobInput \(p. 166\)](#)

A list of the inputs that are monitored. Currently endpoints are supported.

Type: [ModelQualityJobInput \(p. 1536\)](#) object

Required: Yes

#### [ModelQualityJobOutputConfig \(p. 166\)](#)

The output configuration for monitoring jobs.

Type: [MonitoringOutputConfig \(p. 1565\)](#) object

Required: Yes

#### [NetworkConfig \(p. 166\)](#)

Specifies the network configuration for the monitoring job.

Type: [MonitoringNetworkConfig \(p. 1563\)](#) object

Required: No

#### [RoleArn \(p. 166\)](#)

The Amazon Resource Name (ARN) of an IAM role that Amazon SageMaker can assume to perform tasks on your behalf.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: ^arn:aws[a-zA-Z-]\*:iam::\d{12}:role/[a-zA-Z0-9+=,.@-\_/.]+\$

Required: Yes

#### [StoppingCondition \(p. 166\)](#)

A time limit for how long the monitoring job is allowed to run before stopping.

Type: [MonitoringStoppingCondition \(p. 1576\)](#) object

Required: No

#### [Tags \(p. 166\)](#)

(Optional) An array of key-value pairs. For more information, see [Using Cost Allocation Tags](#) in the [AWS Billing and Cost Management User Guide](#).

Type: Array of [Tag \(p. 1749\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## Response Syntax

```
{  
    "JobDefinitionArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [JobDefinitionArn \(p. 169\)](#)

The Amazon Resource Name (ARN) of the model quality monitoring job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceInUse**

Resource being accessed is in use.

HTTP Status Code: 400

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)

- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreateMonitoringSchedule

Service: Amazon SageMaker Service

Creates a schedule that regularly starts Amazon SageMaker Processing Jobs to monitor the data captured for an Amazon SageMaker Endoint.

## Request Syntax

```
{
    "MonitoringScheduleConfig": {
        "MonitoringJobDefinition": {
            "BaselineConfig": {
                "BaseliningJobName": "string",
                "ConstraintsResource": {
                    "S3Uri": "string"
                },
                "StatisticsResource": {
                    "S3Uri": "string"
                }
            },
            "Environment": {
                "string" : "string"
            },
            "MonitoringAppSpecification": {
                "ContainerArguments": [ "string" ],
                "ContainerEntrypoint": [ "string" ],
                "ImageUri": "string",
                "PostAnalyticsProcessorSourceUri": "string",
                "RecordPreprocessorSourceUri": "string"
            },
            "MonitoringInputs": [
                {
                    "BatchTransformInput": {
                        "DataCapturedDestinationS3Uri": "string",
                        "DatasetFormat": {
                            "Csv": {
                                "Header": boolean
                            },
                            "Json": {
                                "Line": boolean
                            },
                            "Parquet": {
                            }
                        },
                        "EndTimeOffset": "string",
                        "FeaturesAttribute": "string",
                        "InferenceAttribute": "string",
                        "LocalPath": "string",
                        "ProbabilityAttribute": "string",
                        "ProbabilityThresholdAttribute": number,
                        "S3DataDistributionType": "string",
                        "S3InputMode": "string",
                        "StartTimeOffset": "string"
                    },
                    "EndpointInput": {
                        "EndpointName": "string",
                        "EndTimeOffset": "string",
                        "FeaturesAttribute": "string",
                        "InferenceAttribute": "string",
                        "LocalPath": "string",
                        "ProbabilityAttribute": "string",
                        "ProbabilityThresholdAttribute": number,
                        "S3DataDistributionType": "string",
                        "S3InputMode": "string"
                    }
                }
            ]
        }
    }
}
```

```

        "S3InputMode": "string",
        "StartTimeOffset": "string"
    }
],
"MonitoringOutputConfig": {
    "KmsKeyId": "string",
    "MonitoringOutputs": [
        {
            "S3Output": {
                "LocalPath": "string",
                "S3UploadMode": "string",
                "S3Uri": "string"
            }
        }
    ]
},
"MonitoringResources": {
    "ClusterConfig": {
        "InstanceCount": number,
        "InstanceType": "string",
        "VolumeKmsKeyId": "string",
        "VolumeSizeInGB": number
    }
},
"NetworkConfig": {
    "EnableInterContainerTrafficEncryption": boolean,
    "EnableNetworkIsolation": boolean,
    "VpcConfig": {
        "SecurityGroupIds": [ "string" ],
        "Subnets": [ "string" ]
    }
},
"RoleArn": "string",
"StoppingCondition": {
    "MaxRuntimeInSeconds": number
}
},
"MonitoringJobDefinitionName": "string",
"MonitoringType": "string",
"ScheduleConfig": {
    "ScheduleExpression": "string"
}
},
"MonitoringScheduleName": "string",
"Tags": [
    {
        "Key": "string",
        "Value": "string"
    }
]
}
}

```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### [MonitoringScheduleConfig \(p. 171\)](#)

The configuration object that specifies the monitoring schedule and defines the monitoring job.

Type: [MonitoringScheduleConfig \(p. 1572\)](#) object

Required: Yes

#### **MonitoringScheduleName (p. 171)**

The name of the monitoring schedule. The name must be unique within an AWS Region within an AWS account.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

#### **Tags (p. 171)**

(Optional) An array of key-value pairs. For more information, see [Using Cost Allocation Tags](#) in the *AWS Billing and Cost Management User Guide*.

Type: Array of [Tag \(p. 1749\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## Response Syntax

```
{  
    "MonitoringScheduleArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

#### **MonitoringScheduleArn (p. 173)**

The Amazon Resource Name (ARN) of the monitoring schedule.

Type: String

Length Constraints: Maximum length of 256.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

#### **ResourceInUse**

Resource being accessed is in use.

HTTP Status Code: 400

### ResourceLimitExceeded

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## CreateNotebookInstance

Service: Amazon SageMaker Service

Creates an SageMaker notebook instance. A notebook instance is a machine learning (ML) compute instance running on a Jupyter notebook.

In a CreateNotebookInstance request, specify the type of ML compute instance that you want to run. SageMaker launches the instance, installs common libraries that you can use to explore datasets for model training, and attaches an ML storage volume to the notebook instance.

SageMaker also provides a set of example notebooks. Each notebook demonstrates how to use SageMaker with a specific algorithm or with a machine learning framework.

After receiving the request, SageMaker does the following:

1. Creates a network interface in the SageMaker VPC.
2. (Option) If you specified SubnetId, SageMaker creates a network interface in your own VPC, which is inferred from the subnet ID that you provide in the input. When creating this network interface, SageMaker attaches the security group that you specified in the request to the network interface that it creates in your VPC.
3. Launches an EC2 instance of the type specified in the request in the SageMaker VPC. If you specified SubnetId of your VPC, SageMaker specifies both network interfaces when launching this instance. This enables inbound traffic from your own VPC to the notebook instance, assuming that the security groups allow it.

After creating the notebook instance, SageMaker returns its Amazon Resource Name (ARN). You can't change the name of a notebook instance after you create it.

After SageMaker creates the notebook instance, you can connect to the Jupyter server and work in Jupyter notebooks. For example, you can write code to explore a dataset that you can use for model training, train a model, host models by creating SageMaker endpoints, and validate hosted models.

For more information, see [How It Works](#).

## Request Syntax

```
{  
    "AcceleratorTypes": [ "string" ],  
    "AdditionalCodeRepositories": [ "string" ],  
    "DefaultCodeRepository": "string",  
    "DirectInternetAccess": "string",  
    "InstanceMetadataServiceConfiguration": {  
        "MinimumInstanceMetadataServiceVersion": "string"  
    },  
    "InstanceType": "string",  
    "KmsKeyId": "string",  
    "LifecycleConfigName": "string",  
    "NotebookInstanceName": "string",  
    "PlatformIdentifier": "string",  
    "RoleArn": "string",  
    "RootAccess": "string",  
    "SecurityGroupIds": [ "string" ],  
    "SubnetId": "string",  
    "Tags": [  
        {  
            "Key": "string",  
            "Value": "string"  
        }  
    ],  
}
```

```
    "VolumeSizeInGB": number
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### [AcceleratorTypes \(p. 175\)](#)

A list of Elastic Inference (EI) instance types to associate with this notebook instance. Currently, only one instance type can be associated with a notebook instance. For more information, see [Using Elastic Inference in Amazon SageMaker](#).

Type: Array of strings

Valid Values: `ml.eia1.medium` | `ml.eia1.large` | `ml.eia1.xlarge` | `ml.eia2.medium` | `ml.eia2.large` | `ml.eia2.xlarge`

Required: No

### [AdditionalCodeRepositories \(p. 175\)](#)

An array of up to three Git repositories to associate with the notebook instance. These can be either the names of Git repositories stored as resources in your account, or the URL of Git repositories in [AWS CodeCommit](#) or in any other Git repository. These repositories are cloned at the same level as the default repository of your notebook instance. For more information, see [Associating Git Repositories with SageMaker Notebook Instances](#).

Type: Array of strings

Array Members: Maximum number of 3 items.

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: `^https://([/^]+)?(.*$|^[a-zA-Z0-9](-*[a-zA-Z0-9])*`

Required: No

### [DefaultCodeRepository \(p. 175\)](#)

A Git repository to associate with the notebook instance as its default code repository. This can be either the name of a Git repository stored as a resource in your account, or the URL of a Git repository in [AWS CodeCommit](#) or in any other Git repository. When you open a notebook instance, it opens in the directory that contains this repository. For more information, see [Associating Git Repositories with SageMaker Notebook Instances](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: `^https://([/^]+)?(.*$|^[a-zA-Z0-9](-*[a-zA-Z0-9])*`

Required: No

### [DirectInternetAccess \(p. 175\)](#)

Sets whether SageMaker provides internet access to the notebook instance. If you set this to `Disabled` this notebook instance is able to access resources only in your VPC, and is not be able to connect to SageMaker training and endpoint services unless you configure a NAT Gateway in your VPC.

For more information, see [Notebook Instances Are Internet-Enabled by Default](#). You can set the value of this parameter to `Disabled` only if you set a value for the `SubnetId` parameter.

Type: String

Valid Values: `Enabled` | `Disabled`

Required: No

#### [InstanceMetadataServiceConfiguration \(p. 175\)](#)

Information on the IMDS configuration of the notebook instance

Type: [InstanceMetadataServiceConfiguration \(p. 1431\)](#) object

Required: No

#### [InstanceType \(p. 175\)](#)

The type of ML compute instance to launch for the notebook instance.

Type: String

Valid Values: `ml.t2.medium` | `ml.t2.large` | `ml.t2.xlarge` | `ml.t2.2xlarge` | `ml.t3.medium` | `ml.t3.large` | `ml.t3.xlarge` | `ml.t3.2xlarge` | `ml.m4.xlarge` | `ml.m4.2xlarge` | `ml.m4.4xlarge` | `ml.m4.10xlarge` | `ml.m4.16xlarge` | `ml.m5.xlarge` | `ml.m5.2xlarge` | `ml.m5.4xlarge` | `ml.m5.12xlarge` | `ml.m5.24xlarge` | `ml.m5d.large` | `ml.m5d.xlarge` | `ml.m5d.2xlarge` | `ml.m5d.4xlarge` | `ml.m5d.8xlarge` | `ml.m5d.12xlarge` | `ml.m5d.16xlarge` | `ml.m5d.24xlarge` | `ml.c4.xlarge` | `ml.c4.2xlarge` | `ml.c4.4xlarge` | `ml.c4.8xlarge` | `ml.c5.xlarge` | `ml.c5.2xlarge` | `ml.c5.4xlarge` | `ml.c5.9xlarge` | `ml.c5.18xlarge` | `ml.c5d.xlarge` | `ml.c5d.2xlarge` | `ml.c5d.4xlarge` | `ml.c5d.9xlarge` | `ml.c5d.18xlarge` | `ml.p2.xlarge` | `ml.p2.8xlarge` | `ml.p2.16xlarge` | `ml.p3.2xlarge` | `ml.p3.8xlarge` | `ml.p3.16xlarge` | `ml.p3dn.24xlarge` | `ml.g4dn.xlarge` | `ml.g4dn.2xlarge` | `ml.g4dn.4xlarge` | `ml.g4dn.8xlarge` | `ml.g4dn.12xlarge` | `ml.g4dn.16xlarge` | `ml.r5.large` | `ml.r5.xlarge` | `ml.r5.2xlarge` | `ml.r5.4xlarge` | `ml.r5.8xlarge` | `ml.r5.12xlarge` | `ml.r5.16xlarge` | `ml.r5.24xlarge` | `ml.g5.xlarge` | `ml.g5.2xlarge` | `ml.g5.4xlarge` | `ml.g5.8xlarge` | `ml.g5.16xlarge` | `ml.g5.12xlarge` | `ml.g5.24xlarge` | `ml.g5.48xlarge`

Required: Yes

#### [KmsKeyId \(p. 175\)](#)

The Amazon Resource Name (ARN) of a AWS Key Management Service key that SageMaker uses to encrypt data on the storage volume attached to your notebook instance. The KMS key you provide must be enabled. For information, see [Enabling and Disabling Keys](#) in the *AWS Key Management Service Developer Guide*.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `.*`

Required: No

#### [LifecycleConfigName \(p. 175\)](#)

The name of a lifecycle configuration to associate with the notebook instance. For information about lifestyle configurations, see [Step 2.1: \(Optional\) Customize a Notebook Instance](#).

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\*

Required: No

#### [NotebookInstanceName \(p. 175\)](#)

The name of the new notebook instance.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\*

Required: Yes

#### [PlatformIdentifier \(p. 175\)](#)

The platform identifier of the notebook instance runtime environment.

Type: String

Length Constraints: Maximum length of 15.

Pattern: ^(notebook-a11-v1|notebook-a12-v1|notebook-a12-v2)\$

Required: No

#### [RoleArn \(p. 175\)](#)

When you send any requests to AWS resources from the notebook instance, SageMaker assumes this role to perform tasks on your behalf. You must grant this role necessary permissions so SageMaker can perform these tasks. The policy must allow the SageMaker service principal (sagemaker.amazonaws.com) permissions to assume this role. For more information, see [SageMaker Roles](#).

##### **Note**

To be able to pass this role to SageMaker, the caller of this API must have the iam:PassRole permission.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: ^arn:aws[a-zA-Z-]\*:iam::\d{12}:role/?[a-zA-Z\_0-9+=,.@/\_-]+\$

Required: Yes

#### [RootAccess \(p. 175\)](#)

Whether root access is enabled or disabled for users of the notebook instance. The default value is Enabled.

##### **Note**

Lifecycle configurations need root access to be able to set up a notebook instance. Because of this, lifecycle configurations associated with a notebook instance always run with root access even if you disable root access for users.

Type: String

Valid Values: Enabled | Disabled

Required: No

#### **SecurityGroupIds (p. 175)**

The VPC security group IDs, in the form sg-xxxxxxxx. The security groups must be for the same VPC as specified in the subnet.

Type: Array of strings

Array Members: Maximum number of 5 items.

Length Constraints: Maximum length of 32.

Pattern: [-0-9a-zA-Z]+

Required: No

#### **SubnetId (p. 175)**

The ID of the subnet in a VPC to which you would like to have a connectivity from your ML compute instance.

Type: String

Length Constraints: Maximum length of 32.

Pattern: [-0-9a-zA-Z]+

Required: No

#### **Tags (p. 175)**

An array of key-value pairs. You can use tags to categorize your AWS resources in different ways, for example, by purpose, owner, or environment. For more information, see [Tagging AWS Resources](#).

Type: Array of [Tag \(p. 1749\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

#### **VolumeSizeInGB (p. 175)**

The size, in GB, of the ML storage volume to attach to the notebook instance. The default value is 5 GB.

Type: Integer

Valid Range: Minimum value of 5. Maximum value of 16384.

Required: No

## **Response Syntax**

```
{  
    "NotebookInstanceArn": "string"  
}
```

## **Response Elements**

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

#### **NotebookInstanceArn (p. 179)**

The Amazon Resource Name (ARN) of the notebook instance.

Type: String

Length Constraints: Maximum length of 256.

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## CreateNotebookInstanceLifecycleConfig

Service: Amazon SageMaker Service

Creates a lifecycle configuration that you can associate with a notebook instance. A *lifecycle configuration* is a collection of shell scripts that run when you create or start a notebook instance.

Each lifecycle configuration script has a limit of 16384 characters.

The value of the \$PATH environment variable that is available to both scripts is /sbin:/bin:/usr/sbin:/usr/bin.

View CloudWatch Logs for notebook instance lifecycle configurations in log group /aws/sagemaker/NotebookInstances in log stream [notebook-instance-name]/[LifecycleConfigHook].

Lifecycle configuration scripts cannot run for longer than 5 minutes. If a script runs for longer than 5 minutes, it fails and the notebook instance is not created or started.

For information about notebook instance lifestyle configurations, see [Step 2.1: \(Optional\) Customize a Notebook Instance](#).

### Request Syntax

```
{  
    "NotebookInstanceLifecycleConfigName": "string",  
    "OnCreate": [  
        {  
            "Content": "string"  
        }  
    ],  
    "OnStart": [  
        {  
            "Content": "string"  
        }  
    ]  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### NotebookInstanceLifecycleConfigName (p. 181)

The name of the lifecycle configuration.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\*

Required: Yes

#### OnCreate (p. 181)

A shell script that runs only once, when you create a notebook instance. The shell script must be a base64-encoded string.

Type: Array of [NotebookInstanceLifecycleHook \(p. 1582\)](#) objects

Array Members: Maximum number of 1 item.

Required: No

#### [OnStart \(p. 181\)](#)

A shell script that runs every time you start a notebook instance, including when you create the notebook instance. The shell script must be a base64-encoded string.

Type: Array of [NotebookInstanceLifecycleHook \(p. 1582\)](#) objects

Array Members: Maximum number of 1 item.

Required: No

## Response Syntax

```
{  
    "NotebookInstanceLifecycleConfigArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

#### [NotebookInstanceLifecycleConfigArn \(p. 182\)](#)

The Amazon Resource Name (ARN) of the lifecycle configuration.

Type: String

Length Constraints: Maximum length of 256.

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

#### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## CreatePipeline

Service: Amazon SageMaker Service

Creates a pipeline using a JSON pipeline definition.

### Request Syntax

```
{  
    "ClientRequestToken": "string",  
    "ParallelismConfiguration": {  
        "MaxParallelExecutionSteps": number  
    },  
    "PipelineDefinition": "string",  
    "PipelineDefinitionS3Location": {  
        "Bucket": "string",  
        "ObjectKey": "string",  
        "VersionId": "string"  
    },  
    "PipelineDescription": "string",  
    "PipelineDisplayName": "string",  
    "PipelineName": "string",  
    "RoleArn": "string",  
    "Tags": [  
        {  
            "Key": "string",  
            "Value": "string"  
        }  
    ]  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [ClientRequestToken \(p. 184\)](#)

A unique, case-sensitive identifier that you provide to ensure the idempotency of the operation. An idempotent operation completes no more than one time.

Type: String

Length Constraints: Minimum length of 32. Maximum length of 128.

Required: Yes

#### [ParallelismConfiguration \(p. 184\)](#)

This is the configuration that controls the parallelism of the pipeline. If specified, it applies to all runs of this pipeline by default.

Type: [ParallelismConfiguration \(p. 1604\)](#) object

Required: No

#### [PipelineDefinition \(p. 184\)](#)

The JSON pipeline definition of the pipeline.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1048576.

Pattern: `.*(?:[ \r\n\t].*)*`

Required: No

#### [PipelineDefinitionS3Location \(p. 184\)](#)

The location of the pipeline definition stored in Amazon S3. If specified, SageMaker will retrieve the pipeline definition from this location.

Type: [PipelineDefinitionS3Location \(p. 1619\)](#) object

Required: No

#### [PipelineDescription \(p. 184\)](#)

A description of the pipeline.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 3072.

Pattern: `.*`

Required: No

#### [PipelineDisplayName \(p. 184\)](#)

The display name of the pipeline.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])\{0,255\}`

Required: No

#### [PipelineName \(p. 184\)](#)

The name of the pipeline.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])\{0,255\}`

Required: Yes

#### [RoleArn \(p. 184\)](#)

The Amazon Resource Name (ARN) of the role used by the pipeline to access and create resources.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-zA-Z-]*:iam::\d{12}:role/?[a-zA-Z_0-9+=,.@-_/.]+$`

Required: Yes

#### [Tags \(p. 184\)](#)

A list of tags to apply to the created pipeline.

Type: Array of [Tag \(p. 1749\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## Response Syntax

```
{  
    "PipelineArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [PipelineArn \(p. 186\)](#)

The Amazon Resource Name (ARN) of the created pipeline.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-]\*:sagemaker:[a-z0-9\-]\*:[0-9]{12}:pipeline/.\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)

- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## CreatePresignedDomainUrl

Service: Amazon SageMaker Service

Creates a URL for a specified UserProfile in a Domain. When accessed in a web browser, the user will be automatically signed in to Amazon SageMaker Studio, and granted access to all of the Apps and files associated with the Domain's Amazon Elastic File System (EFS) volume. This operation can only be called when the authentication mode equals IAM.

The IAM role or user passed to this API defines the permissions to access the app. Once the presigned URL is created, no additional permission is required to access this URL. IAM authorization policies for this API are also enforced for every HTTP request and WebSocket frame that attempts to connect to the app.

You can restrict access to this API and to the URL that it returns to a list of IP addresses, Amazon VPCs or Amazon VPC Endpoints that you specify. For more information, see [Connect to SageMaker Studio Through an Interface VPC Endpoint](#).

### Note

The URL that you get from a call to CreatePresignedDomainUrl has a default timeout of 5 minutes. You can configure this value using ExpiresInSeconds. If you try to use the URL after the timeout limit expires, you are directed to the AWS console sign-in page.

## Request Syntax

```
{  
    "DomainId": "string",  
    "ExpiresInSeconds": number,  
    "SessionExpirationDurationInSeconds": number,  
    "SpaceName": "string",  
    "UserProfileName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### DomainId (p. 188)

The domain ID.

Type: String

Length Constraints: Maximum length of 63.

Required: Yes

### ExpiresInSeconds (p. 188)

The number of seconds until the pre-signed URL expires. This value defaults to 300.

Type: Integer

Valid Range: Minimum value of 5. Maximum value of 300.

Required: No

### SessionExpirationDurationInSeconds (p. 188)

The session expiration duration in seconds. This value defaults to 43200.

Type: Integer

Valid Range: Minimum value of 1800. Maximum value of 43200.

Required: No

#### [SpaceName \(p. 188\)](#)

The name of the space.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9]){0,62}

Required: No

#### [UserProfileName \(p. 188\)](#)

The name of the UserProfile to sign-in as.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9]){0,62}

Required: Yes

## Response Syntax

```
{  
    "AuthorizedUrl": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

#### [AuthorizedUrl \(p. 189\)](#)

The presigned URL.

Type: String

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

#### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## CreatePresignedNotebookInstanceId

Service: Amazon SageMaker Service

Returns a URL that you can use to connect to the Jupyter server from a notebook instance. In the SageMaker console, when you choose Open next to a notebook instance, SageMaker opens a new tab showing the Jupyter server home page from the notebook instance. The console uses this API to get the URL and show the page.

The IAM role or user used to call this API defines the permissions to access the notebook instance. Once the presigned URL is created, no additional permission is required to access this URL. IAM authorization policies for this API are also enforced for every HTTP request and WebSocket frame that attempts to connect to the notebook instance.

You can restrict access to this API and to the URL that it returns to a list of IP addresses that you specify. Use the NotIpAddress condition operator and the aws:SourceIP condition context key to specify the list of IP addresses that you want to have access to the notebook instance. For more information, see [Limit Access to a Notebook Instance by IP Address](#).

### Note

The URL that you get from a call to [CreatePresignedNotebookInstanceId \(p. 191\)](#) is valid only for 5 minutes. If you try to use the URL after the 5-minute limit expires, you are directed to the AWS console sign-in page.

## Request Syntax

```
{  
    "NotebookInstanceId": "string",  
    "SessionExpirationDurationInSeconds": number  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### NotebookInstanceId (p. 191)

The name of the notebook instance.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\*

Required: Yes

### SessionExpirationDurationInSeconds (p. 191)

The duration of the session, in seconds. The default is 12 hours.

Type: Integer

Valid Range: Minimum value of 1800. Maximum value of 43200.

Required: No

## Response Syntax

```
{  
    "AuthorizedUrl": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [AuthorizedUrl \(p. 192\)](#)

A JSON object that contains the URL string.

Type: String

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreateProcessingJob

Service: Amazon SageMaker Service

Creates a processing job.

## Request Syntax

```
{  
    "AppSpecification": {  
        "ContainerArguments": [ "string" ],  
        "ContainerEntrypoint": [ "string" ],  
        "ImageUri": "string"  
    },  
    "Environment": {  
        "string" : "string"  
    },  
    "ExperimentConfig": {  
        "ExperimentName": "string",  
        "RunName": "string",  
        "TrialComponentDisplayName": "string",  
        "TrialName": "string"  
    },  
    "NetworkConfig": {  
        "EnableInterContainerTrafficEncryption": boolean,  
        "EnableNetworkIsolation": boolean,  
        "VpcConfig": {  
            "SecurityGroupIds": [ "string" ],  
            "Subnets": [ "string" ]  
        }  
    },  
    "ProcessingInputs": [  
        {  
            "AppManaged": boolean,  
            "DatasetDefinition": {  
                "AthenaDatasetDefinition": {  
                    "Catalog": "string",  
                    "Database": "string",  
                    "KmsKeyId": "string",  
                    "OutputCompression": "string",  
                    "OutputFormat": "string",  
                    "OutputS3Uri": "string",  
                    "QueryString": "string",  
                    "WorkGroup": "string"  
                },  
                "DataDistributionType": "string",  
                "InputMode": "string",  
                "LocalPath": "string",  
                "RedshiftDatasetDefinition": {  
                    "ClusterId": "string",  
                    "ClusterRoleArn": "string",  
                    "Database": "string",  
                    "DbUser": "string",  
                    "KmsKeyId": "string",  
                    "OutputCompression": "string",  
                    "OutputFormat": "string",  
                    "OutputS3Uri": "string",  
                    "QueryString": "string"  
                }  
            },  
            "InputName": "string",  
            "S3Input": {  
                "LocalPath": "string",  
                "S3CompressionType": "string",  
                "S3Uri": "string"  
            }  
        }  
    ]  
}
```

```

        "S3DataDistributionType": "string",
        "S3DataType": "string",
        "S3InputMode": "string",
        "S3Uri": "string"
    }
}
],
"ProcessingJobName": "string",
"ProcessingOutputConfig": {
    "KmsKeyId": "string",
    "Outputs": [
        {
            "AppManaged": boolean,
            "FeatureStoreOutput": {
                "FeatureGroupName": "string"
            },
            "OutputName": "string",
            "S3Output": {
                "LocalPath": "string",
                "S3UploadMode": "string",
                "S3Uri": "string"
            }
        }
    ]
},
"ProcessingResources": {
    "ClusterConfig": {
        "InstanceCount": number,
        "InstanceType": "string",
        "VolumeKmsKeyId": "string",
        "VolumeSizeInGB": number
    }
},
"RoleArn": "string",
"StoppingCondition": {
    "MaxRuntimeInSeconds": number
},
"Tags": [
    {
        "Key": "string",
        "Value": "string"
    }
]
}
}

```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### [AppSpecification \(p. 193\)](#)

Configures the processing job to run a specified Docker container image.

Type: [AppSpecification \(p. 1142\)](#) object

Required: Yes

### [Environment \(p. 193\)](#)

The environment variables to set in the Docker container. Up to 100 key and values entries in the map are supported.

Type: String to string map

Map Entries: Maximum number of 100 items.

Key Length Constraints: Maximum length of 256.

Key Pattern: [a-zA-Z\_][a-zA-Z0-9\_]\*

Value Length Constraints: Maximum length of 256.

Value Pattern: [\S\s]\*

Required: No

#### [ExperimentConfig \(p. 193\)](#)

Associates a SageMaker job as a trial component with an experiment and trial. Specified when you call the following APIs:

- [CreateProcessingJob \(p. 193\)](#)
- [CreateTrainingJob \(p. 207\)](#)
- [CreateTransformJob \(p. 216\)](#)

Type: [ExperimentConfig \(p. 1317\)](#) object

Required: No

#### [NetworkConfig \(p. 193\)](#)

Networking options for a processing job, such as whether to allow inbound and outbound network calls to and from processing containers, and the VPC subnets and security groups to use for VPC-enabled processing jobs.

Type: [NetworkConfig \(p. 1580\)](#) object

Required: No

#### [ProcessingInputs \(p. 193\)](#)

An array of inputs configuring the data to download into the processing container.

Type: Array of [ProcessingInput \(p. 1636\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 10 items.

Required: No

#### [ProcessingJobName \(p. 193\)](#)

The name of the processing job. The name must be unique within an AWS Region in the AWS account.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: Yes

#### [ProcessingOutputConfig \(p. 193\)](#)

Output configuration for the processing job.

Type: [ProcessingOutputConfig \(p. 1645\)](#) object

Required: No

#### [ProcessingResources \(p. 193\)](#)

Identifies the resources, ML compute instances, and ML storage volumes to deploy for a processing job. In distributed training, you specify more than one instance.

Type: [ProcessingResources \(p. 1646\)](#) object

Required: Yes

#### [RoleArn \(p. 193\)](#)

The Amazon Resource Name (ARN) of an IAM role that Amazon SageMaker can assume to perform tasks on your behalf.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: ^arn:aws[a-zA-Z-]\*:iam::\d{12}:role/?[a-zA-Z\_0-9+=,.@-\_/.]+\$

Required: Yes

#### [StoppingCondition \(p. 193\)](#)

The time limit for how long the processing job is allowed to run.

Type: [ProcessingStoppingCondition \(p. 1650\)](#) object

Required: No

#### [Tags \(p. 193\)](#)

(Optional) An array of key-value pairs. For more information, see [Using Cost Allocation Tags](#) in the [AWS Billing and Cost Management User Guide](#).

Type: Array of [Tag \(p. 1749\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## Response Syntax

```
{  
    "ProcessingJobArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

#### [ProcessingJobArn \(p. 196\)](#)

The Amazon Resource Name (ARN) of the processing job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:processing-job/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceInUse**

Resource being accessed is in use.

HTTP Status Code: 400

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## CreateProject

Service: Amazon SageMaker Service

Creates a machine learning (ML) project that can contain one or more templates that set up an ML pipeline from training to deploying an approved model.

### Request Syntax

```
{  
    "ProjectDescription": "string",  
    "ProjectName": "string",  
    "ServiceCatalogProvisioningDetails": {  
        "PathId": "string",  
        "ProductId": "string",  
        "ProvisioningArtifactId": "string",  
        "ProvisioningParameters": [  
            {  
                "Key": "string",  
                "Value": "string"  
            }  
        ],  
        "Tags": [  
            {  
                "Key": "string",  
                "Value": "string"  
            }  
        ]  
    }  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### **ProjectDescription (p. 198)**

A description for the project.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: [\\p{L}\\p{M}\\p{Z}\\p{S}\\p{N}\\p{P}]\*

Required: No

#### **ProjectName (p. 198)**

The name of the project.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,31\}

Required: Yes

### [ServiceCatalogProvisioningDetails \(p. 198\)](#)

The product ID and provisioning artifact ID to provision a service catalog. The provisioning artifact ID will default to the latest provisioning artifact ID of the product, if you don't provide the provisioning artifact ID. For more information, see [What is AWS Service Catalog](#).

Type: [ServiceCatalogProvisioningDetails \(p. 1729\)](#) object

Required: Yes

### [Tags \(p. 198\)](#)

An array of key-value pairs that you want to use to organize and track your AWS resource costs. For more information, see [Tagging AWS resources](#) in the *AWS General Reference Guide*.

Type: Array of [Tag \(p. 1749\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## Response Syntax

```
{  
    "ProjectArn": "string",  
    "ProjectId": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [ProjectArn \(p. 199\)](#)

The Amazon Resource Name (ARN) of the project.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `arn:aws[a-zA-Z-]*:sagemaker:[a-zA-Z0-9-]*:[0-9]{12}:project:.*`

### [ProjectId \(p. 199\)](#)

The ID of the new project.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 20.

Pattern: `^[-a-zA-Z0-9]+(-*[a-zA-Z0-9]+)*$`

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### ResourceLimitExceeded

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## CreateSpace

Service: Amazon SageMaker Service

Creates a space used for real time collaboration in a Domain.

### Request Syntax

```
{  
    "DomainId": "string",  
    "SpaceName": "string",  
    "SpaceSettings": {  
        "JupyterServerAppSettings": {  
            "CodeRepositories": [  
                {  
                    "RepositoryUrl": "string"  
                }  
            ],  
            "DefaultResourceSpec": {  
                "InstanceType": "string",  
                "LifecycleConfigArn": "string",  
                "SageMakerImageArn": "string",  
                "SageMakerImageVersionArn": "string"  
            },  
            "LifecycleConfigArns": [ "string" ]  
        },  
        "KernelGatewayAppSettings": {  
            "CustomImages": [  
                {  
                    "AppImageConfigName": "string",  
                    "ImageName": "string",  
                    "ImageVersionNumber": number  
                }  
            ],  
            "DefaultResourceSpec": {  
                "InstanceType": "string",  
                "LifecycleConfigArn": "string",  
                "SageMakerImageArn": "string",  
                "SageMakerImageVersionArn": "string"  
            },  
            "LifecycleConfigArns": [ "string" ]  
        },  
        "Tags": [  
            {  
                "Key": "string",  
                "Value": "string"  
            }  
        ]  
    }  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### DomainId (p. 201)

The ID of the associated Domain.

Type: String

Length Constraints: Maximum length of 63.

Required: Yes

### [SpaceName \(p. 201\)](#)

The name of the space.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: Yes

### [SpaceSettings \(p. 201\)](#)

A collection of space settings.

Type: [SpaceSettings \(p. 1741\)](#) object

Required: No

### [Tags \(p. 201\)](#)

Tags to associate with the space. Each tag consists of a key and an optional value. Tag keys must be unique for each resource. Tags are searchable using the Search API.

Type: Array of [Tag \(p. 1749\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## Response Syntax

```
{  
    "SpaceArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [SpaceArn \(p. 202\)](#)

The space's Amazon Resource Name (ARN).

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-zA-Z-]\*:sagemaker:[a-zA-Z0-9-]\*:[0-9]{12}:space/.\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceInUse**

Resource being accessed is in use.

HTTP Status Code: 400

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreateStudioLifecycleConfig

Service: Amazon SageMaker Service

Creates a new Studio Lifecycle Configuration.

## Request Syntax

```
{  
    "StudioLifecycleConfigAppType": "string",  
    "StudioLifecycleConfigContent": "string",  
    "StudioLifecycleConfigName": "string",  
    "Tags": [  
        {  
            "Key": "string",  
            "Value": "string"  
        }  
    ]  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### [StudioLifecycleConfigAppType \(p. 204\)](#)

The App type that the Lifecycle Configuration is attached to.

Type: String

Valid Values: JupyterServer | KernelGateway

Required: Yes

### [StudioLifecycleConfigContent \(p. 204\)](#)

The content of your Studio Lifecycle Configuration script. This content must be base64 encoded.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 16384.

Pattern: [\S\s]+

Required: Yes

### [StudioLifecycleConfigName \(p. 204\)](#)

The name of the Studio Lifecycle Configuration to create.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: Yes

### Tags (p. 204)

Tags to be associated with the Lifecycle Configuration. Each tag consists of a key and an optional value. Tag keys must be unique per resource. Tags are searchable using the Search API.

Type: Array of [Tag \(p. 1749\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## Response Syntax

```
{  
    "StudioLifecycleConfigArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [StudioLifecycleConfigArn \(p. 205\)](#)

The ARN of your created Lifecycle Configuration.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:studio-lifecycle-config/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceInUse**

Resource being accessed is in use.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)

- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## CreateTrainingJob

Service: Amazon SageMaker Service

Starts a model training job. After training completes, SageMaker saves the resulting model artifacts to an Amazon S3 location that you specify.

If you choose to host your model using SageMaker hosting services, you can use the resulting model artifacts as part of the model. You can also use the artifacts in a machine learning service other than SageMaker, provided that you know how to use them for inference.

In the request body, you provide the following:

- **AlgorithmSpecification** - Identifies the training algorithm to use.
- **HyperParameters** - Specify these algorithm-specific parameters to enable the estimation of model parameters during training. Hyperparameters can be tuned to optimize this learning process. For a list of hyperparameters for each training algorithm provided by SageMaker, see [Algorithms](#).

### Important

Do not include any security-sensitive information including account access IDs, secrets or tokens in any hyperparameter field. If the use of security-sensitive credentials are detected, SageMaker will reject your training job request and return an exception error.

- **InputDataConfig** - Describes the input required by the training job and the Amazon S3, EFS, or FSx location where it is stored.
- **OutputDataConfig** - Identifies the Amazon S3 bucket where you want SageMaker to save the results of model training.
- **ResourceConfig** - Identifies the resources, ML compute instances, and ML storage volumes to deploy for model training. In distributed training, you specify more than one instance.
- **EnableManagedSpotTraining** - Optimize the cost of training machine learning models by up to 80% by using Amazon EC2 Spot instances. For more information, see [Managed Spot Training](#).
- **RoleArn** - The Amazon Resource Name (ARN) that SageMaker assumes to perform tasks on your behalf during model training. You must grant this role the necessary permissions so that SageMaker can successfully complete model training.
- **StoppingCondition** - To help cap training costs, use **MaxRuntimeInSeconds** to set a time limit for training. Use **MaxWaitTimeInSeconds** to specify how long a managed spot training job has to complete.
- **Environment** - The environment variables to set in the Docker container.
- **RetryStrategy** - The number of times to retry the job when the job fails due to an **InternalServerError**.

For more information about SageMaker, see [How It Works](#).

## Request Syntax

```
{  
    "AlgorithmSpecification": {  
        "AlgorithmName": "string",  
        "ContainerArguments": [ "string" ],  
        "ContainerEntrypoint": [ "string" ],  
        "EnableSageMakerMetricsTimeSeries": boolean,  
        "MetricDefinitions": [  
            {  
                "Name": "string",  
                "Regex": "string"  
            }  
        ]  
    }  
}
```

```

        ],
        "TrainingImage": "string",
        "TrainingInputMode": "string"
    },
    "CheckpointConfig": {
        "LocalPath": "string",
        "S3Uri": "string"
    },
    "DebugHookConfig": {
        "CollectionConfigurations": [
            {
                "CollectionName": "string",
                "CollectionParameters": {
                    "string" : "string"
                }
            }
        ],
        "HookParameters": {
            "string" : "string"
        },
        "LocalPath": "string",
        "S3OutputPath": "string"
    },
    "DebugRuleConfigurations": [
        {
            "InstanceType": "string",
            "LocalPath": "string",
            "RuleConfigurationName": "string",
            "RuleEvaluatorImage": "string",
            "RuleParameters": {
                "string" : "string"
            },
            "S3OutputPath": "string",
            "VolumeSizeInGB": number
        }
    ],
    "EnableInterContainerTrafficEncryption": boolean,
    "EnableManagedSpotTraining": boolean,
    "EnableNetworkIsolation": boolean,
    "Environment": {
        "string" : "string"
    },
    "ExperimentConfig": {
        "ExperimentName": "string",
        "RunName": "string",
        "TrialComponentDisplayName": "string",
        "TrialName": "string"
    },
    "HyperParameters": {
        "string" : "string"
    },
    "InputDataConfig": [
        {
            "ChannelName": "string",
            "CompressionType": "string",
            "ContentType": "string",
            "DataSource": {
                "FileSystemDataSource": {
                    "DirectoryPath": "string",
                    "FileSystemAccessMode": "string",
                    "FileSystemId": "string",
                    "FileSystemType": "string"
                },
                "S3DataSource": {
                    "AttributeNames": [ "string" ],
                    "InstanceGroupNames": [ "string" ],

```

```

        "S3DataDistributionType": "string",
        "S3DataType": "string",
        "S3Uri": "string"
    }
},
"InputMode": "string",
"RecordWrapperType": "string",
"ShuffleConfig": {
    "Seed": number
}
}
],
"OutputDataConfig": {
    "KmsKeyId": "string",
    "S3OutputPath": "string"
},
"ProfilerConfig": {
    "DisableProfiler": boolean,
    "ProfilingIntervalInMilliseconds": number,
    "ProfilingParameters": {
        "string" : "string"
    },
    "S3OutputPath": "string"
},
"ProfilerRuleConfigurations": [
    {
        "InstanceType": "string",
        "LocalPath": "string",
        "RuleConfigurationName": "string",
        "RuleEvaluatorImage": "string",
        "RuleParameters": {
            "string" : "string"
        },
        "S3OutputPath": "string",
        "VolumeSizeInGB": number
    }
],
"ResourceConfig": {
    "InstanceCount": number,
    "InstanceGroups": [
        {
            "InstanceCount": number,
            "InstanceGroupName": "string",
            "InstanceType": "string"
        }
    ],
    "InstanceType": "string",
    "KeepAlivePeriodInSeconds": number,
    "VolumeKmsKeyId": "string",
    "VolumeSizeInGB": number
},
"RetryStrategy": {
    "MaximumRetryAttempts": number
},
"RoleArn": "string",
"StoppingCondition": {
    "MaxRuntimeInSeconds": number,
    "MaxWaitTimeInSeconds": number
},
"Tags": [
    {
        "Key": "string",
        "Value": "string"
    }
],
"TensorBoardOutputConfig": {

```

```
    "LocalPath": "string",
    "S3OutputPath": "string"
},
"TrainingJobName": "string",
"VpcConfig": {
    "SecurityGroupIds": [ "string" ],
    "Subnets": [ "string" ]
}
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### [AlgorithmSpecification \(p. 207\)](#)

The registry path of the Docker image that contains the training algorithm and algorithm-specific metadata, including the input mode. For more information about algorithms provided by SageMaker, see [Algorithms](#). For information about providing your own algorithms, see [Using Your Own Algorithms with Amazon SageMaker](#).

Type: [AlgorithmSpecification \(p. 1117\)](#) object

Required: Yes

### [CheckpointConfig \(p. 207\)](#)

Contains information about the output location for managed spot training checkpoint data.

Type: [CheckpointConfig \(p. 1203\)](#) object

Required: No

### [DebugHookConfig \(p. 207\)](#)

Configuration information for the Amazon SageMaker Debugger hook parameters, metric and tensor collections, and storage paths. To learn more about how to configure the DebugHookConfig parameter, see [Use the SageMaker and Debugger Configuration API Operations to Create, Update, and Debug Your Training Job](#).

Type: [DebugHookConfig \(p. 1249\)](#) object

Required: No

### [DebugRuleConfigurations \(p. 207\)](#)

Configuration information for Amazon SageMaker Debugger rules for debugging output tensors.

Type: Array of [DebugRuleConfiguration \(p. 1251\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 20 items.

Required: No

### [EnableInterContainerTrafficEncryption \(p. 207\)](#)

To encrypt all communications between ML compute instances in distributed training, choose True. Encryption provides greater security for distributed training, but training might take longer. How long it takes depends on the amount of communication between compute instances, especially

if you use a deep learning algorithm in distributed training. For more information, see [Protect Communications Between ML Compute Instances in a Distributed Training Job](#).

Type: Boolean

Required: No

#### [EnableManagedSpotTraining \(p. 207\)](#)

To train models using managed spot training, choose True. Managed spot training provides a fully managed and scalable infrastructure for training machine learning models. This option is useful when training jobs can be interrupted and when there is flexibility when the training job is run.

The complete and intermediate results of jobs are stored in an Amazon S3 bucket, and can be used as a starting point to train models incrementally. Amazon SageMaker provides metrics and logs in CloudWatch. They can be used to see when managed spot training jobs are running, interrupted, resumed, or completed.

Type: Boolean

Required: No

#### [EnableNetworkIsolation \(p. 207\)](#)

Isolates the training container. No inbound or outbound network calls can be made, except for calls between peers within a training cluster for distributed training. If you enable network isolation for training jobs that are configured to use a VPC, SageMaker downloads and uploads customer data and model artifacts through the specified VPC, but the training container does not have network access.

Type: Boolean

Required: No

#### [Environment \(p. 207\)](#)

The environment variables to set in the Docker container.

Type: String to string map

Map Entries: Maximum number of 48 items.

Key Length Constraints: Maximum length of 512.

Key Pattern: [a-zA-Z\_][a-zA-Z0-9\_]\*

Value Length Constraints: Maximum length of 512.

Value Pattern: [\S\s]\*

Required: No

#### [ExperimentConfig \(p. 207\)](#)

Associates a SageMaker job as a trial component with an experiment and trial. Specified when you call the following APIs:

- [CreateProcessingJob \(p. 193\)](#)
- [CreateTrainingJob \(p. 207\)](#)
- [CreateTransformJob \(p. 216\)](#)

Type: [ExperimentConfig \(p. 1317\)](#) object

Required: No

### [HyperParameters \(p. 207\)](#)

Algorithm-specific parameters that influence the quality of the model. You set hyperparameters before you start the learning process. For a list of hyperparameters for each training algorithm provided by SageMaker, see [Algorithms](#).

You can specify a maximum of 100 hyperparameters. Each hyperparameter is a key-value pair. Each key and value is limited to 256 characters, as specified by the `Length Constraint`.

**Important**

Do not include any security-sensitive information including account access IDs, secrets or tokens in any hyperparameter field. If the use of security-sensitive credentials are detected, SageMaker will reject your training job request and return an exception error.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 100 items.

Key Length Constraints: Maximum length of 256.

Key Pattern: .\*

Value Length Constraints: Maximum length of 2500.

Value Pattern: .\*

Required: No

### [InputDataConfig \(p. 207\)](#)

An array of `Channel` objects. Each channel is a named input source. `InputDataConfig` describes the input data and its location.

Algorithms can accept input data from one or more channels. For example, an algorithm might have two channels of input data, `training_data` and `validation_data`. The configuration for each channel provides the S3, EFS, or FSx location where the input data is stored. It also provides information about the stored data: the MIME type, compression method, and whether the data is wrapped in RecordIO format.

Depending on the input mode that the algorithm supports, SageMaker either copies input data files from an S3 bucket to a local directory in the Docker container, or makes it available as input streams. For example, if you specify an EFS location, input data files are available as input streams. They do not need to be downloaded.

Type: Array of [Channel \(p. 1199\)](#) objects

Array Members: Minimum number of 1 item. Maximum number of 20 items.

Required: No

### [OutputDataConfig \(p. 207\)](#)

Specifies the path to the S3 location where you want to store model artifacts. SageMaker creates subfolders for the artifacts.

Type: [OutputDataConfig \(p. 1601\)](#) object

Required: Yes

### [ProfilerConfig \(p. 207\)](#)

Configuration information for Amazon SageMaker Debugger system monitoring, framework profiling, and storage paths.

Type: [ProfilerConfig \(p. 1660\)](#) object

Required: No

#### [ProfilerRuleConfigurations \(p. 207\)](#)

Configuration information for Amazon SageMaker Debugger rules for profiling system and framework metrics.

Type: Array of [ProfilerRuleConfiguration \(p. 1664\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 20 items.

Required: No

#### [ResourceConfig \(p. 207\)](#)

The resources, including the ML compute instances and ML storage volumes, to use for model training.

ML storage volumes store model artifacts and incremental states. Training algorithms might also use ML storage volumes for scratch space. If you want SageMaker to use the ML storage volume to store the training data, choose File as the `TrainingInputMode` in the algorithm specification. For distributed training algorithms, specify an instance count greater than 1.

Type: [ResourceConfig \(p. 1702\)](#) object

Required: Yes

#### [RetryStrategy \(p. 207\)](#)

The number of times to retry the job when the job fails due to an `InternalServerError`.

Type: [RetryStrategy \(p. 1710\)](#) object

Required: No

#### [RoleArn \(p. 207\)](#)

The Amazon Resource Name (ARN) of an IAM role that SageMaker can assume to perform tasks on your behalf.

During model training, SageMaker needs your permission to read input data from an S3 bucket, download a Docker image that contains training code, write model artifacts to an S3 bucket, write logs to Amazon CloudWatch Logs, and publish metrics to Amazon CloudWatch. You grant permissions for all of these tasks to an IAM role. For more information, see [SageMaker Roles](#).

##### **Note**

To be able to pass this role to SageMaker, the caller of this API must have the `iam:PassRole` permission.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: ^arn:aws[a-z\-\]\*:iam::\d{12}:role/?[a-zA-Z\_0-9+=,.@\-\/\_]+\$

Required: Yes

#### [StoppingCondition \(p. 207\)](#)

Specifies a limit to how long a model training job can run. It also specifies how long a managed Spot training job has to complete. When the job reaches the time limit, SageMaker ends the training job. Use this API to cap model training costs.

To stop a job, SageMaker sends the algorithm the SIGTERM signal, which delays job termination for 120 seconds. Algorithms can use this 120-second window to save the model artifacts, so the results of training are not lost.

Type: [StoppingCondition \(p. 1742\)](#) object

Required: Yes

#### [Tags \(p. 207\)](#)

An array of key-value pairs. You can use tags to categorize your AWS resources in different ways, for example, by purpose, owner, or environment. For more information, see [Tagging AWS Resources](#).

Type: Array of [Tag \(p. 1749\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

#### [TensorBoardOutputConfig \(p. 207\)](#)

Configuration of storage locations for the Amazon SageMaker Debugger TensorBoard output data.

Type: [TensorBoardOutputConfig \(p. 1753\)](#) object

Required: No

#### [TrainingJobName \(p. 207\)](#)

The name of the training job. The name must be unique within an AWS Region in an AWS account.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9]){0,62}

Required: Yes

#### [VpcConfig \(p. 207\)](#)

A [VpcConfig \(p. 1829\)](#) object that specifies the VPC that you want your training job to connect to. Control access to and from your training container by configuring the VPC. For more information, see [Protect Training Jobs by Using an Amazon Virtual Private Cloud](#).

Type: [VpcConfig \(p. 1829\)](#) object

Required: No

## Response Syntax

```
{  
    "TrainingJobArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [TrainingJobArn \(p. 214\)](#)

The Amazon Resource Name (ARN) of the training job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws:[a-z\-\-]*:sagemaker:[a-z0-9\-\-]*:[0-9]{12}:training-job/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceInUse**

Resource being accessed is in use.

HTTP Status Code: 400

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## CreateTransformJob

Service: Amazon SageMaker Service

Starts a transform job. A transform job uses a trained model to get inferences on a dataset and saves these results to an Amazon S3 location that you specify.

To perform batch transformations, you create a transform job and use the data that you have readily available.

In the request body, you provide the following:

- **TransformJobName** - Identifies the transform job. The name must be unique within an AWS Region in an AWS account.
- **ModelName** - Identifies the model to use. ModelName must be the name of an existing Amazon SageMaker model in the same AWS Region and AWS account. For information on creating a model, see [CreateModel](#).
- **TransformInput** - Describes the dataset to be transformed and the Amazon S3 location where it is stored.
- **TransformOutput** - Identifies the Amazon S3 location where you want Amazon SageMaker to save the results from the transform job.
- **TransformResources** - Identifies the ML compute instances for the transform job.

For more information about how batch transformation works, see [Batch Transform](#).

## Request Syntax

```
{  
    "BatchStrategy": "string",  
    "DataCaptureConfig": {  
        "DestinationS3Uri": "string",  
        "GenerateInferenceId": boolean,  
        "KmsKeyId": "string"  
    },  
    "DataProcessing": {  
        "InputFilter": "string",  
        "JoinSource": "string",  
        "OutputFilter": "string"  
    },  
    "Environment": {  
        "string" : "string"  
    },  
    "ExperimentConfig": {  
        "ExperimentName": "string",  
        "RunName": "string",  
        "TrialComponentDisplayName": "string",  
        "TrialName": "string"  
    },  
    "MaxConcurrentTransforms": number,  
    "MaxPayloadInMB": number,  
    "ModelClientConfig": {  
        "InvocationsMaxRetries": number,  
        "InvocationsTimeoutInSeconds": number  
    },  
    "ModelName": "string",  
    "Tags": [  
        {  
            "Key": "string",  
            "Value": "string"  
        }  
    ]  
}
```

```

        },
        "TransformInput": {
            "CompressionType": "string",
            "ContentType": "string",
            "DataSource": {
                "S3DataSource": {
                    "S3DataType": "string",
                    "S3Uri": "string"
                }
            },
            "SplitType": "string"
        },
        "TransformJobName": "string",
        "TransformOutput": {
            "Accept": "string",
            "AssembleWith": "string",
            "KmsKeyId": "string",
            "S3OutputPath": "string"
        },
        "TransformResources": {
            "InstanceCount": number,
            "InstanceType": "string",
            "VolumeKmsKeyId": "string"
        }
    }
}

```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### [BatchStrategy \(p. 216\)](#)

Specifies the number of records to include in a mini-batch for an HTTP inference request. A *record* is a single unit of input data that inference can be made on. For example, a single line in a CSV file is a record.

To enable the batch strategy, you must set the SplitType property to Line, RecordIO, or TFRecord.

To use only one record when making an HTTP invocation request to a container, set BatchStrategy to SingleRecord and SplitType to Line.

To fit as many records in a mini-batch as can fit within the MaxPayloadInMB limit, set BatchStrategy to MultiRecord and SplitType to Line.

Type: String

Valid Values: MultiRecord | SingleRecord

Required: No

### [DataCaptureConfig \(p. 216\)](#)

Configuration to control how SageMaker captures inference data.

Type: [BatchDataCaptureConfig \(p. 1179\)](#) object

Required: No

### **DataProcessing (p. 216)**

The data structure used to specify the data to be used for inference in a batch transform job and to associate the data that is relevant to the prediction results in the output. The input filter provided allows you to exclude input data that is not needed for inference in a batch transform job. The output filter provided allows you to include input data relevant to interpreting the predictions in the output from the job. For more information, see [Associate Prediction Results with their Corresponding Input Records](#).

Type: [DataProcessing \(p. 1240\)](#) object

Required: No

### **Environment (p. 216)**

The environment variables to set in the Docker container. We support up to 16 key and values entries in the map.

Type: String to string map

Map Entries: Maximum number of 16 items.

Key Length Constraints: Maximum length of 1024.

Key Pattern: [a-zA-Z\_][a-zA-Z0-9\_]{0,1023}

Value Length Constraints: Maximum length of 10240.

Value Pattern: [\S\s]\*

Required: No

### **ExperimentConfig (p. 216)**

Associates a SageMaker job as a trial component with an experiment and trial. Specified when you call the following APIs:

- [CreateProcessingJob \(p. 193\)](#)
- [CreateTrainingJob \(p. 207\)](#)
- [CreateTransformJob \(p. 216\)](#)

Type: [ExperimentConfig \(p. 1317\)](#) object

Required: No

### **MaxConcurrentTransforms (p. 216)**

The maximum number of parallel requests that can be sent to each instance in a transform job. If MaxConcurrentTransforms is set to 0 or left unset, Amazon SageMaker checks the optional execution-parameters to determine the settings for your chosen algorithm. If the execution-parameters endpoint is not enabled, the default value is 1. For more information on execution-parameters, see [How Containers Serve Requests](#). For built-in algorithms, you don't need to set a value for MaxConcurrentTransforms.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

### **MaxPayloadInMB (p. 216)**

The maximum allowed size of the payload, in MB. A *payload* is the data portion of a record (without metadata). The value in MaxPayloadInMB must be greater than, or equal to, the size of a single

record. To estimate the size of a record in MB, divide the size of your dataset by the number of records. To ensure that the records fit within the maximum payload size, we recommend using a slightly larger value. The default value is 6 MB.

The value of MaxPayloadInMB cannot be greater than 100 MB. If you specify the MaxConcurrentTransforms parameter, the value of (MaxConcurrentTransforms \* MaxPayloadInMB) also cannot exceed 100 MB.

For cases where the payload might be arbitrarily large and is transmitted using HTTP chunked encoding, set the value to `0`. This feature works only in supported algorithms. Currently, Amazon SageMaker built-in algorithms do not support HTTP chunked encoding.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

#### [ModelClientConfig \(p. 216\)](#)

Configures the timeout and maximum number of retries for processing a transform job invocation.

Type: [ModelClientConfig \(p. 1489\)](#) object

Required: No

#### [ModelName \(p. 216\)](#)

The name of the model that you want to use for the transform job. ModelName must be the name of an existing Amazon SageMaker model within an AWS Region in an AWS account.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*`

Required: Yes

#### [Tags \(p. 216\)](#)

(Optional) An array of key-value pairs. For more information, see [Using Cost Allocation Tags](#) in the *AWS Billing and Cost Management User Guide*.

Type: Array of [Tag \(p. 1749\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

#### [TransformInput \(p. 216\)](#)

Describes the input source and the way the transform job consumes it.

Type: [TransformInput \(p. 1776\)](#) object

Required: Yes

#### [TransformJobName \(p. 216\)](#)

The name of the transform job. The name must be unique within an AWS Region in an AWS account.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: Yes

#### [TransformOutput \(p. 216\)](#)

Describes the results of the transform job.

Type: [TransformOutput \(p. 1788\)](#) object

Required: Yes

#### [TransformResources \(p. 216\)](#)

Describes the resources, including ML instance types and ML instance count, to use for the transform job.

Type: [TransformResources \(p. 1790\)](#) object

Required: Yes

## Response Syntax

```
{  
    "TransformJobArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

#### [TransformJobArn \(p. 220\)](#)

The Amazon Resource Name (ARN) of the transform job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-zA-Z-]\*:sagemaker:[a-zA-Z0-9-]\*:[0-9]{12}:transform-job/.\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

#### **ResourceInUse**

Resource being accessed is in use.

HTTP Status Code: 400

#### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## CreateTrial

Service: Amazon SageMaker Service

Creates an SageMaker *trial*. A trial is a set of steps called *trial components* that produce a machine learning model. A trial is part of a single SageMaker *experiment*.

When you use SageMaker Studio or the SageMaker Python SDK, all experiments, trials, and trial components are automatically tracked, logged, and indexed. When you use the AWS SDK for Python (Boto), you must use the logging APIs provided by the SDK.

You can add tags to a trial and then use the [Search \(p. 826\)](#) API to search for the tags.

To get a list of all your trials, call the [ListTrials \(p. 800\)](#) API. To view a trial's properties, call the [DescribeTrial \(p. 550\)](#) API. To create a trial component, call the [CreateTrialComponent \(p. 225\)](#) API.

## Request Syntax

```
{  
    "DisplayName": "string",  
    "ExperimentName": "string",  
    "MetadataProperties": {  
        "CommitId": "string",  
        "GeneratedBy": "string",  
        "ProjectId": "string",  
        "Repository": "string"  
    },  
    "Tags": [  
        {  
            "Key": "string",  
            "Value": "string"  
        }  
    ],  
    "TrialName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### [DisplayName \(p. 222\)](#)

The name of the trial as displayed. The name doesn't need to be unique. If DisplayName isn't specified, TrialName is displayed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,119\}

Required: No

### [ExperimentName \(p. 222\)](#)

The name of the experiment to associate the trial with.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])\{0,119\}`

Required: Yes

#### [MetadataProperties \(p. 222\)](#)

Metadata properties of the tracking entity, trial, or trial component.

Type: [MetadataProperties \(p. 1465\)](#) object

Required: No

#### [Tags \(p. 222\)](#)

A list of tags to associate with the trial. You can use [Search \(p. 826\)](#) API to search on the tags.

Type: Array of [Tag \(p. 1749\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

#### [TrialName \(p. 222\)](#)

The name of the trial. The name must be unique in your AWS account and is not case-sensitive.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])\{0,119\}`

Required: Yes

## Response Syntax

```
{  
    "TrialArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

#### [TrialArn \(p. 223\)](#)

The Amazon Resource Name (ARN) of the trial.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-zA-Z-]*:sagemaker:[a-zA-Z0-9-]*:[0-9]{12}:experiment-trial/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## CreateTrialComponent

Service: Amazon SageMaker Service

Creates a *trial component*, which is a stage of a machine learning *trial*. A trial is composed of one or more trial components. A trial component can be used in multiple trials.

Trial components include pre-processing jobs, training jobs, and batch transform jobs.

When you use SageMaker Studio or the SageMaker Python SDK, all experiments, trials, and trial components are automatically tracked, logged, and indexed. When you use the AWS SDK for Python (Boto), you must use the logging APIs provided by the SDK.

You can add tags to a trial component and then use the [Search \(p. 826\)](#) API to search for the tags.

## Request Syntax

```
{  
    "DisplayName": "string",  
    "EndTime": number,  
    "InputArtifacts": {  
        "string" : {  
            "MediaType": "string",  
            "Value": "string"  
        }  
    },  
    "MetadataProperties": {  
        "CommitId": "string",  
        "GeneratedBy": "string",  
        "ProjectId": "string",  
        "Repository": "string"  
    },  
    "OutputArtifacts": {  
        "string" : {  
            "MediaType": "string",  
            "Value": "string"  
        }  
    },  
    "Parameters": {  
        "string" : {  
            "NumberValue": number,  
            "StringValue": "string"  
        }  
    },  
    "StartTime": number,  
    "Status": {  
        "Message": "string",  
        "PrimaryStatus": "string"  
    },  
    "Tags": [  
        {  
            "Key": "string",  
            "Value": "string"  
        }  
    ],  
    "TrialComponentName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [DisplayName \(p. 225\)](#)

The name of the component as displayed. The name doesn't need to be unique. If DisplayName isn't specified, TrialComponentName is displayed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,119\}

Required: No

#### [EndTime \(p. 225\)](#)

When the component ended.

Type: Timestamp

Required: No

#### [InputArtifacts \(p. 225\)](#)

The input artifacts for the component. Examples of input artifacts are datasets, algorithms, hyperparameters, source code, and instance types.

Type: String to [TrialComponentArtifact \(p. 1801\)](#) object map

Map Entries: Maximum number of 30 items.

Key Length Constraints: Maximum length of 64.

Key Pattern: .\*

Required: No

#### [MetadataProperties \(p. 225\)](#)

Metadata properties of the tracking entity, trial, or trial component.

Type: [MetadataProperties \(p. 1465\)](#) object

Required: No

#### [OutputArtifacts \(p. 225\)](#)

The output artifacts for the component. Examples of output artifacts are metrics, snapshots, logs, and images.

Type: String to [TrialComponentArtifact \(p. 1801\)](#) object map

Map Entries: Maximum number of 30 items.

Key Length Constraints: Maximum length of 64.

Key Pattern: .\*

Required: No

#### [Parameters \(p. 225\)](#)

The hyperparameters for the component.

Type: String to [TrialComponentParameterValue \(p. 1804\)](#) object map

Map Entries: Maximum number of 150 items.

Key Length Constraints: Maximum length of 256.

Key Pattern: . \*

Required: No

#### [StartTime \(p. 225\)](#)

When the component started.

Type: Timestamp

Required: No

#### [Status \(p. 225\)](#)

The status of the component. States include:

- InProgress
- Completed
- Failed

Type: [TrialComponentStatus \(p. 1809\)](#) object

Required: No

#### [Tags \(p. 225\)](#)

A list of tags to associate with the component. You can use [Search \(p. 826\)](#) API to search on the tags.

Type: Array of [Tag \(p. 1749\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

#### [TrialComponentName \(p. 225\)](#)

The name of the component. The name must be unique in your AWS account and is not case-sensitive.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,119\}

Required: Yes

## Response Syntax

```
{  
    "TrialComponentArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

#### [TrialComponentArn \(p. 227\)](#)

The Amazon Resource Name (ARN) of the trial component.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-\]*:sagemaker:[a-z0-9\-\]*:[0-9]{12}:experiment-trial-component/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## CreateUserProfile

Service: Amazon SageMaker Service

Creates a user profile. A user profile represents a single user within a domain, and is the main way to reference a "person" for the purposes of sharing, reporting, and other user-oriented features. This entity is created when a user onboards to Amazon SageMaker Studio. If an administrator invites a person by email or imports them from IAM Identity Center, a user profile is automatically created. A user profile is the primary holder of settings for an individual user and has a reference to the user's private Amazon Elastic File System (EFS) home directory.

## Request Syntax

```
{
  "DomainId": "string",
  "SingleSignOnUserIdentifier": "string",
  "SingleSignOnUserValue": "string",
  "Tags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ],
  "UserProfileName": "string",
  "UserSettings": {
    "CanvasAppSettings": {
      "TimeSeriesForecastingSettings": {
        "AmazonForecastRoleArn": "string",
        "Status": "string"
      }
    },
    "ExecutionRole": "string",
    "JupyterServerAppSettings": {
      "CodeRepositories": [
        {
          "RepositoryUrl": "string"
        }
      ],
      "DefaultResourceSpec": {
        "InstanceType": "string",
        "LifecycleConfigArn": "string",
        "SageMakerImageArn": "string",
        "SageMakerImageVersionArn": "string"
      },
      "LifecycleConfigArns": [ "string" ]
    },
    "KernelGatewayAppSettings": {
      "CustomImages": [
        {
          "AppImageConfigName": "string",
          "ImageName": "string",
          "ImageVersionNumber": number
        }
      ],
      "DefaultResourceSpec": {
        "InstanceType": "string",
        "LifecycleConfigArn": "string",
        "SageMakerImageArn": "string",
        "SageMakerImageVersionArn": "string"
      },
      "LifecycleConfigArns": [ "string" ]
    },
    "RSessionAppSettings": {
      ...
    }
  }
}
```

```

    "CustomImages": [
        {
            "AppImageConfigName": "string",
            "ImageName": "string",
            "ImageVersionNumber": number
        }
    ],
    "DefaultResourceSpec": {
        "InstanceType": "string",
        "LifecycleConfigArn": "string",
        "SageMakerImageArn": "string",
        "SageMakerImageVersionArn": "string"
    },
    "RStudioServerProAppSettings": {
        "AccessStatus": "string",
        "UserGroup": "string"
    },
    "SecurityGroups": [ "string" ],
    "SharingSettings": {
        "NotebookOutputOption": "string",
        "S3KmsKeyId": "string",
        "S3OutputPath": "string"
    },
    "TensorBoardAppSettings": {
        "DefaultResourceSpec": {
            "InstanceType": "string",
            "LifecycleConfigArn": "string",
            "SageMakerImageArn": "string",
            "SageMakerImageVersionArn": "string"
        }
    }
}
}

```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### [DomainId \(p. 229\)](#)

The ID of the associated Domain.

Type: String

Length Constraints: Maximum length of 63.

Required: Yes

### [SingleSignOnUserIdentity \(p. 229\)](#)

A specifier for the type of value specified in SingleSignOnUserValue. Currently, the only supported value is "UserName". If the Domain's AuthMode is IAM Identity Center, this field is required. If the Domain's AuthMode is not IAM Identity Center, this field cannot be specified.

Type: String

Pattern: UserName

Required: No

### [SingleSignOnUserName \(p. 229\)](#)

The username of the associated AWS Single Sign-On User for this UserProfile. If the Domain's AuthMode is IAM Identity Center, this field is required, and must match a valid username of a user in your directory. If the Domain's AuthMode is not IAM Identity Center, this field cannot be specified.

Type: String

Length Constraints: Maximum length of 256.

Required: No

### [Tags \(p. 229\)](#)

Each tag consists of a key and an optional value. Tag keys must be unique per resource.

Tags that you specify for the User Profile are also added to all Apps that the User Profile launches.

Type: Array of [Tag \(p. 1749\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

### [UserProfileName \(p. 229\)](#)

A name for the UserProfile. This value is not case sensitive.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: Yes

### [UserSettings \(p. 229\)](#)

A collection of settings.

Type: [UserSettings \(p. 1825\)](#) object

Required: No

## Response Syntax

```
{  
    "UserProfileArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [UserProfileArn \(p. 231\)](#)

The user profile Amazon Resource Name (ARN).

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-\-]*:sagemaker:[a-z0-9\-\-]*:[0-9]{12}:user-profile/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceInUse**

Resource being accessed is in use.

HTTP Status Code: 400

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## CreateWorkforce

Service: Amazon SageMaker Service

Use this operation to create a workforce. This operation will return an error if a workforce already exists in the AWS Region that you specify. You can only create one workforce in each AWS Region per AWS account.

If you want to create a new workforce in an AWS Region where a workforce already exists, use the [DeleteWorkforce \(p. 321\)](#) API operation to delete the existing workforce and then use `CreateWorkforce` to create a new workforce.

To create a private workforce using Amazon Cognito, you must specify a Cognito user pool in `CognitoConfig`. You can also create an Amazon Cognito workforce using the Amazon SageMaker console. For more information, see [Create a Private Workforce \(Amazon Cognito\)](#).

To create a private workforce using your own OIDC Identity Provider (IdP), specify your IdP configuration in `OidcConfig`. Your OIDC IdP must support *groups* because groups are used by Ground Truth and Amazon A2I to create work teams. For more information, see [Create a Private Workforce \(OIDC IdP\)](#).

## Request Syntax

```
{  
    "CognitoConfig": {  
        "ClientId": "string",  
        "UserPool": "string"  
    },  
    "OidcConfig": {  
        "AuthorizationEndpoint": "string",  
        "ClientId": "string",  
        "ClientSecret": "string",  
        "Issuer": "string",  
        "JwksUri": "string",  
        "LogoutEndpoint": "string",  
        "TokenEndpoint": "string",  
        "UserInfoEndpoint": "string"  
    },  
    "SourceIpConfig": {  
        "Cidrs": [ "string" ]  
    },  
    "Tags": [  
        {  
            "Key": "string",  
            "Value": "string"  
        }  
    ],  
    "WorkforceName": "string",  
    "WorkforceVpcConfig": {  
        "SecurityGroupIds": [ "string" ],  
        "Subnets": [ "string" ],  
        "VpcId": "string"  
    }  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### [CognitoConfig \(p. 233\)](#)

Use this parameter to configure an Amazon Cognito private workforce. A single Cognito workforce is created using and corresponds to a single [Amazon Cognito user pool](#).

Do not use OidcConfig if you specify values for CognitoConfig.

Type: [CognitoConfig \(p. 1219\)](#) object

Required: No

### [OidcConfig \(p. 233\)](#)

Use this parameter to configure a private workforce using your own OIDC Identity Provider.

Do not use CognitoConfig if you specify values for OidcConfig.

Type: [OidcConfig \(p. 1590\)](#) object

Required: No

### [SourcelpConfig \(p. 233\)](#)

A list of IP address ranges ([CIDRs](#)). Used to create an allow list of IP addresses for a private workforce. Workers will only be able to login to their worker portal from an IP address within this range. By default, a workforce isn't restricted to specific IP addresses.

Type: [SourcelpConfig \(p. 1738\)](#) object

Required: No

### [Tags \(p. 233\)](#)

An array of key-value pairs that contain metadata to help you categorize and organize our workforce. Each tag consists of a key and a value, both of which you define.

Type: Array of [Tag \(p. 1749\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

### [WorkforceName \(p. 233\)](#)

The name of the private workforce.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9]([a-zA-Z0-9\-\-])\{0,62\}\$

Required: Yes

### [WorkforceVpcConfig \(p. 233\)](#)

Use this parameter to configure a workforce using VPC.

Type: [WorkforceVpcConfigRequest \(p. 1834\)](#) object

Required: No

## [Response Syntax](#)

```
{
```

```
    "WorkforceArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [WorkforceArn \(p. 234\)](#)

The Amazon Resource Name (ARN) of the workforce.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:workforce/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## CreateWorkteam

Service: Amazon SageMaker Service

Creates a new work team for labeling your data. A work team is defined by one or more Amazon Cognito user pools. You must first create the user pools before you can create a work team.

You cannot create more than 25 work teams in an account and region.

## Request Syntax

```
{  
    "Description": "string",  
    "MemberDefinitions": [  
        {  
            "CognitoMemberDefinition": {  
                "ClientId": "string",  
                "UserGroup": "string",  
                "UserPool": "string"  
            },  
            "OidcMemberDefinition": {  
                "Groups": [ "string" ]  
            }  
        }  
    ],  
    "NotificationConfiguration": {  
        "NotificationTopicArn": "string"  
    },  
    "Tags": [  
        {  
            "Key": "string",  
            "Value": "string"  
        }  
    ],  
    "WorkforceName": "string",  
    "WorkteamName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### Description (p. 236)

A description of the work team.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 200.

Pattern: .+

Required: Yes

### MemberDefinitions (p. 236)

A list of MemberDefinition objects that contains objects that identify the workers that make up the work team.

Workforces can be created using Amazon Cognito or your own OIDC Identity Provider (IdP). For private workforces created using Amazon Cognito use `CognitoMemberDefinition`. For workforces created using your own OIDC identity provider (IdP) use `OidcMemberDefinition`. Do not provide input for both of these parameters in a single request.

For workforces created using Amazon Cognito, private work teams correspond to Amazon Cognito *user groups* within the user pool used to create a workforce. All of the `CognitoMemberDefinition` objects that make up the member definition must have the same `ClientId` and `UserPool` values. To add a Amazon Cognito user group to an existing worker pool, see [Adding groups to a User Pool](#). For more information about user pools, see [Amazon Cognito User Pools](#).

For workforces created using your own OIDC IdP, specify the user groups that you want to include in your private work team in `OidcMemberDefinition` by listing those groups in `Groups`.

Type: Array of [MemberDefinition \(p. 1464\)](#) objects

Array Members: Minimum number of 1 item. Maximum number of 10 items.

Required: Yes

#### [NotificationConfiguration \(p. 236\)](#)

Configures notification of workers regarding available or expiring work items.

Type: [NotificationConfiguration \(p. 1586\)](#) object

Required: No

#### [Tags \(p. 236\)](#)

An array of key-value pairs.

For more information, see [Resource Tag](#) and [Using Cost Allocation Tags](#) in the *AWS Billing and Cost Management User Guide*.

Type: Array of [Tag \(p. 1749\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

#### [WorkforceName \(p. 236\)](#)

The name of the workforce.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9]([a-zA-Z0-9\-\-])\{0,62\}$`

Required: No

#### [WorkteamName \(p. 236\)](#)

The name of the work team. Use this name to identify the work team.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])\{0,62\}`

Required: Yes

## Response Syntax

```
{  
    "WorkteamArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [WorkteamArn \(p. 238\)](#)

The Amazon Resource Name (ARN) of the work team. You can use this ARN to identify the work team.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-]\*:sagemaker:[a-z0-9\-]\*:[0-9]{12}:workteam/.\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceInUse**

Resource being accessed is in use.

HTTP Status Code: 400

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DeleteAction

Service: Amazon SageMaker Service

Deletes an action.

### Request Syntax

```
{  
    "ActionName": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### ActionName (p. 239)

The name of the action to delete.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,119\}

Required: Yes

### Response Syntax

```
{  
    "ActionArn": "string"  
}
```

### Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

#### ActionArn (p. 239)

The Amazon Resource Name (ARN) of the action.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-zA-Z-]\*:sagemaker:[a-zA-Z0-9-]\*:[0-9]\{12\}:action/.\*

### Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DeleteAlgorithm

Service: Amazon SageMaker Service

Removes the specified algorithm from your account.

### Request Syntax

```
{  
    "AlgorithmName": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### AlgorithmName (p. 241)

The name of the algorithm to delete.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

### Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

### Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DeleteApp

Service: Amazon SageMaker Service

Used to stop and delete an app.

### Request Syntax

```
{  
    "AppName": "string",  
    "AppType": "string",  
    "DomainId": "string",  
    "SpaceName": "string",  
    "UserProfileName": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [AppName \(p. 242\)](#)

The name of the app.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: Yes

#### [AppType \(p. 242\)](#)

The type of app.

Type: String

Valid Values: JupyterServer | KernelGateway | TensorBoard | RStudioServerPro | RSessionGateway

Required: Yes

#### [DomainId \(p. 242\)](#)

The domain ID.

Type: String

Length Constraints: Maximum length of 63.

Required: Yes

#### [SpaceName \(p. 242\)](#)

The name of the space.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: No

#### [UserProfileName \(p. 242\)](#)

The user profile name.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: No

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceInUse**

Resource being accessed is in use.

HTTP Status Code: 400

### **ResourceNotFound**

Resource being accessed is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeleteAppImageConfig

Service: Amazon SageMaker Service

Deletes an AppImageConfig.

## Request Syntax

```
{  
    "AppImageConfigName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### **AppImageConfigName (p. 244)**

The name of the AppImageConfig to delete.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9]){0,62}

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)

- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DeleteArtifact

Service: Amazon SageMaker Service

Deletes an artifact. Either `ArtifactArn` or `Source` must be specified.

### Request Syntax

```
{  
    "ArtifactArn": "string",  
    "Source": {  
        "SourceTypes": [  
            {  
                "SourceIdType": "string",  
                "Value": "string"  
            }  
        ],  
        "SourceUri": "string"  
    }  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [ArtifactArn \(p. 246\)](#)

The Amazon Resource Name (ARN) of the artifact to delete.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:artifact/.*`

Required: No

#### [Source \(p. 246\)](#)

The URI of the source.

Type: [ArtifactSource \(p. 1143\)](#) object

Required: No

### Response Syntax

```
{  
    "ArtifactArn": "string"  
}
```

### Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

#### [ArtifactArn \(p. 246\)](#)

The Amazon Resource Name (ARN) of the artifact.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-\-]*:sagemaker:[a-z0-9\-\-]*:[0-9]{12}:artifact/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DeleteAssociation

Service: Amazon SageMaker Service

Deletes an association.

### Request Syntax

```
{  
    "DestinationArn": "string",  
    "SourceArn": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [DestinationArn \(p. 248\)](#)

The Amazon Resource Name (ARN) of the destination.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-\-]\*:sagemaker:[a-z0-9\-\-]\*:[0-9]{12}:(experiment|experiment-trial-component|artifact|action|context)/.\*

Required: Yes

#### [SourceArn \(p. 248\)](#)

The ARN of the source.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-\-]\*:sagemaker:[a-z0-9\-\-]\*:[0-9]{12}:(experiment|experiment-trial-component|artifact|action|context)/.\*

Required: Yes

### Response Syntax

```
{  
    "DestinationArn": "string",  
    "SourceArn": "string"  
}
```

### Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [DestinationArn \(p. 248\)](#)

The Amazon Resource Name (ARN) of the destination.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-\-]\*:sagemaker:[a-z0-9\-\-]\*:[0-9]{12}:(experiment|experiment-trial-component|artifact|action|context)/.\*

### [SourceArn \(p. 248\)](#)

The ARN of the source.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-\-]\*:sagemaker:[a-z0-9\-\-]\*:[0-9]{12}:(experiment|experiment-trial-component|artifact|action|context)/.\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DeleteCodeRepository

Service: Amazon SageMaker Service

Deletes the specified Git repository from your account.

### Request Syntax

```
{  
    "CodeRepositoryName": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [CodeRepositoryName \(p. 250\)](#)

The name of the Git repository to delete.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

### Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

### Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DeleteContext

Service: Amazon SageMaker Service

Deletes an context.

### Request Syntax

```
{  
    "ContextName": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [ContextName \(p. 251\)](#)

The name of the context to delete.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,119\}

Required: Yes

### Response Syntax

```
{  
    "ContextArn": "string"  
}
```

### Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

#### [ContextArn \(p. 251\)](#)

The Amazon Resource Name (ARN) of the context.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-zA-Z-]\*:sagemaker:[a-zA-Z0-9-]\*:[0-9]\{12\}:context/.\*

### Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeleteDataQualityJobDefinition

Service: Amazon SageMaker Service

Deletes a data quality monitoring job definition.

## Request Syntax

```
{  
    "JobDefinitionName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### **JobDefinitionName (p. 253)**

The name of the data quality monitoring job definition to delete.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-[a-zA-Z0-9])\*\$

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceNotFoundException**

Resource being accessed is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)

- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DeleteDeviceFleet

Service: Amazon SageMaker Service

Deletes a fleet.

### Request Syntax

```
{  
    "DeviceFleetName": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### **DeviceFleetName (p. 255)**

The name of the fleet to delete.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

### Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

### Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

#### **ResourceInUse**

Resource being accessed is in use.

HTTP Status Code: 400

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)

- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DeleteDomain

Service: Amazon SageMaker Service

Used to delete a domain. If you onboarded with IAM mode, you will need to delete your domain to onboard again using IAM Identity Center. Use with caution. All of the members of the domain will lose access to their EFS volume, including data, notebooks, and other artifacts.

### Request Syntax

```
{  
    "DomainId": "string",  
    "RetentionPolicy": {  
        "HomeEfsFileSystem": "string"  
    }  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [DomainId \(p. 257\)](#)

The domain ID.

Type: String

Length Constraints: Maximum length of 63.

Required: Yes

#### [RetentionPolicy \(p. 257\)](#)

The retention policy for this domain, which specifies whether resources will be retained after the Domain is deleted. By default, all resources are retained (not automatically deleted).

Type: [RetentionPolicy \(p. 1709\)](#) object

Required: No

### Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

### Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

#### **ResourceInUse**

Resource being accessed is in use.

HTTP Status Code: 400

#### **ResourceNotFound**

Resource being accessed is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeleteEdgeDeploymentPlan

Service: Amazon SageMaker Service

Deletes an edge deployment plan if (and only if) all the stages in the plan are inactive or there are no stages in the plan.

## Request Syntax

```
{  
    "EdgeDeploymentPlanName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### **EdgeDeploymentPlanName (p. 259)**

The name of the edge deployment plan to delete.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9]){0,62}\$

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceInUse**

Resource being accessed is in use.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)

- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeleteEdgeDeploymentStage

Service: Amazon SageMaker Service

Delete a stage in an edge deployment plan if (and only if) the stage is inactive.

## Request Syntax

```
{  
    "EdgeDeploymentPlanName": "string",  
    "StageName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### [EdgeDeploymentPlanName \(p. 261\)](#)

The name of the edge deployment plan from which the stage will be deleted.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9]){0,62}\$

Required: Yes

### [StageName \(p. 261\)](#)

The name of the stage.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9]){0,62}\$

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceInUse**

Resource being accessed is in use.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DeleteEndpoint

Service: Amazon SageMaker Service

Deletes an endpoint. SageMaker frees up all of the resources that were deployed when the endpoint was created.

SageMaker retires any custom KMS key grants associated with the endpoint, meaning you don't need to use the [RevokeGrant](#) API call.

When you delete your endpoint, SageMaker asynchronously deletes associated endpoint resources such as KMS key grants. You might still see these resources in your account for a few minutes after deleting your endpoint. Do not delete or revoke the permissions for your [ExecutionRoleArn](#), otherwise SageMaker cannot delete these resources.

## Request Syntax

```
{  
    "EndpointName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### EndpointName (p. 263)

The name of the endpoint that you want to delete.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeleteEndpointConfig

Service: Amazon SageMaker Service

Deletes an endpoint configuration. The DeleteEndpointConfig API deletes only the specified configuration. It does not delete endpoints created using the configuration.

You must not delete an EndpointConfig in use by an endpoint that is live or while the UpdateEndpoint or CreateEndpoint operations are being performed on the endpoint. If you delete the EndpointConfig of an endpoint that is active or being created or updated you may lose visibility into the instance type the endpoint is using. The endpoint must be deleted in order to stop incurring charges.

## Request Syntax

```
{  
    "EndpointConfigName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### EndpointConfigName (p. 265)

The name of the endpoint configuration that you want to delete.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)

- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DeleteExperiment

Service: Amazon SageMaker Service

Deletes an SageMaker experiment. All trials associated with the experiment must be deleted first. Use the [ListTrials \(p. 800\)](#) API to get a list of the trials associated with the experiment.

### Request Syntax

```
{  
    "ExperimentName": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### ExperimentName (p. 267)

The name of the experiment to delete.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,119\}

Required: Yes

### Response Syntax

```
{  
    "ExperimentArn": "string"  
}
```

### Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

#### ExperimentArn (p. 267)

The Amazon Resource Name (ARN) of the experiment that is being deleted.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-zA-Z-]\*:sagemaker:[a-zA-Z0-9-]\*:[0-9]\{12\}:experiment/.\*

### Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DeleteFeatureGroup

Service: Amazon SageMaker Service

Delete the FeatureGroup and any data that was written to the OnlineStore of the FeatureGroup. Data cannot be accessed from the OnlineStore immediately after DeleteFeatureGroup is called.

Data written into the OfflineStore will not be deleted. The AWS Glue database and tables that are automatically created for your OfflineStore are not deleted.

### Request Syntax

```
{  
    "FeatureGroupName": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### FeatureGroupName ([p. 269](#))

The name of the FeatureGroup you want to delete. The name must be unique within an AWS Region in an AWS account.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9]){0,63}

Required: Yes

### Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

### Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

#### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DeleteFlowDefinition

Service: Amazon SageMaker Service

Deletes the specified flow definition.

### Request Syntax

```
{  
    "FlowDefinitionName": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### **FlowDefinitionName (p. 271)**

The name of the flow definition you are deleting.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: Yes

### Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

### Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

#### **ResourceInUse**

Resource being accessed is in use.

HTTP Status Code: 400

#### **ResourceNotFound**

Resource being accessed is not found.

HTTP Status Code: 400

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DeleteHub

Service: Amazon SageMaker Service

Delete a hub.

### Request Syntax

```
{  
    "HubName": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### **HubName (p. 273)**

The name of the hub to delete.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: Yes

### Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

### Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

#### **ResourceInUse**

Resource being accessed is in use.

HTTP Status Code: 400

#### **ResourceNotFound**

Resource being accessed is not found.

HTTP Status Code: 400

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeleteHubContent

Service: Amazon SageMaker Service

Delete the contents of a hub.

## Request Syntax

```
{  
    "HubContentName": "string",  
    "HubContentType": "string",  
    "HubContentVersion": "string",  
    "HubName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### [HubContentName \(p. 275\)](#)

The name of the content that you want to delete from a hub.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: Yes

### [HubContentType \(p. 275\)](#)

The type of content that you want to delete from a hub.

Type: String

Valid Values: Model | Notebook

Required: Yes

### [HubContentVersion \(p. 275\)](#)

The version of the content that you want to delete from a hub.

Type: String

Length Constraints: Minimum length of 5. Maximum length of 14.

Pattern: ^\d\{1,4\}.\d\{1,4\}.\d\{1,4\}\\$

Required: Yes

### [HubName \(p. 275\)](#)

The name of the hub that you want to delete content in.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### ResourceInUse

Resource being accessed is in use.

HTTP Status Code: 400

### ResourceNotFound

Resource being accessed is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DeleteHumanTaskUi

Service: Amazon SageMaker Service

Use this operation to delete a human task user interface (worker task template).

To see a list of human task user interfaces (work task templates) in your account, use [ListHumanTaskUis \(p. 667\)](#). When you delete a worker task template, it no longer appears when you call ListHumanTaskUis.

### Request Syntax

```
{  
    "HumanTaskUiName": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [HumanTaskUiName \(p. 277\)](#)

The name of the human task user interface (work task template) you want to delete.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\*

Required: Yes

### Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

### Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

#### **ResourceNotFoundException**

Resource being accessed is not found.

HTTP Status Code: 400

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DeleteImage

Service: Amazon SageMaker Service

Deletes a SageMaker image and all versions of the image. The container images aren't deleted.

### Request Syntax

```
{  
    "ImageName": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### **ImageName (p. 279)**

The name of the image to delete.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9]([-.]?[a-zA-Z0-9]){0,62}\$

Required: Yes

### Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

### Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

#### **ResourceInUse**

Resource being accessed is in use.

HTTP Status Code: 400

#### **ResourceNotFound**

Resource being accessed is not found.

HTTP Status Code: 400

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DeleteImageVersion

Service: Amazon SageMaker Service

Deletes a version of a SageMaker image. The container image the version represents isn't deleted.

### Request Syntax

```
{  
    "ImageName": "string",  
    "Version": number  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### **ImageName (p. 281)**

The name of the image.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9]([-.]?[a-zA-Z0-9]){0,62}\$

Required: Yes

#### **Version (p. 281)**

The version to delete.

Type: Integer

Valid Range: Minimum value of 0.

Required: Yes

### Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

### Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

#### **ResourceInUse**

Resource being accessed is in use.

HTTP Status Code: 400

#### **ResourceNotFound**

Resource being accessed is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DeleteInferenceExperiment

Service: Amazon SageMaker Service

Deletes an inference experiment.

### Note

This operation does not delete your endpoint, variants, or any underlying resources. This operation only deletes the metadata of your experiment.

## Request Syntax

```
{  
    "Name": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### Name (p. 283)

The name of the inference experiment you want to delete.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,119\}

Required: Yes

## Response Syntax

```
{  
    "InferenceExperimentArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### InferenceExperimentArn (p. 283)

The ARN of the deleted inference experiment.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-zA-Z-]\*:sagemaker:[a-zA-Z0-9-]\*:[0-9]\{12\}:inference-experiment/.\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ConflictException**

There was a conflict when you attempted to modify a SageMaker entity such as an Experiment or Artifact.

HTTP Status Code: 400

### **ResourceNotFoundException**

Resource being accessed is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DeleteModel

Service: Amazon SageMaker Service

Deletes a model. The DeleteModel API deletes only the model entry that was created in SageMaker when you called the CreateModel API. It does not delete model artifacts, inference code, or the IAM role that you specified when creating the model.

### Request Syntax

```
{  
    "ModelName": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [ModelName \(p. 285\)](#)

The name of the model to delete.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\*

Required: Yes

### Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

### Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



# DeleteModelBiasJobDefinition

Service: Amazon SageMaker Service

Deletes an Amazon SageMaker model bias job definition.

## Request Syntax

```
{  
    "JobDefinitionName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### **JobDefinitionName (p. 287)**

The name of the model bias job definition to delete.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-[a-zA-Z0-9])\*\$

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceNotFoundException**

Resource being accessed is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)

- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DeleteModelCard

Service: Amazon SageMaker Service

Deletes an Amazon SageMaker Model Card.

### Request Syntax

```
{  
    "ModelCardName": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### **ModelCardName (p. 289)**

The name of the model card to delete.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9]){0,62}\$

Required: Yes

### Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

### Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

#### **ConflictException**

There was a conflict when you attempted to modify a SageMaker entity such as an Experiment or Artifact.

HTTP Status Code: 400

#### **ResourceNotFoundException**

Resource being accessed is not found.

HTTP Status Code: 400

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)

- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeleteModelExplainabilityJobDefinition

Service: Amazon SageMaker Service

Deletes an Amazon SageMaker model explainability job definition.

## Request Syntax

```
{  
    "JobDefinitionName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### **JobDefinitionName (p. 291)**

The name of the model explainability job definition to delete.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-[a-zA-Z0-9])\*\$

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceNotFoundException**

Resource being accessed is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)

- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DeleteModelPackage

Service: Amazon SageMaker Service

Deletes a model package.

A model package is used to create SageMaker models or list on AWS Marketplace. Buyers can subscribe to model packages listed on AWS Marketplace to create models in SageMaker.

### Request Syntax

```
{  
    "ModelPackageName": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [ModelPackageName \(p. 293\)](#)

The name or Amazon Resource Name (ARN) of the model package to delete.

When you specify a name, the name must have 1 to 63 characters. Valid characters are a-z, A-Z, 0-9, and - (hyphen).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 176.

Pattern: (`arn:aws[a-zA-Z-]*:sagemaker:[a-zA-Z0-9-]*:[0-9]{12}:[a-zA-Z-]*[/]?([a-zA-Z0-9]([a-zA-Z0-9-]){0,62})(?<![/](\/[0-9]{1,5})?)$`)

Required: Yes

### Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

### Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

#### **ConflictException**

There was a conflict when you attempted to modify a SageMaker entity such as an Experiment or Artifact.

HTTP Status Code: 400

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeleteModelPackageGroup

Service: Amazon SageMaker Service

Deletes the specified model group.

## Request Syntax

```
{  
    "ModelPackageName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### **ModelPackageName (p. 295)**

The name of the model group to delete.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 170.

Pattern: (`arn:aws[a-zA-Z-]*:sagemaker:[a-zA-Z0-9-]*:[0-9]{12}:[a-zA-Z-]*[/]?([a-zA-Z0-9]([a-zA-Z0-9-]){0,62})(?<!-)$`)

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ConflictException**

There was a conflict when you attempted to modify a SageMaker entity such as an Experiment or Artifact.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeleteModelPackageGroupPolicy

Service: Amazon SageMaker Service

Deletes a model group resource policy.

## Request Syntax

```
{  
    "ModelPackageGroupName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### **ModelPackageGroupName (p. 297)**

The name of the model group for which to delete the policy.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeleteModelQualityJobDefinition

Service: Amazon SageMaker Service

Deletes the specified model quality monitoring job definition.

## Request Syntax

```
{  
    "JobDefinitionName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### **JobDefinitionName (p. 298)**

The name of the model quality monitoring job definition to delete.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-[a-zA-Z0-9])\*\$

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceNotFoundException**

Resource being accessed is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)

- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeleteMonitoringSchedule

Service: Amazon SageMaker Service

Deletes a monitoring schedule. Also stops the schedule had not already been stopped. This does not delete the job execution history of the monitoring schedule.

## Request Syntax

```
{  
    "MonitoringScheduleName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### MonitoringScheduleName (p. 300)

The name of the monitoring schedule to delete.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)

- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DeleteNotebookInstance

Service: Amazon SageMaker Service

Deletes an SageMaker notebook instance. Before you can delete a notebook instance, you must call the StopNotebookInstance API.

### Important

When you delete a notebook instance, you lose all of your data. SageMaker removes the ML compute instance, and deletes the ML storage volume and the network interface associated with the notebook instance.

## Request Syntax

```
{  
    "NotebookInstanceName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### NotebookInstanceName (p. 302)

The name of the SageMaker notebook instance to delete.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\*

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)

- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DeleteNotebookInstanceLifecycleConfig

Service: Amazon SageMaker Service

Deletes a notebook instance lifecycle configuration.

### Request Syntax

```
{  
    "NotebookInstanceLifecycleConfigName": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [NotebookInstanceLifecycleConfigName \(p. 304\)](#)

The name of the lifecycle configuration to delete.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\*

Required: Yes

### Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

### Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DeletePipeline

Service: Amazon SageMaker Service

Deletes a pipeline if there are no running instances of the pipeline. To delete a pipeline, you must stop all running instances of the pipeline using the StopPipelineExecution API. When you delete a pipeline, all instances of the pipeline are deleted.

### Request Syntax

```
{  
    "ClientRequestToken": "string",  
    "PipelineName": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [ClientRequestToken \(p. 305\)](#)

A unique, case-sensitive identifier that you provide to ensure the idempotency of the operation. An idempotent operation completes no more than one time.

Type: String

Length Constraints: Minimum length of 32. Maximum length of 128.

Required: Yes

#### [PipelineName \(p. 305\)](#)

The name of the pipeline to delete.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,255\}

Required: Yes

### Response Syntax

```
{  
    "PipelineArn": "string"  
}
```

### Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [PipelineArn \(p. 305\)](#)

The Amazon Resource Name (ARN) of the pipeline to delete.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-\-]*:sagemaker:[a-z0-9\-\-]*:[0-9]{12}:pipeline/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DeleteProject

Service: Amazon SageMaker Service

Delete the specified project.

### Request Syntax

```
{  
    "ProjectName": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### **ProjectName (p. 307)**

The name of the project to delete.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9]){0,31}

Required: Yes

### Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

### Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

#### **ConflictException**

There was a conflict when you attempted to modify a SageMaker entity such as an Experiment or Artifact.

HTTP Status Code: 400

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)

- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DeleteSpace

Service: Amazon SageMaker Service

Used to delete a space.

### Request Syntax

```
{  
    "DomainId": "string",  
    "SpaceName": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [DomainId \(p. 309\)](#)

The ID of the associated Domain.

Type: String

Length Constraints: Maximum length of 63.

Required: Yes

#### [SpaceName \(p. 309\)](#)

The name of the space.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9]){0,62}

Required: Yes

### Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

### Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

#### **ResourceInUse**

Resource being accessed is in use.

HTTP Status Code: 400

#### **ResourceNotFound**

Resource being accessed is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeleteStudioLifecycleConfig

Service: Amazon SageMaker Service

Deletes the Studio Lifecycle Configuration. In order to delete the Lifecycle Configuration, there must be no running apps using the Lifecycle Configuration. You must also remove the Lifecycle Configuration from UserSettings in all Domains and UserProfiles.

## Request Syntax

```
{  
    "StudioLifecycleConfigName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### StudioLifecycleConfigName (p. 311)

The name of the Studio Lifecycle Configuration to delete.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### ResourceInUse

Resource being accessed is in use.

HTTP Status Code: 400

### ResourceNotFound

Resource being accessed is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DeleteTags

Service: Amazon SageMaker Service

Deletes the specified tags from an SageMaker resource.

To list a resource's tags, use the [ListTags API](#).

**Note**

When you call this API to delete tags from a hyperparameter tuning job, the deleted tags are not removed from training jobs that the hyperparameter tuning job launched before you called this API.

**Note**

When you call this API to delete tags from a SageMaker Studio Domain or User Profile, the deleted tags are not removed from Apps that the SageMaker Studio Domain or User Profile launched before you called this API.

## Request Syntax

```
{  
    "ResourceArn": "string",  
    "TagKeys": [ "string" ]  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### [ResourceArn \(p. 313\)](#)

The Amazon Resource Name (ARN) of the resource whose tags you want to delete.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z-]*:sagemaker:[a-z0-9-]*:[0-9]{12}:[.]+`

Required: Yes

### [TagKeys \(p. 313\)](#)

An array or one or more tag keys to delete.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 50 items.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `^([\\p{L}\\p{Z}]\\p{N}_.:/=+\\-@]*$`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DeleteTrial

Service: Amazon SageMaker Service

Deletes the specified trial. All trial components that make up the trial must be deleted first. Use the [DescribeTrialComponent \(p. 553\)](#) API to get the list of trial components.

### Request Syntax

```
{  
    "TrialName": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### TrialName (p. 315)

The name of the trial to delete.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,119\}

Required: Yes

### Response Syntax

```
{  
    "TrialArn": "string"  
}
```

### Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

#### TrialArn (p. 315)

The Amazon Resource Name (ARN) of the trial that is being deleted.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-zA-Z-]\*:sagemaker:[a-zA-Z0-9-]\*:[0-9]\{12\}:experiment-trial/.\*

### Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DeleteTrialComponent

Service: Amazon SageMaker Service

Deletes the specified trial component. A trial component must be disassociated from all trials before the trial component can be deleted. To disassociate a trial component from a trial, call the [DisassociateTrialComponent \(p. 567\)](#) API.

### Request Syntax

```
{  
    "TrialComponentName": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [TrialComponentName \(p. 317\)](#)

The name of the component to delete.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,119\}

Required: Yes

### Response Syntax

```
{  
    "TrialComponentArn": "string"  
}
```

### Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

#### [TrialComponentArn \(p. 317\)](#)

The Amazon Resource Name (ARN) of the component is being deleted.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-zA-Z-]\*:sagemaker:[a-zA-Z0-9-]\*:[0-9]\{12\}:experiment-trial-component/.\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DeleteUserProfile

Service: Amazon SageMaker Service

Deletes a user profile. When a user profile is deleted, the user loses access to their EFS volume, including data, notebooks, and other artifacts.

### Request Syntax

```
{  
    "DomainId": "string",  
    "UserProfileName": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [DomainId \(p. 319\)](#)

The domain ID.

Type: String

Length Constraints: Maximum length of 63.

Required: Yes

#### [UserProfileName \(p. 319\)](#)

The user profile name.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: Yes

### Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

### Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

#### **ResourceInUse**

Resource being accessed is in use.

HTTP Status Code: 400

#### **ResourceNotFound**

Resource being accessed is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DeleteWorkforce

Service: Amazon SageMaker Service

Use this operation to delete a workforce.

If you want to create a new workforce in an AWS Region where a workforce already exists, use this operation to delete the existing workforce and then use [CreateWorkforce \(p. 233\)](#) to create a new workforce.

### Important

If a private workforce contains one or more work teams, you must use the [DeleteWorkteam \(p. 323\)](#) operation to delete all work teams before you delete the workforce.

If you try to delete a workforce that contains one or more work teams, you will receive a ResourceInUse error.

## Request Syntax

```
{  
    "WorkforceName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### WorkforceName (p. 321)

The name of the workforce.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9]([a-zA-Z0-9\-\-])\{0,62\}\$

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)

- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DeleteWorkteam

Service: Amazon SageMaker Service

Deletes an existing work team. This operation can't be undone.

### Request Syntax

```
{  
    "WorkteamName": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [WorkteamName \(p. 323\)](#)

The name of the work team to delete.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9]){0,62}

Required: Yes

### Response Syntax

```
{  
    "Success": boolean  
}
```

### Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

#### [Success \(p. 323\)](#)

Returns true if the work team was successfully deleted; otherwise, returns false.

Type: Boolean

### Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

#### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DeregisterDevices

Service: Amazon SageMaker Service

Deregisters the specified devices. After you deregister a device, you will need to re-register the devices.

### Request Syntax

```
{  
    "DeviceFleetName": "string",  
    "DeviceNames": [ "string" ]  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [DeviceFleetName \(p. 325\)](#)

The name of the fleet the devices belong to.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

#### [DeviceNames \(p. 325\)](#)

The unique IDs of the devices.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

### Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

### Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)

- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DescribeAction

Service: Amazon SageMaker Service

Describes an action.

### Request Syntax

```
{  
    "ActionName": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### ActionName (p. 327)

The name of the action to describe.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,119\}

Required: Yes

### Response Syntax

```
{  
    "ActionArn": "string",  
    "ActionName": "string",  
    "ActionType": "string",  
    "CreatedBy": {  
        "DomainId": "string",  
        "UserProfileArn": "string",  
        "UserProfileName": "string"  
    },  
    "CreationTime": number,  
    "Description": "string",  
    "LastModifiedBy": {  
        "DomainId": "string",  
        "UserProfileArn": "string",  
        "UserProfileName": "string"  
    },  
    "LastModifiedTime": number,  
    "LineageGroupArn": "string",  
    "MetadataProperties": {  
        "CommitId": "string",  
        "GeneratedBy": "string",  
        "ProjectId": "string",  
        "Repository": "string"  
    },  
    "Properties": {  
        "string" : "string"  
    }  
}
```

```
        },
        "Source": {
            "SourceId": "string",
            "SourceType": "string",
            "SourceUri": "string"
        },
        "Status": "string"
    }
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [ActionArn \(p. 327\)](#)

The Amazon Resource Name (ARN) of the action.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-\-]\*:sagemaker:[a-z0-9\-\-]\*:[0-9]{12}:action/.\*

### [ActionName \(p. 327\)](#)

The name of the action.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: (arn:aws[a-z\-\-]\*:sagemaker:[a-z0-9\-\-]\*:[0-9]{12}:(experiment|experiment-trial|experiment-trial-component|artifact|action|context)\|)?([a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,119\})

### [ActionType \(p. 327\)](#)

The type of the action.

Type: String

Length Constraints: Maximum length of 256.

### [CreatedBy \(p. 327\)](#)

Information about the user who created or modified an experiment, trial, trial component, lineage group, project, or model card.

Type: [UserContext \(p. 1822\)](#) object

### [CreationTime \(p. 327\)](#)

When the action was created.

Type: Timestamp

### [Description \(p. 327\)](#)

The description of the action.

Type: String

Length Constraints: Maximum length of 3072.

Pattern: .\*

#### [LastModifiedBy \(p. 327\)](#)

Information about the user who created or modified an experiment, trial, trial component, lineage group, project, or model card.

Type: [UserContext \(p. 1822\)](#) object

#### [LastModifiedTime \(p. 327\)](#)

When the action was last modified.

Type: Timestamp

#### [LineageGroupArn \(p. 327\)](#)

The Amazon Resource Name (ARN) of the lineage group.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-]\*:sagemaker:[a-z0-9\-]\*:[0-9]{12}:lineage-group/.\*

#### [MetadataProperties \(p. 327\)](#)

Metadata properties of the tracking entity, trial, or trial component.

Type: [MetadataProperties \(p. 1465\)](#) object

#### [Properties \(p. 327\)](#)

A list of the action's properties.

Type: String to string map

Map Entries: Maximum number of 30 items.

Key Length Constraints: Maximum length of 256.

Key Pattern: .\*

Value Length Constraints: Maximum length of 256.

Value Pattern: .\*

#### [Source \(p. 327\)](#)

The source of the action.

Type: [ActionSource \(p. 1109\)](#) object

#### [Status \(p. 327\)](#)

The status of the action.

Type: String

Valid Values: Unknown | InProgress | Completed | Failed | Stopping | Stopped

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DescribeAlgorithm

Service: Amazon SageMaker Service

Returns a description of the specified algorithm that is in your account.

## Request Syntax

```
{  
    "AlgorithmName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

## AlgorithmName (p. 331)

The name of the algorithm to describe.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 170.

Pattern: (arn:aws[a-z-]\*:sagemaker:[a-z0-9-]\*:[0-9]{12}:[a-z-]\*\`)?([a-zA-Z0-9]([a-zA-Z0-9-]){\w,62})?(?<|-)\$

Required: Yes

## Response Syntax

```

    "ContainerHostname": "string",
    "Environment": {
        "string" : "string"
    },
    "Framework": "string",
    "FrameworkVersion": "string",
    "Image": "string",
    "ImageDigest": "string",
    "ModelDataURL": "string",
    "ModelError": {
        "DataInputConfig": "string"
    },
    "NearestModelName": "string",
    "ProductId": "string"
},
],
"SupportedContentTypes": [ "string" ],
"SupportedRealtimeInferenceInstanceTypes": [ "string" ],
"SupportedResponseMIMETypes": [ "string" ],
"SupportedTransformInstanceTypes": [ "string" ]
},
"ProductId": "string",
"TrainingSpecification": {
    "MetricDefinitions": [
        {
            "Name": "string",
            "Regex": "string"
        }
    ],
    "SupportedHyperParameters": [
        {
            "DefaultValue": "string",
            "Description": "string",
            "IsRequired": boolean,
            "IsTunable": boolean,
            "Name": "string",
            "Range": {
                "CategoricalParameterRangeSpecification": {
                    "Values": [ "string" ]
                },
                "ContinuousParameterRangeSpecification": {
                    "MaxValue": "string",
                    "MinValue": "string"
                },
                "IntegerParameterRangeSpecification": {
                    "MaxValue": "string",
                    "MinValue": "string"
                }
            },
            "Type": "string"
        }
    ],
    "SupportedContentTypes": [ "string" ],
    "SupportedTuningJobObjectiveMetrics": [
        {
            "MetricName": "string",
            "Type": "string"
        }
    ],
    "SupportsDistributedTraining": boolean,
    "TrainingChannels": [
        {
            "Description": "string",
            "IsRequired": boolean,
            "Name": "string",
            "SupportedCompressionTypes": [ "string" ],

```

```

        "SupportedContentTypes": [ "string" ],
        "SupportedInputModes": [ "string" ]
    }
],
"TrainingImage": "string",
"TrainingImageDigest": "string"
},
"ValidationSpecification": {
    "ValidationProfiles": [
        {
            "ProfileName": "string",
            "TrainingJobDefinition": {
                "HyperParameters": {
                    "string" : "string"
                },
                "InputDataConfig": [
                    {
                        "ChannelName": "string",
                        "CompressionType": "string",
                        "ContentType": "string",
                        "DataSource": {
                            "FileSystemDataSource": {
                                "DirectoryPath": "string",
                                "FileSystemAccessMode": "string",
                                "FileSystemId": "string",
                                "FileSystemType": "string"
                            },
                            "S3DataSource": {
                                "AttributeNames": [ "string" ],
                                "InstanceGroupNames": [ "string" ],
                                "S3DataDistributionType": "string",
                                "S3DataType": "string",
                                "S3Uri": "string"
                            }
                        },
                        "InputMode": "string",
                        "RecordWrapperType": "string",
                        "ShuffleConfig": {
                            "Seed": number
                        }
                    }
                ],
                "OutputDataConfig": {
                    "KmsKeyId": "string",
                    "S3OutputPath": "string"
                },
                "ResourceConfig": {
                    "InstanceCount": number,
                    "InstanceGroups": [
                        {
                            "InstanceCount": number,
                            "InstanceGroupName": "string",
                            "InstanceType": "string"
                        }
                    ],
                    "InstanceType": "string",
                    "KeepAlivePeriodInSeconds": number,
                    "VolumeKmsKeyId": "string",
                    "VolumeSizeInGB": number
                },
                "StoppingCondition": {
                    "MaxRuntimeInSeconds": number,
                    "MaxWaitTimeInSeconds": number
                },
                "TrainingInputMode": "string"
            }
}

```

```
        "TransformJobDefinition": {
            "BatchStrategy": "string",
            "Environment": {
                "string" : "string"
            },
            "MaxConcurrentTransforms": number,
            "MaxPayloadInMB": number,
            "TransformInput": {
                "CompressionType": "string",
                "ContentType": "string",
                "DataSource": {
                    "S3DataSource": {
                        "S3DataType": "string",
                        "S3Uri": "string"
                    }
                },
                "SplitType": "string"
            },
            "TransformOutput": {
                "Accept": "string",
                "AssembleWith": "string",
                "KmsKeyId": "string",
                "S3OutputPath": "string"
            },
            "TransformResources": {
                "InstanceCount": number,
                "InstanceType": "string",
                "VolumeKmsKeyId": "string"
            }
        }
    ],
    "ValidationRole": "string"
}
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

## AlgorithmArn (p. 331)

The Amazon Resource Name (ARN) of the algorithm.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `a{1,5}aws[a-z\-\-]*:sagemaker:[a-z0-9\-\-]*:[0-9]{12}:algorithm/.*`

## AlgorithmDescription (p. 331)

A brief summary about the algorithm.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `\n{I}\n{M}\n{Z}\n{S}\n{N}\n{P}`\*

### AlgorithmName (p. 331)

The name of the algorithm being described

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

#### [AlgorithmStatus \(p. 331\)](#)

The current status of the algorithm.

Type: String

Valid Values: Pending | InProgress | Completed | Failed | Deleting

#### [AlgorithmStatusDetails \(p. 331\)](#)

Details about the current status of the algorithm.

Type: [AlgorithmStatusDetails \(p. 1120\)](#) object

#### [CertifyForMarketplace \(p. 331\)](#)

Whether the algorithm is certified to be listed in AWS Marketplace.

Type: Boolean

#### [CreationTime \(p. 331\)](#)

A timestamp specifying when the algorithm was created.

Type: Timestamp

#### [InferenceSpecification \(p. 331\)](#)

Details about inference jobs that the algorithm runs.

Type: [InferenceSpecification \(p. 1423\)](#) object

#### [ProductId \(p. 331\)](#)

The product identifier of the algorithm.

Type: String

Length Constraints: Maximum length of 256.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\*\$

#### [TrainingSpecification \(p. 331\)](#)

Details about training jobs run by this algorithm.

Type: [TrainingSpecification \(p. 1773\)](#) object

#### [ValidationSpecification \(p. 331\)](#)

Details about configurations for one or more training jobs that SageMaker runs to test the algorithm.

Type: [AlgorithmValidationSpecification \(p. 1125\)](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DescribeApp

Service: Amazon SageMaker Service

Describes the app.

### Request Syntax

```
{  
    "AppName": "string",  
    "AppType": "string",  
    "DomainId": "string",  
    "SpaceName": "string",  
    "UserProfileName": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [AppName \(p. 337\)](#)

The name of the app.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9]){0,62}

Required: Yes

#### [AppType \(p. 337\)](#)

The type of app.

Type: String

Valid Values: JupyterServer | KernelGateway

Required: Yes

#### [DomainId \(p. 337\)](#)

The domain ID.

Type: String

Length Constraints: Maximum length of 63.

Required: Yes

#### [SpaceName \(p. 337\)](#)

The name of the space.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: No

#### [UserProfileName \(p. 337\)](#)

The user profile name.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: No

## Response Syntax

```
{  
    "AppArn": "string",  
    "AppName": "string",  
    "AppType": "string",  
    "CreationTime": number,  
    "DomainId": "string",  
    "FailureReason": "string",  
    "LastHealthCheckTimestamp": number,  
    "LastUserActivityTimestamp": number,  
    "ResourceSpec": {  
        "InstanceType": "string",  
        "LifecycleConfigArn": "string",  
        "SageMakerImageArn": "string",  
        "SageMakerImageVersionArn": "string"  
    },  
    "SpaceName": "string",  
    "Status": "string",  
    "UserProfileName": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

#### [AppArn \(p. 338\)](#)

The Amazon Resource Name (ARN) of the app.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws:[a-zA-Z-]\*:sagemaker:[a-zA-Z0-9-]\*:[0-9]{12}:app/.\*

#### [AppName \(p. 338\)](#)

The name of the app.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62}

[AppType \(p. 338\)](#)

The type of app.

Type: String

Valid Values: JupyterServer | KernelGateway

[CreationTime \(p. 338\)](#)

The creation time.

Type: Timestamp

[DomainId \(p. 338\)](#)

The domain ID.

Type: String

Length Constraints: Maximum length of 63.

[FailureReason \(p. 338\)](#)

The failure reason.

Type: String

Length Constraints: Maximum length of 1024.

[LastHealthCheckTimestamp \(p. 338\)](#)

The timestamp of the last health check.

Type: Timestamp

[LastUserActivityTimestamp \(p. 338\)](#)

The timestamp of the last user's activity. LastUserActivityTimestamp is also updated when SageMaker performs health checks without user activity. As a result, this value is set to the same value as LastHealthCheckTimestamp.

Type: Timestamp

[ResourceSpec \(p. 338\)](#)

The instance type and the Amazon Resource Name (ARN) of the SageMaker image created on the instance.

Type: [ResourceSpec \(p. 1707\)](#) object

[SpaceName \(p. 338\)](#)

The name of the space.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62}

[Status \(p. 338\)](#)

The status.

Type: String

Valid Values: Deleted | Deleting | Failed | InService | Pending

#### **UserProfileName (p. 338)**

The user profile name.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DescribeAppImageConfig

Service: Amazon SageMaker Service

Describes an AppImageConfig.

### Request Syntax

```
{  
    "AppImageConfigName": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### AppImageConfigName (p. 341)

The name of the AppImageConfig to describe.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9]){0,62}

Required: Yes

### Response Syntax

```
{  
    "AppImageConfigArn": "string",  
    "AppImageConfigName": "string",  
    "CreationTime": number,  
    "KernelGatewayImageConfig": {  
        "FileSystemConfig": {  
            "DefaultGid": number,  
            "DefaultUid": number,  
            "MountPath": "string"  
        },  
        "KernelSpecs": [  
            {  
                "DisplayName": "string",  
                "Name": "string"  
            }  
        ]  
    },  
    "LastModifiedTime": number  
}
```

### Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [AppImageConfigArn \(p. 341\)](#)

The Amazon Resource Name (ARN) of the AppImageConfig.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws:[a-z\-\-]*:sagemaker:[a-z0-9\-\-]*:[0-9]{12}:app-image-config/.*`

### [AppImageConfigName \(p. 341\)](#)

The name of the AppImageConfig.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^ [a-zA-Z0-9] (-* [a-zA-Z0-9]) {0,62}`

### [CreationTime \(p. 341\)](#)

When the AppImageConfig was created.

Type: Timestamp

### [KernelGatewayImageConfig \(p. 341\)](#)

The configuration of a KernelGateway app.

Type: [KernelGatewayImageConfig \(p. 1437\)](#) object

### [LastModifiedTime \(p. 341\)](#)

When the AppImageConfig was last modified.

Type: Timestamp

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)

- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DescribeArtifact

Service: Amazon SageMaker Service

Describes an artifact.

### Request Syntax

```
{  
    "ArtifactArn": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### ArtifactArn (p. 344)

The Amazon Resource Name (ARN) of the artifact to describe.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-\-]*:sagemaker:[a-z0-9\-\-]*:[0-9]{12}:artifact/.*`

Required: Yes

### Response Syntax

```
{  
    "ArtifactArn": "string",  
    "ArtifactName": "string",  
    "ArtifactType": "string",  
    "CreatedBy": {  
        "DomainId": "string",  
        "UserProfileArn": "string",  
        "UserProfileName": "string"  
    },  
    "CreationTime": number,  
    "LastModifiedBy": {  
        "DomainId": "string",  
        "UserProfileArn": "string",  
        "UserProfileName": "string"  
    },  
    "LastModifiedTime": number,  
    "LineageGroupArn": "string",  
    "MetadataProperties": {  
        "CommitId": "string",  
        "GeneratedBy": "string",  
        "ProjectId": "string",  
        "Repository": "string"  
    },  
    "Properties": {  
        "string" : "string"  
    },  
}
```

```
"Source": {  
    "SourceTypes": [  
        {  
            "SourceIdType": "string",  
            "Value": "string"  
        }  
    ],  
    "SourceUri": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [ArtifactArn \(p. 344\)](#)

The Amazon Resource Name (ARN) of the artifact.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-\-]\*:sagemaker:[a-z0-9\-\-]\*:[0-9]{12}:artifact/.\*

### [ArtifactName \(p. 344\)](#)

The name of the artifact.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: (arn:aws[a-z\-\-]\*:sagemaker:[a-z0-9\-\-]\*:[0-9]{12}:(experiment|experiment-trial|experiment-trial-component|artifact|action|context)\|)?([a-zA-Z0-9](-\*[a-zA-Z0-9]){\0,119})

### [ArtifactType \(p. 344\)](#)

The type of the artifact.

Type: String

Length Constraints: Maximum length of 256.

### [CreatedBy \(p. 344\)](#)

Information about the user who created or modified an experiment, trial, trial component, lineage group, project, or model card.

Type: [UserContext \(p. 1822\)](#) object

### [CreationTime \(p. 344\)](#)

When the artifact was created.

Type: Timestamp

### [LastModifiedBy \(p. 344\)](#)

Information about the user who created or modified an experiment, trial, trial component, lineage group, project, or model card.

Type: [UserContext \(p. 1822\)](#) object

**LastModifiedTime (p. 344)**

When the artifact was last modified.

Type: Timestamp

**LineageGroupArn (p. 344)**

The Amazon Resource Name (ARN) of the lineage group.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-\-]*:sagemaker:[a-z0-9\-\-]*:[0-9]{12}:lineage-group/.*`

**MetadataProperties (p. 344)**

Metadata properties of the tracking entity, trial, or trial component.

Type: [MetadataProperties \(p. 1465\)](#) object

**Properties (p. 344)**

A list of the artifact's properties.

Type: String to string map

Map Entries: Maximum number of 30 items.

Key Length Constraints: Maximum length of 256.

Key Pattern: `.*`

Value Length Constraints: Maximum length of 256.

Value Pattern: `.*`

**Source (p. 344)**

The source of the artifact.

Type: [ArtifactSource \(p. 1143\)](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

**ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DescribeAutoMLJob

Service: Amazon SageMaker Service

Returns information about an Amazon SageMaker AutoML job.

### Request Syntax

```
{  
    "AutoMLJobName": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### AutoMLJobName (p. 348)

Requests information about an AutoML job using its unique name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9]){0,31}

Required: Yes

### Response Syntax

```
{  
    "AutoMLJobArn": "string",  
    "AutoMLJobArtifacts": {  
        "CandidateDefinitionNotebookLocation": "string",  
        "DataExplorationNotebookLocation": "string"  
    },  
    "AutoMLJobConfig": {  
        "CandidateGenerationConfig": {  
            "FeatureSpecificationS3Uri": "string"  
        },  
        "CompletionCriteria": {  
            "MaxAutoMLJobRuntimeInSeconds": number,  
            "MaxCandidates": number,  
            "MaxRuntimePerTrainingJobInSeconds": number  
        },  
        "DataSplitConfig": {  
            "ValidationFraction": number  
        },  
        "Mode": "string",  
        "SecurityConfig": {  
            "EnableInterContainerTrafficEncryption": boolean,  
            "VolumeKmsKeyId": "string",  
            "VpcConfig": {  
                "SecurityGroupIds": [ "string" ],  
                "Subnets": [ "string" ]  
            }  
        }  
    }  
}
```

```

},
"AutoMLJobName": "string",
"AutoMLJobObjective": {
    "MetricName": "string"
},
"AutoMLJobSecondaryStatus": "string",
"AutoMLJobStatus": "string",
"BestCandidate": {
    "CandidateName": "string",
    "CandidateProperties": {
        "CandidateArtifactLocations": {
            "Explainability": "string",
            "ModelInsights": "string"
        },
        "CandidateMetrics": [
            {
                "MetricName": "string",
                "Set": "string",
                "StandardMetricName": "string",
                "Value": number
            }
        ]
    },
    "CandidateStatus": "string",
    "CandidateSteps": [
        {
            "CandidateStepArn": "string",
            "CandidateStepName": "string",
            "CandidateStepType": "string"
        }
    ],
    "CreationTime": number,
    "EndTime": number,
    "FailureReason": "string",
    "FinalAutoMLJobObjectiveMetric": {
        "MetricName": "string",
        "Type": "string",
        "Value": number
    },
    "InferenceContainers": [
        {
            "Environment": {
                "string" : "string"
            },
            "Image": "string",
            "ModelDataUrl": "string"
        }
    ],
    "LastModifiedTime": number,
    "ObjectiveStatus": "string"
},
"CreationTime": number,
"EndTime": number,
"FailureReason": "string",
"GenerateCandidateDefinitionsOnly": boolean,
"InputDataConfig": [
    {
        "ChannelType": "string",
        "CompressionType": "string",
        "ContentType": "string",
        "DataSource": {
            "S3DataSource": {
                "S3DataType": "string",
                "S3Uri": "string"
            }
        }
    }
]
}

```

```

        "TargetAttributeName": "string"
    },
    "LastModifiedTime": number,
    "ModelDeployConfig": {
        "AutoGenerateEndpointName": boolean,
        "EndpointName": "string"
    },
    "ModelDeployResult": {
        "EndpointName": "string"
    },
    "OutputDataConfig": {
        "KmsKeyId": "string",
        "S3OutputPath": "string"
    },
    "PartialFailureReasons": [
        {
            "PartialFailureMessage": "string"
        }
    ],
    "ProblemType": "string",
    "ResolvedAttributes": {
        "AutoMLJobObjective": {
            "MetricName": "string"
        },
        "CompletionCriteria": {
            "MaxAutoMLJobRuntimeInSeconds": number,
            "MaxCandidates": number,
            "MaxRuntimePerTrainingJobInSeconds": number
        },
        "ProblemType": "string"
    },
    "RoleArn": "string"
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [AutoMLJobArn \(p. 348\)](#)

Returns the ARN of the AutoML job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: arn:aws[a-z\-\]\*:sagemaker:[a-z0-9\-\]\*:[0-9]{12}:automl-job/.\*

### [AutoMLJobArtifacts \(p. 348\)](#)

Returns information on the job's artifacts found in AutoMLJobArtifacts.

Type: [AutoMLJobArtifacts \(p. 1165\)](#) object

### [AutoMLJobConfig \(p. 348\)](#)

Returns the configuration for the AutoML job.

Type: [AutoMLJobConfig \(p. 1167\)](#) object

### [AutoMLJobName \(p. 348\)](#)

Returns the name of the AutoML job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,31\}

#### [AutoMLJobObjective \(p. 348\)](#)

Returns the job's objective.

Type: [AutoMLJobObjective \(p. 1169\)](#) object

#### [AutoMLJobSecondaryStatus \(p. 348\)](#)

Returns the secondary status of the AutoML job.

Type: String

Valid Values: Starting | AnalyzingData | FeatureEngineering | ModelTuning | MaxCandidatesReached | Failed | Stopped | MaxAutoMLJobRuntimeReached | Stopping | CandidateDefinitionsGenerated | GeneratingExplainabilityReport | Completed | ExplainabilityError | DeployingModel | ModelDeploymentError | GeneratingModelInsightsReport | ModelInsightsError

#### [AutoMLJobStatus \(p. 348\)](#)

Returns the status of the AutoML job.

Type: String

Valid Values: Completed | InProgress | Failed | Stopped | Stopping

#### [BestCandidate \(p. 348\)](#)

Returns the job's best AutoMLCandidate.

Type: [AutoMLCandidate \(p. 1155\)](#) object

#### [CreationTime \(p. 348\)](#)

Returns the creation time of the AutoML job.

Type: Timestamp

#### [EndTime \(p. 348\)](#)

Returns the end time of the AutoML job.

Type: Timestamp

#### [FailureReason \(p. 348\)](#)

Returns the failure reason for an AutoML job, when applicable.

Type: String

Length Constraints: Maximum length of 1024.

#### [GenerateCandidateDefinitionsOnly \(p. 348\)](#)

Indicates whether the output for an AutoML job generates candidate definitions only.

Type: Boolean

#### [InputDataConfig \(p. 348\)](#)

Returns the input data configuration for the AutoML job..

Type: Array of [AutoMLChannel \(p. 1159\)](#) objects

Array Members: Minimum number of 1 item. Maximum number of 2 items.

**LastModifiedTime (p. 348)**

Returns the job's last modified time.

Type: Timestamp

**ModelDeployConfig (p. 348)**

Indicates whether the model was deployed automatically to an endpoint and the name of that endpoint if deployed automatically.

Type: [ModelDeployConfig \(p. 1501\)](#) object

**ModelDeployResult (p. 348)**

Provides information about endpoint for the model deployment.

Type: [ModelDeployResult \(p. 1502\)](#) object

**OutputDataConfig (p. 348)**

Returns the job's output data config.

Type: [AutoMLOutputDataConfig \(p. 1174\)](#) object

**PartialFailureReasons (p. 348)**

Returns a list of reasons for partial failures within an AutoML job.

Type: Array of [AutoMLPartialFailureReason \(p. 1175\)](#) objects

Array Members: Minimum number of 1 item. Maximum number of 5 items.

**ProblemType (p. 348)**

Returns the job's problem type.

Type: String

Valid Values: BinaryClassification | MulticlassClassification | Regression

**ResolvedAttributes (p. 348)**

This contains ProblemType, AutoMLJobObjective, and CompletionCriteria. If you do not provide these values, they are auto-inferred. If you do provide them, the values used are the ones you provide.

Type: [ResolvedAttributes \(p. 1701\)](#) object

**RoleArn (p. 348)**

The Amazon Resource Name (ARN) of the Identity and Access Management (IAM) role that has read permission to the input data location and write permission to the output data location in Amazon S3.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: ^arn:aws[a-z\-\]\*:iam::\d{12}:role/?[a-zA-Z\_0-9+=,.@\-\\_/\]+\$

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DescribeCodeRepository

Service: Amazon SageMaker Service

Gets details about the specified Git repository.

### Request Syntax

```
{  
    "CodeRepositoryName": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [CodeRepositoryName \(p. 354\)](#)

The name of the Git repository to describe.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

### Response Syntax

```
{  
    "CodeRepositoryArn": "string",  
    "CodeRepositoryName": "string",  
    "CreationTime": number,  
    "GitConfig": {  
        "Branch": "string",  
        "RepositoryUrl": "string",  
        "SecretArn": "string"  
    },  
    "LastModifiedTime": number  
}
```

### Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

#### [CodeRepositoryArn \(p. 354\)](#)

The Amazon Resource Name (ARN) of the Git repository.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `arn:aws[a-zA-Z-]*:sagemaker:[a-zA-Z0-9-]*:[0-9]{12}:code-repository/.*`

**CodeRepositoryName (p. 354)**

The name of the Git repository.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])\{0,62\}$`

**CreationTime (p. 354)**

The date and time that the repository was created.

Type: Timestamp

**GitConfig (p. 354)**

Configuration details about the repository, including the URL where the repository is located, the default branch, and the Amazon Resource Name (ARN) of the AWS Secrets Manager secret that contains the credentials used to access the repository.

Type: [GitConfig \(p. 1347\)](#) object

**LastModifiedTime (p. 354)**

The date and time that the repository was last changed.

Type: Timestamp

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DescribeCompilationJob

Service: Amazon SageMaker Service

Returns information about a model compilation job.

To create a model compilation job, use [CreateCompilationJob \(p. 51\)](#). To get information about multiple model compilation jobs, use [ListCompilationJobs \(p. 615\)](#).

### Request Syntax

```
{  
    "CompilationJobName": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### CompilationJobName (p. 356)

The name of the model compilation job that you want information about.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

### Response Syntax

```
{  
    "CompilationEndTime": number,  
    "CompilationJobArn": "string",  
    "CompilationJobName": "string",  
    "CompilationJobStatus": "string",  
    "CompilationStartTime": number,  
    "CreationTime": number,  
    "FailureReason": "string",  
    "InferenceImage": "string",  
    "InputConfig": {  
        "DataInputConfig": "string",  
        "Framework": "string",  
        "FrameworkVersion": "string",  
        "S3Uri": "string"  
    },  
    "LastModifiedTime": number,  
    "ModelArtifacts": {  
        "S3ModelArtifacts": "string"  
    },  
    "ModelDigests": {  
        "ArtifactDigest": "string"  
    },  
    "ModelPackageVersionArn": "string",  
}
```

```

    "OutputConfig": {
        "CompilerOptions": "string",
        "KmsKeyId": "string",
        "S3OutputLocation": "string",
        "TargetDevice": "string",
        "TargetPlatform": {
            "Accelerator": "string",
            "Arch": "string",
            "Os": "string"
        }
    },
    "RoleArn": "string",
    "StoppingCondition": {
        "MaxRuntimeInSeconds": number,
        "MaxWaitTimeInSeconds": number
    },
    "VpcConfig": {
        "SecurityGroupIds": [ "string" ],
        "Subnets": [ "string" ]
    }
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [CompilationEndTime \(p. 356\)](#)

The time when the model compilation job on a compilation job instance ended. For a successful or stopped job, this is when the job's model artifacts have finished uploading. For a failed job, this is when Amazon SageMaker detected that the job failed.

Type: Timestamp

### [CompilationJobArn \(p. 356\)](#)

The Amazon Resource Name (ARN) of the model compilation job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-]\*:sagemaker:[a-z0-9\-]\*:[0-9]{12}:compilation-job/.\*

### [CompilationJobName \(p. 356\)](#)

The name of the model compilation job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

### [CompilationJobStatus \(p. 356\)](#)

The status of the model compilation job.

Type: String

Valid Values: INPROGRESS | COMPLETED | FAILED | STARTING | STOPPING | STOPPED

### [CompilationStartTime \(p. 356\)](#)

The time when the model compilation job started the `CompilationJob` instances.

You are billed for the time between this timestamp and the timestamp in the [DescribeCompilationJob:CompilationEndTime \(p. 357\)](#) field. In Amazon CloudWatch Logs, the start time might be later than this time. That's because it takes time to download the compilation job, which depends on the size of the compilation job container.

Type: `Timestamp`

### [CreationTime \(p. 356\)](#)

The time that the model compilation job was created.

Type: `Timestamp`

### [FailureReason \(p. 356\)](#)

If a model compilation job failed, the reason it failed.

Type: `String`

Length Constraints: Maximum length of 1024.

### [InferenceImage \(p. 356\)](#)

The inference image to use when compiling a model. Specify an image only if the target device is a cloud instance.

Type: `String`

Length Constraints: Maximum length of 256.

### [InputConfig \(p. 356\)](#)

Information about the location in Amazon S3 of the input model artifacts, the name and shape of the expected data inputs, and the framework in which the model was trained.

Type: [InputConfig \(p. 1425\)](#) object

### [LastModifiedTime \(p. 356\)](#)

The time that the status of the model compilation job was last modified.

Type: `Timestamp`

### [ModelArtifacts \(p. 356\)](#)

Information about the location in Amazon S3 that has been configured for storing the model artifacts used in the compilation job.

Type: [ModelArtifacts \(p. 1473\)](#) object

### [ModelDigests \(p. 356\)](#)

Provides a BLAKE2 hash value that identifies the compiled model artifacts in Amazon S3.

Type: [ModelDigests \(p. 1503\)](#) object

### [ModelPackageVersionArn \(p. 356\)](#)

The Amazon Resource Name (ARN) of the versioned model package that was provided to SageMaker Neo when you initiated a compilation job.

Type: `String`

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `arn:aws[a-z\-\-]*:sagemaker:[a-z0-9\-\-]*:[0-9]{12}:model-package/.*`

#### **OutputConfig (p. 356)**

Information about the output location for the compiled model and the target device that the model runs on.

Type: [OutputConfig \(p. 1597\)](#) object

#### **RoleArn (p. 356)**

The Amazon Resource Name (ARN) of an IAM role that Amazon SageMaker assumes to perform the model compilation job.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^arn:aws[a-z\-\-]*:iam::\d{12}:role/?[a-zA-Z_0-9+=,.@\-\-/]+$`

#### **StoppingCondition (p. 356)**

Specifies a limit to how long a model compilation job can run. When the job reaches the time limit, Amazon SageMaker ends the compilation job. Use this API to cap model training costs.

Type: [StoppingCondition \(p. 1742\)](#) object

#### **VpcConfig (p. 356)**

A [VpcConfig \(p. 1829\)](#) object that specifies the VPC that you want your compilation job to connect to. Control access to your models by configuring the VPC. For more information, see [Protect Compilation Jobs by Using an Amazon Virtual Private Cloud](#).

Type: [NeoVpcConfig \(p. 1578\)](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceNotFound**

Resource being accessed is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)

- [AWS SDK for Ruby V3](#)

## DescribeContext

Service: Amazon SageMaker Service

Describes a context.

### Request Syntax

```
{  
    "ContextName": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### ContextName (p. 361)

The name of the context to describe.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: (`arn:aws[a-zA-Z-]*:sagemaker:[a-zA-Z0-9-]*:[0-9]{12}:(experiment|experiment-trial|experiment-trial-component|artifact|action|context)\|?`)`([a-zA-Z0-9](-*[a-zA-Z0-9])\{0,119\})`

Required: Yes

### Response Syntax

```
{  
    "ContextArn": "string",  
    "ContextName": "string",  
    "ContextType": "string",  
    "CreatedBy": {  
        "DomainId": "string",  
        "UserProfileArn": "string",  
        "UserProfileName": "string"  
    },  
    "CreationTime": number,  
    "Description": "string",  
    "LastModifiedBy": {  
        "DomainId": "string",  
        "UserProfileArn": "string",  
        "UserProfileName": "string"  
    },  
    "LastModifiedTime": number,  
    "LineageGroupArn": "string",  
    "Properties": {  
        "string" : "string"  
    },  
    "Source": {  
        "SourceId": "string",  
        "SourceType": "string",  
    }  
}
```

```
        "SourceUri": "string"  
    }  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [ContextArn \(p. 361\)](#)

The Amazon Resource Name (ARN) of the context.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-]\*:sagemaker:[a-z0-9\-]\*:[0-9]{12}:context/.\*

### [ContextName \(p. 361\)](#)

The name of the context.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,119\}

### [ContextType \(p. 361\)](#)

The type of the context.

Type: String

Length Constraints: Maximum length of 256.

### [CreatedBy \(p. 361\)](#)

Information about the user who created or modified an experiment, trial, trial component, lineage group, project, or model card.

Type: [UserContext \(p. 1822\)](#) object

### [CreationTime \(p. 361\)](#)

When the context was created.

Type: Timestamp

### [Description \(p. 361\)](#)

The description of the context.

Type: String

Length Constraints: Maximum length of 3072.

Pattern: .\*

### [LastModifiedBy \(p. 361\)](#)

Information about the user who created or modified an experiment, trial, trial component, lineage group, project, or model card.

Type: [UserContext \(p. 1822\)](#) object

#### [LastModifiedTime \(p. 361\)](#)

When the context was last modified.

Type: Timestamp

#### [LineageGroupArn \(p. 361\)](#)

The Amazon Resource Name (ARN) of the lineage group.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:lineage-group/.*`

#### [Properties \(p. 361\)](#)

A list of the context's properties.

Type: String to string map

Map Entries: Maximum number of 30 items.

Key Length Constraints: Maximum length of 256.

Key Pattern: `.*`

Value Length Constraints: Maximum length of 256.

Value Pattern: `.*`

#### [Source \(p. 361\)](#)

The source of the context.

Type: [ContextSource \(p. 1228\)](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)

- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DescribeDataQualityJobDefinition

Service: Amazon SageMaker Service

Gets the details of a data quality monitoring job definition.

### Request Syntax

```
{  
    "JobDefinitionName": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [JobDefinitionName \(p. 365\)](#)

The name of the data quality monitoring job definition to describe.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\*\$

Required: Yes

### Response Syntax

```
{  
    "CreationTime": number,  
    "DataQualityAppSpecification": {  
        "ContainerArguments": [ "string" ],  
        "ContainerEntrypoint": [ "string" ],  
        "Environment": {  
            "string": "string"  
        },  
        "ImageUri": "string",  
        "PostAnalyticsProcessorSourceUri": "string",  
        "RecordPreprocessorSourceUri": "string"  
    },  
    "DataQualityBaselineConfig": {  
        "BaseliningJobName": "string",  
        "ConstraintsResource": {  
            "S3Uri": "string"  
        },  
        "StatisticsResource": {  
            "S3Uri": "string"  
        }  
    },  
    "DataQualityJobInput": {  
        "BatchTransformInput": {  
            "DataCapturedDestinationS3Uri": "string",  
            "DatasetFormat": {  
                "Type": "string"  
            }  
        }  
    }  
}
```

```

    "Csv": {
        "Header": boolean
    },
    "Json": {
        "Line": boolean
    },
    "Parquet": {
    }
},
"EndTimeOffset": "string",
"FeaturesAttribute": "string",
"InferenceAttribute": "string",
"LocalPath": "string",
"ProbabilityAttribute": "string",
"ProbabilityThresholdAttribute": number,
"S3DataDistributionType": "string",
"S3InputMode": "string",
"StartTimeOffset": "string"
},
"EndpointInput": {
    "EndpointName": "string",
    "EndTimeOffset": "string",
    "FeaturesAttribute": "string",
    "InferenceAttribute": "string",
    "LocalPath": "string",
    "ProbabilityAttribute": "string",
    "ProbabilityThresholdAttribute": number,
    "S3DataDistributionType": "string",
    "S3InputMode": "string",
    "StartTimeOffset": "string"
}
},
"DataQualityJobOutputConfig": {
    "KmsKeyId": "string",
    "MonitoringOutputs": [
        {
            "S3Output": {
                "LocalPath": "string",
                "S3UploadMode": "string",
                "S3Uri": "string"
            }
        }
    ]
},
"JobDefinitionArn": "string",
"JobDefinitionName": "string",
"JobResources": {
    "ClusterConfig": {
        "InstanceCount": number,
        "InstanceType": "string",
        "VolumeKmsKeyId": "string",
        "VolumeSizeInGB": number
    }
},
"NetworkConfig": {
    "EnableInterContainerTrafficEncryption": boolean,
    "EnableNetworkIsolation": boolean,
    "VpcConfig": {
        "SecurityGroupIds": [ "string" ],
        "Subnets": [ "string" ]
    }
},
"RoleArn": "string",
"StoppingCondition": {
    "MaxRuntimeInSeconds": number
}
}

```

}

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [CreationTime \(p. 365\)](#)

The time that the data quality monitoring job definition was created.

Type: Timestamp

### [DataQualityAppSpecification \(p. 365\)](#)

Information about the container that runs the data quality monitoring job.

Type: [DataQualityAppSpecification \(p. 1242\)](#) object

### [DataQualityBaselineConfig \(p. 365\)](#)

The constraints and baselines for the data quality monitoring job definition.

Type: [DataQualityBaselineConfig \(p. 1244\)](#) object

### [DataQualityJobInput \(p. 365\)](#)

The list of inputs for the data quality monitoring job. Currently endpoints are supported.

Type: [DataQualityJobInput \(p. 1245\)](#) object

### [DataQualityJobOutputConfig \(p. 365\)](#)

The output configuration for monitoring jobs.

Type: [MonitoringOutputConfig \(p. 1565\)](#) object

### [JobDefinitionArn \(p. 365\)](#)

The Amazon Resource Name (ARN) of the data quality monitoring job definition.

Type: String

Length Constraints: Maximum length of 256.

Pattern: .\*

### [JobDefinitionName \(p. 365\)](#)

The name of the data quality monitoring job definition.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\*\$

### [JobResources \(p. 365\)](#)

Identifies the resources to deploy for a monitoring job.

Type: [MonitoringResources \(p. 1567\)](#) object

### [NetworkConfig \(p. 365\)](#)

The networking configuration for the data quality monitoring job.

Type: [MonitoringNetworkConfig \(p. 1563\)](#) object

#### **RoleArn (p. 365)**

The Amazon Resource Name (ARN) of an IAM role that Amazon SageMaker can assume to perform tasks on your behalf.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: ^arn:aws[a-zA-Z-]\*:iam::\d{12}:role/?[a-zA-Z\_0-9+=,.@\\-/\_]+\$

#### **StoppingCondition (p. 365)**

A time limit for how long the monitoring job is allowed to run before stopping.

Type: [MonitoringStoppingCondition \(p. 1576\)](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DescribeDevice

Service: Amazon SageMaker Service

Describes the device.

### Request Syntax

```
{  
    "DeviceFleetName": "string",  
    "DeviceName": "string",  
    "NextToken": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### **DeviceFleetName (p. 369)**

The name of the fleet the devices belong to.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9]){0,62}\$

Required: Yes

#### **DeviceName (p. 369)**

The unique ID of the device.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9]){0,62}\$

Required: Yes

#### **NextToken (p. 369)**

Next token of device description.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

### Response Syntax

```
{
```

```
"AgentVersion": "string",
"Description": "string",
"DeviceArn": "string",
"DeviceFleetName": "string",
"DeviceName": "string",
"IotThingName": "string",
"LatestHeartbeat": number,
"MaxModels": number,
"Models": [
  {
    "LatestInference": number,
    "LatestSampleTime": number,
    "ModelName": "string",
    "ModelVersion": "string"
  }
],
"NextToken": "string",
"RegistrationTime": number
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [AgentVersion \(p. 369\)](#)

Edge Manager agent version.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 30.

Pattern: [a-zA-Z0-9\ \\_\.\.]+

### [Description \(p. 369\)](#)

A description of the device.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 40.

Pattern: [\S\s]+

### [DeviceArn \(p. 369\)](#)

The Amazon Resource Name (ARN) of the device.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: ^arn:aws[a-zA-Z\-\\_]\*:[a-zA-Z\-\\_]\*:[a-zA-Z\-\\_]\*:\d{12}:[a-zA-Z\-\\_]\*?/[a-zA-Z\_0-9+=,.@\-\\_/\]+\$

### [DeviceFleetName \(p. 369\)](#)

The name of the fleet the device belongs to.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

#### [DeviceName \(p. 369\)](#)

The unique identifier of the device.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

#### [IoTThingName \(p. 369\)](#)

The AWS Internet of Things (IoT) object thing name associated with the device.

Type: String

Length Constraints: Maximum length of 128.

Pattern: [a-zA-Z0-9:\_-]+

#### [LatestHeartbeat \(p. 369\)](#)

The last heartbeat received from the device.

Type: Timestamp

#### [MaxModels \(p. 369\)](#)

The maximum number of models.

Type: Integer

#### [Models \(p. 369\)](#)

Models on the device.

Type: Array of [EdgeModel \(p. 1287\)](#) objects

#### [NextToken \(p. 369\)](#)

The response from the last list when returning a list large enough to need tokening.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

#### [RegistrationTime \(p. 369\)](#)

The timestamp of the last registration or de-reregistration.

Type: Timestamp

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceNotFound**

Resource being accessed is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DescribeDeviceFleet

Service: Amazon SageMaker Service

A description of the fleet the device belongs to.

### Request Syntax

```
{  
    "DeviceFleetName": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [DeviceFleetName \(p. 373\)](#)

The name of the fleet.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

### Response Syntax

```
{  
    "CreationTime": number,  
    "Description": "string",  
    "DeviceFleetArn": "string",  
    "DeviceFleetName": "string",  
    "IotRoleAlias": "string",  
    "LastModifiedTime": number,  
    "OutputConfig": {  
        "KmsKeyId": "string",  
        "PresetDeploymentConfig": "string",  
        "PresetDeploymentType": "string",  
        "S3OutputLocation": "string"  
    },  
    "RoleArn": "string"  
}
```

### Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

#### [CreationTime \(p. 373\)](#)

Timestamp of when the device fleet was created.

Type: Timestamp

**Description (p. 373)**

A description of the fleet.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 800.

Pattern: [\S\s]+

**DeviceFleetArn (p. 373)**

The The Amazon Resource Name (ARN) of the fleet.

Type: String

Pattern: ^arn:aws[a-zA-Z-]\*:iam::\d{12}:device-fleet/[a-zA-Z\_0-9+=,.@/-/\_/]+\$

**DeviceFleetName (p. 373)**

The name of the fleet.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

**IoTRoleAlias (p. 373)**

The Amazon Resource Name (ARN) alias created in AWS Internet of Things (IoT).

Type: String

Pattern: ^arn:aws[a-zA-Z-]\*:iam::\d{12}:rolealias/[a-zA-Z\_0-9+=,.@/-/\_/]+\$

**LastModifiedTime (p. 373)**

Timestamp of when the device fleet was last updated.

Type: Timestamp

**OutputConfig (p. 373)**

The output configuration for storing sampled data.

Type: [EdgeOutputConfig \(p. 1291\)](#) object

**RoleArn (p. 373)**

The Amazon Resource Name (ARN) that has access to AWS Internet of Things (IoT).

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: ^arn:aws[a-zA-Z-]\*:iam::\d{12}:role/[a-zA-Z\_0-9+=,.@/-/\_/]+\$

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

**ResourceNotFound**

Resource being accessed is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DescribeDomain

Service: Amazon SageMaker Service

The description of the domain.

### Request Syntax

```
{  
    "DomainId": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### DomainId (p. 376)

The domain ID.

Type: String

Length Constraints: Maximum length of 63.

Required: Yes

### Response Syntax

```
{  
    "AppNetworkAccessType": "string",  
    "AppSecurityGroupManagement": "string",  
    "AuthMode": "string",  
    "CreationTime": number,  
    "DefaultSpaceSettings": {  
        "ExecutionRole": "string",  
        "JupyterServerAppSettings": {  
            "CodeRepositories": [  
                {  
                    "RepositoryUrl": "string"  
                }  
            ],  
            "DefaultResourceSpec": {  
                "InstanceType": "string",  
                "LifecycleConfigArn": "string",  
                "SageMakerImageArn": "string",  
                "SageMakerImageVersionArn": "string"  
            },  
            "LifecycleConfigArns": [ "string" ]  
        },  
        "KernelGatewayAppSettings": {  
            "CustomImages": [  
                {  
                    "AppImageConfigName": "string",  
                    "ImageName": "string",  
                    "ImageVersionNumber": number  
                }  
            ],  
            "ImageOptimizer": "string"  
        }  
    },  
    "DomainSummary": {  
        "DomainId": "string",  
        "DomainStatus": "string",  
        "DomainStatusReason": "string",  
        "DomainArn": "string",  
        "DomainName": "string",  
        "DomainCreationTime": number  
    }  
}
```

```

    "DefaultResourceSpec": {
        "InstanceType": "string",
        "LifecycleConfigArn": "string",
        "SageMakerImageArn": "string",
        "SageMakerImageVersionArn": "string"
    },
    "LifecycleConfigArns": [ "string" ]
},
"SecurityGroups": [ "string" ]
},
"DefaultUserSettings": {
    "CanvasAppSettings": {
        "TimeSeriesForecastingSettings": {
            "AmazonForecastRoleArn": "string",
            "Status": "string"
        }
    },
    "ExecutionRole": "string",
    "JupyterServerAppSettings": {
        "CodeRepositories": [
            {
                "RepositoryUrl": "string"
            }
        ],
        "DefaultResourceSpec": {
            "InstanceType": "string",
            "LifecycleConfigArn": "string",
            "SageMakerImageArn": "string",
            "SageMakerImageVersionArn": "string"
        },
        "LifecycleConfigArns": [ "string" ]
    },
    "KernelGatewayAppSettings": {
        "CustomImages": [
            {
                "AppImageConfigName": "string",
                "ImageName": "string",
                "ImageVersionNumber": number
            }
        ],
        "DefaultResourceSpec": {
            "InstanceType": "string",
            "LifecycleConfigArn": "string",
            "SageMakerImageArn": "string",
            "SageMakerImageVersionArn": "string"
        },
        "LifecycleConfigArns": [ "string" ]
    },
    "RSessionAppSettings": {
        "CustomImages": [
            {
                "AppImageConfigName": "string",
                "ImageName": "string",
                "ImageVersionNumber": number
            }
        ],
        "DefaultResourceSpec": {
            "InstanceType": "string",
            "LifecycleConfigArn": "string",
            "SageMakerImageArn": "string",
            "SageMakerImageVersionArn": "string"
        }
    },
    "RStudioServerProAppSettings": {
        "AccessStatus": "string",
        "UserGroup": "string"
    }
}

```

```

        },
        "SecurityGroups": [ "string" ],
        "SharingSettings": {
            "NotebookOutputOption": "string",
            "S3KmsKeyId": "string",
            "S3OutputPath": "string"
        },
        "TensorBoardAppSettings": {
            "DefaultResourceSpec": {
                "InstanceType": "string",
                "LifecycleConfigArn": "string",
                "SageMakerImageArn": "string",
                "SageMakerImageVersionArn": "string"
            }
        }
    },
    "DomainArn": "string",
    "DomainId": "string",
    "DomainName": "string",
    "DomainSettings": {
        "ExecutionRoleIdentityConfig": "string",
        "RStudioServerProDomainSettings": {
            "DefaultResourceSpec": {
                "InstanceType": "string",
                "LifecycleConfigArn": "string",
                "SageMakerImageArn": "string",
                "SageMakerImageVersionArn": "string"
            },
            "DomainExecutionRoleArn": "string",
            "RStudioConnectUrl": "string",
            "RStudioPackageManagerUrl": "string"
        },
        "SecurityGroupIds": [ "string" ]
    },
    "FailureReason": "string",
    "HomeEfsFileSystemId": "string",
    "HomeEfsFileSystemKmsKeyId": "string",
    "KmsKeyId": "string",
    "LastModifiedTime": number,
    "SecurityGroupIdForDomainBoundary": "string",
    "SingleSignOnManagedApplicationInstanceId": "string",
    "Status": "string",
    "SubnetIds": [ "string" ],
    "Url": "string",
    "VpcId": "string"
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [AppNetworkAccessType \(p. 376\)](#)

Specifies the VPC used for non-EFS traffic. The default value is PublicInternetOnly.

- PublicInternetOnly - Non-EFS traffic is through a VPC managed by Amazon SageMaker, which allows direct internet access
- VpcOnly - All Studio traffic is through the specified VPC and subnets

Type: String

Valid Values: PublicInternetOnly | VpcOnly

### [AppSecurityGroupManagement \(p. 376\)](#)

The entity that creates and manages the required security groups for inter-app communication in VPCOnly mode. Required when `CreateDomain.AppNetworkAccessType` is `VPCOnly` and `DomainSettings.RStudioServerProDomainSettings.DomainExecutionRoleArn` is provided.

Type: String

Valid Values: Service | Customer

### [AuthMode \(p. 376\)](#)

The domain's authentication mode.

Type: String

Valid Values: SSO | IAM

### [CreationTime \(p. 376\)](#)

The creation time.

Type: Timestamp

### [DefaultSpaceSettings \(p. 376\)](#)

The default settings used to create a space.

Type: [DefaultSpaceSettings \(p. 1255\)](#) object

### [DefaultUserSettings \(p. 376\)](#)

Settings which are applied to UserProfiles in this domain if settings are not explicitly specified in a given UserProfile.

Type: [UserSettings \(p. 1825\)](#) object

### [DomainArn \(p. 376\)](#)

The domain's Amazon Resource Name (ARN).

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-\]*:sagemaker:[a-z0-9\-\]*:[0-9]{12}:domain/.*`

### [DomainId \(p. 376\)](#)

The domain ID.

Type: String

Length Constraints: Maximum length of 63.

### [DomainName \(p. 376\)](#)

The domain name.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^ [a-zA-Z0-9](-*[a-zA-Z0-9]) {0,62}`

[DomainSettings \(p. 376\)](#)

A collection of Domain settings.

Type: [DomainSettings \(p. 1273\)](#) object

[FailureReason \(p. 376\)](#)

The failure reason.

Type: String

Length Constraints: Maximum length of 1024.

[HomeEfsFileSystemId \(p. 376\)](#)

The ID of the Amazon Elastic File System (EFS) managed by this Domain.

Type: String

Length Constraints: Maximum length of 32.

[HomeEfsFileSystemKmsKeyId \(p. 376\)](#)

*This parameter has been deprecated.*

Use KmsKeyId.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: .\*

[KmsKeyId \(p. 376\)](#)

The AWS KMS customer managed key used to encrypt the EFS volume attached to the domain.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: .\*

[LastModifiedTime \(p. 376\)](#)

The last modified time.

Type: Timestamp

[SecurityGroupIdForDomainBoundary \(p. 376\)](#)

The ID of the security group that authorizes traffic between the RSessionGateway apps and the RStudioServerPro app.

Type: String

Length Constraints: Maximum length of 32.

Pattern: [-0-9a-zA-Z]+

[SingleSignOnManagedApplicationInstanceId \(p. 376\)](#)

The IAM Identity Center managed application instance ID.

Type: String

Length Constraints: Maximum length of 256.

#### [Status \(p. 376\)](#)

The status.

Type: String

Valid Values: Deleting | Failed | InService | Pending | Updating | Update\_Failed | Delete\_Failed

#### [SubnetIds \(p. 376\)](#)

The VPC subnets that Studio uses for communication.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 16 items.

Length Constraints: Maximum length of 32.

Pattern: [-0-9a-zA-Z]+

#### [Url \(p. 376\)](#)

The domain's URL.

Type: String

Length Constraints: Maximum length of 1024.

#### [VpcId \(p. 376\)](#)

The ID of the Amazon Virtual Private Cloud (VPC) that Studio uses for communication.

Type: String

Length Constraints: Maximum length of 32.

Pattern: [-0-9a-zA-Z]+

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)

- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DescribeEdgeDeploymentPlan

Service: Amazon SageMaker Service

Describes an edge deployment plan with deployment status per stage.

### Request Syntax

```
{  
    "EdgeDeploymentPlanName": "string",  
    "MaxResults": number,  
    "NextToken": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [EdgeDeploymentPlanName \(p. 383\)](#)

The name of the deployment plan to describe.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9]){0,62}\$

Required: Yes

#### [MaxResults \(p. 383\)](#)

The maximum number of results to select (50 by default).

Type: Integer

Valid Range: Maximum value of 10.

Required: No

#### [NextToken \(p. 383\)](#)

If the edge deployment plan has enough stages to require tokening, then this is the response from the last list of stages returned.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

### Response Syntax

```
{
```

```

    "CreationTime": number,
    "DeviceFleetName": "string",
    "EdgeDeploymentFailed": number,
    "EdgeDeploymentPending": number,
    "EdgeDeploymentPlanArn": "string",
    "EdgeDeploymentPlanName": "string",
    "EdgeDeploymentSuccess": number,
    "LastModifiedTime": number,
    "ModelConfigs": [
        {
            "EdgePackagingJobName": "string",
            "ModelHandle": "string"
        }
    ],
    "NextToken": "string",
    "Stages": [
        {
            "DeploymentConfig": {
                "FailureHandlingPolicy": "string"
            },
            "DeploymentStatus": {
                "EdgeDeploymentFailedInStage": number,
                "EdgeDeploymentPendingInStage": number,
                "EdgeDeploymentStageStartTime": number,
                "EdgeDeploymentStatusMessage": "string",
                "EdgeDeploymentSuccessInStage": number,
                "StageStatus": "string"
            },
            "DeviceSelectionConfig": {
                "DeviceNameContains": "string",
                "DeviceNames": [ "string" ],
                "DeviceSubsetType": "string",
                "Percentage": number
            },
            "StageName": "string"
        }
    ]
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [CreationTime \(p. 383\)](#)

The time when the edge deployment plan was created.

Type: Timestamp

### [DeviceFleetName \(p. 383\)](#)

The device fleet used for this edge deployment plan.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

### [EdgeDeploymentFailed \(p. 383\)](#)

The number of edge devices that failed the deployment.

Type: Integer

#### [EdgeDeploymentPending \(p. 383\)](#)

The number of edge devices yet to pick up deployment, or in progress.

Type: Integer

#### [EdgeDeploymentPlanArn \(p. 383\)](#)

The ARN of edge deployment plan.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: ^arn:aws[a-zA-Z-]\*:sagemaker:[a-zA-Z-]\*:\d{12}:edge-deployment/?[a-zA-Z\_0-9+=,.@\\-\_]+\$

#### [EdgeDeploymentPlanName \(p. 383\)](#)

The name of the edge deployment plan.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

#### [EdgeDeploymentSuccess \(p. 383\)](#)

The number of edge devices with the successful deployment.

Type: Integer

#### [LastModifiedTime \(p. 383\)](#)

The time when the edge deployment plan was last updated.

Type: Timestamp

#### [ModelConfigs \(p. 383\)](#)

List of models associated with the edge deployment plan.

Type: Array of [EdgeDeploymentModelConfig \(p. 1282\)](#) objects

#### [NextToken \(p. 383\)](#)

Token to use when calling the next set of stages in the edge deployment plan.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

#### [Stages \(p. 383\)](#)

List of stages in the edge deployment plan.

Type: Array of [DeploymentStageStatusSummary \(p. 1259\)](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DescribeEdgePackagingJob

Service: Amazon SageMaker Service

A description of edge packaging jobs.

## Request Syntax

```
{  
    "EdgePackagingJobName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### EdgePackagingJobName ([p. 387](#))

The name of the edge packaging job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

## Response Syntax

```
{  
    "CompilationJobName": "string",  
    "CreationTime": number,  
    "EdgePackagingJobArn": "string",  
    "EdgePackagingJobName": "string",  
    "EdgePackagingJobStatus": "string",  
    "EdgePackagingJobStatusMessage": "string",  
    "LastModifiedTime": number,  
    "ModelArtifact": "string",  
    "modelName": "string",  
    "ModelSignature": "string",  
    "ModelVersion": "string",  
    "OutputConfig": {  
        "KmsKeyId": "string",  
        "PresetDeploymentConfig": "string",  
        "PresetDeploymentType": "string",  
        "S3OutputLocation": "string"  
    },  
    "PresetDeploymentOutput": {  
        "Artifact": "string",  
        "Status": "string",  
        "StatusMessage": "string",  
        "Type": "string"  
    },  
    "ResourceKey": "string",  
    "RoleArn": "string"
```

}

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [CompilationJobName \(p. 387\)](#)

The name of the SageMaker Neo compilation job that is used to locate model artifacts that are being packaged.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

### [CreationTime \(p. 387\)](#)

The timestamp of when the packaging job was created.

Type: Timestamp

### [EdgePackagingJobArn \(p. 387\)](#)

The Amazon Resource Name (ARN) of the edge packaging job.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: ^arn:aws[a-zA-Z-]\*:sagemaker:[a-zA-Z-]\*:\d{12}:edge-packaging-job/[a-zA-Z\_0-9+=,.@/-/\_/]+\\$

### [EdgePackagingJobName \(p. 387\)](#)

The name of the edge packaging job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

### [EdgePackagingJobStatus \(p. 387\)](#)

The current status of the packaging job.

Type: String

Valid Values: STARTING | INPROGRESS | COMPLETED | FAILED | STOPPING | STOPPED

### [EdgePackagingJobStatusMessage \(p. 387\)](#)

Returns a message describing the job status and error messages.

Type: String

### [LastModifiedTime \(p. 387\)](#)

The timestamp of when the job was last updated.

Type: Timestamp

**ModelArtifact (p. 387)**

The Amazon Simple Storage (S3) URI where model artifacts are stored.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3)://([^\/]*)/?(.*)$`

**ModelName (p. 387)**

The name of the model.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])\{0,62\}$`

**ModelSignature (p. 387)**

The signature document of files in the model artifact.

Type: String

**ModelVersion (p. 387)**

The version of the model.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 30.

Pattern: `[a-zA-Z0-9\\ \\_.\\ ]+`

**OutputConfig (p. 387)**

The output configuration for the edge packaging job.

Type: [EdgeOutputConfig \(p. 1291\)](#) object

**PresetDeploymentOutput (p. 387)**

The output of a SageMaker Edge Manager deployable resource.

Type: [EdgePresetDeploymentOutput \(p. 1295\)](#) object

**ResourceKey (p. 387)**

The AWS KMS key to use when encrypting the EBS volume the job runs on.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `.*`

**RoleArn (p. 387)**

The Amazon Resource Name (ARN) of an IAM role that enables Amazon SageMaker to download and upload the model, and to contact Neo.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: ^arn:aws[a-zA-Z-]\*:iam::\d{12}:role/?[a-zA-Z\_0-9+=,.@\\-\_/]+\$

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DescribeEndpoint

Service: Amazon SageMaker Service

Returns the description of an endpoint.

### Request Syntax

```
{  
    "EndpointName": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### EndpointName ([p. 391](#))

The name of the endpoint.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: Yes

### Response Syntax

```
{  
    "AsyncInferenceConfig": {  
        "ClientConfig": {  
            "MaxConcurrentInvocationsPerInstance": number  
        },  
        "OutputConfig": {  
            "KmsKeyId": "string",  
            "NotificationConfig": {  
                "ErrorTopic": "string",  
                "SuccessTopic": "string"  
            },  
            "S3OutputPath": "string"  
        }  
    },  
    "CreationTime": number,  
    "DataCaptureConfig": {  
        "CaptureStatus": "string",  
        "CurrentSamplingPercentage": number,  
        "DestinationS3Uri": "string",  
        "EnableCapture": boolean,  
        "KmsKeyId": "string"  
    },  
    "EndpointArn": "string",  
    "EndpointConfigName": "string",  
    "EndpointName": "string",  
    "EndpointStatus": "string",  
    "ExplainerConfig": {  
        "ClarifyExplainerConfig": {  
    }
```

```

    "EnableExplanations": "string",
    "InferenceConfig": {
        "ContentTemplate": "string",
        "FeatureHeaders": [ "string" ],
        "FeaturesAttribute": "string",
        "FeatureTypes": [ "string" ],
        "LabelAttribute": "string",
        "LabelHeaders": [ "string" ],
        "LabelIndex": number,
        "MaxPayloadInMB": number,
        "MaxRecordCount": number,
        "ProbabilityAttribute": "string",
        "ProbabilityIndex": number
    },
    "ShapConfig": {
        "NumberOfSamples": number,
        "Seed": number,
        "ShapBaselineConfig": {
            "MimeType": "string",
            "ShapBaseline": "string",
            "ShapBaselineUri": "string"
        },
        "TextConfig": {
            "Granularity": "string",
            "Language": "string"
        },
        "UseLogit": boolean
    }
},
{
    "FailureReason": "string",
    "LastDeploymentConfig": {
        "AutoRollbackConfiguration": {
            "Alarms": [
                {
                    "AlarmName": "string"
                }
            ]
        },
        "BlueGreenUpdatePolicy": {
            "MaximumExecutionTimeoutInSeconds": number,
            "TerminationWaitInSeconds": number,
            "TrafficRoutingConfiguration": {
                "CanarySize": {
                    "Type": "string",
                    "Value": number
                },
                "LinearStepSize": {
                    "Type": "string",
                    "Value": number
                },
                "Type": "string",
                "WaitIntervalInSeconds": number
            }
        }
    },
    "LastModifiedTime": number,
    "PendingDeploymentSummary": {
        "EndpointConfigName": "string",
        "ProductionVariants": [
            {
                "AcceleratorType": "string",
                "CurrentInstanceCount": number,
                "CurrentServerlessConfig": {
                    "MaxConcurrency": number,
                    "MemorySizeInMB": number
                }
            }
        ]
    }
}

```

```

        },
        "CurrentWeight": number,
        "DeployedImages": [
            {
                "ResolutionTime": number,
                "ResolvedImage": "string",
                "SpecifiedImage": "string"
            }
        ],
        "DesiredInstanceCount": number,
        "DesiredServerlessConfig": {
            "MaxConcurrency": number,
            "MemorySizeInMB": number
        },
        "DesiredWeight": number,
        "InstanceType": "string",
        "VariantName": "string",
        "VariantStatus": [
            {
                "StartTime": number,
                "Status": "string",
                "StatusMessage": "string"
            }
        ]
    }
],
"ShadowProductionVariants": [
    {
        "AcceleratorType": "string",
        "CurrentInstanceCount": number,
        "CurrentServerlessConfig": {
            "MaxConcurrency": number,
            "MemorySizeInMB": number
        },
        "CurrentWeight": number,
        "DeployedImages": [
            {
                "ResolutionTime": number,
                "ResolvedImage": "string",
                "SpecifiedImage": "string"
            }
        ],
        "DesiredInstanceCount": number,
        "DesiredServerlessConfig": {
            "MaxConcurrency": number,
            "MemorySizeInMB": number
        },
        "DesiredWeight": number,
        "InstanceType": "string",
        "VariantName": "string",
        "VariantStatus": [
            {
                "StartTime": number,
                "Status": "string",
                "StatusMessage": "string"
            }
        ]
    }
],
"StartTime": number
},
"ProductionVariants": [
    {
        "CurrentInstanceCount": number,
        "CurrentServerlessConfig": {
            "MaxConcurrency": number,

```

```

        "MemorySizeInMB": number
    },
    "CurrentWeight": number,
    "DeployedImages": [
        {
            "ResolutionTime": number,
            "ResolvedImage": "string",
            "SpecifiedImage": "string"
        }
    ],
    "DesiredInstanceCount": number,
    "DesiredServerlessConfig": {
        "MaxConcurrency": number,
        "MemorySizeInMB": number
    },
    "DesiredWeight": number,
    "VariantName": "string",
    "VariantStatus": [
        {
            "StartTime": number,
            "Status": "string",
            "StatusMessage": "string"
        }
    ]
},
],
"ShadowProductionVariants": [
    {
        "CurrentInstanceCount": number,
        "CurrentServerlessConfig": {
            "MaxConcurrency": number,
            "MemorySizeInMB": number
        },
        "CurrentWeight": number,
        "DeployedImages": [
            {
                "ResolutionTime": number,
                "ResolvedImage": "string",
                "SpecifiedImage": "string"
            }
        ],
        "DesiredInstanceCount": number,
        "DesiredServerlessConfig": {
            "MaxConcurrency": number,
            "MemorySizeInMB": number
        },
        "DesiredWeight": number,
        "VariantName": "string",
        "VariantStatus": [
            {
                "StartTime": number,
                "Status": "string",
                "StatusMessage": "string"
            }
        ]
    }
]
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

[AsyncInferenceConfig \(p. 391\)](#)

Returns the description of an endpoint configuration created using the [CreateEndpointConfig](#) API.

Type: [AsyncInferenceConfig \(p. 1150\)](#) object

[CreationTime \(p. 391\)](#)

A timestamp that shows when the endpoint was created.

Type: Timestamp

[DataCaptureConfig \(p. 391\)](#)

The currently active data capture configuration used by your Endpoint.

Type: [DataCaptureConfigSummary \(p. 1237\)](#) object

[EndpointArn \(p. 391\)](#)

The Amazon Resource Name (ARN) of the endpoint.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[a-zA-Z-]*:sagemaker:[a-zA-Z0-9-]*:[0-9]{12}:endpoint/.*`

[EndpointConfigName \(p. 391\)](#)

The name of the endpoint configuration associated with this endpoint.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[-a-zA-Z0-9](-*[a-zA-Z0-9])\{0,62\}`

[EndpointName \(p. 391\)](#)

Name of the endpoint.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[-a-zA-Z0-9](-*[a-zA-Z0-9])\{0,62\}`

[EndpointStatus \(p. 391\)](#)

The status of the endpoint.

- `OutOfService`: Endpoint is not available to take incoming requests.
- `Creating`: [CreateEndpoint \(p. 81\)](#) is executing.
- `Updating`: [UpdateEndpoint \(p. 924\)](#) or [UpdateEndpointWeightsAndCapacities \(p. 928\)](#) is executing.
- `SystemUpdating`: Endpoint is undergoing maintenance and cannot be updated or deleted or re-scaled until it has completed. This maintenance operation does not change any customer-specified values such as VPC config, KMS encryption, model, instance type, or instance count.
- `RollingBack`: Endpoint fails to scale up or down or change its variant weight and is in the process of rolling back to its previous configuration. Once the rollback completes, endpoint returns to an `InService` status. This transitional status only applies to an endpoint that has autoscaling enabled and is undergoing variant weight or capacity

changes as part of an [UpdateEndpointWeightsAndCapacities \(p. 928\)](#) call or when the [UpdateEndpointWeightsAndCapacities \(p. 928\)](#) operation is called explicitly.

- **InService:** Endpoint is available to process incoming requests.
- **Deleting:** [DeleteEndpoint \(p. 263\)](#) is executing.
- **Failed:** Endpoint could not be created, updated, or re-scaled. Use [DescribeEndpoint:FailureReason \(p. 396\)](#) for information about the failure. [DeleteEndpoint \(p. 263\)](#) is the only operation that can be performed on a failed endpoint.

Type: String

Valid Values: OutOfService | Creating | Updating | SystemUpdating | RollingBack | InService | Deleting | Failed

#### [ExplainerConfig \(p. 391\)](#)

The configuration parameters for an explainer.

Type: [ExplainerConfig \(p. 1323\)](#) object

#### [FailureReason \(p. 391\)](#)

If the status of the endpoint is Failed, the reason why it failed.

Type: String

Length Constraints: Maximum length of 1024.

#### [LastDeploymentConfig \(p. 391\)](#)

The most recent deployment configuration for the endpoint.

Type: [DeploymentConfig \(p. 1257\)](#) object

#### [LastModifiedTime \(p. 391\)](#)

A timestamp that shows when the endpoint was last modified.

Type: Timestamp

#### [PendingDeploymentSummary \(p. 391\)](#)

Returns the summary of an in-progress deployment. This field is only returned when the endpoint is creating or updating with a new endpoint configuration.

Type: [PendingDeploymentSummary \(p. 1610\)](#) object

#### [ProductionVariants \(p. 391\)](#)

An array of [ProductionVariantSummary \(p. 1658\)](#) objects, one for each model hosted behind this endpoint.

Type: Array of [ProductionVariantSummary \(p. 1658\)](#) objects

Array Members: Minimum number of 1 item.

#### [ShadowProductionVariants \(p. 391\)](#)

An array of [ProductionVariantSummary \(p. 1658\)](#) objects, one for each model that you want to host at this endpoint in shadow mode with production traffic replicated from the model specified on ProductionVariants.

Type: Array of [ProductionVariantSummary \(p. 1658\)](#) objects

Array Members: Minimum number of 1 item.

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DescribeEndpointConfig

Service: Amazon SageMaker Service

Returns the description of an endpoint configuration created using the [CreateEndpointConfig API](#).

### Request Syntax

```
{  
    "EndpointConfigName": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### EndpointConfigName ([p. 398](#))

The name of the endpoint configuration.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: Yes

### Response Syntax

```
{  
    "AsyncInferenceConfig": {  
        "ClientConfig": {  
            "MaxConcurrentInvocationsPerInstance": number  
        },  
        "OutputConfig": {  
            "KmsKeyId": "string",  
            "NotificationConfig": {  
                "ErrorTopic": "string",  
                "SuccessTopic": "string"  
            },  
            "S3OutputPath": "string"  
        }  
    },  
    "CreationTime": number,  
    "DataCaptureConfig": {  
        "CaptureContentTypeHeader": {  
            "CsvContentTypes": [ "string" ],  
            "JsonContentTypes": [ "string" ]  
        },  
        "CaptureOptions": [  
            {  
                "CaptureMode": "string"  
            }  
        ],  
        "DestinationS3Uri": "string",  
        "LocalSecondaryIndexes": [  
            {  
                "IndexName": "string",  
                "KeyConditionExpression": "string",  
                "ProjectionType": "string"  
            }  
        ]  
    },  
    "FeatureConfig": [  
        {  
            "FeatureName": "string",  
            "FeatureType": "string",  
            "Type": "string"  
        }  
    ],  
    "InferenceConfig": {  
        "ClientConfig": {  
            "MaxConcurrentInvocationsPerInstance": number  
        },  
        "OutputConfig": {  
            "KmsKeyId": "string",  
            "NotificationConfig": {  
                "ErrorTopic": "string",  
                "SuccessTopic": "string"  
            },  
            "S3OutputPath": "string"  
        }  
    },  
    "ModelArn": "string",  
    "ModelName": "string",  
    "ModelType": "string",  
    "State": "string",  
    "Tags": [  
        {  
            "Key": "string",  
            "Value": "string"  
        }  
    ]  
}
```

```

        "EnableCapture": boolean,
        "InitialSamplingPercentage": number,
        "KmsKeyId": string
    },
    "EndpointConfigArn": string,
    "EndpointConfigName": string,
    "ExplainerConfig": {
        "ClarifyExplainerConfig": {
            "EnableExplanations": string,
            "InferenceConfig": {
                "ContentTemplate": string,
                "FeatureHeaders": [ string ],
                "FeaturesAttribute": string,
                "FeatureTypes": [ string ],
                "LabelAttribute": string,
                "LabelHeaders": [ string ],
                "LabelIndex": number,
                "MaxPayloadInMB": number,
                "MaxRecordCount": number,
                "ProbabilityAttribute": string,
                "ProbabilityIndex": number
            },
            "ShapConfig": {
                "NumberOfSamples": number,
                "Seed": number,
                "ShapBaselineConfig": {
                    "MimeType": string,
                    "ShapBaseline": string,
                    "ShapBaselineUri": string
                },
                "TextConfig": {
                    "Granularity": string,
                    "Language": string
                },
                "UseLogit": boolean
            }
        }
    },
    "KmsKeyId": string,
    "ProductionVariants": [
        {
            "AcceleratorType": string,
            "ContainerStartupHealthCheckTimeoutInSeconds": number,
            "CoreDumpConfig": {
                "DestinationS3Uri": string,
                "KmsKeyId": string
            },
            "InitialInstanceCount": number,
            "InitialVariantWeight": number,
            "InstanceType": string,
            "ModelDataDownloadTimeoutInSeconds": number,
            "modelName": string,
            "ServerlessConfig": {
                "MaxConcurrency": number,
                "MemorySizeInMB": number
            },
            "VariantName": string,
            "VolumeSizeInGB": number
        }
    ],
    "ShadowProductionVariants": [
        {
            "AcceleratorType": string,
            "ContainerStartupHealthCheckTimeoutInSeconds": number,
            "CoreDumpConfig": {
                "DestinationS3Uri": string,

```

```
        "KmsKeyId": "string"
    },
    "InitialInstanceCount": number,
    "InitialVariantWeight": number,
    "InstanceType": "string",
    "ModelDataDownloadTimeoutInSeconds": number,
    "modelName": "string",
    "ServerlessConfig": {
        "MaxConcurrency": number,
        "MemorySizeInMB": number
    },
    "variantName": "string",
    "VolumeSizeInGB": number
}
]
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [AsyncInferenceConfig \(p. 398\)](#)

Returns the description of an endpoint configuration created using the [CreateEndpointConfig](#) API.

Type: [AsyncInferenceConfig \(p. 1150\)](#) object

### [CreationTime \(p. 398\)](#)

A timestamp that shows when the endpoint configuration was created.

Type: Timestamp

### [DataCaptureConfig \(p. 398\)](#)

Configuration to control how SageMaker captures inference data.

Type: [DataCaptureConfig \(p. 1235\)](#) object

### [EndpointConfigArn \(p. 398\)](#)

The Amazon Resource Name (ARN) of the endpoint configuration.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: arn:aws:[a-z\-\-]\*:sagemaker:[a-z0-9\-\-]\*:[0-9]{12}:endpoint-config/.\*

### [EndpointConfigName \(p. 398\)](#)

Name of the SageMaker endpoint configuration.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

### [ExplainerConfig \(p. 398\)](#)

The configuration parameters for an explainer.

Type: [ExplainerConfig \(p. 1323\)](#) object

#### [KmsKeyId \(p. 398\)](#)

AWS KMS key ID Amazon SageMaker uses to encrypt data when storing it on the ML storage volume attached to the instance.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: .\*

#### [ProductionVariants \(p. 398\)](#)

An array of ProductionVariant objects, one for each model that you want to host at this endpoint.

Type: Array of [ProductionVariant \(p. 1651\)](#) objects

Array Members: Minimum number of 1 item. Maximum number of 10 items.

#### [ShadowProductionVariants \(p. 398\)](#)

An array of ProductionVariant objects, one for each model that you want to host at this endpoint in shadow mode with production traffic replicated from the model specified on ProductionVariants.

Type: Array of [ProductionVariant \(p. 1651\)](#) objects

Array Members: Minimum number of 1 item. Maximum number of 10 items.

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DescribeExperiment

Service: Amazon SageMaker Service

Provides a list of an experiment's properties.

### Request Syntax

```
{  
    "ExperimentName": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### ExperimentName (p. 402)

The name of the experiment to describe.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,119\}

Required: Yes

### Response Syntax

```
{  
    "CreatedBy": {  
        "DomainId": "string",  
        "UserProfileArn": "string",  
        "UserProfileName": "string"  
    },  
    "CreationTime": number,  
    "Description": "string",  
    "DisplayName": "string",  
    "ExperimentArn": "string",  
    "ExperimentName": "string",  
    "LastModifiedBy": {  
        "DomainId": "string",  
        "UserProfileArn": "string",  
        "UserProfileName": "string"  
    },  
    "LastModifiedTime": number,  
    "Source": {  
        "SourceArn": "string",  
        "SourceType": "string"  
    }  
}
```

### Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**CreatedBy (p. 402)**

Who created the experiment.

Type: [UserContext \(p. 1822\)](#) object

**CreationTime (p. 402)**

When the experiment was created.

Type: Timestamp

**Description (p. 402)**

The description of the experiment.

Type: String

Length Constraints: Maximum length of 3072.

Pattern: .\*

**DisplayName (p. 402)**

The name of the experiment as displayed. If DisplayName isn't specified, ExperimentName is displayed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,119\}

**ExperimentArn (p. 402)**

The Amazon Resource Name (ARN) of the experiment.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-zA-Z-]\*:sagemaker:[a-zA-Z0-9-]\*:[0-9]\{12\}:experiment/.\*

**ExperimentName (p. 402)**

The name of the experiment.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,119\}

**LastModifiedBy (p. 402)**

Who last modified the experiment.

Type: [UserContext \(p. 1822\)](#) object

**LastModifiedTime (p. 402)**

When the experiment was last modified.

Type: Timestamp

### [Source \(p. 402\)](#)

The Amazon Resource Name (ARN) of the source and, optionally, the type.

Type: [ExperimentSource \(p. 1319\)](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DescribeFeatureGroup

Service: Amazon SageMaker Service

Use this operation to describe a FeatureGroup. The response includes information on the creation time, FeatureGroup name, the unique identifier for each FeatureGroup, and more.

### Request Syntax

```
{  
    "FeatureGroupName": "string",  
    "NextToken": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [FeatureGroupName \(p. 405\)](#)

The name of the FeatureGroup you want described.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,63\}

Required: Yes

#### [NextToken \(p. 405\)](#)

A token to resume pagination of the list of Features (FeatureDefinitions). 2,500 Features are returned by default.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

### Response Syntax

```
{  
    "CreationTime": number,  
    "Description": "string",  
    "EventTimeFeatureName": "string",  
    "FailureReason": "string",  
    "FeatureDefinitions": [  
        {  
            "FeatureName": "string",  
            "FeatureType": "string"  
        }  
    ],  
    "FeatureGroupArn": "string",  
    "LastModifiedDate": number,  
    "Status": "Active" | "Deleting" | "Failed" | "InService" | "PendingDelete" | "Testing",  
    "StatusUpdateReason": "string",  
    "Tags": [  
        {  
            "Key": "string",  
            "Value": "string"  
        }  
    ]  
}
```

```
"FeatureGroupName": "string",
"FeatureGroupStatus": "string",
"LastModifiedTime": number,
"LastUpdateStatus": {
    "FailureReason": "string",
    "Status": "string"
},
"NextToken": "string",
"OfflineStoreConfig": {
    "DataCatalogConfig": {
        "Catalog": "string",
        "Database": "string",
        "TableName": "string"
    },
    "DisableGlueTableCreation": boolean,
    "S3StorageConfig": {
        "KmsKeyId": "string",
        "ResolvedOutputS3Uri": "string",
        "S3Uri": "string"
    },
    "TableFormat": "string"
},
"OfflineStoreStatus": {
    "BlockedReason": "string",
    "Status": "string"
},
"OnlineStoreConfig": {
    "EnableOnlineStore": boolean,
    "SecurityConfig": {
        "KmsKeyId": "string"
    }
},
"OnlineStoreTotalSizeBytes": number,
"RecordIdentifierFeatureName": "string",
"RoleArn": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [CreationTime \(p. 405\)](#)

A timestamp indicating when SageMaker created the FeatureGroup.

Type: Timestamp

### [Description \(p. 405\)](#)

A free form description of the feature group.

Type: String

Length Constraints: Maximum length of 128.

### [EventTimeFeatureName \(p. 405\)](#)

The name of the feature that stores the EventTime of a Record in a FeatureGroup.

An EventTime is a point in time when a new event occurs that corresponds to the creation or update of a Record in a FeatureGroup. All Records in the FeatureGroup have a corresponding EventTime.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^[a-zA-Z0-9]([-_]*[a-zA-Z0-9])\{0,63\}`

#### [FailureReason \(p. 405\)](#)

The reason that the FeatureGroup failed to be replicated in the OfflineStore. This is failure can occur because:

- The FeatureGroup could not be created in the OfflineStore.
- The FeatureGroup could not be deleted from the OfflineStore.

Type: String

Length Constraints: Maximum length of 1024.

#### [FeatureDefinitions \(p. 405\)](#)

A list of the Features in the FeatureGroup. Each feature is defined by a FeatureName and FeatureType.

Type: Array of [FeatureDefinition \(p. 1325\)](#) objects

Array Members: Minimum number of 1 item. Maximum number of 2500 items.

#### [FeatureGroupArn \(p. 405\)](#)

The Amazon Resource Name (ARN) of the FeatureGroup.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-zA-Z-]*:sagemaker:[a-zA-Z0-9-]*:[0-9]{12}:feature-group/.*`

#### [FeatureGroupName \(p. 405\)](#)

The name of the FeatureGroup.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])\{0,63\}`

#### [FeatureGroupStatus \(p. 405\)](#)

The status of the feature group.

Type: String

Valid Values: Creating | Created | CreateFailed | Deleting | DeleteFailed

#### [LastModifiedTime \(p. 405\)](#)

A timestamp indicating when the feature group was last updated.

Type: Timestamp

#### [LastUpdateStatus \(p. 405\)](#)

A value indicating whether the update made to the feature group was successful.

Type: [LastUpdateStatus \(p. 1461\)](#) object

#### [NextToken \(p. 405\)](#)

A token to resume pagination of the list of Features (FeatureDefinitions).

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

#### [OfflineStoreConfig \(p. 405\)](#)

The configuration of the offline store. It includes the following configurations:

- Amazon S3 location of the offline store.
- Configuration of the Glue data catalog.
- Table format of the offline store.
- Option to disable the automatic creation of a Glue table for the offline store.
- Encryption configuration.

Type: [OfflineStoreConfig \(p. 1588\)](#) object

#### [OfflineStoreStatus \(p. 405\)](#)

The status of the OfflineStore. Notifies you if replicating data into the OfflineStore has failed.  
Returns either: Active or Blocked

Type: [OfflineStoreStatus \(p. 1589\)](#) object

#### [OnlineStoreConfig \(p. 405\)](#)

The configuration for the OnlineStore.

Type: [OnlineStoreConfig \(p. 1595\)](#) object

#### [OnlineStoreTotalSizeBytes \(p. 405\)](#)

The size of the OnlineStore in bytes.

Type: Long

#### [RecordIdentifierFeatureName \(p. 405\)](#)

The name of the Feature used for RecordIdentifier, whose value uniquely identifies a record stored in the feature store.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: ^[a-zA-Z0-9]([-\_]\*[a-zA-Z0-9])\{0,63\}

#### [RoleArn \(p. 405\)](#)

The Amazon Resource Name (ARN) of the IAM execution role used to persist data into the OfflineStore if an OfflineStoreConfig is provided.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: ^arn:aws[a-zA-Z-]\*:iam::\d{12}:role/?[a-zA-Z0-9+=,.@/-]+\$

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DescribeFeatureMetadata

Service: Amazon SageMaker Service

Shows the metadata for a feature within a feature group.

### Request Syntax

```
{  
    "FeatureGroupName": "string",  
    "FeatureName": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [FeatureGroupName \(p. 410\)](#)

The name of the feature group containing the feature.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9]){0,63}

Required: Yes

#### [FeatureName \(p. 410\)](#)

The name of the feature.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: ^[a-zA-Z0-9]([-\_]\*[a-zA-Z0-9]){0,63}

Required: Yes

### Response Syntax

```
{  
    "CreationTime": number,  
    "Description": "string",  
    "FeatureGroupArn": "string",  
    "FeatureGroupName": "string",  
    "FeatureName": "string",  
    "FeatureType": "string",  
    "LastModifiedTime": number,  
    "Parameters": [  
        {  
            "Key": "string",  
            "Value": "string"  
        }  
    ]  
}
```

}

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [CreationTime \(p. 410\)](#)

A timestamp indicating when the feature was created.

Type: Timestamp

### [Description \(p. 410\)](#)

The description you added to describe the feature.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 255.

Pattern: .\*

### [FeatureGroupArn \(p. 410\)](#)

The Amazon Resource Number (ARN) of the feature group that contains the feature.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-zA-Z\-\\_]\*:sagemaker:[a-zA-Z0-9\-\\_]\*:[0-9]{12}:feature-group/.\*

### [FeatureGroupName \(p. 410\)](#)

The name of the feature group that you've specified.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,63\}

### [FeatureName \(p. 410\)](#)

The name of the feature that you've specified.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: ^[a-zA-Z0-9]([-\_\u00b7]\*[a-zA-Z0-9])\{0,63\}

### [FeatureType \(p. 410\)](#)

The data type of the feature.

Type: String

Valid Values: Integral | Fractional | String

### [LastModifiedTime \(p. 410\)](#)

A timestamp indicating when the metadata for the feature group was modified. For example, if you add a parameter describing the feature, the timestamp changes to reflect the last time you

Type: Timestamp

#### Parameters (p. 410)

The key-value pairs that you added to describe the feature.

Type: Array of [FeatureParameter \(p. 1334\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 25 items.

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DescribeFlowDefinition

Service: Amazon SageMaker Service

Returns information about the specified flow definition.

### Request Syntax

```
{  
    "FlowDefinitionName": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### FlowDefinitionName (p. 413)

The name of the flow definition.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: Yes

### Response Syntax

```
{  
    "CreationTime": number,  
    "FailureReason": "string",  
    "FlowDefinitionArn": "string",  
    "FlowDefinitionName": "string",  
    "FlowDefinitionStatus": "string",  
    "HumanLoopActivationConfig": {  
        "HumanLoopActivationConditionsConfig": {  
            "HumanLoopActivationConditions": "string"  
        }  
    },  
    "HumanLoopConfig": {  
        "HumanTaskUiArn": "string",  
        "PublicWorkforceTaskPrice": {  
            "AmountInUsd": {  
                "Cents": number,  
                "Dollars": number,  
                "TenthFractionsOfACent": number  
            }  
        },  
        "TaskAvailabilityLifetimeInSeconds": number,  
        "TaskCount": number,  
        "TaskDescription": "string",  
        "TaskKeywords": [ "string" ],  
        "TaskTimeLimitInSeconds": number,  
        "TaskTitle": "string",  
    }  
}
```

```
        "WorkteamArn": "string"
    },
    "HumanLoopRequestSource": {
        "AwsManagedHumanLoopRequestSource": "string"
    },
    "OutputConfig": {
        "KmsKeyId": "string",
        "S3OutputPath": "string"
    },
    "RoleArn": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [CreationTime \(p. 413\)](#)

The timestamp when the flow definition was created.

Type: Timestamp

### [FailureReason \(p. 413\)](#)

The reason your flow definition failed.

Type: String

Length Constraints: Maximum length of 1024.

### [FlowDefinitionArn \(p. 413\)](#)

The Amazon Resource Name (ARN) of the flow definition.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: arn:aws[a-z\-\-]\*:sagemaker:[a-z0-9\-\-]\*:[0-9]{12}:flow-definition/.\*

### [FlowDefinitionName \(p. 413\)](#)

The Amazon Resource Name (ARN) of the flow definition.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-z0-9](-\*[a-z0-9])\{0,62\}

### [FlowDefinitionStatus \(p. 413\)](#)

The status of the flow definition. Valid values are listed below.

Type: String

Valid Values: Initializing | Active | Failed | Deleting

### [HumanLoopActivationConfig \(p. 413\)](#)

An object containing information about what triggers a human review workflow.

Type: [HumanLoopActivationConfig \(p. 1357\)](#) object

### [HumanLoopConfig \(p. 413\)](#)

An object containing information about who works on the task, the workforce task price, and other task details.

Type: [HumanLoopConfig \(p. 1358\)](#) object

### [HumanLoopRequestSource \(p. 413\)](#)

Container for configuring the source of human task requests. Used to specify if Amazon Rekognition or Amazon Textract is used as an integration source.

Type: [HumanLoopRequestSource \(p. 1363\)](#) object

### [OutputConfig \(p. 413\)](#)

An object containing information about the output file.

Type: [FlowDefinitionOutputConfig \(p. 1344\)](#) object

### [RoleArn \(p. 413\)](#)

The Amazon Resource Name (ARN) of the AWS Identity and Access Management (IAM) execution role for the flow definition.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: ^arn:aws[a-zA-Z-]\*:iam::\d{12}:role/[a-zA-Z0-9+=,.@-\_/.]+\$

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceNotFound**

Resource being accessed is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DescribeHub

Service: Amazon SageMaker Service

Describe a hub.

### Request Syntax

```
{  
    "HubName": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### **HubName (p. 416)**

The name of the hub to describe.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: Yes

### Response Syntax

```
{  
    "CreationTime": number,  
    "FailureReason": "string",  
    "HubArn": "string",  
    "HubDescription": "string",  
    "HubDisplayName": "string",  
    "HubName": "string",  
    "HubSearchKeywords": [ "string" ],  
    "HubStatus": "string",  
    "LastModifiedTime": number,  
    "S3StorageConfig": {  
        "S3OutputPath": "string"  
    }  
}
```

### Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

#### **CreationTime (p. 416)**

The date and time that the hub was created.

Type: Timestamp

#### [FailureReason \(p. 416\)](#)

The failure reason if importing hub content failed.

Type: String

Length Constraints: Maximum length of 1024.

#### [HubArn \(p. 416\)](#)

The Amazon Resource Name (ARN) of the hub.

Type: String

Length Constraints: Maximum length of 255.

Pattern: .\*

#### [HubDescription \(p. 416\)](#)

A description of the hub.

Type: String

Length Constraints: Maximum length of 1023.

Pattern: .\*

#### [HubDisplayName \(p. 416\)](#)

The display name of the hub.

Type: String

Length Constraints: Maximum length of 255.

Pattern: .\*

#### [HubName \(p. 416\)](#)

The name of the hub.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

#### [HubSearchKeywords \(p. 416\)](#)

The searchable keywords for the hub.

Type: Array of strings

Array Members: Maximum number of 50 items.

Length Constraints: Maximum length of 255.

Pattern: ^[^A-Z]\*\$

#### [HubStatus \(p. 416\)](#)

The status of the hub.

Type: String

Valid Values: InService | Creating | Updating | Deleting | CreateFailed | UpdateFailed | DeleteFailed

**LastModifiedTime (p. 416)**

The date and time that the hub was last modified.

Type: Timestamp

**S3StorageConfig (p. 416)**

The Amazon S3 storage configuration for the hub.

Type: [HubS3StorageConfig \(p. 1355\)](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

**ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DescribeHubContent

Service: Amazon SageMaker Service

Describe the content of a hub.

### Request Syntax

```
{  
    "HubContentName": "string",  
    "HubContentType": "string",  
    "HubContentVersion": "string",  
    "HubName": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [HubContentName \(p. 419\)](#)

The name of the content to describe.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: Yes

#### [HubContentType \(p. 419\)](#)

The type of content in the hub.

Type: String

Valid Values: Model | Notebook

Required: Yes

#### [HubContentVersion \(p. 419\)](#)

The version of the content to describe.

Type: String

Length Constraints: Minimum length of 5. Maximum length of 14.

Pattern: ^\d\{1,4\}.\d\{1,4\}.\d\{1,4\}\\$

Required: No

#### [HubName \(p. 419\)](#)

The name of the hub that contains the content to describe.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: Yes

## Response Syntax

```
{  
    "CreationTime": number,  
    "DocumentSchemaVersion": "string",  
    "FailureReason": "string",  
    "HubArn": "string",  
    "HubContentArn": "string",  
    "HubContentDependencies": [  
        {  
            "DependencyCopyPath": "string",  
            "DependencyOriginPath": "string"  
        }  
    ],  
    "HubContentDescription": "string",  
    "HubContentDisplayName": "string",  
    "HubContentDocument": "string",  
    "HubContentMarkdown": "string",  
    "HubContentName": "string",  
    "HubContentSearchKeywords": [ "string" ],  
    "HubContentStatus": "string",  
    "HubContentType": "string",  
    "HubContentVersion": "string",  
    "HubName": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [CreationTime \(p. 420\)](#)

The date and time that hub content was created.

Type: Timestamp

### [DocumentSchemaVersion \(p. 420\)](#)

The document schema version for the hub content.

Type: String

Length Constraints: Minimum length of 5. Maximum length of 14.

Pattern: ^\d{1,4}.\d{1,4}.\d{1,4}\\$

### [FailureReason \(p. 420\)](#)

The failure reason if importing hub content failed.

Type: String

Length Constraints: Maximum length of 1024.

### [HubArn \(p. 420\)](#)

The Amazon Resource Name (ARN) of the hub that contains the content.

Type: String

Length Constraints: Maximum length of 255.

Pattern: .\*

### [HubContentArn \(p. 420\)](#)

The Amazon Resource Name (ARN) of the hub content.

Type: String

Length Constraints: Maximum length of 255.

Pattern: .\*

### [HubContentDependencies \(p. 420\)](#)

The location of any dependencies that the hub content has, such as scripts, model artifacts, datasets, or notebooks.

Type: Array of [HubContentDependency \(p. 1349\)](#) objects

Array Members: Maximum number of 50 items.

### [HubContentDescription \(p. 420\)](#)

A description of the hub content.

Type: String

Length Constraints: Maximum length of 1023.

Pattern: .\*

### [HubContentDisplayName \(p. 420\)](#)

The display name of the hub content.

Type: String

Length Constraints: Maximum length of 255.

Pattern: .\*

### [HubContentDocument \(p. 420\)](#)

The hub content document that describes information about the hub content such as type, associated containers, scripts, and more.

Type: String

Length Constraints: Maximum length of 65535.

Pattern: .\*

### [HubContentMarkdown \(p. 420\)](#)

Markdown files associated with the hub content to import.

Type: String

Length Constraints: Maximum length of 65535.

Pattern: `.*`

#### [HubContentName \(p. 420\)](#)

The name of the hub content.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])\{0,62\}`

#### [HubContentSearchKeywords \(p. 420\)](#)

The searchable keywords for the hub content.

Type: Array of strings

Array Members: Maximum number of 50 items.

Length Constraints: Maximum length of 255.

Pattern: `^[\u00c7A-Z]*$`

#### [HubContentStatus \(p. 420\)](#)

The status of the hub content.

Type: String

Valid Values: Available | Importing | Deleting | ImportFailed | DeleteFailed

#### [HubContentType \(p. 420\)](#)

The type of hub content.

Type: String

Valid Values: Model | Notebook

#### [HubContentVersion \(p. 420\)](#)

The version of the hub content.

Type: String

Length Constraints: Minimum length of 5. Maximum length of 14.

Pattern: `^\d\{1,4\}.\d\{1,4\}.\d\{1,4\}$`

#### [HubName \(p. 420\)](#)

The name of the hub that contains the content.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])\{0,62\}`

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DescribeHumanTaskUi

Service: Amazon SageMaker Service

Returns information about the requested human task user interface (worker task template).

### Request Syntax

```
{  
    "HumanTaskUiName": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [HumanTaskUiName \(p. 424\)](#)

The name of the human task user interface (worker task template) you want information about.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\*

Required: Yes

### Response Syntax

```
{  
    "CreationTime": number,  
    "HumanTaskUiArn": "string",  
    "HumanTaskUiName": "string",  
    "HumanTaskUiStatus": "string",  
    "UiTemplate": {  
        "ContentSha256": "string",  
        "Url": "string"  
    }  
}
```

### Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

#### [CreationTime \(p. 424\)](#)

The timestamp when the human task user interface was created.

Type: Timestamp

#### [HumanTaskUiArn \(p. 424\)](#)

The Amazon Resource Name (ARN) of the human task user interface (worker task template).

Type: String

Length Constraints: Maximum length of 1024.

Pattern: arn:aws[a-z\-\-]\*:sagemaker:[a-z0-9\-\-]\*:[0-9]{12}:human-task-ui/.\*

#### [HumanTaskUiName \(p. 424\)](#)

The name of the human task user interface (worker task template).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-z0-9](-\*[a-z0-9])\*

#### [HumanTaskUiStatus \(p. 424\)](#)

The status of the human task user interface (worker task template). Valid values are listed below.

Type: String

Valid Values: Active | Deleting

#### [UiTemplate \(p. 424\)](#)

Container for user interface template information.

Type: [UiTemplateInfo \(p. 1820\)](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DescribeHyperParameterTuningJob

Service: Amazon SageMaker Service

Gets a description of a hyperparameter tuning job.

## Request Syntax

```
{  
    "HyperParameterTuningJobName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### HyperParameterTuningJobName (p. 426)

The name of the tuning job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,31\}

Required: Yes

## Response Syntax

```
{  
    "BestTrainingJob": {  
        "CreationTime": number,  
        "FailureReason": "string",  
        "FinalHyperParameterTuningJobObjectiveMetric": {  
            "MetricName": "string",  
            "Type": "string",  
            "Value": number  
        },  
        "ObjectiveStatus": "string",  
        "TrainingEndTime": number,  
        "TrainingJobArn": "string",  
        "TrainingJobDefinitionName": "string",  
        "TrainingJobName": "string",  
        "TrainingJobStatus": "string",  
        "TrainingStartTime": number,  
        "TunedHyperParameters": {  
            "string" : "string"  
        },  
        "TuningJobName": "string"  
    },  
    "CreationTime": number,  
    "FailureReason": "string",  
    "HyperParameterTuningEndTime": number,  
    "HyperParameterTuningJobArn": "string",  
    "HyperParameterTuningJobConfig": {  
        "string" : "string"  
    }  
}
```

```

"HyperParameterTuningJobObjective": {
    "MetricName": "string",
    "Type": "string"
},
"ParameterRanges": {
    "CategoricalParameterRanges": [
        {
            "Name": "string",
            "Values": [ "string" ]
        }
    ],
    "ContinuousParameterRanges": [
        {
            "MaxValue": "string",
            "MinValue": "string",
            "Name": "string",
            "ScalingType": "string"
        }
    ],
    "IntegerParameterRanges": [
        {
            "MaxValue": "string",
            "MinValue": "string",
            "Name": "string",
            "ScalingType": "string"
        }
    ]
},
"ResourceLimits": {
    "MaxNumberOfTrainingJobs": number,
    "MaxParallelTrainingJobs": number
},
"Strategy": "string",
"StrategyConfig": {
    "HyperbandStrategyConfig": {
        "MaxResource": number,
        "MinResource": number
    }
},
"TrainingJobEarlyStoppingType": "string",
"TuningJobCompletionCriteria": {
    "TargetObjectiveMetricValue": number
}
},
"HyperParameterTuningJobName": "string",
"HyperParameterTuningJobStatus": "string",
"LastModifiedTime": number,
"ObjectiveStatusCounters": {
    "Failed": number,
    "Pending": number,
    "Succeeded": number
},
"OverallBestTrainingJob": {
    "CreationTime": number,
    "FailureReason": "string",
    "FinalHyperParameterTuningJobObjectiveMetric": {
        "MetricName": "string",
        "Type": "string",
        "Value": number
    },
    "ObjectiveStatus": "string",
    "TrainingEndTime": number,
    "TrainingJobArn": "string",
    "TrainingJobDefinitionName": "string",
    "TrainingJobName": "string",
    "TrainingJobStatus": "string",
}

```

```

    "TrainingStartTime": number,
    "TunedHyperParameters": {
        "string": "string"
    },
    "TuningJobName": "string"
},
"TrainingJobDefinition": {
    "AlgorithmSpecification": {
        "AlgorithmName": "string",
        "MetricDefinitions": [
            {
                "Name": "string",
                "Regex": "string"
            }
        ],
        "TrainingImage": "string",
        "TrainingInputMode": "string"
    },
    "CheckpointConfig": {
        "LocalPath": "string",
        "S3Uri": "string"
    },
    "DefinitionName": "string",
    "EnableInterContainerTrafficEncryption": boolean,
    "EnableManagedSpotTraining": boolean,
    "EnableNetworkIsolation": boolean,
    "HyperParameterRanges": {
        "CategoricalParameterRanges": [
            {
                "Name": "string",
                "Values": [ "string" ]
            }
        ],
        "ContinuousParameterRanges": [
            {
                "MaxValue": "string",
                "MinValue": "string",
                "Name": "string",
                "ScalingType": "string"
            }
        ],
        "IntegerParameterRanges": [
            {
                "MaxValue": "string",
                "MinValue": "string",
                "Name": "string",
                "ScalingType": "string"
            }
        ]
    },
    "HyperParameterTuningResourceConfig": {
        "AllocationStrategy": "string",
        "InstanceConfigs": [
            {
                "InstanceCount": number,
                "InstanceType": "string",
                "VolumeSizeInGB": number
            }
        ],
        "InstanceCount": number,
        "InstanceType": "string",
        "VolumeKmsKeyId": "string",
        "VolumeSizeInGB": number
    },
    "InputDataConfig": [
        {

```

```

    "ChannelName": "string",
    "CompressionType": "string",
    "ContentType": "string",
    "DataSource": {
        "FileSystemDataSource": {
            "DirectoryPath": "string",
            "FileSystemAccessMode": "string",
            "FileSystemId": "string",
            "FileSystemType": "string"
        },
        "S3DataSource": {
            "AttributeNames": [ "string" ],
            "InstanceGroupNames": [ "string" ],
            "S3DataDistributionType": "string",
            "S3DataType": "string",
            "S3Uri": "string"
        }
    },
    "InputMode": "string",
    "RecordWrapperType": "string",
    "ShuffleConfig": {
        "Seed": number
    }
}
],
"OutputDataConfig": {
    "KmsKeyId": "string",
    "S3OutputPath": "string"
},
"ResourceConfig": {
    "InstanceCount": number,
    "InstanceGroups": [
        {
            "InstanceCount": number,
            "InstanceGroupName": "string",
            "InstanceType": "string"
        }
    ],
    "InstanceType": "string",
    "KeepAlivePeriodInSeconds": number,
    "VolumeKmsKeyId": "string",
    "VolumeSizeInGB": number
},
"RetryStrategy": {
    "MaximumRetryAttempts": number
},
"RoleArn": "string",
"StaticHyperParameters": {
    "string" : "string"
},
"StoppingCondition": {
    "MaxRuntimeInSeconds": number,
    "MaxWaitTimeInSeconds": number
},
"TuningObjective": {
    "MetricName": "string",
    "Type": "string"
},
"VpcConfig": {
    "SecurityGroupIds": [ "string" ],
    "Subnets": [ "string" ]
}
},
"TrainingJobDefinitions": [
{
    "AlgorithmSpecification": {

```

```

    "AlgorithmName": "string",
    "MetricDefinitions": [
        {
            "Name": "string",
            "Regex": "string"
        }
    ],
    "TrainingImage": "string",
    "TrainingInputMode": "string"
},
"CheckpointConfig": {
    "LocalPath": "string",
    "S3Uri": "string"
},
"DefinitionName": "string",
"EnableInterContainerTrafficEncryption": boolean,
"EnableManagedSpotTraining": boolean,
"EnableNetworkIsolation": boolean,
"HyperParameterRanges": [
    "CategoricalParameterRanges": [
        {
            "Name": "string",
            "Values": [ "string" ]
        }
    ],
    "ContinuousParameterRanges": [
        {
            "MaxValue": "string",
            "MinValue": "string",
            "Name": "string",
            "ScalingType": "string"
        }
    ],
    "IntegerParameterRanges": [
        {
            "MaxValue": "string",
            "MinValue": "string",
            "Name": "string",
            "ScalingType": "string"
        }
    ]
],
"HyperParameterTuningResourceConfig": {
    "AllocationStrategy": "string",
    "InstanceConfigs": [
        {
            "InstanceCount": number,
            "InstanceType": "string",
            "VolumeSizeInGB": number
        }
    ],
    "InstanceCount": number,
    "InstanceType": "string",
    "VolumeKmsKeyId": "string",
    "VolumeSizeInGB": number
},
"InputDataConfig": [
    {
        "ChannelName": "string",
        "CompressionType": "string",
        "ContentType": "string",
        "DataSource": {
            "FileSystemDataSource": {
                "DirectoryPath": "string",
                "FileSystemAccessMode": "string",
                "FileSystemId": "string",
                "Name": "string"
            }
        }
    }
]
}

```

```

        "FileSystemType": "string"
    },
    "S3DataSource": {
        "AttributeNames": [ "string" ],
        "InstanceGroupNames": [ "string" ],
        "S3DataDistributionType": "string",
        "S3DataType": "string",
        "S3Uri": "string"
    }
},
"InputMode": "string",
"RecordWrapperType": "string",
"ShuffleConfig": {
    "Seed": number
}
]
,
"OutputDataConfig": {
    "KmsKeyId": "string",
    "S3OutputPath": "string"
},
"ResourceConfig": {
    "InstanceCount": number,
    "InstanceGroups": [
        {
            "InstanceCount": number,
            "InstanceGroupName": "string",
            "InstanceType": "string"
        }
    ],
    "InstanceType": "string",
    "KeepAlivePeriodInSeconds": number,
    "VolumeKmsKeyId": "string",
    "VolumeSizeInGB": number
},
"RetryStrategy": {
    "MaximumRetryAttempts": number
},
"RoleArn": "string",
"StaticHyperParameters": {
    "string" : "string"
},
"StoppingCondition": {
    "MaxRuntimeInSeconds": number,
    "MaxWaitTimeInSeconds": number
},
"TuningObjective": {
    "MetricName": "string",
    "Type": "string"
},
"VpcConfig": {
    "SecurityGroupIds": [ "string" ],
    "Subnets": [ "string" ]
}
}
],
"TrainingJobStatusCounters": {
    "Completed": number,
    "InProgress": number,
    "NonRetryableError": number,
    "RetryableError": number,
    "Stopped": number
},
"WarmStartConfig": {
    "ParentHyperParameterTuningJobs": [
        {

```

```
        "HyperParameterTuningJobName": "string"
    },
],
"WarmStartType": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [BestTrainingJob \(p. 426\)](#)

A [TrainingJobSummary \(p. 1771\)](#) object that describes the training job that completed with the best current [HyperParameterTuningJobObjective \(p. 1396\)](#).

Type: [HyperParameterTrainingJobSummary \(p. 1389\)](#) object

### [CreationTime \(p. 426\)](#)

The date and time that the tuning job started.

Type: Timestamp

### [FailureReason \(p. 426\)](#)

If the tuning job failed, the reason it failed.

Type: String

Length Constraints: Maximum length of 1024.

### [HyperParameterTuningEndTime \(p. 426\)](#)

The date and time that the tuning job ended.

Type: Timestamp

### [HyperParameterTuningJobArn \(p. 426\)](#)

The Amazon Resource Name (ARN) of the tuning job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws:[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:hyper-parameter-tuning-job/.*`

### [HyperParameterTuningJobConfig \(p. 426\)](#)

The [HyperParameterTuningJobConfig \(p. 1394\)](#) object that specifies the configuration of the tuning job.

Type: [HyperParameterTuningJobConfig \(p. 1394\)](#) object

### [HyperParameterTuningJobName \(p. 426\)](#)

The name of the tuning job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9]){\0,31}

#### [HyperParameterTuningJobStatus \(p. 426\)](#)

The status of the tuning job: InProgress, Completed, Failed, Stopping, or Stopped.

Type: String

Valid Values: Completed | InProgress | Failed | Stopped | Stopping

#### [LastModifiedTime \(p. 426\)](#)

The date and time that the status of the tuning job was modified.

Type: Timestamp

#### [ObjectiveStatusCounters \(p. 426\)](#)

The [ObjectiveStatusCounters \(p. 1587\)](#) object that specifies the number of training jobs, categorized by the status of their final objective metric, that this tuning job launched.

Type: [ObjectiveStatusCounters \(p. 1587\)](#) object

#### [OverallBestTrainingJob \(p. 426\)](#)

If the hyperparameter tuning job is an warm start tuning job with a WarmStartType of IDENTICAL\_DATA\_AND\_ALGORITHM, this is the [TrainingJobSummary \(p. 1771\)](#) for the training job with the best objective metric value of all training jobs launched by this tuning job and all parent jobs specified for the warm start tuning job.

Type: [HyperParameterTrainingJobSummary \(p. 1389\)](#) object

#### [TrainingJobDefinition \(p. 426\)](#)

The [HyperParameterTrainingJobDefinition \(p. 1385\)](#) object that specifies the definition of the training jobs that this tuning job launches.

Type: [HyperParameterTrainingJobDefinition \(p. 1385\)](#) object

#### [TrainingJobDefinitions \(p. 426\)](#)

A list of the [HyperParameterTrainingJobDefinition \(p. 1385\)](#) objects launched for this tuning job.

Type: Array of [HyperParameterTrainingJobDefinition \(p. 1385\)](#) objects

Array Members: Minimum number of 1 item. Maximum number of 10 items.

#### [TrainingJobStatusCounters \(p. 426\)](#)

The [TrainingJobStatusCounters \(p. 1768\)](#) object that specifies the number of training jobs, categorized by status, that this tuning job launched.

Type: [TrainingJobStatusCounters \(p. 1768\)](#) object

#### [WarmStartConfig \(p. 426\)](#)

The configuration for starting the hyperparameter parameter tuning job using one or more previous tuning jobs as a starting point. The results of previous tuning jobs are used to inform which combinations of hyperparameters to search over in the new tuning job.

Type: [HyperParameterTuningJobWarmStartConfig \(p. 1403\)](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DescribeImage

Service: Amazon SageMaker Service

Describes a SageMaker image.

### Request Syntax

```
{  
    "ImageName": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [ImageName \(p. 435\)](#)

The name of the image to describe.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9]([-.]?[a-zA-Z0-9]){0,62}\$

Required: Yes

### Response Syntax

```
{  
    "CreationTime": number,  
    "Description": string,  
    "DisplayName": string,  
    "FailureReason": string,  
    "ImageArn": string,  
    "ImageName": string,  
    "ImageStatus": string,  
    "LastModifiedTime": number,  
    "RoleArn": string  
}
```

### Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

#### [CreationTime \(p. 435\)](#)

When the image was created.

Type: Timestamp

### [Description \(p. 435\)](#)

The description of the image.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: .\*

### [DisplayName \(p. 435\)](#)

The name of the image as displayed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: ^\S(.\*\S)?\$

### [FailureReason \(p. 435\)](#)

When a create, update, or delete operation fails, the reason for the failure.

Type: String

Length Constraints: Maximum length of 1024.

### [ImageArn \(p. 435\)](#)

The Amazon Resource Name (ARN) of the image.

Type: String

Length Constraints: Maximum length of 256.

Pattern: ^arn:aws(-[\w]+)\*:sagemaker:.[0-9]{12}:image/[a-zA-Z0-9]([-.]?[a-zA-Z0-9])\*\$

### [ImageName \(p. 435\)](#)

The name of the image.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9]([-.]?[a-zA-Z0-9]){0,62}\$

### [ImageStatus \(p. 435\)](#)

The status of the image.

Type: String

Valid Values: CREATING | CREATED | CREATE FAILED | UPDATING | UPDATE FAILED | DELETING | DELETE FAILED

### [LastModifiedTime \(p. 435\)](#)

When the image was last modified.

Type: Timestamp

### [RoleArn \(p. 435\)](#)

The Amazon Resource Name (ARN) of the IAM role that enables Amazon SageMaker to perform tasks on your behalf.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: ^arn:aws[a-z\-\-]\*:iam::\d{12}:role/?[a-zA-Z\_0-9+=,.@\\-\_/.]+\$

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DescribeImageVersion

Service: Amazon SageMaker Service

Describes a version of a SageMaker image.

### Request Syntax

```
{  
    "ImageName": "string",  
    "Version": number  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [ImageName \(p. 438\)](#)

The name of the image.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9]([-.]?[a-zA-Z0-9])\{0,62\}\$

Required: Yes

#### [Version \(p. 438\)](#)

The version of the image. If not specified, the latest version is described.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

### Response Syntax

```
{  
    "BaseImage": "string",  
    "ContainerImage": "string",  
    "CreationTime": number,  
    "FailureReason": "string",  
    "ImageArn": "string",  
    "ImageVersionArn": "string",  
    "ImageVersionStatus": "string",  
    "LastModifiedTime": number,  
    "Version": number  
}
```

### Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

#### [BaselineImage \(p. 438\)](#)

The registry path of the container image on which this image version is based.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: .\*

#### [ContainerImage \(p. 438\)](#)

The registry path of the container image that contains this image version.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

#### [CreationTime \(p. 438\)](#)

When the version was created.

Type: Timestamp

#### [FailureReason \(p. 438\)](#)

When a create or delete operation fails, the reason for the failure.

Type: String

Length Constraints: Maximum length of 1024.

#### [ImageArn \(p. 438\)](#)

The Amazon Resource Name (ARN) of the image the version is based on.

Type: String

Length Constraints: Maximum length of 256.

Pattern: ^arn:aws(-[\w]+)\*:sagemaker:.[0-9]{12}:image/[a-z0-9]([-.]?[a-z0-9])\*\$

#### [ImageVersionArn \(p. 438\)](#)

The ARN of the version.

Type: String

Length Constraints: Maximum length of 256.

Pattern: ^arn:aws(-[\w]+)\*:sagemaker:.[0-9]{12}:image-version/[a-z0-9]([-.]?[a-z0-9])\*[/0-9]+\$

#### [ImageVersionStatus \(p. 438\)](#)

The status of the version.

Type: String

Valid Values: CREATING | CREATED | CREATE\_FAILED | DELETING | DELETE\_FAILED

#### [LastModifiedTime \(p. 438\)](#)

When the version was last modified.

Type: Timestamp

#### [Version \(p. 438\)](#)

The version number.

Type: Integer

Valid Range: Minimum value of 0.

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DescribeInferenceExperiment

Service: Amazon SageMaker Service

Returns details about an inference experiment.

### Request Syntax

```
{  
    "Name": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### Name (p. 441)

The name of the inference experiment to describe.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,119\}

Required: Yes

### Response Syntax

```
{  
    "Arn": "string",  
    "CompletionTime": number,  
    "CreationTime": number,  
    "DataStorageConfig": {  
        "ContentType": {  
            "CsvContentTypes": [ "string" ],  
            "JsonContentTypes": [ "string" ]  
        },  
        "Destination": "string",  
        "KmsKey": "string"  
    },  
    "Description": "string",  
    "EndpointMetadata": {  
        "EndpointConfigName": "string",  
        "EndpointName": "string",  
        "EndpointStatus": "string",  
        "FailureReason": "string"  
    },  
    "KmsKey": "string",  
    "LastModifiedTime": number,  
    "ModelVariants": [  
        {  
            "InfrastructureConfig": {  
                "InfrastructureType": "string",  
                "RealTimeInferenceConfig": {  
                    "InstanceCount": number,  
                    "LatencyTarget": number  
                }  
            }  
        }  
    ]  
}
```

```

        "InstanceType": "string"
    }
},
"ModelName": "string",
"Status": "string",
"VariantName": "string"
}
],
{Name": "string",
"RoleArn": "string",
"Schedule": {
    "EndTime": number,
    "StartTime": number
},
"ShadowModeConfig": {
    "ShadowModelVariants": [
        {
            "SamplingPercentage": number,
            "ShadowModelVariantName": "string"
        }
    ],
    "SourceModelVariantName": "string"
},
>Status": "string",
>StatusReason": "string",
>Type": "string"
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### **Arn (p. 441)**

The ARN of the inference experiment being described.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-\]\*:sagemaker:[a-z0-9\-\]\*:[0-9]{12}:inference-experiment/.\*

### **CompletionTime (p. 441)**

The timestamp at which the inference experiment was completed.

Type: Timestamp

### **CreationTime (p. 441)**

The timestamp at which you created the inference experiment.

Type: Timestamp

### **DataStorageConfig (p. 441)**

The Amazon S3 location and configuration for storing inference request and response data.

Type: [InferenceExperimentDataStorageConfig \(p. 1414\)](#) object

### **Description (p. 441)**

The description of the inference experiment.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: .\*

#### [EndpointMetadata \(p. 441\)](#)

The metadata of the endpoint on which the inference experiment ran.

Type: [EndpointMetadata \(p. 1306\)](#) object

#### [KmsKey \(p. 441\)](#)

The AWS Key Management Service (AWS KMS) key that Amazon SageMaker uses to encrypt data on the storage volume attached to the ML compute instance that hosts the endpoint. For more information, see [CreateInferenceExperiment:KmsKey \(p. 121\)](#).

Type: String

Length Constraints: Maximum length of 2048.

Pattern: .\*

#### [LastModifiedTime \(p. 441\)](#)

The timestamp at which you last modified the inference experiment.

Type: Timestamp

#### [ModelVariants \(p. 441\)](#)

An array of ModelVariantConfigSummary objects. There is one for each variant in the inference experiment. Each ModelVariantConfigSummary object in the array describes the infrastructure configuration for deploying the corresponding variant.

Type: Array of [ModelVariantConfigSummary \(p. 1540\)](#) objects

#### [Name \(p. 441\)](#)

The name of the inference experiment.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,119\}

#### [RoleArn \(p. 441\)](#)

The ARN of the IAM role that Amazon SageMaker can assume to access model artifacts and container images, and manage Amazon SageMaker Inference endpoints for model deployment.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: ^arn:aws[a-zA-Z-]\*:iam::\d{12}:role/?[a-zA-Z\_0-9+=,.@\\-\_/.]+\$

#### [Schedule \(p. 441\)](#)

The duration for which the inference experiment ran or will run.

Type: [InferenceExperimentSchedule \(p. 1415\)](#) object

### **ShadowModeConfig (p. 441)**

The configuration of ShadowMode inference experiment type, which shows the production variant that takes all the inference requests, and the shadow variant to which Amazon SageMaker replicates a percentage of the inference requests. For the shadow variant it also shows the percentage of requests that Amazon SageMaker replicates.

Type: [ShadowModeConfig \(p. 1732\)](#) object

### **Status (p. 441)**

The status of the inference experiment. The following are the possible statuses for an inference experiment:

- Creating - Amazon SageMaker is creating your experiment.
- Created - Amazon SageMaker has finished the creation of your experiment and will begin the experiment at the scheduled time.
- Updating - When you make changes to your experiment, your experiment shows as updating.
- Starting - Amazon SageMaker is beginning your experiment.
- Running - Your experiment is in progress.
- Stopping - Amazon SageMaker is stopping your experiment.
- Completed - Your experiment has completed.
- Cancelled - When you conclude your experiment early using the [StopInferenceExperiment \(p. 884\)](#) API, or if any operation fails with an unexpected error, it shows as cancelled.

Type: String

Valid Values: Creating | Created | Updating | Running | Starting | Stopping | Completed | Cancelled

### **StatusReason (p. 441)**

The error message or client-specified Reason from the [StopInferenceExperiment \(p. 884\)](#) API, that explains the status of the inference experiment.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: .\*

### **Type (p. 441)**

The type of the inference experiment.

Type: String

Valid Values: ShadowMode

## **Errors**

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DescribeInferenceRecommendationsJob

Service: Amazon SageMaker Service

Provides the results of the Inference Recommender job. One or more recommendation jobs are returned.

### Request Syntax

```
{  
    "JobName": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### JobName (p. 446)

The name of the job. The name must be unique within an AWS Region in the AWS account.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,63\}

Required: Yes

### Response Syntax

```
{  
    "CompletionTime": number,  
    "CreationTime": number,  
    "EndpointPerformances": [  
        {  
            "EndpointInfo": {  
                "EndpointName": "string"  
            },  
            "Metrics": {  
                "MaxInvocations": number,  
                "ModelLatency": number  
            }  
        }  
    ],  
    "FailureReason": "string",  
    "InferenceRecommendations": [  
        {  
            "EndpointConfiguration": {  
                "EndpointName": "string",  
                "InitialInstanceCount": number,  
                "InstanceType": "string",  
                "VariantName": "string"  
            },  
            "Metrics": {  
                "CostPerHour": number,  
                "CostPerInference": number,  
                "CostPerRequest": number  
            }  
        }  
    ]  
}
```

```

        "MaxInvocations": number,
        "ModelLatency": number
    },
    "ModelConfiguration": {
        "EnvironmentParameters": [
            {
                "Key": "string",
                "Value": "string",
                "ValueType": "string"
            }
        ],
        "InferenceSpecificationName": "string"
    }
}
],
"InputConfig": {
    "ContainerConfig": {
        "Domain": "string",
        "Framework": "string",
        "FrameworkVersion": "string",
        "NearestModelName": "string",
        "PayloadConfig": {
            "SamplePayloadUrl": "string",
            "SupportedContentTypes": [ "string" ]
        },
        "SupportedInstanceTypes": [ "string" ],
        "Task": "string"
    },
    "EndpointConfigurations": [
        {
            "EnvironmentParameterRanges": {
                "CategoricalParameterRanges": [
                    {
                        "Name": "string",
                        "Value": [ "string" ]
                    }
                ]
            },
            "InferenceSpecificationName": "string",
            "InstanceType": "string"
        }
    ],
    "Endpoints": [
        {
            "EndpointName": "string"
        }
    ],
    "JobDurationInSeconds": number,
    "ModelPackageVersionArn": "string",
    "ResourceLimit": {
        "MaxNumberOfTests": number,
        "MaxParallelOfTests": number
    },
    "TrafficPattern": {
        "Phases": [
            {
                "DurationInSeconds": number,
                "InitialNumberOfUsers": number,
                "SpawnRate": number
            }
        ],
        "TrafficType": "string"
    },
    "VolumeKmsKeyId": "string"
},
"JobArn": "string",

```

```
"JobDescription": "string",
"JobName": "string",
"JobType": "string",
"LastModifiedTime": number,
"RoleArn": "string",
>Status": "string",
"StoppingConditions": {
    "MaxInvocations": number,
    "ModelLatencyThresholds": [
        {
            "Percentile": "string",
            "ValueInMilliseconds": number
        }
    ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [CompletionTime \(p. 446\)](#)

A timestamp that shows when the job completed.

Type: Timestamp

### [CreationTime \(p. 446\)](#)

A timestamp that shows when the job was created.

Type: Timestamp

### [EndpointPerformances \(p. 446\)](#)

The performance results from running an Inference Recommender job on an existing endpoint.

Type: Array of [EndpointPerformance \(p. 1310\)](#) objects

Array Members: Maximum number of 1 item.

### [FailureReason \(p. 446\)](#)

If the job fails, provides information why the job failed.

Type: String

Length Constraints: Maximum length of 1024.

### [InferenceRecommendations \(p. 446\)](#)

The recommendations made by Inference Recommender.

Type: Array of [InferenceRecommendation \(p. 1419\)](#) objects

Array Members: Minimum number of 1 item. Maximum number of 10 items.

### [InputConfig \(p. 446\)](#)

Returns information about the versioned model package Amazon Resource Name (ARN), the traffic pattern, and endpoint configurations you provided when you initiated the job.

Type: [RecommendationJobInputConfig \(p. 1688\)](#) object

### [JobArn \(p. 446\)](#)

The Amazon Resource Name (ARN) of the job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-\-]*:sagemaker:[a-z0-9\-\-]*:[0-9]{12}:inference-recommendations-job/.*`

### [JobDescription \(p. 446\)](#)

The job description that you provided when you initiated the job.

Type: String

Length Constraints: Maximum length of 128.

### [JobName \(p. 446\)](#)

The name of the job. The name must be unique within an AWS Region in the AWS account.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^ [a-zA-Z0-9] (-*[a-zA-Z0-9]) {0,63}`

### [JobType \(p. 446\)](#)

The job type that you provided when you initiated the job.

Type: String

Valid Values: Default | Advanced

### [LastModifiedTime \(p. 446\)](#)

A timestamp that shows when the job was last modified.

Type: Timestamp

### [RoleArn \(p. 446\)](#)

The Amazon Resource Name (ARN) of the AWS Identity and Access Management (IAM) role you provided when you initiated the job.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^ arn:aws[a-z\-\-]*:iam::\d{12}:role/?[a-zA-Z_0-9+=,.@\\-_]+$`

### [Status \(p. 446\)](#)

The status of the job.

Type: String

Valid Values: PENDING | IN\_PROGRESS | COMPLETED | FAILED | STOPPING | STOPPED

### [StoppingConditions \(p. 446\)](#)

The stopping conditions that you provided when you initiated the job.

Type: [RecommendationJobStoppingConditions \(p. 1693\)](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DescribeLabelingJob

Service: Amazon SageMaker Service

Gets information about a labeling job.

### Request Syntax

```
{  
    "LabelingJobName": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### **LabelingJobName (p. 451)**

The name of the labeling job to return information for.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: Yes

### Response Syntax

```
{  
    "CreationTime": number,  
    "FailureReason": "string",  
    "HumanTaskConfig": {  
        "AnnotationConsolidationConfig": {  
            "AnnotationConsolidationLambdaArn": "string"  
        },  
        "MaxConcurrentTaskCount": number,  
        "NumberOfHumanWorkersPerDataObject": number,  
        "PreHumanTaskLambdaArn": "string",  
        "PublicWorkforceTaskPrice": {  
            "AmountInUsd": {  
                "Cents": number,  
                "Dollars": number,  
                "TenthFractionsOfACent": number  
            }  
        },  
        "TaskAvailabilityLifetimeInSeconds": number,  
        "TaskDescription": "string",  
        "TaskKeywords": [ "string" ],  
        "TaskTimeLimitInSeconds": number,  
        "TaskTitle": "string",  
        "UiConfig": {  
            "HumanTaskUiArn": "string",  
            "UiTemplateS3Uri": "string"  
        },  
        "WorkteamArn": "string"  
    }  
}
```

```

        },
        "InputConfig": {
            "DataAttributes": {
                "ContentClassifiers": [ "string" ]
            },
            "DataSource": {
                "S3DataSource": {
                    "ManifestS3Uri": "string"
                },
                "SnsDataSource": {
                    "SnsTopicArn": "string"
                }
            }
        },
        "JobReferenceCode": "string",
        "LabelAttributeName": "string",
        "LabelCategoryConfigS3Uri": "string",
        "LabelCounters": {
            "FailedNonRetryableError": number,
            "HumanLabeled": number,
            "MachineLabeled": number,
            "TotalLabeled": number,
            "Unlabeled": number
        },
        "LabelingJobAlgorithmsConfig": {
            "InitialActiveLearningModelArn": "string",
            "LabelingJobAlgorithmSpecificationArn": "string",
            "LabelingJobResourceConfig": {
                "VolumeKmsKeyId": "string",
                "VpcConfig": {
                    "SecurityGroupIds": [ "string" ],
                    "Subnets": [ "string" ]
                }
            }
        },
        "LabelingJobArn": "string",
        "LabelingJobName": "string",
        "LabelingJobOutput": {
            "FinalActiveLearningModelArn": "string",
            "OutputDatasetS3Uri": "string"
        },
        "LabelingJobStatus": "string",
        "LastModifiedTime": number,
        "OutputConfig": {
            "KmsKeyId": "string",
            "S3OutputPath": "string",
            "SnsTopicArn": "string"
        },
        "RoleArn": "string",
        "StoppingConditions": {
            "MaxHumanLabeledObjectCount": number,
            "MaxPercentageOfInputDatasetLabeled": number
        },
        "Tags": [
            {
                "Key": "string",
                "Value": "string"
            }
        ]
    }
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**CreationTime (p. 451)**

The date and time that the labeling job was created.

Type: Timestamp

**FailureReason (p. 451)**

If the job failed, the reason that it failed.

Type: String

Length Constraints: Maximum length of 1024.

**HumanTaskConfig (p. 451)**

Configuration information required for human workers to complete a labeling task.

Type: [HumanTaskConfig \(p. 1364\)](#) object

**InputConfig (p. 451)**

Input configuration information for the labeling job, such as the Amazon S3 location of the data objects and the location of the manifest file that describes the data objects.

Type: [LabelingJobInputConfig \(p. 1448\)](#) object

**JobReferenceCode (p. 451)**

A unique identifier for work done as part of a labeling job.

Type: String

Length Constraints: Minimum length of 1.

Pattern: .+

**LabelAttributeName (p. 451)**

The attribute used as the label in the output manifest file.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 127.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,126}

**LabelCategoryConfigS3Uri (p. 451)**

The S3 location of the JSON file that defines the categories used to label data objects. Please note the following label-category limits:

- Semantic segmentation labeling jobs using automated labeling: 20 labels
- Box bounding labeling jobs (all): 10 labels

The file is a JSON structure in the following format:

```
{  
  "document-version": "2018-11-28"  
  "labels": [  
    {
```

```
"label": "label 1"
},
{
"label": "label 2"
},
...
{
"label": "label n"
}
```

Type: String

Length Constraints: Maximum length of 1024.

Pattern: ^(https|s3)://([^\/]+)/\*(.\*)\$

#### [LabelCounters \(p. 451\)](#)

Provides a breakdown of the number of data objects labeled by humans, the number of objects labeled by machine, the number of objects than couldn't be labeled, and the total number of objects labeled.

Type: [LabelCounters \(p. 1439\)](#) object

#### [LabelingJobAlgorithmsConfig \(p. 451\)](#)

Configuration information for automated data labeling.

Type: [LabelingJobAlgorithmsConfig \(p. 1442\)](#) object

#### [LabelingJobArn \(p. 451\)](#)

The Amazon Resource Name (ARN) of the labeling job.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: arn:aws[a-z\-\-]\*:sagemaker:[a-z0-9\-\-]\*:[0-9]{12}:labeling-job/.\*

#### [LabelingJobName \(p. 451\)](#)

The name assigned to the labeling job when it was created.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

#### [LabelingJobOutput \(p. 451\)](#)

The location of the output produced by the labeling job.

Type: [LabelingJobOutput \(p. 1449\)](#) object

### [LabelingJobStatus \(p. 451\)](#)

The processing status of the labeling job.

Type: String

Valid Values: Initializing | InProgress | Completed | Failed | Stopping | Stopped

### [LastModifiedTime \(p. 451\)](#)

The date and time that the labeling job was last updated.

Type: Timestamp

### [OutputConfig \(p. 451\)](#)

The location of the job's output data and the AWS Key Management Service key ID for the key used to encrypt the output data, if any.

Type: [LabelingJobOutputConfig \(p. 1450\)](#) object

### [RoleArn \(p. 451\)](#)

The Amazon Resource Name (ARN) that SageMaker assumes to perform tasks on your behalf during data labeling.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: ^arn:aws[a-zA-Z-]\*:iam::\d{12}:role/[a-zA-Z0-9+=,.@-\_/.]+\$

### [StoppingConditions \(p. 451\)](#)

A set of conditions for stopping a labeling job. If any of the conditions are met, the job is automatically stopped.

Type: [LabelingJobStoppingConditions \(p. 1456\)](#) object

### [Tags \(p. 451\)](#)

An array of key-value pairs. You can use tags to categorize your AWS resources in different ways, for example, by purpose, owner, or environment. For more information, see [Tagging AWS Resources](#).

Type: Array of [Tag \(p. 1749\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceNotFound**

Resource being accessed is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DescribeLineageGroup

Service: Amazon SageMaker Service

Provides a list of properties for the requested lineage group. For more information, see [Cross-Account Lineage Tracking](#) in the *Amazon SageMaker Developer Guide*.

### Request Syntax

```
{  
    "LineageGroupName": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### LineageGroupName ([p. 457](#))

The name of the lineage group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,119\}

Required: Yes

### Response Syntax

```
{  
    "CreatedBy": {  
        "DomainId": "string",  
        "UserProfileArn": "string",  
        "UserProfileName": "string"  
    },  
    "CreationTime": number,  
    "Description": "string",  
    "DisplayName": "string",  
    "LastModifiedBy": {  
        "DomainId": "string",  
        "UserProfileArn": "string",  
        "UserProfileName": "string"  
    },  
    "LastModifiedTime": number,  
    "LineageGroupArn": "string",  
    "LineageGroupName": "string"  
}
```

### Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [CreatedBy \(p. 457\)](#)

Information about the user who created or modified an experiment, trial, trial component, lineage group, project, or model card.

Type: [UserContext \(p. 1822\)](#) object

### [CreationTime \(p. 457\)](#)

The creation time of lineage group.

Type: Timestamp

### [Description \(p. 457\)](#)

The description of the lineage group.

Type: String

Length Constraints: Maximum length of 3072.

Pattern: .\*

### [DisplayName \(p. 457\)](#)

The display name of the lineage group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,119\}

### [LastModifiedBy \(p. 457\)](#)

Information about the user who created or modified an experiment, trial, trial component, lineage group, project, or model card.

Type: [UserContext \(p. 1822\)](#) object

### [LastModifiedTime \(p. 457\)](#)

The last modified time of the lineage group.

Type: Timestamp

### [LineageGroupArn \(p. 457\)](#)

The Amazon Resource Name (ARN) of the lineage group.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-zA-Z-]\*:sagemaker:[a-zA-Z0-9-]\*:[0-9]\{12\}:lineage-group/.\*

### [LineageGroupName \(p. 457\)](#)

The name of the lineage group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,119\}

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DescribeModel

Service: Amazon SageMaker Service

Describes a model that you created using the `CreateModel` API.

### Request Syntax

```
{  
    "ModelName": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### ModelName (p. 460)

The name of the model.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\*

Required: Yes

### Response Syntax

```
{  
    "Containers": [  
        {  
            "ContainerHostname": "string",  
            "Environment": {  
                "string" : "string"  
            },  
            "Image": "string",  
            "ImageConfig": {  
                "RepositoryAccessMode": "string",  
                "RepositoryAuthConfig": {  
                    "RepositoryCredentialsProviderArn": "string"  
                }  
            },  
            "InferenceSpecificationName": "string",  
            "Mode": "string",  
            "ModelDataURL": "string",  
            "ModelPackageName": "string",  
            "MultiModelConfig": {  
                "ModelCacheSetting": "string"  
            }  
        }  
    ],  
    "CreationTime": number,  
    "EnableNetworkIsolation": boolean,  
    "ExecutionRoleArn": "string",
```

```

    "InferenceExecutionConfig": {
        "Mode": "string"
    },
    "ModelArn": "string",
    "modelName": "string",
    "PrimaryContainer": {
        "ContainerHostname": "string",
        "Environment": {
            "string" : "string"
        },
        "Image": "string",
        "ImageConfig": {
            "RepositoryAccessMode": "string",
            "RepositoryAuthConfig": {
                "RepositoryCredentialsProviderArn": "string"
            }
        },
        "InferenceSpecificationName": "string",
        "Mode": "string",
        "ModelDataURL": "string",
        "ModelPackageName": "string",
        "MultiModelConfig": {
            "ModelCacheSetting": "string"
        }
    },
    "VpcConfig": {
        "SecurityGroupIds": [ "string" ],
        "Subnets": [ "string" ]
    }
}
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [Containers \(p. 460\)](#)

The containers in the inference pipeline.

Type: Array of [ContainerDefinition \(p. 1225\)](#) objects

Array Members: Maximum number of 15 items.

### [CreationTime \(p. 460\)](#)

A timestamp that shows when the model was created.

Type: Timestamp

### [EnableNetworkIsolation \(p. 460\)](#)

If True, no inbound or outbound network calls can be made to or from the model container.

Type: Boolean

### [ExecutionRoleArn \(p. 460\)](#)

The Amazon Resource Name (ARN) of the IAM role that you specified for the model.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: ^arn:aws[a-z\-\]\*:iam::\d{12}:role/?[a-zA-Z\_0-9+=,.@\\-\_/\]+\$

#### [InferenceExecutionConfig \(p. 460\)](#)

Specifies details of how containers in a multi-container endpoint are called.

Type: [InferenceExecutionConfig \(p. 1413\)](#) object

#### [ModelArn \(p. 460\)](#)

The Amazon Resource Name (ARN) of the model.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: arn:aws[a-z\-\]\*:sagemaker:[a-zA-Z0-9\-\-]\*:[0-9]{12}:model/.\*

#### [modelName \(p. 460\)](#)

Name of the SageMaker model.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\*

#### [PrimaryContainer \(p. 460\)](#)

The location of the primary inference code, associated artifacts, and custom environment map that the inference code uses when it is deployed in production.

Type: [ContainerDefinition \(p. 1225\)](#) object

#### [VpcConfig \(p. 460\)](#)

A [VpcConfig \(p. 1829\)](#) object that specifies the VPC that this model has access to. For more information, see [Protect Endpoints by Using an Amazon Virtual Private Cloud](#)

Type: [VpcConfig \(p. 1829\)](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DescribeModelBiasJobDefinition

Service: Amazon SageMaker Service

Returns a description of a model bias job definition.

### Request Syntax

```
{  
    "JobDefinitionName": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### JobDefinitionName (p. 463)

The name of the model bias job definition. The name must be unique within an AWS Region in the AWS account.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\*\$

Required: Yes

### Response Syntax

```
{  
    "CreationTime": number,  
    "JobDefinitionArn": "string",  
    "JobDefinitionName": "string",  
    "JobResources": {  
        "ClusterConfig": {  
            "InstanceCount": number,  
            "InstanceType": "string",  
            "VolumeKmsKeyId": "string",  
            "VolumeSizeInGB": number  
        }  
    },  
    "ModelBiasAppSpecification": {  
        "ConfigUri": "string",  
        "Environment": {  
            "string" : "string"  
        },  
        "ImageUri": "string"  
    },  
    "ModelBiasBaselineConfig": {  
        "BaseliningJobName": "string",  
        "ConstraintsResource": {  
            "S3Uri": "string"  
        }  
    },  
    "ModelBiasJobInput": {  
        "BatchTransformInput": {  
            "string": "string"  
        }  
    }  
}
```

```

    "DataCapturedDestinationS3Uri": "string",
    "DatasetFormat": {
        "Csv": {
            "Header": boolean
        },
        "Json": {
            "Line": boolean
        },
        "Parquet": {
        }
    },
    "EndTimeOffset": "string",
    "FeaturesAttribute": "string",
    "InferenceAttribute": "string",
    "LocalPath": "string",
    "ProbabilityAttribute": "string",
    "ProbabilityThresholdAttribute": number,
    "S3DataDistributionType": "string",
    "S3InputMode": "string",
    "StartTimeOffset": "string"
},
"EndpointInput": {
    "EndpointName": "string",
    "EndTimeOffset": "string",
    "FeaturesAttribute": "string",
    "InferenceAttribute": "string",
    "LocalPath": "string",
    "ProbabilityAttribute": "string",
    "ProbabilityThresholdAttribute": number,
    "S3DataDistributionType": "string",
    "S3InputMode": "string",
    "StartTimeOffset": "string"
},
"GroundTruthS3Input": {
    "S3Uri": "string"
}
},
"ModelBiasJobOutputConfig": {
    "KmsKeyId": "string",
    "MonitoringOutputs": [
        {
            "S3Output": {
                "LocalPath": "string",
                "S3UploadMode": "string",
                "S3Uri": "string"
            }
        }
    ]
},
"NetworkConfig": {
    "EnableInterContainerTrafficEncryption": boolean,
    "EnableNetworkIsolation": boolean,
    "VpcConfig": {
        "SecurityGroupIds": [ "string" ],
        "Subnets": [ "string" ]
    }
},
"RoleArn": "string",
"StoppingCondition": {
    "MaxRuntimeInSeconds": number
}
}
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [CreationTime \(p. 463\)](#)

The time at which the model bias job was created.

Type: Timestamp

### [JobDefinitionArn \(p. 463\)](#)

The Amazon Resource Name (ARN) of the model bias job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: .\*

### [JobDefinitionName \(p. 463\)](#)

The name of the bias job definition. The name must be unique within an AWS Region in the AWS account.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\*\$

### [JobResources \(p. 463\)](#)

Identifies the resources to deploy for a monitoring job.

Type: [MonitoringResources \(p. 1567\)](#) object

### [ModelBiasAppSpecification \(p. 463\)](#)

Configures the model bias job to run a specified Docker container image.

Type: [ModelBiasAppSpecification \(p. 1474\)](#) object

### [ModelBiasBaselineConfig \(p. 463\)](#)

The baseline configuration for a model bias job.

Type: [ModelBiasBaselineConfig \(p. 1475\)](#) object

### [ModelBiasJobInput \(p. 463\)](#)

Inputs for the model bias job.

Type: [ModelBiasJobInput \(p. 1476\)](#) object

### [ModelBiasJobOutputConfig \(p. 463\)](#)

The output configuration for monitoring jobs.

Type: [MonitoringOutputConfig \(p. 1565\)](#) object

### [NetworkConfig \(p. 463\)](#)

Networking options for a model bias job.

Type: [MonitoringNetworkConfig \(p. 1563\)](#) object

**RoleArn (p. 463)**

The Amazon Resource Name (ARN) of the AWS Identity and Access Management (IAM) role that has read permission to the input data location and write permission to the output data location in Amazon S3.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: ^arn:aws[a-zA-Z-]\*:iam::\d{12}:role/?[a-zA-Z\_0-9+=,.@\\-\_/.]+\$

[StoppingCondition \(p. 463\)](#)

A time limit for how long the monitoring job is allowed to run before stopping.

Type: [MonitoringStoppingCondition \(p. 1576\)](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

**ResourceNotFound**

Resource being accessed is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DescribeModelCard

Service: Amazon SageMaker Service

Describes the content, creation time, and security configuration of an Amazon SageMaker Model Card.

### Request Syntax

```
{  
    "ModelCardName": "string",  
    "ModelCardVersion": number  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [ModelCardName \(p. 467\)](#)

The name of the model card to describe.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

#### [ModelCardVersion \(p. 467\)](#)

The version of the model card to describe. If a version is not provided, then the latest version of the model card is described.

Type: Integer

Required: No

### Response Syntax

```
{  
    "Content": "string",  
    "CreatedBy": {  
        "DomainId": "string",  
        "UserProfileArn": "string",  
        "UserProfileName": "string"  
    },  
    "CreationTime": number,  
    "LastModifiedBy": {  
        "DomainId": "string",  
        "UserProfileArn": "string",  
        "UserProfileName": "string"  
    },  
    "LastModifiedTime": number,  
    "ModelCardArn": "string",  
    "ModelCardName": "string",  
}
```

```
"ModelCardProcessingStatus": "string",
"ModelCardStatus": "string",
"ModelCardVersion": number,
"SecurityConfig": {
    "KmsKeyId": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [Content \(p. 467\)](#)

The content of the model card.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 100000.

Pattern: .\*

### [CreatedBy \(p. 467\)](#)

Information about the user who created or modified an experiment, trial, trial component, lineage group, project, or model card.

Type: [UserContext \(p. 1822\)](#) object

### [CreationTime \(p. 467\)](#)

The date and time the model card was created.

Type: Timestamp

### [LastModifiedBy \(p. 467\)](#)

Information about the user who created or modified an experiment, trial, trial component, lineage group, project, or model card.

Type: [UserContext \(p. 1822\)](#) object

### [LastModifiedTime \(p. 467\)](#)

The date and time the model card was last modified.

Type: Timestamp

### [ModelCardArn \(p. 467\)](#)

The Amazon Resource Name (ARN) of the model card.

Type: String

Length Constraints: Maximum length of 256.

Pattern: ^arn:aws[a-zA-Z-]\*:sagemaker:[a-zA-Z0-9-]{9,16}:[0-9]{12}:model-card/[a-zA-Z0-9](-\*[a-zA-Z0-9]){\emptyset,62}\\$

### [ModelCardName \(p. 467\)](#)

The name of the model card.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

#### [ModelCardProcessingStatus \(p. 467\)](#)

The processing status of model card deletion. The ModelCardProcessingStatus updates throughout the different deletion steps.

- DeletePending: Model card deletion request received.
- DeleteInProgress: Model card deletion is in progress.
- ContentDeleted: Deleted model card content.
- ExportJobsDeleted: Deleted all export jobs associated with the model card.
- DeleteCompleted: Successfully deleted the model card.
- DeleteFailed: The model card failed to delete.

Type: String

Valid Values: DeleteInProgress | DeletePending | ContentDeleted | ExportJobsDeleted | DeleteCompleted | DeleteFailed

#### [ModelCardStatus \(p. 467\)](#)

The approval status of the model card within your organization. Different organizations might have different criteria for model card review and approval.

- Draft: The model card is a work in progress.
- PendingReview: The model card is pending review.
- Approved: The model card is approved.
- Archived: The model card is archived. No more updates should be made to the model card, but it can still be exported.

Type: String

Valid Values: Draft | PendingReview | Approved | Archived

#### [ModelCardVersion \(p. 467\)](#)

The version of the model card.

Type: Integer

#### [SecurityConfig \(p. 467\)](#)

The security configuration used to protect model card content.

Type: [ModelCardSecurityConfig \(p. 1484\)](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DescribeModelCardExportJob

Service: Amazon SageMaker Service

Describes an Amazon SageMaker Model Card export job.

### Request Syntax

```
{  
    "ModelCardExportJobArn": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [ModelCardExportJobArn \(p. 471\)](#)

The Amazon Resource Name (ARN) of the model card export job to describe.

Type: String

Length Constraints: Maximum length of 256.

Pattern: ^arn:aws[a-zA-Z-]\*:sagemaker:[a-zA-Z0-9-]{9,16}:[0-9]{12}:model-card/[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}/export-job/[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

### Response Syntax

```
{  
    "CreatedAt": number,  
    "ExportArtifacts": {  
        "S3ExportArtifacts": "string"  
    },  
    "FailureReason": "string",  
    "LastModifiedAt": number,  
    "ModelCardExportJobArn": "string",  
    "ModelCardExportJobName": "string",  
    "ModelCardName": "string",  
    "ModelCardVersion": number,  
    "OutputConfig": {  
        "S3OutputPath": "string"  
    },  
    "Status": "string"  
}
```

### Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [CreatedAt \(p. 471\)](#)

The date and time that the model export job was created.

Type: Timestamp

### [ExportArtifacts \(p. 471\)](#)

The exported model card artifacts.

Type: [ModelCardExportArtifacts \(p. 1480\)](#) object

### [FailureReason \(p. 471\)](#)

The failure reason if the model export job fails.

Type: String

Length Constraints: Maximum length of 1024.

### [LastModifiedAt \(p. 471\)](#)

The date and time that the model export job was last modified.

Type: Timestamp

### [ModelCardExportJobArn \(p. 471\)](#)

The Amazon Resource Name (ARN) of the model card export job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: ^arn:aws[a-zA-Z-]\*:sagemaker:[a-zA-Z0-9-]{9,16}:[0-9]{12}:model-card/[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}/export-job/[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

### [ModelCardExportJobName \(p. 471\)](#)

The name of the model card export job to describe.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

### [ModelCardName \(p. 471\)](#)

The name of the model card that the model export job exports.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

### [ModelCardVersion \(p. 471\)](#)

The version of the model card that the model export job exports.

Type: Integer

### [OutputConfig \(p. 471\)](#)

The export output details for the model card.

Type: [ModelCardExportOutputConfig \(p. 1483\)](#) object

### [Status \(p. 471\)](#)

The completion status of the model card export job.

- **InProgress:** The model card export job is in progress.
- **Completed:** The model card export job is complete.
- **Failed:** The model card export job failed. To see the reason for the failure, see the `FailureReason` field in the response to a `DescribeModelCardExportJob` call.

Type: String

Valid Values: `InProgress` | `Completed` | `Failed`

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DescribeModelExplainabilityJobDefinition

Service: Amazon SageMaker Service

Returns a description of a model explainability job definition.

### Request Syntax

```
{  
    "JobDefinitionName": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [JobDefinitionName \(p. 474\)](#)

The name of the model explainability job definition. The name must be unique within an AWS Region in the AWS account.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\*\$

Required: Yes

### Response Syntax

```
{  
    "CreationTime": number,  
    "JobDefinitionArn": "string",  
    "JobDefinitionName": "string",  
    "JobResources": {  
        "ClusterConfig": {  
            "InstanceCount": number,  
            "InstanceType": "string",  
            "VolumeKmsKeyId": "string",  
            "VolumeSizeInGB": number  
        }  
    },  
    "ModelExplainabilityAppSpecification": {  
        "ConfigUri": "string",  
        "Environment": {  
            "string": "string"  
        },  
        "ImageUri": "string"  
    },  
    "ModelExplainabilityBaselineConfig": {  
        "BaseliningJobName": "string",  
        "ConstraintsResource": {  
            "S3Uri": "string"  
        }  
    },  
    "ModelExplainabilityJobInput": {  
        "JobInput": {  
            "BaselineConfig": {  
                "BaselineJobName": "string",  
                "ConstraintsResource": {  
                    "S3Uri": "string"  
                }  
            },  
            "ModelExplainabilityAppSpecification": {  
                "ConfigUri": "string",  
                "Environment": {  
                    "string": "string"  
                },  
                "ImageUri": "string"  
            }  
        }  
    }  
}
```

```

    "BatchTransformInput": {
        "DataCapturedDestinationS3Uri": "string",
        "DatasetFormat": {
            "Csv": {
                "Header": boolean
            },
            "Json": {
                "Line": boolean
            },
            "Parquet": {}
        },
        "EndTimeOffset": "string",
        "FeaturesAttribute": "string",
        "InferenceAttribute": "string",
        "LocalPath": "string",
        "ProbabilityAttribute": "string",
        "ProbabilityThresholdAttribute": number,
        "S3DataDistributionType": "string",
        "S3InputMode": "string",
        "StartTimeOffset": "string"
    },
    "EndpointInput": {
        "EndpointName": "string",
        "EndTimeOffset": "string",
        "FeaturesAttribute": "string",
        "InferenceAttribute": "string",
        "LocalPath": "string",
        "ProbabilityAttribute": "string",
        "ProbabilityThresholdAttribute": number,
        "S3DataDistributionType": "string",
        "S3InputMode": "string",
        "StartTimeOffset": "string"
    }
},
"ModelExplainabilityJobOutputConfig": {
    "KmsKeyId": "string",
    "MonitoringOutputs": [
        {
            "S3Output": {
                "LocalPath": "string",
                "S3UploadMode": "string",
                "S3Uri": "string"
            }
        }
    ]
},
"NetworkConfig": {
    "EnableInterContainerTrafficEncryption": boolean,
    "EnableNetworkIsolation": boolean,
    "VpcConfig": {
        "SecurityGroupIds": [ "string" ],
        "Subnets": [ "string" ]
    }
},
"RoleArn": "string",
"StoppingCondition": {
    "MaxRuntimeInSeconds": number
}
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

**[CreationTime \(p. 474\)](#)**

The time at which the model explainability job was created.

Type: Timestamp

**[JobDefinitionArn \(p. 474\)](#)**

The Amazon Resource Name (ARN) of the model explainability job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: .\*

**[JobDefinitionName \(p. 474\)](#)**

The name of the explainability job definition. The name must be unique within an AWS Region in the AWS account.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\*\$

**[JobResources \(p. 474\)](#)**

Identifies the resources to deploy for a monitoring job.

Type: [MonitoringResources \(p. 1567\)](#) object

**[ModelExplainabilityAppSpecification \(p. 474\)](#)**

Configures the model explainability job to run a specified Docker container image.

Type: [ModelExplainabilityAppSpecification \(p. 1504\)](#) object

**[ModelExplainabilityBaselineConfig \(p. 474\)](#)**

The baseline configuration for a model explainability job.

Type: [ModelExplainabilityBaselineConfig \(p. 1505\)](#) object

**[ModelExplainabilityJobInput \(p. 474\)](#)**

Inputs for the model explainability job.

Type: [ModelExplainabilityJobInput \(p. 1506\)](#) object

**[ModelExplainabilityJobOutputConfig \(p. 474\)](#)**

The output configuration for monitoring jobs.

Type: [MonitoringOutputConfig \(p. 1565\)](#) object

**[NetworkConfig \(p. 474\)](#)**

Networking options for a model explainability job.

Type: [MonitoringNetworkConfig \(p. 1563\)](#) object

**[RoleArn \(p. 474\)](#)**

The Amazon Resource Name (ARN) of the AWS Identity and Access Management (IAM) role that has read permission to the input data location and write permission to the output data location in Amazon S3.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: ^arn:aws[a-z\-\]\*:iam::\d{12}:role/?[a-zA-Z\_0-9+=,.@\\-\_/.]+\$

#### **StoppingCondition (p. 474)**

A time limit for how long the monitoring job is allowed to run before stopping.

Type: [MonitoringStoppingCondition \(p. 1576\)](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DescribeModelPackage

Service: Amazon SageMaker Service

Returns a description of the specified model package, which is used to create SageMaker models or list them on AWS Marketplace.

To create models in SageMaker, buyers can subscribe to model packages listed on AWS Marketplace.

### Request Syntax

```
{  
    "ModelPackageName": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### ModelPackageName (p. 478)

The name or Amazon Resource Name (ARN) of the model package to describe.

When you specify a name, the name must have 1 to 63 characters. Valid characters are a-z, A-Z, 0-9, and - (hyphen).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 176.

Pattern: (arn:aws[a-z\-\]\*:sagemaker:[a-z0-9\-\]\*:[0-9]{12}:[a-z\-\]\*\|)?([a-zA-Z0-9]([a-zA-Z0-9-])\{0,62\})(?<!\-)(\|[0-9]\{1,5\})?\\$

Required: Yes

### Response Syntax

```
{  
    "AdditionalInferenceSpecifications": [  
        {  
            "Containers": [  
                {  
                    "ContainerHostname": "string",  
                    "Environment": {  
                        "string" : "string"  
                    },  
                    "Framework": "string",  
                    "FrameworkVersion": "string",  
                    "Image": "string",  
                    "ImageDigest": "string",  
                    "ModelDataURL": "string",  
                    "ModelError": {  
                        "DataInputConfig": "string"  
                    },  
                    "Nearest modelName": "string",  
                    "ModelType": "string",  
                    "Runtime": "string",  
                    "SupportedContentTypes": ["string"],  
                    "SupportedResponseContentTypes": ["string"],  
                    "SupportedContentodings": ["string"],  
                    "SupportedProtocols": ["string"],  
                    "InferenceSpecification": {  
                        "BatchStrategy": "string",  
                        "InferenceInstanceType": "string",  
                        "InferenceVolumeKb": 123,  
                        "Latency": 123,  
                        "Memory": 123,  
                        "Throughput": 123  
                    }  
                }  
            ]  
        }  
    ]  
}
```

```

        "ProductId": "string"
    }
],
"Description": "string",
"Name": "string",
"SupportedContentTypes": [ "string" ],
"SupportedRealtimeInferenceInstanceTypes": [ "string" ],
"SupportedResponseMIMETypes": [ "string" ],
"SupportedTransformInstanceTypes": [ "string" ]
}
],
"ApprovalDescription": "string",
"CertifyForMarketplace": boolean,
"CreatedBy": {
    "DomainId": "string",
    "UserProfileArn": "string",
    "UserProfileName": "string"
},
"CreationTime": number,
"CustomerMetadataProperties": {
    "string" : "string"
},
"Domain": "string",
"DriftCheckBaselines": {
    "Bias": {
        "ConfigFile": {
            "ContentDigest": "string",
            "ContentType": "string",
            "S3Uri": "string"
        },
        "PostTrainingConstraints": {
            "ContentDigest": "string",
            "ContentType": "string",
            "S3Uri": "string"
        },
        "PreTrainingConstraints": {
            "ContentDigest": "string",
            "ContentType": "string",
            "S3Uri": "string"
        }
    },
    "Explainability": {
        "ConfigFile": {
            "ContentDigest": "string",
            "ContentType": "string",
            "S3Uri": "string"
        },
        "Constraints": {
            "ContentDigest": "string",
            "ContentType": "string",
            "S3Uri": "string"
        }
    }
},
"ModelDataQuality": {
    "Constraints": {
        "ContentDigest": "string",
        "ContentType": "string",
        "S3Uri": "string"
    },
    "Statistics": {
        "ContentDigest": "string",
        "ContentType": "string",
        "S3Uri": "string"
    }
},
"ModelQuality": {

```

```

    "Constraints": {
        "ContentDigest": "string",
        "ContentType": "string",
        "S3Uri": "string"
    },
    "Statistics": {
        "ContentDigest": "string",
        "ContentType": "string",
        "S3Uri": "string"
    }
}
},
"InferenceSpecification": {
    "Containers": [
        {
            "ContainerHostname": "string",
            "Environment": {
                "string" : "string"
            },
            "Framework": "string",
            "FrameworkVersion": "string",
            "Image": "string",
            "ImageDigest": "string",
            "ModelDataURL": "string",
            "ModelInput": {
                "DataInputConfig": "string"
            },
            "NearestmodelName": "string",
            "ProductId": "string"
        }
    ],
    "SupportedContentTypes": [ "string" ],
    "SupportedRealtimeInferenceInstanceTypes": [ "string" ],
    "SupportedResponseMIMETypes": [ "string" ],
    "SupportedTransformInstanceTypes": [ "string" ]
},
"LastModifiedBy": {
    "DomainId": "string",
    "UserProfileArn": "string",
    "UserProfileName": "string"
},
"LastModifiedTime": number,
"MetadataProperties": {
    "CommitId": "string",
    "GeneratedBy": "string",
    "ProjectId": "string",
    "Repository": "string"
},
"ModelApprovalStatus": "string",
"ModelMetrics": {
    "Bias": {
        "PostTrainingReport": {
            "ContentDigest": "string",
            "ContentType": "string",
            "S3Uri": "string"
        },
        "PreTrainingReport": {
            "ContentDigest": "string",
            "ContentType": "string",
            "S3Uri": "string"
        }
    },
    "Report": {
        "ContentDigest": "string",
        "ContentType": "string",
        "S3Uri": "string"
    }
}
}

```

```

        },
        "Explainability": {
            "Report": {
                "ContentDigest": "string",
                "ContentType": "string",
                "S3Uri": "string"
            }
        },
        "ModelDataQuality": {
            "Constraints": {
                "ContentDigest": "string",
                "ContentType": "string",
                "S3Uri": "string"
            },
            "Statistics": {
                "ContentDigest": "string",
                "ContentType": "string",
                "S3Uri": "string"
            }
        },
        "ModelQuality": {
            "Constraints": {
                "ContentDigest": "string",
                "ContentType": "string",
                "S3Uri": "string"
            },
            "Statistics": {
                "ContentDigest": "string",
                "ContentType": "string",
                "S3Uri": "string"
            }
        }
    },
    "ModelPackageArn": "string",
    "ModelPackageDescription": "string",
    "ModelPackageGroupName": "string",
    "ModelPackageName": "string",
    "ModelPackageStatus": "string",
    "ModelPackageStatusDetails": {
        "ImageScanStatuses": [
            {
                "FailureReason": "string",
                "Name": "string",
                "Status": "string"
            }
        ],
        "ValidationStatuses": [
            {
                "FailureReason": "string",
                "Name": "string",
                "Status": "string"
            }
        ]
    },
    "ModelPackageVersion": number,
    "SamplePayloadUrl": "string",
    "SourceAlgorithmSpecification": {
        "SourceAlgorithms": [
            {
                "AlgorithmName": "string",
                "ModelDataUrl": "string"
            }
        ]
    },
    "Task": "string",
    "ValidationSpecification": {

```

```

    "ValidationProfiles": [
        {
            "ProfileName": "string",
            "TransformJobDefinition": {
                "BatchStrategy": "string",
                "Environment": {
                    "string" : "string"
                },
                "MaxConcurrentTransforms": number,
                "MaxPayloadInMB": number,
                "TransformInput": {
                    "CompressionType": "string",
                    "ContentType": "string",
                    "DataSource": {
                        "S3DataSource": {
                            "S3DataType": "string",
                            "S3Uri": "string"
                        }
                    },
                    "SplitType": "string"
                },
                "TransformOutput": {
                    "Accept": "string",
                    "AssembleWith": "string",
                    "KmsKeyId": "string",
                    "S3OutputPath": "string"
                },
                "TransformResources": {
                    "InstanceCount": number,
                    "InstanceType": "string",
                    "VolumeKmsKeyId": "string"
                }
            }
        }
    ],
    "ValidationRole": "string"
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [AdditionalInferenceSpecifications \(p. 478\)](#)

An array of additional Inference Specification objects. Each additional Inference Specification specifies artifacts based on this model package that can be used on inference endpoints. Generally used with SageMaker Neo to store the compiled artifacts.

Type: Array of [AdditionalInferenceSpecificationDefinition \(p. 1112\)](#) objects

Array Members: Minimum number of 1 item. Maximum number of 15 items.

### [ApprovalDescription \(p. 478\)](#)

A description provided for the model approval.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: .\*

### [CertifyForMarketplace \(p. 478\)](#)

Whether the model package is certified for listing on AWS Marketplace.

Type: Boolean

### [CreatedBy \(p. 478\)](#)

Information about the user who created or modified an experiment, trial, trial component, lineage group, project, or model card.

Type: [UserContext \(p. 1822\)](#) object

### [CreationTime \(p. 478\)](#)

A timestamp specifying when the model package was created.

Type: Timestamp

### [CustomerMetadataProperties \(p. 478\)](#)

The metadata properties associated with the model package versions.

Type: String to string map

Map Entries: Maximum number of 50 items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Key Pattern:  $^([\backslash p\{L\}\backslash p\{Z\}\backslash p\{N\}_.\backslash \backslash =+\backslash -@]^*)\$\{1,128\}$

Value Length Constraints: Minimum length of 1. Maximum length of 256.

Value Pattern:  $^([\backslash p\{L\}\backslash p\{Z\}\backslash p\{N\}_.\backslash \backslash =+\backslash -@]^*)\$\{1,256\}$

### [Domain \(p. 478\)](#)

The machine learning domain of the model package you specified. Common machine learning domains include computer vision and natural language processing.

Type: String

### [DriftCheckBaselines \(p. 478\)](#)

Represents the drift check baselines that can be used when the model monitor is set using the model package. For more information, see the topic on [Drift Detection against Previous Baselines in SageMaker Pipelines](#) in the *Amazon SageMaker Developer Guide*.

Type: [DriftCheckBaselines \(p. 1275\)](#) object

### [InferenceSpecification \(p. 478\)](#)

Details about inference jobs that can be run with models based on this model package.

Type: [InferenceSpecification \(p. 1423\)](#) object

### [LastModifiedBy \(p. 478\)](#)

Information about the user who created or modified an experiment, trial, trial component, lineage group, project, or model card.

Type: [UserContext \(p. 1822\)](#) object

### [LastModifiedTime \(p. 478\)](#)

The last time that the model package was modified.

Type: Timestamp

#### [MetadataProperties \(p. 478\)](#)

Metadata properties of the tracking entity, trial, or trial component.

Type: [MetadataProperties \(p. 1465\)](#) object

#### [ModelApprovalStatus \(p. 478\)](#)

The approval status of the model package.

Type: String

Valid Values: Approved | Rejected | PendingManualApproval

#### [ModelMetrics \(p. 478\)](#)

Metrics for the model.

Type: [ModelMetrics \(p. 1513\)](#) object

#### [ModelPackageArn \(p. 478\)](#)

The Amazon Resource Name (ARN) of the model package.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `arn:aws[a-zA-Z-]*:sagemaker:[a-zA-Z0-9-]*:[0-9]{12}:model-package/.+`

#### [ModelPackageDescription \(p. 478\)](#)

A brief summary of the model package.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `[^\p{L}\p{M}\p{Z}\p{S}\p{N}\p{P}]^*`

#### [ModelPackageGroupName \(p. 478\)](#)

If the model is a versioned model, the name of the model group that the versioned model belongs to.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])\{0,62\}$`

#### [ModelPackageName \(p. 478\)](#)

The name of the model package being described.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])\{0,62\}$`

#### [ModelPackageStatus \(p. 478\)](#)

The current status of the model package.

Type: String

Valid Values: Pending | InProgress | Completed | Failed | Deleting

**ModelPackageStatusDetails (p. 478)**

Details about the current status of the model package.

Type: [ModelPackageStatusDetails \(p. 1526\)](#) object

**ModelPackageVersion (p. 478)**

The version of the model package.

Type: Integer

Valid Range: Minimum value of 1.

**SamplePayloadUrl (p. 478)**

The Amazon Simple Storage Service (Amazon S3) path where the sample payload are stored. This path points to a single gzip compressed tar archive (.tar.gz suffix).

Type: String

**SourceAlgorithmSpecification (p. 478)**

Details about the algorithm that was used to create the model package.

Type: [SourceAlgorithmSpecification \(p. 1737\)](#) object

**Task (p. 478)**

The machine learning task you specified that your model package accomplishes. Common machine learning tasks include object detection and image classification.

Type: String

**ValidationSpecification (p. 478)**

Configurations for one or more transform jobs that SageMaker runs to test the model package.

Type: [ModelPackageValidationSpecification \(p. 1531\)](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DescribeModelPackageGroup

Service: Amazon SageMaker Service

Gets a description for the specified model group.

### Request Syntax

```
{  
    "ModelPackageName": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### ModelPackageName ([p. 486](#))

The name of the model group to describe.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 170.

Pattern: (arn:aws[a-z\[-]\*:sagemaker:[a-z0-9\[-]\*:[0-9]{12}:[a-z\[-]\*\//)?([a-zA-Z0-9]([a-zA-Z0-9-]){0,62})(?<!-)\$

Required: Yes

### Response Syntax

```
{  
    "CreatedBy": {  
        "DomainId": "string",  
        "UserProfileArn": "string",  
        "UserProfileName": "string"  
    },  
    "CreationTime": number,  
    "ModelPackageGroupArn": "string",  
    "ModelPackageGroupDescription": "string",  
    "ModelPackageGroupName": "string",  
    "ModelPackageGroupStatus": "string"  
}
```

### Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

#### CreatedBy ([p. 486](#))

Information about the user who created or modified an experiment, trial, trial component, lineage group, project, or model card.

Type: [UserContext \(p. 1822\)](#) object

#### **CreationTime (p. 486)**

The time that the model group was created.

Type: Timestamp

#### **ModelPackageGroupArn (p. 486)**

The Amazon Resource Name (ARN) of the model group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `arn:aws[a-z\-\-]*:sagemaker:[a-z0-9\-\-]*:[0-9]{12}:model-package-group/.*`

#### **ModelPackageGroupDescription (p. 486)**

A description of the model group.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `[\\p{L}\\p{M}\\p{Z}\\p{S}\\p{N}\\p{P}]^*`

#### **ModelPackageGroupName (p. 486)**

The name of the model group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^ [a-zA-Z0-9] (-*[a-zA-Z0-9]) {0,62} $`

#### **ModelPackageGroupStatus (p. 486)**

The status of the model group.

Type: String

Valid Values: Pending | InProgress | Completed | Failed | Deleting | DeleteFailed

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)

- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DescribeModelQualityJobDefinition

Service: Amazon SageMaker Service

Returns a description of a model quality job definition.

## Request Syntax

```
{  
    "JobDefinitionName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### [JobDefinitionName \(p. 489\)](#)

The name of the model quality job. The name must be unique within an AWS Region in the AWS account.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\*\$

Required: Yes

## Response Syntax

```
{  
    "CreationTime": number,  
    "JobDefinitionArn": "string",  
    "JobDefinitionName": "string",  
    "JobResources": {  
        "ClusterConfig": {  
            "InstanceCount": number,  
            "InstanceType": "string",  
            "VolumeKmsKeyId": "string",  
            "VolumeSizeInGB": number  
        }  
    },  
    "ModelQualityAppSpecification": {  
        "ContainerArguments": [ "string" ],  
        "ContainerEntrypoint": [ "string" ],  
        "Environment": {  
            "string" : "string"  
        },  
        "ImageUri": "string",  
        "PostAnalyticsProcessorSourceUri": "string",  
        "ProblemType": "string",  
        "RecordPreprocessorSourceUri": "string"  
    },  
    "ModelQualityBaselineConfig": {  
        "BaseliningJobName": "string",  
    }  
}
```

```

    "ConstraintsResource": {
        "S3Uri": "string"
    }
},
"ModelQualityJobInput": {
    "BatchTransformInput": {
        "DataCapturedDestinationS3Uri": "string",
        "DatasetFormat": {
            "Csv": {
                "Header": boolean
            },
            "Json": {
                "Line": boolean
            },
            "Parquet": {}
        },
        "EndTimeOffset": "string",
        "FeaturesAttribute": "string",
        "InferenceAttribute": "string",
        "LocalPath": "string",
        "ProbabilityAttribute": "string",
        "ProbabilityThresholdAttribute": number,
        "S3DataDistributionType": "string",
        "S3InputMode": "string",
        "StartTimeOffset": "string"
    },
    "EndpointInput": {
        "EndpointName": "string",
        "EndTimeOffset": "string",
        "FeaturesAttribute": "string",
        "InferenceAttribute": "string",
        "LocalPath": "string",
        "ProbabilityAttribute": "string",
        "ProbabilityThresholdAttribute": number,
        "S3DataDistributionType": "string",
        "S3InputMode": "string",
        "StartTimeOffset": "string"
    },
    "GroundTruthS3Input": {
        "S3Uri": "string"
    }
},
"ModelQualityJobOutputConfig": {
    "KmsKeyId": "string",
    "MonitoringOutputs": [
        {
            "S3Output": {
                "LocalPath": "string",
                "S3UploadMode": "string",
                "S3Uri": "string"
            }
        }
    ]
},
"NetworkConfig": {
    "EnableInterContainerTrafficEncryption": boolean,
    "EnableNetworkIsolation": boolean,
    "VpcConfig": {
        "SecurityGroupIds": [ "string" ],
        "Subnets": [ "string" ]
    }
},
"RoleArn": "string",
"StoppingCondition": {
    "MaxRuntimeInSeconds": number
}

```

```
    }
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [CreationTime \(p. 489\)](#)

The time at which the model quality job was created.

Type: Timestamp

### [JobDefinitionArn \(p. 489\)](#)

The Amazon Resource Name (ARN) of the model quality job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: .\*

### [JobDefinitionName \(p. 489\)](#)

The name of the quality job definition. The name must be unique within an AWS Region in the AWS account.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\*\$

### [JobResources \(p. 489\)](#)

Identifies the resources to deploy for a monitoring job.

Type: [MonitoringResources \(p. 1567\)](#) object

### [ModelQualityAppSpecification \(p. 489\)](#)

Configures the model quality job to run a specified Docker container image.

Type: [ModelQualityAppSpecification \(p. 1533\)](#) object

### [ModelQualityBaselineConfig \(p. 489\)](#)

The baseline configuration for a model quality job.

Type: [ModelQualityBaselineConfig \(p. 1535\)](#) object

### [ModelQualityJobInput \(p. 489\)](#)

Inputs for the model quality job.

Type: [ModelQualityJobInput \(p. 1536\)](#) object

### [ModelQualityJobOutputConfig \(p. 489\)](#)

The output configuration for monitoring jobs.

Type: [MonitoringOutputConfig \(p. 1565\)](#) object

### [NetworkConfig \(p. 489\)](#)

Networking options for a model quality job.

Type: [MonitoringNetworkConfig \(p. 1563\)](#) object

### [RoleArn \(p. 489\)](#)

The Amazon Resource Name (ARN) of an IAM role that Amazon SageMaker can assume to perform tasks on your behalf.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: ^arn:aws[a-z\-\]\*:iam::\d{12}:role/?[a-zA-Z\_0-9+=,.@\\-\_/\]+\$

### [StoppingCondition \(p. 489\)](#)

A time limit for how long the monitoring job is allowed to run before stopping.

Type: [MonitoringStoppingCondition \(p. 1576\)](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DescribeMonitoringSchedule

Service: Amazon SageMaker Service

Describes the schedule for a monitoring job.

### Request Syntax

```
{  
    "MonitoringScheduleName": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### MonitoringScheduleName (p. 493)

Name of a previously created monitoring schedule.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

### Response Syntax

```
{  
    "CreationTime": number,  
    "EndpointName": "string",  
    "FailureReason": "string",  
    "LastModifiedTime": number,  
    "LastMonitoringExecutionSummary": {  
        "CreationTime": number,  
        "EndpointName": "string",  
        "FailureReason": "string",  
        "LastModifiedTime": number,  
        "MonitoringExecutionStatus": "string",  
        "MonitoringJobDefinitionName": "string",  
        "MonitoringScheduleName": "string",  
        "MonitoringType": "string",  
        "ProcessingJobArn": "string",  
        "ScheduledTime": number  
    },  
    "MonitoringScheduleArn": "string",  
    "MonitoringScheduleConfig": {  
        "MonitoringJobDefinition": {  
            "BaselineConfig": {  
                "BaseliningJobName": "string",  
                "ConstraintsResource": {  
                    "S3Uri": "string"  
                },  
                "StatisticsResource": {  
                    "S3Uri": "string"  
                }  
            }  
        }  
    }  
}
```

```

        "S3Uri": "string"
    }
},
"Environment": {
    "string" : "string"
},
"MonitoringAppSpecification": {
    "ContainerArguments": [ "string" ],
    "ContainerEntrypoint": [ "string" ],
    "ImageUri": "string",
    "PostAnalyticsProcessorSourceUri": "string",
    "RecordPreprocessorSourceUri": "string"
},
"MonitoringInputs": [
{
    "BatchTransformInput": {
        "DataCapturedDestinationS3Uri": "string",
        "DatasetFormat": {
            "Csv": {
                "Header": boolean
            },
            "Json": {
                "Line": boolean
            },
            "Parquet": {
            }
        },
        "EndTimeOffset": "string",
        "FeaturesAttribute": "string",
        "InferenceAttribute": "string",
        "LocalPath": "string",
        "ProbabilityAttribute": "string",
        "ProbabilityThresholdAttribute": number,
        "S3DataDistributionType": "string",
        "S3InputMode": "string",
        "StartTimeOffset": "string"
    },
    "EndpointInput": {
        "EndpointName": "string",
        "EndTimeOffset": "string",
        "FeaturesAttribute": "string",
        "InferenceAttribute": "string",
        "LocalPath": "string",
        "ProbabilityAttribute": "string",
        "ProbabilityThresholdAttribute": number,
        "S3DataDistributionType": "string",
        "S3InputMode": "string",
        "StartTimeOffset": "string"
    }
}
],
"MonitoringOutputConfig": {
    "KmsKeyId": "string",
    "MonitoringOutputs": [
    {
        "S3Output": {
            "LocalPath": "string",
            "S3UploadMode": "string",
            "S3Uri": "string"
        }
    }
]
},
"MonitoringResources": {
    "ClusterConfig": {
        "InstanceCount": number,

```

```

        "InstanceType": "string",
        "VolumeKmsKeyId": "string",
        "VolumeSizeInGB": number
    }
},
"NetworkConfig": {
    "EnableInterContainerTrafficEncryption": boolean,
    "EnableNetworkIsolation": boolean,
    "VpcConfig": {
        "SecurityGroupIds": [ "string" ],
        "Subnets": [ "string" ]
    }
},
"RoleArn": "string",
"StoppingCondition": {
    "MaxRuntimeInSeconds": number
}
},
"MonitoringJobDefinitionName": "string",
"MonitoringType": "string",
"ScheduleConfig": {
    "ScheduleExpression": "string"
}
},
"MonitoringScheduleName": "string",
"MonitoringScheduleStatus": "string",
"MonitoringType": "string"
}
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [CreationTime \(p. 493\)](#)

The time at which the monitoring job was created.

Type: Timestamp

### [EndpointName \(p. 493\)](#)

The name of the endpoint for the monitoring job.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

### [FailureReason \(p. 493\)](#)

A string, up to one KB in size, that contains the reason a monitoring job failed, if it failed.

Type: String

Length Constraints: Maximum length of 1024.

### [LastModifiedTime \(p. 493\)](#)

The time at which the monitoring job was last modified.

Type: Timestamp

### [LastMonitoringExecutionSummary \(p. 493\)](#)

Describes metadata on the last execution to run, if there was one.

Type: [MonitoringExecutionSummary \(p. 1554\)](#) object

### [MonitoringScheduleArn \(p. 493\)](#)

The Amazon Resource Name (ARN) of the monitoring schedule.

Type: String

Length Constraints: Maximum length of 256.

Pattern: .\*

### [MonitoringScheduleConfig \(p. 493\)](#)

The configuration object that specifies the monitoring schedule and defines the monitoring job.

Type: [MonitoringScheduleConfig \(p. 1572\)](#) object

### [MonitoringScheduleName \(p. 493\)](#)

Name of the monitoring schedule.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

### [MonitoringScheduleStatus \(p. 493\)](#)

The status of an monitoring job.

Type: String

Valid Values: Pending | Failed | Scheduled | Stopped

### [MonitoringType \(p. 493\)](#)

The type of the monitoring job that this schedule runs. This is one of the following values.

- DATA\_QUALITY - The schedule is for a data quality monitoring job.
- MODEL\_QUALITY - The schedule is for a model quality monitoring job.
- MODEL\_BIAS - The schedule is for a bias monitoring job.
- MODEL\_EXPLAINABILITY - The schedule is for an explainability monitoring job.

Type: String

Valid Values: DataQuality | ModelQuality | ModelBias | ModelExplainability

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DescribeNotebookInstance

Service: Amazon SageMaker Service

Returns information about a notebook instance.

### Request Syntax

```
{  
    "NotebookInstanceName": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### NotebookInstanceName (p. 498)

The name of the notebook instance that you want information about.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\*

Required: Yes

### Response Syntax

```
{  
    "AcceleratorTypes": [ "string" ],  
    "AdditionalCodeRepositories": [ "string" ],  
    "CreationTime": number,  
    "DefaultCodeRepository": "string",  
    "DirectInternetAccess": "string",  
    "FailureReason": "string",  
    "InstanceMetadataServiceConfiguration": {  
        "MinimumInstanceMetadataServiceVersion": "string"  
    },  
    "InstanceType": "string",  
    "KmsKeyId": "string",  
    "LastModifiedTime": number,  
    "NetworkInterfaceId": "string",  
    "NotebookInstanceArn": "string",  
    "NotebookInstanceLifecycleConfigName": "string",  
    "NotebookInstanceName": "string",  
    "NotebookInstanceStatus": "string",  
    "PlatformIdentifier": "string",  
    "RoleArn": "string",  
    "RootAccess": "string",  
    "SecurityGroups": [ "string" ],  
    "SubnetId": "string",  
    "Url": "string",  
    "VolumeSizeInGB": number  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [AcceleratorTypes \(p. 498\)](#)

A list of the Elastic Inference (EI) instance types associated with this notebook instance. Currently only one EI instance type can be associated with a notebook instance. For more information, see [Using Elastic Inference in Amazon SageMaker](#).

Type: Array of strings

Valid Values: ml.eia1.medium | ml.eia1.large | ml.eia1.xlarge | ml.eia2.medium | ml.eia2.large | ml.eia2.xlarge

### [AdditionalCodeRepositories \(p. 498\)](#)

An array of up to three Git repositories associated with the notebook instance. These can be either the names of Git repositories stored as resources in your account, or the URL of Git repositories in [AWS CodeCommit](#) or in any other Git repository. These repositories are cloned at the same level as the default repository of your notebook instance. For more information, see [Associating Git Repositories with SageMaker Notebook Instances](#).

Type: Array of strings

Array Members: Maximum number of 3 items.

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: ^https://([/]+)?(.\*)|^\*[a-zA-Z0-9](-\*[a-zA-Z0-9])\*

### [CreationTime \(p. 498\)](#)

A timestamp. Use this parameter to return the time when the notebook instance was created

Type: Timestamp

### [DefaultCodeRepository \(p. 498\)](#)

The Git repository associated with the notebook instance as its default code repository. This can be either the name of a Git repository stored as a resource in your account, or the URL of a Git repository in [AWS CodeCommit](#) or in any other Git repository. When you open a notebook instance, it opens in the directory that contains this repository. For more information, see [Associating Git Repositories with SageMaker Notebook Instances](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: ^https://([/]+)?(.\*)|^\*[a-zA-Z0-9](-\*[a-zA-Z0-9])\*

### [DirectInternetAccess \(p. 498\)](#)

Describes whether SageMaker provides internet access to the notebook instance. If this value is set to *Disabled*, the notebook instance does not have internet access, and cannot connect to SageMaker training and endpoint services.

For more information, see [Notebook Instances Are Internet-Enabled by Default](#).

Type: String

Valid Values: Enabled | Disabled

### [FailureReason \(p. 498\)](#)

If status is Failed, the reason it failed.

Type: String

Length Constraints: Maximum length of 1024.

### [InstanceMetadataServiceConfiguration \(p. 498\)](#)

Information on the IMDS configuration of the notebook instance

Type: [InstanceMetadataServiceConfiguration \(p. 1431\)](#) object

### [InstanceType \(p. 498\)](#)

The type of ML compute instance running on the notebook instance.

Type: String

Valid Values: ml.t2.medium | ml.t2.large | ml.t2.xlarge | ml.t2.2xlarge | ml.t3.medium | ml.t3.large | ml.t3.xlarge | ml.t3.2xlarge | ml.m4.xlarge | ml.m4.2xlarge | ml.m4.4xlarge | ml.m4.10xlarge | ml.m4.16xlarge | ml.m5.xlarge | ml.m5.2xlarge | ml.m5.4xlarge | ml.m5.12xlarge | ml.m5.24xlarge | ml.m5d.large | ml.m5d.xlarge | ml.m5d.2xlarge | ml.m5d.4xlarge | ml.m5d.8xlarge | ml.m5d.12xlarge | ml.m5d.16xlarge | ml.m5d.24xlarge | ml.c4.xlarge | ml.c4.2xlarge | ml.c4.4xlarge | ml.c4.8xlarge | ml.c5.xlarge | ml.c5.2xlarge | ml.c5.4xlarge | ml.c5.9xlarge | ml.c5.18xlarge | ml.c5d.xlarge | ml.c5d.2xlarge | ml.c5d.4xlarge | ml.c5d.9xlarge | ml.c5d.18xlarge | ml.p2.xlarge | ml.p2.8xlarge | ml.p2.16xlarge | ml.p3.2xlarge | ml.p3.8xlarge | ml.p3.16xlarge | ml.p3dn.24xlarge | ml.g4dn.xlarge | ml.g4dn.2xlarge | ml.g4dn.4xlarge | ml.g4dn.8xlarge | ml.g4dn.12xlarge | ml.g4dn.16xlarge | ml.r5.large | ml.r5.xlarge | ml.r5.2xlarge | ml.r5.4xlarge | ml.r5.8xlarge | ml.r5.12xlarge | ml.r5.16xlarge | ml.r5.24xlarge | ml.g5.xlarge | ml.g5.2xlarge | ml.g5.4xlarge | ml.g5.8xlarge | ml.g5.16xlarge | ml.g5.12xlarge | ml.g5.24xlarge | ml.g5.48xlarge

### [KmsKeyId \(p. 498\)](#)

The AWS KMS key ID SageMaker uses to encrypt data when storing it on the ML storage volume attached to the instance.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: .\*

### [LastModifiedTime \(p. 498\)](#)

A timestamp. Use this parameter to retrieve the time when the notebook instance was last modified.

Type: Timestamp

### [NetworkInterfaceId \(p. 498\)](#)

The network interface IDs that SageMaker created at the time of creating the instance.

Type: String

### [NotebookInstanceArn \(p. 498\)](#)

The Amazon Resource Name (ARN) of the notebook instance.

Type: String

Length Constraints: Maximum length of 256.

**NotebookInstanceLifecycleConfigName (p. 498)**

Returns the name of a notebook instance lifecycle configuration.

For information about notebook instance lifestyle configurations, see [Step 2.1: \(Optional\) Customize a Notebook Instance](#)

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\*

**NotebookInstanceName (p. 498)**

The name of the SageMaker notebook instance.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\*

**NotebookInstanceStatus (p. 498)**

The status of the notebook instance.

Type: String

Valid Values: Pending | InService | Stopping | Stopped | Failed | Deleting | Updating

**PlatformIdentifier (p. 498)**

The platform identifier of the notebook instance runtime environment.

Type: String

Length Constraints: Maximum length of 15.

Pattern: ^(notebook-a11-v1|notebook-a12-v1|notebook-a12-v2)\$

**RoleArn (p. 498)**

The Amazon Resource Name (ARN) of the IAM role associated with the instance.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: ^arn:aws[a-zA-Z]\*:iam::\d{12}:role/?[a-zA-Z\_0-9+=,.@-\_/.]+\$

**RootAccess (p. 498)**

Whether root access is enabled or disabled for users of the notebook instance.

**Note**

Lifecycle configurations need root access to be able to set up a notebook instance. Because of this, lifecycle configurations associated with a notebook instance always run with root access even if you disable root access for users.

Type: String

Valid Values: Enabled | Disabled

#### [SecurityGroups \(p. 498\)](#)

The IDs of the VPC security groups.

Type: Array of strings

Array Members: Maximum number of 5 items.

Length Constraints: Maximum length of 32.

Pattern: [-0-9a-zA-Z]+

#### [SubnetId \(p. 498\)](#)

The ID of the VPC subnet.

Type: String

Length Constraints: Maximum length of 32.

Pattern: [-0-9a-zA-Z]+

#### [Url \(p. 498\)](#)

The URL that you use to connect to the Jupyter notebook that is running in your notebook instance.

Type: String

#### [VolumeSizeInGB \(p. 498\)](#)

The size, in GB, of the ML storage volume attached to the notebook instance.

Type: Integer

Valid Range: Minimum value of 5. Maximum value of 16384.

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DescribeNotebookInstanceLifecycleConfig

Service: Amazon SageMaker Service

Returns a description of a notebook instance lifecycle configuration.

For information about notebook instance lifestyle configurations, see [Step 2.1: \(Optional\) Customize a Notebook Instance](#).

### Request Syntax

```
{  
    "NotebookInstanceLifecycleConfigName": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### NotebookInstanceLifecycleConfigName (p. 503)

The name of the lifecycle configuration to describe.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\*

Required: Yes

### Response Syntax

```
{  
    "CreationTime": number,  
    "LastModifiedTime": number,  
    "NotebookInstanceLifecycleConfigArn": "string",  
    "NotebookInstanceLifecycleConfigName": "string",  
    "OnCreate": [  
        {  
            "Content": "string"  
        }  
    ],  
    "OnStart": [  
        {  
            "Content": "string"  
        }  
    ]  
}
```

### Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [CreationTime \(p. 503\)](#)

A timestamp that tells when the lifecycle configuration was created.

Type: Timestamp

### [LastModifiedTime \(p. 503\)](#)

A timestamp that tells when the lifecycle configuration was last modified.

Type: Timestamp

### [NotebookInstanceLifecycleConfigArn \(p. 503\)](#)

The Amazon Resource Name (ARN) of the lifecycle configuration.

Type: String

Length Constraints: Maximum length of 256.

### [NotebookInstanceLifecycleConfigName \(p. 503\)](#)

The name of the lifecycle configuration.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\*

### [OnCreate \(p. 503\)](#)

The shell script that runs only once, when you create a notebook instance.

Type: Array of [NotebookInstanceLifecycleHook \(p. 1582\)](#) objects

Array Members: Maximum number of 1 item.

### [OnStart \(p. 503\)](#)

The shell script that runs every time you start a notebook instance, including when you create the notebook instance.

Type: Array of [NotebookInstanceLifecycleHook \(p. 1582\)](#) objects

Array Members: Maximum number of 1 item.

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)

- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DescribePipeline

Service: Amazon SageMaker Service

Describes the details of a pipeline.

### Request Syntax

```
{  
    "PipelineName": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### PipelineName (p. 506)

The name of the pipeline to describe.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: (`arn:aws[a-zA-Z-]*:sagemaker:[a-zA-Z0-9-]*:[0-9]{12}:pipeline/.*/{[a-zA-Z0-9-]*[a-zA-Z0-9]}{0,255}`)

Required: Yes

### Response Syntax

```
{  
    "CreatedBy": {  
        "DomainId": "string",  
        "UserProfileArn": "string",  
        "UserProfileName": "string"  
    },  
    "CreationTime": number,  
    "LastModifiedBy": {  
        "DomainId": "string",  
        "UserProfileArn": "string",  
        "UserProfileName": "string"  
    },  
    "LastModifiedTime": number,  
    "LastRunTime": number,  
    "ParallelismConfiguration": {  
        "MaxParallelExecutionSteps": number  
    },  
    "PipelineArn": "string",  
    "PipelineDefinition": "string",  
    "PipelineDescription": "string",  
    "PipelineDisplayName": "string",  
    "PipelineName": "string",  
    "PipelineStatus": "string",  
    "RoleArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [CreatedBy \(p. 506\)](#)

Information about the user who created or modified an experiment, trial, trial component, lineage group, project, or model card.

Type: [UserContext \(p. 1822\)](#) object

### [CreationTime \(p. 506\)](#)

The time when the pipeline was created.

Type: Timestamp

### [LastModifiedBy \(p. 506\)](#)

Information about the user who created or modified an experiment, trial, trial component, lineage group, project, or model card.

Type: [UserContext \(p. 1822\)](#) object

### [LastModifiedTime \(p. 506\)](#)

The time when the pipeline was last modified.

Type: Timestamp

### [LastRunTime \(p. 506\)](#)

The time when the pipeline was last run.

Type: Timestamp

### [ParallelismConfiguration \(p. 506\)](#)

Lists the parallelism configuration applied to the pipeline.

Type: [ParallelismConfiguration \(p. 1604\)](#) object

### [PipelineArn \(p. 506\)](#)

The Amazon Resource Name (ARN) of the pipeline.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-\-]*:sagemaker:[a-z0-9\-\-]*:[0-9]{12}:pipeline/.*`

### [PipelineDefinition \(p. 506\)](#)

The JSON pipeline definition.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1048576.

Pattern: `.*(?:[ \r\n\t].*)*`

### [PipelineDescription \(p. 506\)](#)

The description of the pipeline.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 3072.

Pattern: .\*

#### [PipelineDisplayName \(p. 506\)](#)

The display name of the pipeline.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,255\}

#### [PipelineName \(p. 506\)](#)

The name of the pipeline.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,255\}

#### [PipelineStatus \(p. 506\)](#)

The status of the pipeline execution.

Type: String

Valid Values: Active

#### [RoleArn \(p. 506\)](#)

The Amazon Resource Name (ARN) that the pipeline uses to execute.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: ^arn:aws[a-zA-Z-]\*:iam::\d{12}:role/[a-zA-Z0-9+=,.@-\_]+\$

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)

- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DescribePipelineDefinitionForExecution

Service: Amazon SageMaker Service

Describes the details of an execution's pipeline definition.

## Request Syntax

```
{  
    "PipelineExecutionArn": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### **PipelineExecutionArn (p. 510)**

The Amazon Resource Name (ARN) of the pipeline execution.

Type: String

Length Constraints: Maximum length of 256.

Pattern: ^arn:aws[a-z\-]\*:sagemaker:[a-z0-9\-]\*:[0-9]{12}:pipeline\/.\*/execution\/.\*\$

Required: Yes

## Response Syntax

```
{  
    "CreationTime": number,  
    "PipelineDefinition": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### **CreationTime (p. 510)**

The time when the pipeline was created.

Type: Timestamp

### **PipelineDefinition (p. 510)**

The JSON pipeline definition.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1048576.

Pattern: .\*(?:(\r\n|\t).\*)\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DescribePipelineExecution

Service: Amazon SageMaker Service

Describes the details of a pipeline execution.

## Request Syntax

```
{  
    "PipelineExecutionArn": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### PipelineExecutionArn (p. 512)

The Amazon Resource Name (ARN) of the pipeline execution.

Type: String

Length Constraints: Maximum length of 256.

Pattern: ^arn:aws[a-z\-\]\*:sagemaker:[a-z0-9\-\\*]:[0-9]{12}:pipeline\/.\*\Vexecution\/.\*\\$

Required: Yes

## Response Syntax

```
{  
    "CreatedBy": {  
        "DomainId": "string",  
        "UserProfileArn": "string",  
        "UserProfileName": "string"  
    },  
    "CreationTime": number,  
    "FailureReason": "string",  
    "LastModifiedBy": {  
        "DomainId": "string",  
        "UserProfileArn": "string",  
        "UserProfileName": "string"  
    },  
    "LastModifiedTime": number,  
    "ParallelismConfiguration": {  
        "MaxParallelExecutionSteps": number  
    },  
    "PipelineArn": "string",  
    "PipelineExecutionArn": "string",  
    "PipelineExecutionDescription": "string",  
    "PipelineExecutionDisplayName": "string",  
    "PipelineExecutionStatus": "string",  
    "PipelineExperimentConfig": {  
        "ExperimentName": "string",  
        "TrialName": "string"  
    }  
}
```

```
    }
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [CreatedBy \(p. 512\)](#)

Information about the user who created or modified an experiment, trial, trial component, lineage group, project, or model card.

Type: [UserContext \(p. 1822\)](#) object

### [CreationTime \(p. 512\)](#)

The time when the pipeline execution was created.

Type: Timestamp

### [FailureReason \(p. 512\)](#)

If the execution failed, a message describing why.

Type: String

Length Constraints: Maximum length of 1300.

Pattern: .\*

### [LastModifiedBy \(p. 512\)](#)

Information about the user who created or modified an experiment, trial, trial component, lineage group, project, or model card.

Type: [UserContext \(p. 1822\)](#) object

### [LastModifiedTime \(p. 512\)](#)

The time when the pipeline execution was modified last.

Type: Timestamp

### [ParallelismConfiguration \(p. 512\)](#)

The parallelism configuration applied to the pipeline.

Type: [ParallelismConfiguration \(p. 1604\)](#) object

### [PipelineArn \(p. 512\)](#)

The Amazon Resource Name (ARN) of the pipeline.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-\]\*:sagemaker:[a-z0-9\-\]\*:[0-9]{12}:pipeline/.\*

### [PipelineExecutionArn \(p. 512\)](#)

The Amazon Resource Name (ARN) of the pipeline execution.

Type: String

Length Constraints: Maximum length of 256.

Pattern: ^arn:aws[a-z\-\]\*:sagemaker:[a-z0-9\-\]\*:[0-9]{12}:pipeline\/.\*\\$/execution\\$.\*

#### [PipelineExecutionDescription \(p. 512\)](#)

The description of the pipeline execution.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 3072.

Pattern: .\*

#### [PipelineExecutionDisplayName \(p. 512\)](#)

The display name of the pipeline execution.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 82.

Pattern: ^[a-zA-Z0-9](-[a-zA-Z0-9])\{0,81\}

#### [PipelineExecutionStatus \(p. 512\)](#)

The status of the pipeline execution.

Type: String

Valid Values: Executing | Stopping | Stopped | Failed | Succeeded

#### [PipelineExperimentConfig \(p. 512\)](#)

Specifies the names of the experiment and trial created by a pipeline.

Type: [PipelineExperimentConfig \(p. 1630\)](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)

- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DescribeProcessingJob

Service: Amazon SageMaker Service

Returns a description of a processing job.

## Request Syntax

```
{  
    "ProcessingJobName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### ProcessingJobName (p. 516)

The name of the processing job. The name must be unique within an AWS Region in the AWS account.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: Yes

## Response Syntax

```
{  
    "AppSpecification": {  
        "ContainerArguments": [ "string" ],  
        "ContainerEntrypoint": [ "string" ],  
        "ImageUri": "string"  
    },  
    "AutoMLJobArn": "string",  
    "CreationTime": number,  
    "Environment": {  
        "string": "string"  
    },  
    "ExitMessage": "string",  
    "ExperimentConfig": {  
        "ExperimentName": "string",  
        "RunName": "string",  
        "TrialComponentDisplayName": "string",  
        "TrialName": "string"  
    },  
    "FailureReason": "string",  
    "LastModifiedTime": number,  
    "MonitoringScheduleArn": "string",  
    "NetworkConfig": {  
        "EnableInterContainerTrafficEncryption": boolean,  
        "EnableNetworkIsolation": boolean,  
        "VpcConfig": {  
            "Subnets": [ "string" ],  
            "SecurityGroupIds": [ "string" ]  
        }  
    }  
}
```

```

        "SecurityGroupIds": [ "string" ],
        "Subnets": [ "string" ]
    }
},
"ProcessingEndTime": number,
"ProcessingInputs": [
{
    "AppManaged": boolean,
    "DatasetDefinition": {
        "AthenaDatasetDefinition": {
            "Catalog": "string",
            "Database": "string",
            "KmsKeyId": "string",
            "OutputCompression": "string",
            "OutputFormat": "string",
            "OutputS3Uri": "string",
            "QueryString": "string",
            "WorkGroup": "string"
        },
        "DataDistributionType": "string",
        "InputMode": "string",
        "LocalPath": "string",
        "RedshiftDatasetDefinition": {
            "ClusterId": "string",
            "ClusterRoleArn": "string",
            "Database": "string",
            "DbUser": "string",
            "KmsKeyId": "string",
            "OutputCompression": "string",
            "OutputFormat": "string",
            "OutputS3Uri": "string",
            "QueryString": "string"
        }
    },
    "InputName": "string",
    "S3Input": {
        "LocalPath": "string",
        "S3CompressionType": "string",
        "S3DataDistributionType": "string",
        "S3DataType": "string",
        "S3InputMode": "string",
        "S3Uri": "string"
    }
}
],
"ProcessingJobArn": "string",
"ProcessingJobName": "string",
"ProcessingJobStatus": "string",
"ProcessingOutputConfig": {
    "KmsKeyId": "string",
    "Outputs": [
    {
        "AppManaged": boolean,
        "FeatureStoreOutput": {
            "FeatureGroupName": "string"
        },
        "OutputName": "string",
        "S3Output": {
            "LocalPath": "string",
            "S3UploadMode": "string",
            "S3Uri": "string"
        }
    }
]
},
"ProcessingResources": {

```

```
    "ClusterConfig": {  
        "InstanceCount": number,  
        "InstanceType": "string",  
        "VolumeKmsKeyId": "string",  
        "VolumeSizeInGB": number  
    },  
    "ProcessingStartTime": number,  
    "RoleArn": "string",  
    "StoppingCondition": {  
        "MaxRuntimeInSeconds": number  
    },  
    "TrainingJobArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [AppSpecification \(p. 516\)](#)

Configures the processing job to run a specified container image.

Type: [AppSpecification \(p. 1142\)](#) object

### [AutoMLJobArn \(p. 516\)](#)

The ARN of an AutoML job associated with this processing job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: arn:aws[a-z\-\-]\*:sagemaker:[a-z0-9\-\-]\*:[0-9]{12}:automl-job/.\*

### [CreationTime \(p. 516\)](#)

The time at which the processing job was created.

Type: Timestamp

### [Environment \(p. 516\)](#)

The environment variables set in the Docker container.

Type: String to string map

Map Entries: Maximum number of 100 items.

Key Length Constraints: Maximum length of 256.

Key Pattern: [a-zA-Z\_][a-zA-Z0-9\_]\*

Value Length Constraints: Maximum length of 256.

Value Pattern: [\S\s]\*

### [ExitMessage \(p. 516\)](#)

An optional string, up to one KB in size, that contains metadata from the processing container when the processing job exits.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `[\S\s]*`

#### [ExperimentConfig \(p. 516\)](#)

The configuration information used to create an experiment.

Type: [ExperimentConfig \(p. 1317\)](#) object

#### [FailureReason \(p. 516\)](#)

A string, up to one KB in size, that contains the reason a processing job failed, if it failed.

Type: String

Length Constraints: Maximum length of 1024.

#### [LastModifiedTime \(p. 516\)](#)

The time at which the processing job was last modified.

Type: Timestamp

#### [MonitoringScheduleArn \(p. 516\)](#)

The ARN of a monitoring schedule for an endpoint associated with this processing job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `.*`

#### [NetworkConfig \(p. 516\)](#)

Networking options for a processing job.

Type: [NetworkConfig \(p. 1580\)](#) object

#### [ProcessingEndTime \(p. 516\)](#)

The time at which the processing job completed.

Type: Timestamp

#### [ProcessingInputs \(p. 516\)](#)

The inputs for a processing job.

Type: Array of [ProcessingInput \(p. 1636\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 10 items.

#### [ProcessingJobArn \(p. 516\)](#)

The Amazon Resource Name (ARN) of the processing job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws:[a-z\-\-]*:sagemaker:[a-z0-9\-\-]*:[0-9]{12}:processing-job/.*`

#### [ProcessingJobName \(p. 516\)](#)

The name of the processing job. The name must be unique within an AWS Region in the AWS account.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

#### [ProcessingJobStatus \(p. 516\)](#)

Provides the status of a processing job.

Type: String

Valid Values: InProgress | Completed | Failed | Stopping | Stopped

#### [ProcessingOutputConfig \(p. 516\)](#)

Output configuration for the processing job.

Type: [ProcessingOutputConfig \(p. 1645\)](#) object

#### [ProcessingResources \(p. 516\)](#)

Identifies the resources, ML compute instances, and ML storage volumes to deploy for a processing job. In distributed training, you specify more than one instance.

Type: [ProcessingResources \(p. 1646\)](#) object

#### [ProcessingStartTime \(p. 516\)](#)

The time at which the processing job started.

Type: Timestamp

#### [RoleArn \(p. 516\)](#)

The Amazon Resource Name (ARN) of an IAM role that Amazon SageMaker can assume to perform tasks on your behalf.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: ^arn:aws[a-zA-Z-]\*:iam::\d{12}:role/?[a-zA-Z\_0-9+=,.@\\-\_/.]+\$

#### [StoppingCondition \(p. 516\)](#)

The time limit for how long the processing job is allowed to run.

Type: [ProcessingStoppingCondition \(p. 1650\)](#) object

#### [TrainingJobArn \(p. 516\)](#)

The ARN of a training job associated with this processing job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-zA-Z-]\*:sagemaker:[a-zA-Z0-9-]\*:[0-9]{12}:training-job/.\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DescribeProject

Service: Amazon SageMaker Service

Describes the details of a project.

## Request Syntax

```
{  
    "ProjectName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

ProjectName (p. 522)

The name of the project to describe.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9]){\0,31}

Required: Yes

## Response Syntax

```
"ProvisioningParameters": [  
    {  
        "Key": "string",  
        "Value": "string"  
    }  
]
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [CreatedBy \(p. 522\)](#)

Information about the user who created or modified an experiment, trial, trial component, lineage group, project, or model card.

Type: [UserContext \(p. 1822\)](#) object

### [CreationTime \(p. 522\)](#)

The time when the project was created.

Type: Timestamp

### [LastModifiedBy \(p. 522\)](#)

Information about the user who created or modified an experiment, trial, trial component, lineage group, project, or model card.

Type: [UserContext \(p. 1822\)](#) object

### [LastModifiedTime \(p. 522\)](#)

The timestamp when project was last modified.

Type: Timestamp

### [ProjectArn \(p. 522\)](#)

The Amazon Resource Name (ARN) of the project.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `arn:aws[a-z\-\]*:sagemaker:[a-z0-9\-\]*:[0-9]{12}:project:.*`

### [ProjectDescription \(p. 522\)](#)

The description of the project.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `[\p{L}\p{M}\p{Z}\p{S}\p{N}\p{P}]*`

### [ProjectId \(p. 522\)](#)

The ID of the project.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 20.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\*

#### [ProjectName \(p. 522\)](#)

The name of the project.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,31\}

#### [ProjectStatus \(p. 522\)](#)

The status of the project.

Type: String

Valid Values: Pending | CreateInProgress | CreateCompleted | CreateFailed | DeleteInProgress | DeleteFailed | DeleteCompleted | UpdateInProgress | UpdateCompleted | UpdateFailed

#### [ServiceCatalogProvisionedProductDetails \(p. 522\)](#)

Information about a provisioned service catalog product.

Type: [ServiceCatalogProvisionedProductDetails \(p. 1728\)](#) object

#### [ServiceCatalogProvisioningDetails \(p. 522\)](#)

Information used to provision a service catalog product. For information, see [What is AWS Service Catalog](#).

Type: [ServiceCatalogProvisioningDetails \(p. 1729\)](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DescribeSpace

## Service: Amazon SageMaker Service

Describes the space.

# Request Syntax

```
{  
    "DomainId": "string",  
    "SpaceName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

## DomainId (p. 525)

The ID of the associated Domain.

Type: String

Length Constraints: Maximum length of 63.

Required: Yes

## SpaceName (p. 525)

The name of the space.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^ [a-zA-Z0-9](-*[a-zA-Z0-9]){\0,62}`

Required: Yes

## Response Syntax

```
{  
    "CreationTime": number,  
    "DomainId": "string",  
    "FailureReason": "string",  
    "HomeEfsFileSystemUid": "string",  
    "LastModifiedTime": number,  
    "SpaceArn": "string",  
    "SpaceName": "string",  
    "SpaceSettings": {  
        "JupyterServerAppSettings": {  
            "CodeRepositories": [  
                {  
                    "RepositoryUrl": "string"  
                }  
            ]  
        }  
    }  
}
```

```

    "DefaultResourceSpec": {
        "InstanceType": "string",
        "LifecycleConfigArn": "string",
        "SageMakerImageArn": "string",
        "SageMakerImageVersionArn": "string"
    },
    "LifecycleConfigArns": [ "string" ]
},
"KernelGatewayAppSettings": {
    "CustomImages": [
        {
            "AppImageConfigName": "string",
            "ImageName": "string",
            "ImageVersionNumber": number
        }
    ],
    "DefaultResourceSpec": {
        "InstanceType": "string",
        "LifecycleConfigArn": "string",
        "SageMakerImageArn": "string",
        "SageMakerImageVersionArn": "string"
    },
    "LifecycleConfigArns": [ "string" ]
}
},
"Status": "string"
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [CreationTime \(p. 525\)](#)

The creation time.

Type: Timestamp

### [DomainId \(p. 525\)](#)

The ID of the associated Domain.

Type: String

Length Constraints: Maximum length of 63.

### [FailureReason \(p. 525\)](#)

The failure reason.

Type: String

Length Constraints: Maximum length of 1024.

### [HomeEfsFileSystemUid \(p. 525\)](#)

The ID of the space's profile in the Amazon Elastic File System volume.

Type: String

Length Constraints: Maximum length of 10.

Pattern: \d+

### [LastModifiedTime \(p. 525\)](#)

The last modified time.

Type: Timestamp

### [SpaceArn \(p. 525\)](#)

The space's Amazon Resource Name (ARN).

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-\-]\*:sagemaker:[a-z0-9\-\-]\*:[0-9]{12}:space/.\*

### [SpaceName \(p. 525\)](#)

The name of the space.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

### [SpaceSettings \(p. 525\)](#)

A collection of space settings.

Type: [SpaceSettings \(p. 1741\)](#) object

### [Status \(p. 525\)](#)

The status.

Type: String

Valid Values: Deleting | Failed | InService | Pending | Updating | Update\_Failed | Delete\_Failed

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)

- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DescribeStudioLifecycleConfig

Service: Amazon SageMaker Service

Describes the Studio Lifecycle Configuration.

### Request Syntax

```
{  
    "StudioLifecycleConfigName": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### StudioLifecycleConfigName (p. 529)

The name of the Studio Lifecycle Configuration to describe.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9]){0,62}

Required: Yes

### Response Syntax

```
{  
    "CreationTime": number,  
    "LastModifiedTime": number,  
    "StudioLifecycleConfigAppType": "string",  
    "StudioLifecycleConfigArn": "string",  
    "StudioLifecycleConfigContent": "string",  
    "StudioLifecycleConfigName": "string"  
}
```

### Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

#### CreationTime (p. 529)

The creation time of the Studio Lifecycle Configuration.

Type: Timestamp

#### LastModifiedTime (p. 529)

This value is equivalent to CreationTime because Studio Lifecycle Configurations are immutable.

Type: Timestamp

#### [StudioLifecycleConfigAppType \(p. 529\)](#)

The App type that the Lifecycle Configuration is attached to.

Type: String

Valid Values: JupyterServer | KernelGateway

#### [StudioLifecycleConfigArn \(p. 529\)](#)

The ARN of the Lifecycle Configuration to describe.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-\-]\*:sagemaker:[a-z0-9\-\-]\*:[0-9]{12}:studio-lifecycle-config/.\*

#### [StudioLifecycleConfigContent \(p. 529\)](#)

The content of your Studio Lifecycle Configuration script.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 16384.

Pattern: [\S\s]+

#### [StudioLifecycleConfigName \(p. 529\)](#)

The name of the Studio Lifecycle Configuration that is described.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)

- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DescribeSubscribedWorkteam

Service: Amazon SageMaker Service

Gets information about a work team provided by a vendor. It returns details about the subscription with a vendor in the AWS Marketplace.

### Request Syntax

```
{  
    "WorkteamArn": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [WorkteamArn \(p. 532\)](#)

The Amazon Resource Name (ARN) of the subscribed work team to describe.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-]\*:sagemaker:[a-z0-9\-]\*:[0-9]{12}:workteam/.\*

Required: Yes

### Response Syntax

```
{  
    "SubscribedWorkteam": {  
        "ListingId": "string",  
        "MarketplaceDescription": "string",  
        "MarketplaceTitle": "string",  
        "SellerName": "string",  
        "WorkteamArn": "string"  
    }  
}
```

### Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

#### [SubscribedWorkteam \(p. 532\)](#)

A Workteam instance that contains information about the work team.

Type: [SubscribedWorkteam \(p. 1746\)](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DescribeTrainingJob

Service: Amazon SageMaker Service

Returns information about a training job.

Some of the attributes below only appear if the training job successfully starts. If the training job fails, `TrainingJobStatus` is `Failed` and, depending on the `FailureReason`, attributes like `TrainingStartTime`, `TrainingTimeInSeconds`, `TrainingEndTime`, and `BillableTimeInSeconds` may not be present in the response.

### Request Syntax

```
{  
    "TrainingJobName": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [TrainingJobName \(p. 534\)](#)

The name of the training job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])\{0,62\}`

Required: Yes

### Response Syntax

```
{  
    "AlgorithmSpecification": {  
        "AlgorithmName": "string",  
        "ContainerArguments": [ "string" ],  
        "ContainerEntrypoint": [ "string" ],  
        "EnableSageMakerMetricsTimeSeries": boolean,  
        "MetricDefinitions": [  
            {  
                "Name": "string",  
                "Regex": "string"  
            }  
        ],  
        "TrainingImage": "string",  
        "TrainingInputMode": "string"  
    },  
    "AutoMLJobArn": "string",  
    "BillableTimeInSeconds": number,  
    "CheckpointConfig": {  
        "LocalPath": "string",  
        "S3Uri": "string"  
    },  
}
```

```
"CreationTime": number,
"DebugHookConfig": {
    "CollectionConfigurations": [
        {
            "CollectionName": "string",
            "CollectionParameters": {
                "string" : "string"
            }
        }
    ],
    "HookParameters": {
        "string" : "string"
    },
    "LocalPath": "string",
    "S3OutputPath": "string"
},
"DebugRuleConfigurations": [
    {
        "InstanceType": "string",
        "LocalPath": "string",
        "RuleConfigurationName": "string",
        "RuleEvaluatorImage": "string",
        "RuleParameters": {
            "string" : "string"
        },
        "S3OutputPath": "string",
        "VolumeSizeInGB": number
    }
],
"DebugRuleEvaluationStatuses": [
    {
        "LastModifiedTime": number,
        "RuleConfigurationName": "string",
        "RuleEvaluationJobArn": "string",
        "RuleEvaluationStatus": "string",
        "StatusDetails": "string"
    }
],
"EnableInterContainerTrafficEncryption": boolean,
"EnableManagedSpotTraining": boolean,
"EnableNetworkIsolation": boolean,
"Environment": {
    "string" : "string"
},
"ExperimentConfig": {
    "ExperimentName": "string",
    "RunName": "string",
    "TrialComponentDisplayName": "string",
    "TrialName": "string"
},
"FailureReason": "string",
"FinalMetricDataList": [
    {
        "MetricName": "string",
        "Timestamp": number,
        "Value": number
    }
],
"HyperParameters": {
    "string" : "string"
},
"InputDataConfig": [
    {
        "ChannelName": "string",
        "CompressionType": "string",
        "ContentType": "string"
    }
]
```

```

    "DataSource": {
        "FileSystemDataSource": {
            "DirectoryPath": "string",
            "FileSystemAccessMode": "string",
            "FileSystemId": "string",
            "FileSystemType": "string"
        },
        "S3DataSource": {
            "AttributeNames": [ "string" ],
            "InstanceGroupNames": [ "string" ],
            "S3DataDistributionType": "string",
            "S3DataType": "string",
            "S3Uri": "string"
        }
    },
    "InputMode": "string",
    "RecordWrapperType": "string",
    "ShuffleConfig": {
        "Seed": number
    }
},
],
"LabelingJobArn": "string",
"LastModifiedTime": number,
"ModelArtifacts": {
    "S3ModelArtifacts": "string"
},
"OutputDataConfig": {
    "KmsKeyId": "string",
    "S3OutputPath": "string"
},
"ProfilerConfig": {
    "DisableProfiler": boolean,
    "ProfilingIntervalInMilliseconds": number,
    "ProfilingParameters": {
        "string" : "string"
    },
    "S3OutputPath": "string"
},
"ProfilerRuleConfigurations": [
    {
        "InstanceType": "string",
        "LocalPath": "string",
        "RuleConfigurationName": "string",
        "RuleEvaluatorImage": "string",
        "RuleParameters": {
            "string" : "string"
        },
        "S3OutputPath": "string",
        "VolumeSizeInGB": number
    }
],
"ProfilerRuleEvaluationStatuses": [
    {
        "LastModifiedTime": number,
        "RuleConfigurationName": "string",
        "RuleEvaluationJobArn": "string",
        "RuleEvaluationStatus": "string",
        "StatusDetails": "string"
    }
],
"ProfilingStatus": "string",
"ResourceConfig": {
    "InstanceCount": number,
    "InstanceGroups": [
        {

```

```

        "InstanceCount": number,
        "InstanceGroupName": "string",
        "InstanceType": "string"
    }
],
"InstanceType": "string",
"KeepAlivePeriodInSeconds": number,
"VolumeKmsKeyId": "string",
"VolumeSizeInGB": number
},
"RetryStrategy": {
    "MaximumRetryAttempts": number
},
"RoleArn": "string",
"SecondaryStatus": "string",
"SecondaryStatusTransitions": [
    {
        "EndTime": number,
        "StartTime": number,
        "Status": "string",
        "StatusMessage": "string"
    }
],
"StoppingCondition": {
    "MaxRuntimeInSeconds": number,
    "MaxWaitTimeInSeconds": number
},
"TensorBoardOutputConfig": {
    "LocalPath": "string",
    "S3OutputPath": "string"
},
"TrainingEndTime": number,
"TrainingJobArn": "string",
"TrainingJobName": "string",
"TrainingJobStatus": "string",
"TrainingStartTime": number,
"TrainingTimeInSeconds": number,
"TrainingJobArn": "string",
"VpcConfig": {
    "SecurityGroupIds": [ "string" ],
    "Subnets": [ "string" ]
},
"WarmPoolStatus": {
    "ResourceRetainedBillableTimeInSeconds": number,
    "ReusedByJob": "string",
    "Status": "string"
}
}
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [AlgorithmSpecification \(p. 534\)](#)

Information about the algorithm used for training, and algorithm metadata.

Type: [AlgorithmSpecification \(p. 1117\)](#) object

### [AutoMLJobArn \(p. 534\)](#)

The Amazon Resource Name (ARN) of an AutoML job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: arn:aws:[a-z\-\-]\*:sagemaker:[a-z0-9\-\-]\*:[0-9]{12}:automl-job/.\*

#### [BillableTimeInSeconds \(p. 534\)](#)

The billable time in seconds. Billable time refers to the absolute wall-clock time.

Multiply BillableTimeInSeconds by the number of instances (InstanceCount) in your training cluster to get the total compute time SageMaker bills you if you run distributed training. The formula is as follows: BillableTimeInSeconds \* InstanceCount .

You can calculate the savings from using managed spot training using the formula (1 - BillableTimeInSeconds / TrainingTimeInSeconds) \* 100. For example, if BillableTimeInSeconds is 100 and TrainingTimeInSeconds is 500, the savings is 80%.

Type: Integer

Valid Range: Minimum value of 1.

#### [CheckpointConfig \(p. 534\)](#)

Contains information about the output location for managed spot training checkpoint data.

Type: [CheckpointConfig \(p. 1203\)](#) object

#### [CreationTime \(p. 534\)](#)

A timestamp that indicates when the training job was created.

Type: Timestamp

#### [DebugHookConfig \(p. 534\)](#)

Configuration information for the Amazon SageMaker Debugger hook parameters, metric and tensor collections, and storage paths. To learn more about how to configure the DebugHookConfig parameter, see [Use the SageMaker and Debugger Configuration API Operations to Create, Update, and Debug Your Training Job](#).

Type: [DebugHookConfig \(p. 1249\)](#) object

#### [DebugRuleConfigurations \(p. 534\)](#)

Configuration information for Amazon SageMaker Debugger rules for debugging output tensors.

Type: Array of [DebugRuleConfiguration \(p. 1251\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 20 items.

#### [DebugRuleEvaluationStatuses \(p. 534\)](#)

Evaluation status of Amazon SageMaker Debugger rules for debugging on a training job.

Type: Array of [DebugRuleEvaluationStatus \(p. 1253\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 20 items.

#### [EnableInterContainerTrafficEncryption \(p. 534\)](#)

To encrypt all communications between ML compute instances in distributed training, choose True. Encryption provides greater security for distributed training, but training might take longer. How long it takes depends on the amount of communication between compute instances, especially if you use a deep learning algorithms in distributed training.

Type: Boolean

[EnableManagedSpotTraining \(p. 534\)](#)

A Boolean indicating whether managed spot training is enabled (True) or not (False).

Type: Boolean

[EnableNetworkIsolation \(p. 534\)](#)

If you want to allow inbound or outbound network calls, except for calls between peers within a training cluster for distributed training, choose True. If you enable network isolation for training jobs that are configured to use a VPC, SageMaker downloads and uploads customer data and model artifacts through the specified VPC, but the training container does not have network access.

Type: Boolean

[Environment \(p. 534\)](#)

The environment variables to set in the Docker container.

Type: String to string map

Map Entries: Maximum number of 48 items.

Key Length Constraints: Maximum length of 512.

Key Pattern: [a-zA-Z\_][a-zA-Z0-9\_]\*

Value Length Constraints: Maximum length of 512.

Value Pattern: [\S\s]\*

[ExperimentConfig \(p. 534\)](#)

Associates a SageMaker job as a trial component with an experiment and trial. Specified when you call the following APIs:

- [CreateProcessingJob \(p. 193\)](#)
- [CreateTrainingJob \(p. 207\)](#)
- [CreateTransformJob \(p. 216\)](#)

Type: [ExperimentConfig \(p. 1317\)](#) object

[FailureReason \(p. 534\)](#)

If the training job failed, the reason it failed.

Type: String

Length Constraints: Maximum length of 1024.

[FinalMetricDataList \(p. 534\)](#)

A collection of MetricData objects that specify the names, values, and dates and times that the training algorithm emitted to Amazon CloudWatch.

Type: Array of [MetricData \(p. 1467\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 40 items.

[HyperParameters \(p. 534\)](#)

Algorithm-specific parameters.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 100 items.

Key Length Constraints: Maximum length of 256.

Key Pattern: .\*

Value Length Constraints: Maximum length of 2500.

Value Pattern: .\*

#### [InputDataConfig \(p. 534\)](#)

An array of Channel objects that describes each data input channel.

Type: Array of [Channel \(p. 1199\)](#) objects

Array Members: Minimum number of 1 item. Maximum number of 20 items.

#### [LabelingJobArn \(p. 534\)](#)

The Amazon Resource Name (ARN) of the SageMaker Ground Truth labeling job that created the transform or training job.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: arn:aws[a-z\-]\*:sagemaker:[a-z0-9\-]\*:[0-9]{12}:labeling-job/.\*

#### [LastModifiedTime \(p. 534\)](#)

A timestamp that indicates when the status of the training job was last modified.

Type: Timestamp

#### [ModelArtifacts \(p. 534\)](#)

Information about the Amazon S3 location that is configured for storing model artifacts.

Type: [ModelArtifacts \(p. 1473\)](#) object

#### [OutputDataConfig \(p. 534\)](#)

The S3 path where model artifacts that you configured when creating the job are stored. SageMaker creates subfolders for model artifacts.

Type: [OutputDataConfig \(p. 1601\)](#) object

#### [ProfilerConfig \(p. 534\)](#)

Configuration information for Amazon SageMaker Debugger system monitoring, framework profiling, and storage paths.

Type: [ProfilerConfig \(p. 1660\)](#) object

#### [ProfilerRuleConfigurations \(p. 534\)](#)

Configuration information for Amazon SageMaker Debugger rules for profiling system and framework metrics.

Type: Array of [ProfilerRuleConfiguration \(p. 1664\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 20 items.

#### [ProfilerRuleEvaluationStatuses \(p. 534\)](#)

Evaluation status of Amazon SageMaker Debugger rules for profiling on a training job.

Type: Array of [ProfilerRuleEvaluationStatus \(p. 1666\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 20 items.

**ProfilingStatus (p. 534)**

Profiling status of a training job.

Type: String

Valid Values: Enabled | Disabled

**ResourceConfig (p. 534)**

Resources, including ML compute instances and ML storage volumes, that are configured for model training.

Type: [ResourceConfig \(p. 1702\)](#) object

**RetryStrategy (p. 534)**

The number of times to retry the job when the job fails due to an [InternalServerError](#).

Type: [RetryStrategy \(p. 1710\)](#) object

**RoleArn (p. 534)**

The AWS Identity and Access Management (IAM) role configured for the training job.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: ^arn:aws[a-zA-Z-]\*:iam::\d{12}:role/?[a-zA-Z\_0-9+=,.@/-/\_]+\$

**SecondaryStatus (p. 534)**

Provides detailed information about the state of the training job. For detailed information on the secondary status of the training job, see [StatusMessage](#) under [SecondaryStatusTransition \(p. 1726\)](#).

SageMaker provides primary statuses and secondary statuses that apply to each of them:

InProgress

- Starting - Starting the training job.
- Downloading - An optional stage for algorithms that support [File](#) training input mode. It indicates that data is being downloaded to the ML storage volumes.
- Training - Training is in progress.
- Interrupted - The job stopped because the managed spot training instances were interrupted.
- Uploading - Training is complete and the model artifacts are being uploaded to the S3 location.

Completed

- Completed - The training job has completed.

Failed

- Failed - The training job has failed. The reason for the failure is returned in the [FailureReason](#) field of [DescribeTrainingJobResponse](#).

Stopped

- MaxRuntimeExceeded - The job stopped because it exceeded the maximum allowed runtime.

- MaxWaitTimeExceeded - The job stopped because it exceeded the maximum allowed wait time.
- Stopped - The training job has stopped.

**Stopping**

- Stopping - Stopping the training job.

**Important**

Valid values for SecondaryStatus are subject to change.

We no longer support the following secondary statuses:

- LaunchingMLInstances
- PreparingTraining
- DownloadingTrainingImage

Type: String

Valid Values: Starting | LaunchingMLInstances | PreparingTrainingStack | Downloading | DownloadingTrainingImage | Training | Uploading | Stopping | Stopped | MaxRuntimeExceeded | Completed | Failed | Interrupted | MaxWaitTimeExceeded | Updating | Restarting

**SecondaryStatusTransitions (p. 534)**

A history of all of the secondary statuses that the training job has transitioned through.

Type: Array of [SecondaryStatusTransition \(p. 1726\)](#) objects

**StoppingCondition (p. 534)**

Specifies a limit to how long a model training job can run. It also specifies how long a managed Spot training job has to complete. When the job reaches the time limit, SageMaker ends the training job. Use this API to cap model training costs.

To stop a job, SageMaker sends the algorithm the SIGTERM signal, which delays job termination for 120 seconds. Algorithms can use this 120-second window to save the model artifacts, so the results of training are not lost.

Type: [StoppingCondition \(p. 1742\)](#) object

**TensorBoardOutputConfig (p. 534)**

Configuration of storage locations for the Amazon SageMaker Debugger TensorBoard output data.

Type: [TensorBoardOutputConfig \(p. 1753\)](#) object

**TrainingEndTime (p. 534)**

Indicates the time when the training job ends on training instances. You are billed for the time interval between the value of `TrainingStartTime` and this time. For successful jobs and stopped jobs, this is the time after model artifacts are uploaded. For failed jobs, this is the time when SageMaker detects a job failure.

Type: Timestamp

**TrainingJobArn (p. 534)**

The Amazon Resource Name (ARN) of the training job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-\]*:sagemaker:[a-z0-9\-\]*:[0-9]{12}:training-job/.*`

### [TrainingJobName \(p. 534\)](#)

Name of the model training job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

### [TrainingJobStatus \(p. 534\)](#)

The status of the training job.

SageMaker provides the following training job statuses:

- InProgress - The training is in progress.
- Completed - The training job has completed.
- Failed - The training job has failed. To see the reason for the failure, see the FailureReason field in the response to a `DescribeTrainingJobResponse` call.
- Stopping - The training job is stopping.
- Stopped - The training job has stopped.

For more detailed information, see `SecondaryStatus`.

Type: String

Valid Values: InProgress | Completed | Failed | Stopping | Stopped

### [TrainingStartTime \(p. 534\)](#)

Indicates the time when the training job starts on training instances. You are billed for the time interval between this time and the value of `TrainingEndTime`. The start time in CloudWatch Logs might be later than this time. The difference is due to the time it takes to download the training data and to the size of the training container.

Type: Timestamp

### [TrainingTimeInSeconds \(p. 534\)](#)

The training time in seconds.

Type: Integer

Valid Range: Minimum value of 1.

### [TuningJobArn \(p. 534\)](#)

The Amazon Resource Name (ARN) of the associated hyperparameter tuning job if the training job was launched by a hyperparameter tuning job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws:[a-zA-Z-]*:sagemaker:[a-zA-Z0-9-]*:[0-9]{12}:hyper-parameter-tuning-job/.*`

### [VpcConfig \(p. 534\)](#)

A [VpcConfig \(p. 1829\)](#) object that specifies the VPC that this training job has access to. For more information, see [Protect Training Jobs by Using an Amazon Virtual Private Cloud](#).

Type: [VpcConfig \(p. 1829\)](#) object

### [WarmPoolStatus \(p. 534\)](#)

The status of the warm pool associated with the training job.

Type: [WarmPoolStatus \(p. 1830\)](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceNotFound**

Resource being accessed is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DescribeTransformJob

Service: Amazon SageMaker Service

Returns information about a transform job.

## Request Syntax

```
{  
    "TransformJobName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

## TransformJobName (p. 545)

The name of the transform job that you want to view details of.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62}

Required: Yes

## Response Syntax

```

"ModelClientConfig": {
    "InvocationsMaxRetries": number,
    "InvocationsTimeoutInSeconds": number
},
"ModelName": "string",
"TransformEndTime": number,
"TransformInput": {
    "CompressionType": "string",
    "ContentType": "string",
    "DataSource": {
        "S3DataSource": {
            "S3DataType": "string",
            "S3Uri": "string"
        }
    },
    "SplitType": "string"
},
"TransformJobArn": "string",
"TransformJobName": "string",
"TransformJobStatus": "string",
"TransformOutput": {
    "Accept": "string",
    "AssembleWith": "string",
    "KmsKeyId": "string",
    "S3OutputPath": "string"
},
"TransformResources": {
    "InstanceCount": number,
    "InstanceType": "string",
    "VolumeKmsKeyId": "string"
},
"TransformStartTime": number
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [AutoMLJobArn \(p. 545\)](#)

The Amazon Resource Name (ARN) of the AutoML transform job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: arn:aws[a-z\-]\*:sagemaker:[a-z0-9\-]\*:[0-9]{12}:automl-job/.\*

### [BatchStrategy \(p. 545\)](#)

Specifies the number of records to include in a mini-batch for an HTTP inference request. A *record* is a single unit of input data that inference can be made on. For example, a single line in a CSV file is a record.

To enable the batch strategy, you must set SplitType to Line, RecordIO, or TFRecord.

Type: String

Valid Values: MultiRecord | SingleRecord

### [CreationTime \(p. 545\)](#)

A timestamp that shows when the transform Job was created.

Type: Timestamp

#### [DataCaptureConfig \(p. 545\)](#)

Configuration to control how SageMaker captures inference data.

Type: [BatchDataCaptureConfig \(p. 1179\)](#) object

#### [DataProcessing \(p. 545\)](#)

The data structure used to specify the data to be used for inference in a batch transform job and to associate the data that is relevant to the prediction results in the output. The input filter provided allows you to exclude input data that is not needed for inference in a batch transform job. The output filter provided allows you to include input data relevant to interpreting the predictions in the output from the job. For more information, see [Associate Prediction Results with their Corresponding Input Records](#).

Type: [DataProcessing \(p. 1240\)](#) object

#### [Environment \(p. 545\)](#)

The environment variables to set in the Docker container. We support up to 16 key and values entries in the map.

Type: String to string map

Map Entries: Maximum number of 16 items.

Key Length Constraints: Maximum length of 1024.

Key Pattern: [a-zA-Z\_][a-zA-Z0-9\_]{0,1023}

Value Length Constraints: Maximum length of 10240.

Value Pattern: [\S\s]\*

#### [ExperimentConfig \(p. 545\)](#)

Associates a SageMaker job as a trial component with an experiment and trial. Specified when you call the following APIs:

- [CreateProcessingJob \(p. 193\)](#)
- [CreateTrainingJob \(p. 207\)](#)
- [CreateTransformJob \(p. 216\)](#)

Type: [ExperimentConfig \(p. 1317\)](#) object

#### [FailureReason \(p. 545\)](#)

If the transform job failed, FailureReason describes why it failed. A transform job creates a log file, which includes error messages, and stores it as an Amazon S3 object. For more information, see [Log Amazon SageMaker Events with Amazon CloudWatch](#).

Type: String

Length Constraints: Maximum length of 1024.

#### [LabelingJobArn \(p. 545\)](#)

The Amazon Resource Name (ARN) of the Amazon SageMaker Ground Truth labeling job that created the transform or training job.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `arn:aws:[a-zA-Z-]*:sagemaker:[a-zA-Z0-9-]*:[0-9]{12}:labeling-job/.*`

**MaxConcurrentTransforms (p. 545)**

The maximum number of parallel requests on each instance node that can be launched in a transform job. The default value is 1.

Type: Integer

Valid Range: Minimum value of 0.

**MaxPayloadInMB (p. 545)**

The maximum payload size, in MB, used in the transform job.

Type: Integer

Valid Range: Minimum value of 0.

**ModelClientConfig (p. 545)**

The timeout and maximum number of retries for processing a transform job invocation.

Type: [ModelClientConfig \(p. 1489\)](#) object

**ModelName (p. 545)**

The name of the model used in the transform job.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[\w\-\_]{1,63}`

**TransformEndTime (p. 545)**

Indicates when the transform job has been completed, or has stopped or failed. You are billed for the time interval between this time and the value of `TransformStartTime`.

Type: Timestamp

**TransformInput (p. 545)**

Describes the dataset to be transformed and the Amazon S3 location where it is stored.

Type: [TransformInput \(p. 1776\)](#) object

**TransformJobArn (p. 545)**

The Amazon Resource Name (ARN) of the transform job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws:[a-zA-Z-]*:sagemaker:[a-zA-Z0-9-]*:[0-9]{12}:transform-job/.*`

**TransformJobName (p. 545)**

The name of the transform job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[\w\-\_]{1,63}`

### [TransformJobStatus \(p. 545\)](#)

The status of the transform job. If the transform job failed, the reason is returned in the FailureReason field.

Type: String

Valid Values: InProgress | Completed | Failed | Stopping | Stopped

### [TransformOutput \(p. 545\)](#)

Identifies the Amazon S3 location where you want Amazon SageMaker to save the results from the transform job.

Type: [TransformOutput \(p. 1788\)](#) object

### [TransformResources \(p. 545\)](#)

Describes the resources, including ML instance types and ML instance count, to use for the transform job.

Type: [TransformResources \(p. 1790\)](#) object

### [TransformStartTime \(p. 545\)](#)

Indicates when the transform job starts on ML instances. You are billed for the time interval between this time and the value of TransformEndTime.

Type: Timestamp

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceNotFound**

Resource being accessed is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DescribeTrial

Service: Amazon SageMaker Service

Provides a list of a trial's properties.

### Request Syntax

```
{  
    "TrialName": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### TrialName (p. 550)

The name of the trial to describe.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9]){0,119}

Required: Yes

### Response Syntax

```
{  
    "CreatedBy": {  
        "DomainId": "string",  
        "UserProfileArn": "string",  
        "UserProfileName": "string"  
    },  
    "CreationTime": number,  
    "DisplayName": "string",  
    "ExperimentName": "string",  
    "LastModifiedBy": {  
        "DomainId": "string",  
        "UserProfileArn": "string",  
        "UserProfileName": "string"  
    },  
    "LastModifiedTime": number,  
    "MetadataProperties": {  
        "CommitId": "string",  
        "GeneratedBy": "string",  
        "ProjectId": "string",  
        "Repository": "string"  
    },  
    "Source": {  
        "SourceArn": "string",  
        "SourceType": "string"  
    },  
    "TrialArn": "string",  
    "TrialName": "string"
```

}

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [CreatedBy \(p. 550\)](#)

Who created the trial.

Type: [UserContext \(p. 1822\)](#) object

### [CreationTime \(p. 550\)](#)

When the trial was created.

Type: Timestamp

### [DisplayName \(p. 550\)](#)

The name of the trial as displayed. If DisplayName isn't specified, TrialName is displayed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,119\}

### [ExperimentName \(p. 550\)](#)

The name of the experiment the trial is part of.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,119\}

### [LastModifiedBy \(p. 550\)](#)

Who last modified the trial.

Type: [UserContext \(p. 1822\)](#) object

### [LastModifiedTime \(p. 550\)](#)

When the trial was last modified.

Type: Timestamp

### [MetadataProperties \(p. 550\)](#)

Metadata properties of the tracking entity, trial, or trial component.

Type: [MetadataProperties \(p. 1465\)](#) object

### [Source \(p. 550\)](#)

The Amazon Resource Name (ARN) of the source and, optionally, the job type.

Type: [TrialSource \(p. 1812\)](#) object

### [TrialArn \(p. 550\)](#)

The Amazon Resource Name (ARN) of the trial.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-\-]\*:sagemaker:[a-z0-9\-\-]\*:[0-9]{12}:experiment-trial/.\*

#### TrialName (p. 550)

The name of the trial.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,119\}

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DescribeTrialComponent

Service: Amazon SageMaker Service

Provides a list of a trials component's properties.

### Request Syntax

```
{  
    "TrialComponentName": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### TrialComponentName (p. 553)

The name of the trial component to describe.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: (`arn:aws[a-zA-Z-]*:sagemaker:[a-z0-9-]*:[0-9]{12}:(experiment|experiment-trial|experiment-trial-component|artifact|action|context)\/)?([a-zA-Z0-9](-*[a-zA-Z0-9]){\d,119})`)

Required: Yes

### Response Syntax

```
{  
    "CreatedBy": {  
        "DomainId": "string",  
        "UserProfileArn": "string",  
        "UserProfileName": "string"  
    },  
    "CreationTime": number,  
    "DisplayName": "string",  
    "EndTime": number,  
    "InputArtifacts": {  
        "string" : {  
            "MediaType": "string",  
            "Value": "string"  
        }  
    },  
    "LastModifiedBy": {  
        "DomainId": "string",  
        "UserProfileArn": "string",  
        "UserProfileName": "string"  
    },  
    "LastModifiedTime": number,  
    "LineageGroupArn": "string",  
    "MetadataProperties": {  
        "string": "string"  
    }  
}
```

```

    "CommitId": "string",
    "GeneratedBy": "string",
    "ProjectId": "string",
    "Repository": "string"
},
"Metrics": [
{
    "Avg": number,
    "Count": number,
    "Last": number,
    "Max": number,
    "MetricName": "string",
    "Min": number,
    "SourceArn": "string",
    "StdDev": number,
    "TimeStamp": number
}
],
"OutputArtifacts": {
    "string" : {
        "MediaType": "string",
        "Value": "string"
    }
},
"Parameters": {
    "string" : {
        "NumberValue": number,
        "StringValue": "string"
    }
},
"Source": {
    "SourceArn": "string",
    "SourceType": "string"
},
"Sources": [
{
    "SourceArn": "string",
    "SourceType": "string"
}
],
"StartTime": number,
"Status": {
    "Message": "string",
    "PrimaryStatus": "string"
},
"TrialComponentArn": "string",
"TrialComponentName": "string"
}
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [CreatedBy \(p. 553\)](#)

Who created the trial component.

Type: [UserContext \(p. 1822\)](#) object

### [CreationTime \(p. 553\)](#)

When the component was created.

Type: Timestamp

#### [DisplayName \(p. 553\)](#)

The name of the component as displayed. If DisplayName isn't specified, TrialComponentName is displayed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,119\}

#### [EndTime \(p. 553\)](#)

When the component ended.

Type: Timestamp

#### [InputArtifacts \(p. 553\)](#)

The input artifacts of the component.

Type: String to [TrialComponentArtifact \(p. 1801\)](#) object map

Map Entries: Maximum number of 30 items.

Key Length Constraints: Maximum length of 64.

Key Pattern: .\*

#### [LastModifiedBy \(p. 553\)](#)

Who last modified the component.

Type: [UserContext \(p. 1822\)](#) object

#### [LastModifiedTime \(p. 553\)](#)

When the component was last modified.

Type: Timestamp

#### [LineageGroupArn \(p. 553\)](#)

The Amazon Resource Name (ARN) of the lineage group.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-zA-Z-]\*:sagemaker:[a-zA-Z0-9-]\*:[0-9]\{12\}:lineage-group/.\*

#### [MetadataProperties \(p. 553\)](#)

Metadata properties of the tracking entity, trial, or trial component.

Type: [MetadataProperties \(p. 1465\)](#) object

#### [Metrics \(p. 553\)](#)

The metrics for the component.

Type: Array of [TrialComponentMetricSummary \(p. 1802\)](#) objects

#### [OutputArtifacts \(p. 553\)](#)

The output artifacts of the component.

Type: String to [TrialComponentArtifact \(p. 1801\)](#) object map

Map Entries: Maximum number of 30 items.

Key Length Constraints: Maximum length of 64.

Key Pattern: .\*

#### [Parameters \(p. 553\)](#)

The hyperparameters of the component.

Type: String to [TrialComponentParameterValue \(p. 1804\)](#) object map

Map Entries: Maximum number of 150 items.

Key Length Constraints: Maximum length of 256.

Key Pattern: .\*

#### [Source \(p. 553\)](#)

The Amazon Resource Name (ARN) of the source and, optionally, the job type.

Type: [TrialComponentSource \(p. 1807\)](#) object

#### [Sources \(p. 553\)](#)

A list of the Amazon Resource Name (ARN) and, if applicable, job type for multiple sources of an experiment run.

Type: Array of [TrialComponentSource \(p. 1807\)](#) objects

#### [StartTime \(p. 553\)](#)

When the component started.

Type: Timestamp

#### [Status \(p. 553\)](#)

The status of the component. States include:

- InProgress
- Completed
- Failed

Type: [TrialComponentStatus \(p. 1809\)](#) object

#### [TrialComponentArn \(p. 553\)](#)

The Amazon Resource Name (ARN) of the trial component.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-\]*:sagemaker:[a-z0-9\-\]*:[0-9]{12}:experiment-trial-component/.*`

#### [TrialComponentName \(p. 553\)](#)

The name of the trial component.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9]){\0,119}

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DescribeUserProfile

Service: Amazon SageMaker Service

Describes a user profile. For more information, see [CreateUserProfile](#).

### Request Syntax

```
{  
    "DomainId": "string",  
    "UserName": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [DomainId \(p. 558\)](#)

The domain ID.

Type: String

Length Constraints: Maximum length of 63.

Required: Yes

#### [UserName \(p. 558\)](#)

The user profile name. This value is not case sensitive.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9]){0,62}

Required: Yes

### Response Syntax

```
{  
    "CreationTime": number,  
    "DomainId": "string",  
    "FailureReason": "string",  
    "HomeEfsFileSystemUid": "string",  
    "LastModifiedTime": number,  
    "SingleSignOnUserIdentity": "string",  
    "SingleSignOnUserValue": "string",  
    "Status": "string",  
    "UserProfileArn": "string",  
    "UserName": "string",  
    "UserSettings": {  
        "CanvasAppSettings": {  
            "TimeSeriesForecastingSettings": {  
                "AmazonForecastRoleArn": "string",  
                "Status": "string"  
            }  
        }  
    }  
}
```

```

        }
    },
    "ExecutionRole": "string",
    "JupyterServerAppSettings": {
        "CodeRepositories": [
            {
                "RepositoryUrl": "string"
            }
        ],
        "DefaultResourceSpec": {
            "InstanceType": "string",
            "LifecycleConfigArn": "string",
            "SageMakerImageArn": "string",
            "SageMakerImageVersionArn": "string"
        },
        "LifecycleConfigArns": [ "string" ]
    },
    "KernelGatewayAppSettings": {
        "CustomImages": [
            {
                "AppImageConfigName": "string",
                "ImageName": "string",
                "ImageVersionNumber": number
            }
        ],
        "DefaultResourceSpec": {
            "InstanceType": "string",
            "LifecycleConfigArn": "string",
            "SageMakerImageArn": "string",
            "SageMakerImageVersionArn": "string"
        },
        "LifecycleConfigArns": [ "string" ]
    },
    "RSessionAppSettings": {
        "CustomImages": [
            {
                "AppImageConfigName": "string",
                "ImageName": "string",
                "ImageVersionNumber": number
            }
        ],
        "DefaultResourceSpec": {
            "InstanceType": "string",
            "LifecycleConfigArn": "string",
            "SageMakerImageArn": "string",
            "SageMakerImageVersionArn": "string"
        }
    },
    "RStudioServerProAppSettings": {
        "AccessStatus": "string",
        "UserGroup": "string"
    },
    "SecurityGroups": [ "string" ],
    "SharingSettings": {
        "NotebookOutputOption": "string",
        "S3KmsKeyId": "string",
        "S3OutputPath": "string"
    },
    "TensorBoardAppSettings": {
        "DefaultResourceSpec": {
            "InstanceType": "string",
            "LifecycleConfigArn": "string",
            "SageMakerImageArn": "string",
            "SageMakerImageVersionArn": "string"
        }
    }
}

```

```
    }
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [CreationTime \(p. 558\)](#)

The creation time.

Type: Timestamp

### [DomainId \(p. 558\)](#)

The ID of the domain that contains the profile.

Type: String

Length Constraints: Maximum length of 63.

### [FailureReason \(p. 558\)](#)

The failure reason.

Type: String

Length Constraints: Maximum length of 1024.

### [HomeEfsFileSystemUid \(p. 558\)](#)

The ID of the user's profile in the Amazon Elastic File System (EFS) volume.

Type: String

Length Constraints: Maximum length of 10.

Pattern: \d+

### [LastModifiedTime \(p. 558\)](#)

The last modified time.

Type: Timestamp

### [SingleSignOnUserIdentifier \(p. 558\)](#)

The IAM Identity Center user identifier.

Type: String

Pattern: UserName

### [SingleSignOnUserValue \(p. 558\)](#)

The IAM Identity Center user value.

Type: String

Length Constraints: Maximum length of 256.

### [Status \(p. 558\)](#)

The status.

Type: String

Valid Values: Deleting | Failed | InService | Pending | Updating | Update\_Failed | Delete\_Failed

#### **UserProfileArn (p. 558)**

The user profile Amazon Resource Name (ARN).

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-]\*:sagemaker:[a-z0-9\-]\*:[0-9]{12}:user-profile/.\*

#### **UserProfileName (p. 558)**

The user profile name.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

#### **UserSettings (p. 558)**

A collection of settings.

Type: [UserSettings \(p. 1825\)](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DescribeWorkforce

Service: Amazon SageMaker Service

Lists private workforce information, including workforce name, Amazon Resource Name (ARN), and, if applicable, allowed IP address ranges ([CIDRs](#)). Allowable IP address ranges are the IP addresses that workers can use to access tasks.

**Important**

This operation applies only to private workforces.

## Request Syntax

```
{  
    "WorkforceName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### WorkforceName (p. 562)

The name of the private workforce whose access you want to restrict. `WorkforceName` is automatically set to `default` when a workforce is created and cannot be modified.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[\u00a1-zA-Z\u00d7-\u00d9][\u00a1-zA-Z\u00d7-\u00d9-\u00d7]{0,62}$`

Required: Yes

## Response Syntax

```
{  
    "Workforce": {  
        "CognitoConfig": {  
            "ClientId": "string",  
            "UserPool": "string"  
        },  
        "CreateDate": number,  
        "FailureReason": "string",  
        "LastUpdatedDate": number,  
        "OidcConfig": {  
            "AuthorizationEndpoint": "string",  
            "ClientId": "string",  
            "Issuer": "string",  
            "JwksUri": "string",  
            "LogoutEndpoint": "string",  
            "TokenEndpoint": "string",  
            "UserInfoEndpoint": "string"  
        },  
        "SourceIpConfig": {  
            "Cidrs": [ "string" ]  
        }  
    }  
}
```

```
        },
        "Status": "string",
        "SubDomain": "string",
        "WorkforceArn": "string",
        "WorkforceName": "string",
        "WorkforceVpcConfig": {
            "SecurityGroupIds": [ "string" ],
            "Subnets": [ "string" ],
            "VpcEndpointId": "string",
            "VpcId": "string"
        }
    }
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Workforce (p. 562)

A single private workforce, which is automatically created when you create your first private work team. You can create one private work force in each AWS Region. By default, any workforce-related API operation used in a specific region will apply to the workforce created in that region. To learn how to create a private workforce, see [Create a Private Workforce](#).

Type: [Workforce \(p. 1832\)](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DescribeWorkteam

Service: Amazon SageMaker Service

Gets information about a specific work team. You can see information such as the create date, the last updated date, membership information, and the work team's Amazon Resource Name (ARN).

### Request Syntax

```
{  
    "WorkteamName": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### WorkteamName (p. 564)

The name of the work team to return a description of.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9]){0,62}

Required: Yes

### Response Syntax

```
{  
    "Workteam": {  
        "CreateDate": number,  
        "Description": "string",  
        "LastUpdatedDate": number,  
        "MemberDefinitions": [  
            {  
                "CognitoMemberDefinition": {  
                    "ClientId": "string",  
                    "UserGroup": "string",  
                    "UserPool": "string"  
                },  
                "OidcMemberDefinition": {  
                    "Groups": [ "string" ]  
                }  
            }  
        ],  
        "NotificationConfiguration": {  
            "NotificationTopicArn": "string"  
        },  
        "ProductListingIds": [ "string" ],  
        "SubDomain": "string",  
        "WorkforceArn": "string",  
        "WorkteamArn": "string",  
        "WorkteamName": "string"  
    }  
}
```

```
    }
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [Workteam \(p. 564\)](#)

A Workteam instance that contains information about the work team.

Type: [Workteam \(p. 1837\)](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DisableSagemakerServicecatalogPortfolio

Service: Amazon SageMaker Service

Disables using Service Catalog in SageMaker. Service Catalog is used to create SageMaker projects.

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DisassociateTrialComponent

Service: Amazon SageMaker Service

Disassociates a trial component from a trial. This doesn't effect other trials the component is associated with. Before you can delete a component, you must disassociate the component from all trials it is associated with. To associate a trial component with a trial, call the [AssociateTrialComponent \(p. 22\)](#) API.

To get a list of the trials a component is associated with, use the [Search \(p. 826\)](#) API. Specify `ExperimentTrialComponent` for the `Resource` parameter. The list appears in the response under `Results.TrialComponent.Parents`.

### Request Syntax

```
{  
    "TrialComponentName": "string",  
    "TrialName": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### TrialComponentName (p. 567)

The name of the component to disassociate from the trial.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,119\}

Required: Yes

#### TrialName (p. 567)

The name of the trial to disassociate from.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,119\}

Required: Yes

### Response Syntax

```
{  
    "TrialArn": "string",  
    "TrialComponentArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [TrialArn \(p. 567\)](#)

The Amazon Resource Name (ARN) of the trial.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:experiment-trial/.*`

### [TrialComponentArn \(p. 567\)](#)

The Amazon Resource Name (ARN) of the trial component.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:experiment-trial-component/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# EnableSagemakerServicecatalogPortfolio

Service: Amazon SageMaker Service

Enables using Service Catalog in SageMaker. Service Catalog is used to create SageMaker projects.

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## GetDeviceFleetReport

Service: Amazon SageMaker Service

Describes a fleet.

### Request Syntax

```
{  
    "DeviceFleetName": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### DeviceFleetName ([p. 570](#))

The name of the fleet.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

### Response Syntax

```
{  
    "AgentVersions": [  
        {  
            "AgentCount": number,  
            "Version": "string"  
        }  
    ],  
    "Description": "string",  
    "DeviceFleetArn": "string",  
    "DeviceFleetName": "string",  
    "DeviceStats": {  
        "ConnectedDeviceCount": number,  
        "RegisteredDeviceCount": number  
    },  
    "ModelStats": [  
        {  
            "ActiveDeviceCount": number,  
            "ConnectedDeviceCount": number,  
            "modelName": "string",  
            "ModelVersion": "string",  
            "OfflineDeviceCount": number,  
            "SamplingDeviceCount": number  
        }  
    ],  
    "OutputConfig": {  
        "KmsKeyId": "string",  
    }  
}
```

```
    "PresetDeploymentConfig": "string",
    "PresetDeploymentType": "string",
    "S3OutputLocation": "string"
},
"ReportGenerated": number
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [AgentVersions \(p. 570\)](#)

The versions of Edge Manager agent deployed on the fleet.

Type: Array of [AgentVersion \(p. 1115\)](#) objects

### [Description \(p. 570\)](#)

Description of the fleet.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 800.

Pattern: [\S\s]+

### [DeviceFleetArn \(p. 570\)](#)

The Amazon Resource Name (ARN) of the device.

Type: String

Pattern: ^arn:aws[a-z\-\]\*:iam::\d{12}:device-fleet/[a-zA-Z\_0-9+=,.@\-\\_/\]+\$

### [DeviceFleetName \(p. 570\)](#)

The name of the fleet.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

### [DeviceStats \(p. 570\)](#)

Status of devices.

Type: [DeviceStats \(p. 1268\)](#) object

### [ModelStats \(p. 570\)](#)

Status of model on device.

Type: Array of [EdgeModelStat \(p. 1288\)](#) objects

### [OutputConfig \(p. 570\)](#)

The output configuration for storing sample data collected by the fleet.

Type: [EdgeOutputConfig \(p. 1291\)](#) object

### [ReportGenerated \(p. 570\)](#)

Timestamp of when the report was generated.

Type: Timestamp

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## GetLineageGroupPolicy

Service: Amazon SageMaker Service

The resource policy for the lineage group.

### Request Syntax

```
{  
    "LineageGroupName": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [LineageGroupName \(p. 573\)](#)

The name or Amazon Resource Name (ARN) of the lineage group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `(arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:lineage-group\//)?([a-zA-Z0-9](-*[a-zA-Z0-9])\{0,119\})`

Required: Yes

### Response Syntax

```
{  
    "LineageGroupArn": "string",  
    "ResourcePolicy": "string"  
}
```

### Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

#### [LineageGroupArn \(p. 573\)](#)

The Amazon Resource Name (ARN) of the lineage group.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:lineage-group/.*`

#### [ResourcePolicy \(p. 573\)](#)

The resource policy that gives access to the lineage group in another account.

Type: String

Length Constraints: Maximum length of 20480.

Pattern: .\*(?:(\r\n|\t).\*)\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## GetModelPackageGroupPolicy

Service: Amazon SageMaker Service

Gets a resource policy that manages access for a model group. For information about resource policies, see [Identity-based policies and resource-based policies](#) in the *AWS Identity and Access Management User Guide*.

### Request Syntax

```
{  
    "ModelPackageGroupName": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [ModelPackageGroupName \(p. 575\)](#)

The name of the model group for which to get the resource policy.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9]){0,62}\$

Required: Yes

### Response Syntax

```
{  
    "ResourcePolicy": "string"  
}
```

### Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

#### [ResourcePolicy \(p. 575\)](#)

The resource policy for the model group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 20480.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## GetSagemakerServicecatalogPortfolioStatus

Service: Amazon SageMaker Service

Gets the status of Service Catalog in SageMaker. Service Catalog is used to create SageMaker projects.

### Response Syntax

```
{  
    "Status": "string"  
}
```

### Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

#### Status (p. 577)

Whether Service Catalog is enabled or disabled in SageMaker.

Type: String

Valid Values: Enabled | Disabled

### Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## GetSearchSuggestions

Service: Amazon SageMaker Service

An auto-complete API for the search functionality in the Amazon SageMaker console. It returns suggestions of possible matches for the property name to use in Search queries. Provides suggestions for HyperParameters, Tags, and Metrics.

### Request Syntax

```
{  
    "Resource": "string",  
    "SuggestionQuery": {  
        "PropertyNameQuery": {  
            "PropertyNameHint": "string"  
        }  
    }  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [Resource \(p. 578\)](#)

The name of the Amazon SageMaker resource to search for.

Type: String

Valid Values: TrainingJob | Experiment | ExperimentTrial | ExperimentTrialComponent | Endpoint | ModelPackage | ModelPackageGroup | Pipeline | PipelineExecution | FeatureGroup | Project | FeatureMetadata | HyperParameterTuningJob | ModelCard | Model

Required: Yes

#### [SuggestionQuery \(p. 578\)](#)

Limits the property names that are included in the response.

Type: [SuggestionQuery \(p. 1748\)](#) object

Required: No

### Response Syntax

```
{  
    "PropertyNameSuggestions": [  
        {  
            "PropertyName": "string"  
        }  
    ]  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### **PropertyNameSuggestions (p. 578)**

A list of property names for a Resource that match a SuggestionQuery.

Type: Array of [PropertyNameSuggestion \(p. 1674\)](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ImportHubContent

Service: Amazon SageMaker Service

Import hub content.

## Request Syntax

```
{  
    "DocumentSchemaVersion": "string",  
    "HubContentDescription": "string",  
    "HubContentDisplayName": "string",  
    "HubContentDocument": "string",  
    "HubContentMarkdown": "string",  
    "HubContentName": "string",  
    "HubContentSearchKeywords": [ "string" ],  
    "HubContentType": "string",  
    "HubContentVersion": "string",  
    "HubName": "string",  
    "Tags": [  
        {  
            "Key": "string",  
            "Value": "string"  
        }  
    ]  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### **DocumentSchemaVersion (p. 580)**

The version of the hub content schema to import.

Type: String

Length Constraints: Minimum length of 5. Maximum length of 14.

Pattern: ^\d{1,4}.\d{1,4}.\d{1,4}\$

Required: Yes

### **HubContentDescription (p. 580)**

A description of the hub content to import.

Type: String

Length Constraints: Maximum length of 1023.

Pattern: .\*

Required: No

### **HubContentDisplayName (p. 580)**

The display name of the hub content to import.

Type: String

Length Constraints: Maximum length of 255.

Pattern: .\*

Required: No

#### [HubContentDocument \(p. 580\)](#)

The hub content document that describes information about the hub content such as type, associated containers, scripts, and more.

Type: String

Length Constraints: Maximum length of 65535.

Pattern: .\*

Required: Yes

#### [HubContentMarkdown \(p. 580\)](#)

Markdown files associated with the hub content to import.

Type: String

Length Constraints: Maximum length of 65535.

Pattern: .\*

Required: No

#### [HubContentName \(p. 580\)](#)

The name of the hub content to import.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: Yes

#### [HubContentSearchKeywords \(p. 580\)](#)

The searchable keywords of the hub content.

Type: Array of strings

Array Members: Maximum number of 50 items.

Length Constraints: Maximum length of 255.

Pattern: ^[^A-Z]\*\$

Required: No

#### [HubContentType \(p. 580\)](#)

The type of hub content to import.

Type: String

Valid Values: Model | Notebook

Required: Yes

#### [HubContentVersion \(p. 580\)](#)

The version of the hub content to import.

Type: String

Length Constraints: Minimum length of 5. Maximum length of 14.

Pattern: ^\d{1,4}.\d{1,4}.\d{1,4}\$

Required: No

#### [HubName \(p. 580\)](#)

The name of the hub to import content into.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62}

Required: Yes

#### [Tags \(p. 580\)](#)

Any tags associated with the hub content.

Type: Array of [Tag \(p. 1749\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## Response Syntax

```
{  
    "HubArn": "string",  
    "HubContentArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

#### [HubArn \(p. 582\)](#)

The ARN of the hub that the content was imported into.

Type: String

Length Constraints: Maximum length of 255.

Pattern: .\*

#### [HubContentArn \(p. 582\)](#)

The ARN of the hub content that was imported.

Type: String

Length Constraints: Maximum length of 255.

Pattern: . \*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceInUse**

Resource being accessed is in use.

HTTP Status Code: 400

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## ListActions

Service: Amazon SageMaker Service

Lists the actions in your account and their properties.

### Request Syntax

```
{  
    "ActionType": "string",  
    "CreatedAfter": number,  
    "CreatedBefore": number,  
    "MaxResults": number,  
    "NextToken": "string",  
    "SortBy": "string",  
    "SortOrder": "string",  
    "SourceUri": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [ActionType \(p. 584\)](#)

A filter that returns only actions of the specified type.

Type: String

Length Constraints: Maximum length of 256.

Required: No

#### [CreatedAfter \(p. 584\)](#)

A filter that returns only actions created on or after the specified time.

Type: Timestamp

Required: No

#### [CreatedBefore \(p. 584\)](#)

A filter that returns only actions created on or before the specified time.

Type: Timestamp

Required: No

#### [MaxResults \(p. 584\)](#)

The maximum number of actions to return in the response. The default value is 10.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### [NextToken \(p. 584\)](#)

If the previous call to `ListActions` didn't return the full set of actions, the call returns a token for getting the next set of actions.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: `.*`

Required: No

### [SortBy \(p. 584\)](#)

The property used to sort results. The default value is `CreationTime`.

Type: String

Valid Values: `Name` | `CreationTime`

Required: No

### [SortOrder \(p. 584\)](#)

The sort order. The default value is `Descending`.

Type: String

Valid Values: `Ascending` | `Descending`

Required: No

### [SourceUri \(p. 584\)](#)

A filter that returns only actions with the specified source URI.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `.*`

Required: No

## Response Syntax

```
{  
    "ActionSummaries": [  
        {  
            "ActionArn": "string",  
            "ActionName": "string",  
            "ActionType": "string",  
            "CreationTime": number,  
            "LastModifiedTime": number,  
            "Source": {  
                "SourceId": "string",  
                "SourceType": "string",  
                "SourceUri": "string"  
            },  
            "Status": "string"  
        }  
    ],  
}
```

```
    "NextToken": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### ActionSummaries (p. 585)

A list of actions and their properties.

Type: Array of [ActionSummary \(p. 1110\)](#) objects

### NextToken (p. 585)

A token for getting the next set of actions, if there are any.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## ListAlgorithms

Service: Amazon SageMaker Service

Lists the machine learning algorithms that have been created.

### Request Syntax

```
{  
    "CreationTimeAfter": number,  
    "CreationTimeBefore": number,  
    "MaxResults": number,  
    "NameContains": "string",  
    "NextToken": "string",  
    "SortBy": "string",  
    "SortOrder": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [CreationTimeAfter \(p. 587\)](#)

A filter that returns only algorithms created after the specified time (timestamp).

Type: Timestamp

Required: No

#### [CreationTimeBefore \(p. 587\)](#)

A filter that returns only algorithms created before the specified time (timestamp).

Type: Timestamp

Required: No

#### [MaxResults \(p. 587\)](#)

The maximum number of algorithms to return in the response.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

#### [NameContains \(p. 587\)](#)

A string in the algorithm name. This filter returns only algorithms whose name contains the specified string.

Type: String

Length Constraints: Maximum length of 63.

Pattern: [a-zA-Z0-9\-\+]

Required: No

#### [NextToken \(p. 587\)](#)

If the response to a previous ListAlgorithms request was truncated, the response includes a NextToken. To retrieve the next set of algorithms, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

#### [SortBy \(p. 587\)](#)

The parameter by which to sort the results. The default is CreationTime.

Type: String

Valid Values: Name | CreationTime

Required: No

#### [SortOrder \(p. 587\)](#)

The sort order for the results. The default is Ascending.

Type: String

Valid Values: Ascending | Descending

Required: No

## Response Syntax

```
{  
    "AlgorithmSummaryList": [  
        {  
            "AlgorithmArn": "string",  
            "AlgorithmDescription": "string",  
            "AlgorithmName": "string",  
            "AlgorithmStatus": "string",  
            "CreationTime": number  
        }  
    ],  
    "NextToken": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

#### [AlgorithmSummaryList \(p. 588\)](#)

>An array of AlgorithmSummary objects, each of which lists an algorithm.

Type: Array of [AlgorithmSummary \(p. 1122\)](#) objects

### [NextToken \(p. 588\)](#)

If the response is truncated, SageMaker returns this token. To retrieve the next set of algorithms, use it in the subsequent request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## ListApplImageConfigs

Service: Amazon SageMaker Service

Lists the ApplImageConfigs in your account and their properties. The list can be filtered by creation time or modified time, and whether the ApplImageConfig name contains a specified string.

### Request Syntax

```
{  
    "CreationTimeAfter": number,  
    "CreationTimeBefore": number,  
    "MaxResults": number,  
    "ModifiedTimeAfter": number,  
    "ModifiedTimeBefore": number,  
    "NameContains": "string",  
    "NextToken": "string",  
    "SortBy": "string",  
    "SortOrder": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### **CreationTimeAfter (p. 590)**

A filter that returns only ApplImageConfigs created on or after the specified time.

Type: Timestamp

Required: No

#### **CreationTimeBefore (p. 590)**

A filter that returns only ApplImageConfigs created on or before the specified time.

Type: Timestamp

Required: No

#### **MaxResults (p. 590)**

The maximum number of ApplImageConfigs to return in the response. The default value is 10.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

#### **ModifiedTimeAfter (p. 590)**

A filter that returns only ApplImageConfigs modified on or after the specified time.

Type: Timestamp

Required: No

### [ModifiedTimeBefore \(p. 590\)](#)

A filter that returns only AppImageConfigs modified on or before the specified time.

Type: Timestamp

Required: No

### [NameContains \(p. 590\)](#)

A filter that returns only AppImageConfigs whose name contains the specified string.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: No

### [NextToken \(p. 590\)](#)

If the previous call to `ListImages` didn't return the full set of AppImageConfigs, the call returns a token for getting the next set of AppImageConfigs.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

### [SortBy \(p. 590\)](#)

The property used to sort results. The default value is `CreationTime`.

Type: String

Valid Values: `CreationTime` | `LastModifiedTime` | `Name`

Required: No

### [SortOrder \(p. 590\)](#)

The sort order. The default value is `Descending`.

Type: String

Valid Values: `Ascending` | `Descending`

Required: No

## Response Syntax

```
{  
  "AppImageConfigs": [  
    {  
      "AppImageConfigArn": "string",  
      "AppImageConfigName": "string",  
      "CreationTime": number,  
      "KernelGatewayImageConfig": {  
        "FileSystemConfig": {
```

```
        "DefaultGid": number,
        "DefaultUid": number,
        "MountPath": "string"
    },
    "KernelSpecs": [
        {
            "DisplayName": "string",
            "Name": "string"
        }
    ],
    "LastModifiedTime": number
},
],
"NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [AppImageConfigs \(p. 591\)](#)

A list of AppImageConfigs and their properties.

Type: Array of [AppImageConfigDetails \(p. 1140\)](#) objects

### [NextToken \(p. 591\)](#)

A token for getting the next set of AppImageConfigs, if there are any.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: `.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## ListApps

Service: Amazon SageMaker Service

Lists apps.

### Request Syntax

```
{  
    "DomainIdEquals": "string",  
    "MaxResults": number,  
    "NextToken": "string",  
    "SortBy": "string",  
    "SortOrder": "string",  
    "SpaceNameEquals": "string",  
    "UserProfileNameEquals": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [DomainIdEquals \(p. 593\)](#)

A parameter to search for the domain ID.

Type: String

Length Constraints: Maximum length of 63.

Required: No

#### [MaxResults \(p. 593\)](#)

Returns a list up to a specified limit.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

#### [NextToken \(p. 593\)](#)

If the previous response was truncated, you will receive this token. Use it in your next request to receive the next set of results.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

#### [SortBy \(p. 593\)](#)

The parameter by which to sort the results. The default is CreationTime.

Type: String

Valid Values: CreationTime

Required: No

#### [SortOrder \(p. 593\)](#)

The sort order for the results. The default is Ascending.

Type: String

Valid Values: Ascending | Descending

Required: No

#### [SpaceNameEquals \(p. 593\)](#)

A parameter to search by space name.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9]){0,62}

Required: No

#### [UserProfileNameEquals \(p. 593\)](#)

A parameter to search by user profile name.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9]){0,62}

Required: No

## Response Syntax

```
{  
    "Apps": [  
        {  
            "AppName": "string",  
            "AppType": "string",  
            "CreationTime": number,  
            "DomainId": "string",  
            "SpaceName": "string",  
            "Status": "string",  
            "UserProfileName": "string"  
        }  
    ],  
    "NextToken": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

## [Apps \(p. 594\)](#)

The list of apps.

Type: Array of [AppDetails \(p. 1138\)](#) objects

## [NextToken \(p. 594\)](#)

If the previous response was truncated, you will receive this token. Use it in your next request to receive the next set of results.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## ListArtifacts

Service: Amazon SageMaker Service

Lists the artifacts in your account and their properties.

### Request Syntax

```
{  
    "ArtifactType": "string",  
    "CreatedAfter": number,  
    "CreatedBefore": number,  
    "MaxResults": number,  
    "NextToken": "string",  
    "SortBy": "string",  
    "SortOrder": "string",  
    "SourceUri": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [ArtifactType \(p. 596\)](#)

A filter that returns only artifacts of the specified type.

Type: String

Length Constraints: Maximum length of 256.

Required: No

#### [CreatedAfter \(p. 596\)](#)

A filter that returns only artifacts created on or after the specified time.

Type: Timestamp

Required: No

#### [CreatedBefore \(p. 596\)](#)

A filter that returns only artifacts created on or before the specified time.

Type: Timestamp

Required: No

#### [MaxResults \(p. 596\)](#)

The maximum number of artifacts to return in the response. The default value is 10.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### [NextToken \(p. 596\)](#)

If the previous call to `ListArtifacts` didn't return the full set of artifacts, the call returns a token for getting the next set of artifacts.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: `.*`

Required: No

### [SortBy \(p. 596\)](#)

The property used to sort results. The default value is `CreationTime`.

Type: String

Valid Values: `CreationTime`

Required: No

### [SortOrder \(p. 596\)](#)

The sort order. The default value is `Descending`.

Type: String

Valid Values: `Ascending` | `Descending`

Required: No

### [SourceUri \(p. 596\)](#)

A filter that returns only artifacts with the specified source URI.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `.*`

Required: No

## Response Syntax

```
{  
    "ArtifactSummaries": [  
        {  
            "ArtifactArn": "string",  
            "ArtifactName": "string",  
            "ArtifactType": "string",  
            "CreationTime": number,  
            "LastModifiedTime": number,  
            "Source": {  
                "SourceTypes": [  
                    {  
                        "SourceIdType": "string",  
                        "Value": "string"  
                    }  
                ],  
                "SourceUri": "string"  
            }  
        }  
    ]  
}
```

```
        }
    ],
    "NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [ArtifactSummaries \(p. 597\)](#)

A list of artifacts and their properties.

Type: Array of [ArtifactSummary \(p. 1145\)](#) objects

### [NextToken \(p. 597\)](#)

A token for getting the next set of artifacts, if there are any.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## ListAssociations

Service: Amazon SageMaker Service

Lists the associations in your account and their properties.

### Request Syntax

```
{  
    "AssociationType": "string",  
    "CreatedAfter": number,  
    "CreatedBefore": number,  
    "DestinationArn": "string",  
    "DestinationType": "string",  
    "MaxResults": number,  
    "NextToken": "string",  
    "SortBy": "string",  
    "SortOrder": "string",  
    "SourceArn": "string",  
    "SourceType": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [AssociationType \(p. 599\)](#)

A filter that returns only associations of the specified type.

Type: String

Valid Values: ContributedTo | AssociatedWith | DerivedFrom | Produced

Required: No

#### [CreatedAfter \(p. 599\)](#)

A filter that returns only associations created on or after the specified time.

Type: Timestamp

Required: No

#### [CreatedBefore \(p. 599\)](#)

A filter that returns only associations created on or before the specified time.

Type: Timestamp

Required: No

#### [DestinationArn \(p. 599\)](#)

A filter that returns only associations with the specified destination Amazon Resource Name (ARN).

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:(experiment|experiment-trial-component|artifact|action|context)/.*`

Required: No

**DestinationType (p. 599)**

A filter that returns only associations with the specified destination type.

Type: String

Length Constraints: Maximum length of 256.

Required: No

**MaxResults (p. 599)**

The maximum number of associations to return in the response. The default value is 10.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

**NextToken (p. 599)**

If the previous call to `ListAssociations` didn't return the full set of associations, the call returns a token for getting the next set of associations.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: `.*`

Required: No

**SortBy (p. 599)**

The property used to sort results. The default value is `CreationTime`.

Type: String

Valid Values: `SourceArn` | `DestinationArn` | `SourceType` | `DestinationType` | `CreationTime`

Required: No

**SortOrder (p. 599)**

The sort order. The default value is `Descending`.

Type: String

Valid Values: `Ascending` | `Descending`

Required: No

**SourceArn (p. 599)**

A filter that returns only associations with the specified source ARN.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-\-]\*:sagemaker:[a-z0-9\-\-]\*:[0-9]{12}:(experiment|experiment-trial-component|artifact|action|context)/\*

Required: No

#### [SourceType \(p. 599\)](#)

A filter that returns only associations with the specified source type.

Type: String

Length Constraints: Maximum length of 256.

Required: No

## Response Syntax

```
{  
    "AssociationSummaries": [  
        {  
            "AssociationType": "string",  
            "CreatedBy": {  
                "DomainId": "string",  
                "UserProfileArn": "string",  
                "UserProfileName": "string"  
            },  
            "CreationTime": number,  
            "DestinationArn": "string",  
            "DestinationName": "string",  
            "DestinationType": "string",  
            "SourceArn": "string",  
            "SourceName": "string",  
            "SourceType": "string"  
        }  
    ],  
    "NextToken": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

#### [AssociationSummaries \(p. 601\)](#)

A list of associations and their properties.

Type: Array of [AssociationSummary \(p. 1147\)](#) objects

#### [NextToken \(p. 601\)](#)

A token for getting the next set of associations, if there are any.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## ListAutoMLJobs

Service: Amazon SageMaker Service

Request a list of jobs.

### Request Syntax

```
{  
    "CreationTimeAfter": number,  
    "CreationTimeBefore": number,  
    "LastModifiedTimeAfter": number,  
    "LastModifiedTimeBefore": number,  
    "MaxResults": number,  
    "NameContains": "string",  
    "NextToken": "string",  
    "SortBy": "string",  
    "SortOrder": "string",  
    "StatusEquals": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [CreationTimeAfter \(p. 603\)](#)

Request a list of jobs, using a filter for time.

Type: Timestamp

Required: No

#### [CreationTimeBefore \(p. 603\)](#)

Request a list of jobs, using a filter for time.

Type: Timestamp

Required: No

#### [LastModifiedTimeAfter \(p. 603\)](#)

Request a list of jobs, using a filter for time.

Type: Timestamp

Required: No

#### [LastModifiedTimeBefore \(p. 603\)](#)

Request a list of jobs, using a filter for time.

Type: Timestamp

Required: No

#### [MaxResults \(p. 603\)](#)

Request a list of jobs up to a specified limit.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

#### [NameContains \(p. 603\)](#)

Request a list of jobs, using a search filter for name.

Type: String

Length Constraints: Maximum length of 63.

Pattern: [a-zA-Z0-9\-\+]

Required: No

#### [NextToken \(p. 603\)](#)

If the previous response was truncated, you receive this token. Use it in your next request to receive the next set of results.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

#### [SortBy \(p. 603\)](#)

The parameter by which to sort the results. The default is Name.

Type: String

Valid Values: Name | CreationTime | Status

Required: No

#### [SortOrder \(p. 603\)](#)

The sort order for the results. The default is Descending.

Type: String

Valid Values: Ascending | Descending

Required: No

#### [StatusEquals \(p. 603\)](#)

Request a list of jobs, using a filter for status.

Type: String

Valid Values: Completed | InProgress | Failed | Stopped | Stopping

Required: No

## Response Syntax

```
{
```

```
"AutoMLJobSummaries": [
    {
        "AutoMLJobArn": "string",
        "AutoMLJobName": "string",
        "AutoMLJobSecondaryStatus": "string",
        "AutoMLJobStatus": "string",
        "CreationTime": number,
        "EndTime": number,
        "FailureReason": "string",
        "LastModifiedTime": number,
        "PartialFailureReasons": [
            {
                "PartialFailureMessage": "string"
            }
        ]
    },
    "NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [AutoMLJobSummaries \(p. 604\)](#)

Returns a summary list of jobs.

Type: Array of [AutoMLJobSummary \(p. 1172\)](#) objects

### [NextToken \(p. 604\)](#)

If the previous response was truncated, you receive this token. Use it in your next request to receive the next set of results.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)

- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## ListCandidatesForAutoMLJob

Service: Amazon SageMaker Service

List the candidates created for the job.

### Request Syntax

```
{  
    "AutoMLJobName": "string",  
    "CandidateNameEquals": "string",  
    "MaxResults": number,  
    "NextToken": "string",  
    "SortBy": "string",  
    "SortOrder": "string",  
    "StatusEquals": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [AutoMLJobName \(p. 607\)](#)

List the candidates created for the job by providing the job's name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,31\}

Required: Yes

#### [CandidateNameEquals \(p. 607\)](#)

List the candidates for the job and filter by candidate name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Required: No

#### [MaxResults \(p. 607\)](#)

List the job's candidates up to a specified limit.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

#### [NextToken \(p. 607\)](#)

If the previous response was truncated, you receive this token. Use it in your next request to receive the next set of results.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

#### [SortBy \(p. 607\)](#)

The parameter by which to sort the results. The default is Descending.

Type: String

Valid Values: CreationTime | Status | FinalObjectiveMetricValue

Required: No

#### [SortOrder \(p. 607\)](#)

The sort order for the results. The default is Ascending.

Type: String

Valid Values: Ascending | Descending

Required: No

#### [StatusEquals \(p. 607\)](#)

List the candidates for the job and filter by status.

Type: String

Valid Values: Completed | InProgress | Failed | Stopped | Stopping

Required: No

## Response Syntax

```
{  
    "Candidates": [  
        {  
            "CandidateName": "string",  
            "CandidateProperties": {  
                "CandidateArtifactLocations": {  
                    "Explainability": "string",  
                    "ModelInsights": "string"  
                },  
                "CandidateMetrics": [  
                    {  
                        "MetricName": "string",  
                        "Set": "string",  
                        "StandardMetricName": "string",  
                        "Value": number  
                    }  
                ]  
            },  
            "CandidateStatus": "string",  
            "CandidateSteps": [  
                {  
                    "CandidateStepArn": "string",  
                    "CandidateStepName": "string",  
                    "CandidateStepType": "string"  
                }  
            ],  
        }  
    ]  
}
```

```
"CreationTime": number,
"EndTime": number,
"FailureReason": "string",
"FinalAutoMLJobObjectiveMetric": {
    "MetricName": "string",
    "Type": "string",
    "Value": number
},
"InferenceContainers": [
    {
        "Environment": {
            "string": "string"
        },
        "Image": "string",
        "ModelDataUrl": "string"
    }
],
"LastModifiedTime": number,
"ObjectiveStatus": "string"
}
],
"NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Candidates (p. 608)

Summaries about the AutoMLCandidates.

Type: Array of [AutoMLCandidate \(p. 1155\)](#) objects

### NextToken (p. 608)

If the previous response was truncated, you receive this token. Use it in your next request to receive the next set of results.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## ListCodeRepositories

Service: Amazon SageMaker Service

Gets a list of the Git repositories in your account.

### Request Syntax

```
{  
    "CreationTimeAfter": number,  
    "CreationTimeBefore": number,  
    "LastModifiedTimeAfter": number,  
    "LastModifiedTimeBefore": number,  
    "MaxResults": number,  
    "NameContains": "string",  
    "NextToken": "string",  
    "SortBy": "string",  
    "SortOrder": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [CreationTimeAfter \(p. 611\)](#)

A filter that returns only Git repositories that were created after the specified time.

Type: Timestamp

Required: No

#### [CreationTimeBefore \(p. 611\)](#)

A filter that returns only Git repositories that were created before the specified time.

Type: Timestamp

Required: No

#### [LastModifiedTimeAfter \(p. 611\)](#)

A filter that returns only Git repositories that were last modified after the specified time.

Type: Timestamp

Required: No

#### [LastModifiedTimeBefore \(p. 611\)](#)

A filter that returns only Git repositories that were last modified before the specified time.

Type: Timestamp

Required: No

#### [MaxResults \(p. 611\)](#)

The maximum number of Git repositories to return in the response.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

#### [NameContains \(p. 611\)](#)

A string in the Git repositories name. This filter returns only repositories whose name contains the specified string.

Type: String

Length Constraints: Maximum length of 63.

Pattern: [a-zA-Z0-9-]+

Required: No

#### [NextToken \(p. 611\)](#)

If the result of a `ListCodeRepositoriesOutput` request was truncated, the response includes a `NextToken`. To get the next set of Git repositories, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

#### [SortBy \(p. 611\)](#)

The field to sort results by. The default is Name.

Type: String

Valid Values: Name | CreationTime | LastModifiedTime

Required: No

#### [SortOrder \(p. 611\)](#)

The sort order for results. The default is Ascending.

Type: String

Valid Values: Ascending | Descending

Required: No

## Response Syntax

```
{  
  "CodeRepositorySummaryList": [  
    {  
      "CodeRepositoryArn": "string",  
      "CodeRepositoryName": "string",  
      "CreationTime": number,  
      "GitConfig": {  
        "Branch": "string",  
        "RepositoryUrl": "string",  
      }  
    }  
  ]  
}
```

```
        "SecretArn": "string"
    },
    "LastModifiedTime": number
}
],
"NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [CodeRepositorySummaryList \(p. 612\)](#)

Gets a list of summaries of the Git repositories. Each summary specifies the following values for the repository:

- Name
- Amazon Resource Name (ARN)
- Creation time
- Last modified time
- Configuration information, including the URL location of the repository and the ARN of the AWS Secrets Manager secret that contains the credentials used to access the repository.

Type: Array of [CodeRepositorySummary \(p. 1217\)](#) objects

### [NextToken \(p. 612\)](#)

If the result of a `ListCodeRepositoriesOutput` request was truncated, the response includes a `NextToken`. To get the next set of Git repositories, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



## ListCompilationJobs

Service: Amazon SageMaker Service

Lists model compilation jobs that satisfy various filters.

To create a model compilation job, use [CreateCompilationJob \(p. 51\)](#). To get information about a particular model compilation job you have created, use [DescribeCompilationJob \(p. 356\)](#).

### Request Syntax

```
{  
    "CreationTimeAfter": number,  
    "CreationTimeBefore": number,  
    "LastModifiedTimeAfter": number,  
    "LastModifiedTimeBefore": number,  
    "MaxResults": number,  
    "NameContains": "string",  
    "NextToken": "string",  
    "SortBy": "string",  
    "SortOrder": "string",  
    "StatusEquals": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [CreationTimeAfter \(p. 615\)](#)

A filter that returns the model compilation jobs that were created after a specified time.

Type: Timestamp

Required: No

#### [CreationTimeBefore \(p. 615\)](#)

A filter that returns the model compilation jobs that were created before a specified time.

Type: Timestamp

Required: No

#### [LastModifiedTimeAfter \(p. 615\)](#)

A filter that returns the model compilation jobs that were modified after a specified time.

Type: Timestamp

Required: No

#### [LastModifiedTimeBefore \(p. 615\)](#)

A filter that returns the model compilation jobs that were modified before a specified time.

Type: Timestamp

Required: No

### [MaxResults \(p. 615\)](#)

The maximum number of model compilation jobs to return in the response.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### [NameContains \(p. 615\)](#)

A filter that returns the model compilation jobs whose name contains a specified string.

Type: String

Length Constraints: Maximum length of 63.

Pattern: [a-zA-Z0-9\-\+]

Required: No

### [NextToken \(p. 615\)](#)

If the result of the previous ListCompilationJobs request was truncated, the response includes a NextToken. To retrieve the next set of model compilation jobs, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

### [SortBy \(p. 615\)](#)

The field by which to sort results. The default is CreationTime.

Type: String

Valid Values: Name | CreationTime | Status

Required: No

### [SortOrder \(p. 615\)](#)

The sort order for results. The default is Ascending.

Type: String

Valid Values: Ascending | Descending

Required: No

### [StatusEquals \(p. 615\)](#)

A filter that retrieves model compilation jobs with a specific [DescribeCompilationJob:CompilationJobStatus \(p. 357\)](#) status.

Type: String

Valid Values: INPROGRESS | COMPLETED | FAILED | STARTING | STOPPING | STOPPED

Required: No

## Response Syntax

```
{  
    "CompilationJobSummaries": [  
        {  
            "CompilationEndTime": number,  
            "CompilationJobArn": "string",  
            "CompilationJobName": "string",  
            "CompilationJobStatus": "string",  
            "CompilationStartTime": number,  
            "CompilationTargetDevice": "string",  
            "CompilationTargetPlatformAccelerator": "string",  
            "CompilationTargetPlatformArch": "string",  
            "CompilationTargetPlatformOs": "string",  
            "CreationTime": number,  
            "LastModifiedTime": number  
        }  
    ],  
    "NextToken": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [CompilationJobSummaries \(p. 617\)](#)

An array of [CompilationJobSummary \(p. 1222\)](#) objects, each describing a model compilation job.

Type: Array of [CompilationJobSummary \(p. 1222\)](#) objects

### [NextToken \(p. 617\)](#)

If the response is truncated, Amazon SageMaker returns this NextToken. To retrieve the next set of model compilation jobs, use this token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)

- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## ListContexts

Service: Amazon SageMaker Service

Lists the contexts in your account and their properties.

### Request Syntax

```
{  
    "ContextType": "string",  
    "CreatedAfter": number,  
    "CreatedBefore": number,  
    "MaxResults": number,  
    "NextToken": "string",  
    "SortBy": "string",  
    "SortOrder": "string",  
    "SourceUri": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [ContextType \(p. 619\)](#)

A filter that returns only contexts of the specified type.

Type: String

Length Constraints: Maximum length of 256.

Required: No

#### [CreatedAfter \(p. 619\)](#)

A filter that returns only contexts created on or after the specified time.

Type: Timestamp

Required: No

#### [CreatedBefore \(p. 619\)](#)

A filter that returns only contexts created on or before the specified time.

Type: Timestamp

Required: No

#### [MaxResults \(p. 619\)](#)

The maximum number of contexts to return in the response. The default value is 10.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### [NextToken \(p. 619\)](#)

If the previous call to `ListContexts` didn't return the full set of contexts, the call returns a token for getting the next set of contexts.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: `.*`

Required: No

### [SortBy \(p. 619\)](#)

The property used to sort results. The default value is `CreationTime`.

Type: String

Valid Values: `Name` | `CreationTime`

Required: No

### [SortOrder \(p. 619\)](#)

The sort order. The default value is `Descending`.

Type: String

Valid Values: `Ascending` | `Descending`

Required: No

### [SourceUri \(p. 619\)](#)

A filter that returns only contexts with the specified source URI.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `.*`

Required: No

## Response Syntax

```
{  
    "ContextSummaries": [  
        {  
            "ContextArn": "string",  
            "ContextName": "string",  
            "ContextType": "string",  
            "CreationTime": number,  
            "LastModifiedTime": number,  
            "Source": {  
                "SourceId": "string",  
                "SourceType": "string",  
                "SourceUri": "string"  
            }  
        }  
    ],  
    "NextToken": "string"  
}
```

}

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### **ContextSummaries (p. 620)**

A list of contexts and their properties.

Type: Array of [ContextSummary \(p. 1229\)](#) objects

### **NextToken (p. 620)**

A token for getting the next set of contexts, if there are any.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## ListDataQualityJobDefinitions

Service: Amazon SageMaker Service

Lists the data quality job definitions in your account.

### Request Syntax

```
{  
    "CreationTimeAfter": number,  
    "CreationTimeBefore": number,  
    "EndpointName": "string",  
    "MaxResults": number,  
    "NameContains": "string",  
    "NextToken": "string",  
    "SortBy": "string",  
    "SortOrder": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [CreationTimeAfter \(p. 622\)](#)

A filter that returns only data quality monitoring job definitions created after the specified time.

Type: Timestamp

Required: No

#### [CreationTimeBefore \(p. 622\)](#)

A filter that returns only data quality monitoring job definitions created before the specified time.

Type: Timestamp

Required: No

#### [EndpointName \(p. 622\)](#)

A filter that lists the data quality job definitions associated with the specified endpoint.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: No

#### [MaxResults \(p. 622\)](#)

The maximum number of data quality monitoring job definitions to return in the response.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

#### [NameContains \(p. 622\)](#)

A string in the data quality monitoring job definition name. This filter returns only data quality monitoring job definitions whose name contains the specified string.

Type: String

Length Constraints: Maximum length of 63.

Pattern: [a-zA-Z0-9\-\-]+

Required: No

#### [NextToken \(p. 622\)](#)

If the result of the previous `ListDataQualityJobDefinitions` request was truncated, the response includes a `NextToken`. To retrieve the next set of transform jobs, use the token in the next request.>

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

#### [SortBy \(p. 622\)](#)

The field to sort results by. The default is `CreationTime`.

Type: String

Valid Values: Name | CreationTime

Required: No

#### [SortOrder \(p. 622\)](#)

The sort order for results. The default is Descending.

Type: String

Valid Values: Ascending | Descending

Required: No

## Response Syntax

```
{  
    "JobDefinitionSummaries": [  
        {  
            "CreationTime": number,  
            "EndpointName": "string",  
            "MonitoringJobDefinitionArn": "string",  
            "MonitoringJobDefinitionName": "string"  
        }  
    ],  
    "NextToken": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [JobDefinitionSummaries \(p. 623\)](#)

A list of data quality monitoring job definitions.

Type: Array of [MonitoringJobDefinitionSummary \(p. 1560\)](#) objects

### [NextToken \(p. 623\)](#)

If the result of the previous `ListDataQualityJobDefinitions` request was truncated, the response includes a `NextToken`. To retrieve the next set of data quality monitoring job definitions, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: `.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## ListDeviceFleets

Service: Amazon SageMaker Service

Returns a list of devices in the fleet.

### Request Syntax

```
{  
    "CreationTimeAfter": number,  
    "CreationTimeBefore": number,  
    "LastModifiedTimeAfter": number,  
    "LastModifiedTimeBefore": number,  
    "MaxResults": number,  
    "NameContains": "string",  
    "NextToken": "string",  
    "SortBy": "string",  
    "SortOrder": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [CreationTimeAfter \(p. 625\)](#)

Filter fleets where packaging job was created after specified time.

Type: Timestamp

Required: No

#### [CreationTimeBefore \(p. 625\)](#)

Filter fleets where the edge packaging job was created before specified time.

Type: Timestamp

Required: No

#### [LastModifiedTimeAfter \(p. 625\)](#)

Select fleets where the job was updated after X

Type: Timestamp

Required: No

#### [LastModifiedTimeBefore \(p. 625\)](#)

Select fleets where the job was updated before X

Type: Timestamp

Required: No

#### [MaxResults \(p. 625\)](#)

The maximum number of results to select.

Type: Integer

Valid Range: Maximum value of 100.

Required: No

#### [NameContains \(p. 625\)](#)

Filter for fleets containing this name in their fleet device name.

Type: String

Length Constraints: Maximum length of 63.

Pattern: [a-zA-Z0-9\-\-]+

Required: No

#### [NextToken \(p. 625\)](#)

The response from the last list when returning a list large enough to need tokening.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

#### [SortBy \(p. 625\)](#)

The column to sort by.

Type: String

Valid Values: NAME | CREATION\_TIME | LAST\_MODIFIED\_TIME

Required: No

#### [SortOrder \(p. 625\)](#)

What direction to sort in.

Type: String

Valid Values: Ascending | Descending

Required: No

## Response Syntax

```
{  
    "DeviceFleetSummaries": [  
        {  
            "CreationTime": number,  
            "DeviceFleetArn": "string",  
            "DeviceFleetName": "string",  
            "LastModifiedTime": number  
        }  
    ],  
    "NextToken": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [DeviceFleetSummaries \(p. 626\)](#)

Summary of the device fleet.

Type: Array of [DeviceFleetSummary \(p. 1265\)](#) objects

### [NextToken \(p. 626\)](#)

The response from the last list when returning a list large enough to need tokening.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## ListDevices

Service: Amazon SageMaker Service

A list of devices.

### Request Syntax

```
{  
    "DeviceFleetName": "string",  
    "LatestHeartbeatAfter": number,  
    "MaxResults": number,  
    "ModelName": "string",  
    "NextToken": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [DeviceFleetName \(p. 628\)](#)

Filter for fleets containing this name in their device fleet name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9]){0,62}\$

Required: No

#### [LatestHeartbeatAfter \(p. 628\)](#)

Select fleets where the job was updated after X

Type: Timestamp

Required: No

#### [MaxResults \(p. 628\)](#)

Maximum number of results to select.

Type: Integer

Valid Range: Maximum value of 100.

Required: No

#### [ModelName \(p. 628\)](#)

A filter that searches devices that contains this name in any of their models.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: No

#### [NextToken \(p. 628\)](#)

The response from the last list when returning a list large enough to need tokening.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

## Response Syntax

```
{  
  "DeviceSummaries": [  
    {  
      "AgentVersion": "string",  
      "Description": "string",  
      "DeviceArn": "string",  
      "DeviceFleetName": "string",  
      "DeviceName": "string",  
      "IoTThingName": "string",  
      "LatestHeartbeat": number,  
      "Models": [  
        {  
          "ModelName": "string",  
          "ModelVersion": "string"  
        }  
      ],  
      "RegistrationTime": number  
    }  
  ],  
  "NextToken": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

#### [DeviceSummaries \(p. 629\)](#)

Summary of devices.

Type: Array of [DeviceSummary \(p. 1269\)](#) objects

#### [NextToken \(p. 629\)](#)

The response from the last list when returning a list large enough to need tokening.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## ListDomains

Service: Amazon SageMaker Service

Lists the domains.

### Request Syntax

```
{  
    "MaxResults": number,  
    "NextToken": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [MaxResults \(p. 631\)](#)

Returns a list up to a specified limit.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

#### [NextToken \(p. 631\)](#)

If the previous response was truncated, you will receive this token. Use it in your next request to receive the next set of results.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: `.*`

Required: No

### Response Syntax

```
{  
    "Domains": [  
        {  
            "CreationTime": number,  
            "DomainArn": "string",  
            "DomainId": "string",  
            "DomainName": "string",  
            "LastModifiedTime": number,  
            "Status": "string",  
            "Url": "string"  
        }  
    ],  
    "NextToken": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [Domains \(p. 631\)](#)

The list of domains.

Type: Array of [DomainDetails \(p. 1271\)](#) objects

### [NextToken \(p. 631\)](#)

If the previous response was truncated, you will receive this token. Use it in your next request to receive the next set of results.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListEdgeDeploymentPlans

Service: Amazon SageMaker Service

Lists all edge deployment plans.

## Request Syntax

```
{  
    "CreationTimeAfter": number,  
    "CreationTimeBefore": number,  
    "DeviceFleetNameContains": "string",  
    "LastModifiedTimeAfter": number,  
    "LastModifiedTimeBefore": number,  
    "MaxResults": number,  
    "NameContains": "string",  
    "NextToken": "string",  
    "SortBy": "string",  
    "SortOrder": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### [CreationTimeAfter \(p. 633\)](#)

Selects edge deployment plans created after this time.

Type: Timestamp

Required: No

### [CreationTimeBefore \(p. 633\)](#)

Selects edge deployment plans created before this time.

Type: Timestamp

Required: No

### [DeviceFleetNameContains \(p. 633\)](#)

Selects edge deployment plans with a device fleet name containing this name.

Type: String

Length Constraints: Maximum length of 63.

Pattern: [a-zA-Z0-9\-\-]+

Required: No

### [LastModifiedTimeAfter \(p. 633\)](#)

Selects edge deployment plans that were last updated after this time.

Type: Timestamp

Required: No

[LastModifiedTimeBefore \(p. 633\)](#)

Selects edge deployment plans that were last updated before this time.

Type: Timestamp

Required: No

[MaxResults \(p. 633\)](#)

The maximum number of results to select (50 by default).

Type: Integer

Valid Range: Maximum value of 100.

Required: No

[NameContains \(p. 633\)](#)

Selects edge deployment plans with names containing this name.

Type: String

Length Constraints: Maximum length of 63.

Pattern: [a-zA-Z0-9\-\-]+

Required: No

[NextToken \(p. 633\)](#)

The response from the last list when returning a list large enough to need tokening.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

[SortBy \(p. 633\)](#)

The column by which to sort the edge deployment plans. Can be one of NAME, DEVICEFLEETNAME, CREATONTIME, LASTMODIFIEDTIME.

Type: String

Valid Values: NAME | DEVICE\_FLEET\_NAME | CREATION\_TIME | LAST\_MODIFIED\_TIME

Required: No

[SortOrder \(p. 633\)](#)

The direction of the sorting (ascending or descending).

Type: String

Valid Values: Ascending | Descending

Required: No

## Response Syntax

```
{  
    "EdgeDeploymentPlanSummaries": [  
        {  
            "CreationTime": number,  
            "DeviceFleetName": "string",  
            "EdgeDeploymentFailed": number,  
            "EdgeDeploymentPending": number,  
            "EdgeDeploymentPlanArn": "string",  
            "EdgeDeploymentPlanName": "string",  
            "EdgeDeploymentSuccess": number,  
            "LastModifiedTime": number  
        }  
    ],  
    "NextToken": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [EdgeDeploymentPlanSummaries \(p. 635\)](#)

List of summaries of edge deployment plans.

Type: Array of [EdgeDeploymentPlanSummary \(p. 1283\)](#) objects

### [NextToken \(p. 635\)](#)

The token to use when calling the next page of results.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)

- [AWS SDK for Ruby V3](#)

# ListEdgePackagingJobs

Service: Amazon SageMaker Service

Returns a list of edge packaging jobs.

## Request Syntax

```
{  
    "CreationTimeAfter": number,  
    "CreationTimeBefore": number,  
    "LastModifiedTimeAfter": number,  
    "LastModifiedTimeBefore": number,  
    "MaxResults": number,  
    "ModelNameContains": "string",  
    "NameContains": "string",  
    "NextToken": "string",  
    "SortBy": "string",  
    "SortOrder": "string",  
    "StatusEquals": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### [CreationTimeAfter \(p. 637\)](#)

Select jobs where the job was created after specified time.

Type: Timestamp

Required: No

### [CreationTimeBefore \(p. 637\)](#)

Select jobs where the job was created before specified time.

Type: Timestamp

Required: No

### [LastModifiedTimeAfter \(p. 637\)](#)

Select jobs where the job was updated after specified time.

Type: Timestamp

Required: No

### [LastModifiedTimeBefore \(p. 637\)](#)

Select jobs where the job was updated before specified time.

Type: Timestamp

Required: No

### [MaxResults \(p. 637\)](#)

Maximum number of results to select.

Type: Integer

Valid Range: Maximum value of 100.

Required: No

#### [ModelNameContains \(p. 637\)](#)

Filter for jobs where the model name contains this string.

Type: String

Length Constraints: Maximum length of 63.

Pattern: [a-zA-Z0-9\-\-]+

Required: No

#### [NameContains \(p. 637\)](#)

Filter for jobs containing this name in their packaging job name.

Type: String

Length Constraints: Maximum length of 63.

Pattern: [a-zA-Z0-9\-\-]+

Required: No

#### [NextToken \(p. 637\)](#)

The response from the last list when returning a list large enough to need tokening.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

#### [SortBy \(p. 637\)](#)

Use to specify what column to sort by.

Type: String

Valid Values: NAME | MODEL\_NAME | CREATION\_TIME | LAST\_MODIFIED\_TIME | STATUS

Required: No

#### [SortOrder \(p. 637\)](#)

What direction to sort by.

Type: String

Valid Values: Ascending | Descending

Required: No

#### [StatusEquals \(p. 637\)](#)

The job status to filter for.

Type: String

Valid Values: STARTING | INPROGRESS | COMPLETED | FAILED | STOPPING | STOPPED

Required: No

## Response Syntax

```
{  
    "EdgePackagingJobSummaries": [  
        {  
            "CompilationJobName": "string",  
            "CreationTime": number,  
            "EdgePackagingJobArn": "string",  
            "EdgePackagingJobName": "string",  
            "EdgePackagingJobStatus": "string",  
            "LastModifiedTime": number,  
            "ModelName": "string",  
            "ModelVersion": "string"  
        }  
    ],  
    "NextToken": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [EdgePackagingJobSummaries \(p. 639\)](#)

Summaries of edge packaging jobs.

Type: Array of [EdgePackagingJobSummary \(p. 1293\)](#) objects

### [NextToken \(p. 639\)](#)

Token to use when calling the next page of results.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)

- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListEndpointConfigs

Service: Amazon SageMaker Service

Lists endpoint configurations.

## Request Syntax

```
{  
    "CreationTimeAfter": number,  
    "CreationTimeBefore": number,  
    "MaxResults": number,  
    "NameContains": "string",  
    "NextToken": "string",  
    "SortBy": "string",  
    "SortOrder": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### [CreationTimeAfter \(p. 641\)](#)

A filter that returns only endpoint configurations with a creation time greater than or equal to the specified time (timestamp).

Type: Timestamp

Required: No

### [CreationTimeBefore \(p. 641\)](#)

A filter that returns only endpoint configurations created before the specified time (timestamp).

Type: Timestamp

Required: No

### [MaxResults \(p. 641\)](#)

The maximum number of training jobs to return in the response.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### [NameContains \(p. 641\)](#)

A string in the endpoint configuration name. This filter returns only endpoint configurations whose name contains the specified string.

Type: String

Length Constraints: Maximum length of 63.

Pattern: [a-zA-Z0-9-]+

Required: No

#### [NextToken \(p. 641\)](#)

If the result of the previous ListEndpointConfig request was truncated, the response includes a NextToken. To retrieve the next set of endpoint configurations, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

#### [SortBy \(p. 641\)](#)

The field to sort results by. The default is CreationTime.

Type: String

Valid Values: Name | CreationTime

Required: No

#### [SortOrder \(p. 641\)](#)

The sort order for results. The default is Descending.

Type: String

Valid Values: Ascending | Descending

Required: No

## Response Syntax

```
{  
    "EndpointConfigs": [  
        {  
            "CreationTime": number,  
            "EndpointConfigArn": "string",  
            "EndpointConfigName": "string"  
        }  
    ],  
    "NextToken": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

#### [EndpointConfigs \(p. 642\)](#)

An array of endpoint configurations.

Type: Array of [EndpointConfigSummary \(p. 1300\)](#) objects

### [NextToken \(p. 642\)](#)

If the response is truncated, SageMaker returns this token. To retrieve the next set of endpoint configurations, use it in the subsequent request

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## ListEndpoints

Service: Amazon SageMaker Service

Lists endpoints.

### Request Syntax

```
{  
    "CreationTimeAfter": number,  
    "CreationTimeBefore": number,  
    "LastModifiedTimeAfter": number,  
    "LastModifiedTimeBefore": number,  
    "MaxResults": number,  
    "NameContains": "string",  
    "NextToken": "string",  
    "SortBy": "string",  
    "SortOrder": "string",  
    "StatusEquals": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [CreationTimeAfter \(p. 644\)](#)

A filter that returns only endpoints with a creation time greater than or equal to the specified time (timestamp).

Type: Timestamp

Required: No

#### [CreationTimeBefore \(p. 644\)](#)

A filter that returns only endpoints that were created before the specified time (timestamp).

Type: Timestamp

Required: No

#### [LastModifiedTimeAfter \(p. 644\)](#)

A filter that returns only endpoints that were modified after the specified timestamp.

Type: Timestamp

Required: No

#### [LastModifiedTimeBefore \(p. 644\)](#)

A filter that returns only endpoints that were modified before the specified timestamp.

Type: Timestamp

Required: No

#### [MaxResults \(p. 644\)](#)

The maximum number of endpoints to return in the response. This value defaults to 10.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

#### [NameContains \(p. 644\)](#)

A string in endpoint names. This filter returns only endpoints whose name contains the specified string.

Type: String

Length Constraints: Maximum length of 63.

Pattern: [a-zA-Z0-9-]+

Required: No

#### [NextToken \(p. 644\)](#)

If the result of a ListEndpoints request was truncated, the response includes a NextToken. To retrieve the next set of endpoints, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

#### [SortBy \(p. 644\)](#)

Sorts the list of results. The default is CreationTime.

Type: String

Valid Values: Name | CreationTime | Status

Required: No

#### [SortOrder \(p. 644\)](#)

The sort order for results. The default is Descending.

Type: String

Valid Values: Ascending | Descending

Required: No

#### [StatusEquals \(p. 644\)](#)

A filter that returns only endpoints with the specified status.

Type: String

Valid Values: OutOfService | Creating | Updating | SystemUpdating | RollingBack | InService | Deleting | Failed

Required: No

## Response Syntax

```
{
```

```
"Endpoints": [  
    {  
        "CreationTime": number,  
        "EndpointArn": "string",  
        "EndpointName": "string",  
        "EndpointStatus": "string",  
        "LastModifiedTime": number  
    }  
,  
    "NextToken": "string"  
]
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [Endpoints \(p. 645\)](#)

An array or endpoint objects.

Type: Array of [EndpointSummary \(p. 1311\)](#) objects

### [NextToken \(p. 645\)](#)

If the response is truncated, SageMaker returns this token. To retrieve the next set of training jobs, use it in the subsequent request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## ListExperiments

Service: Amazon SageMaker Service

Lists all the experiments in your account. The list can be filtered to show only experiments that were created in a specific time range. The list can be sorted by experiment name or creation time.

### Request Syntax

```
{  
    "CreatedAfter": number,  
    "CreatedBefore": number,  
    "MaxResults": number,  
    "NextToken": "string",  
    "SortBy": "string",  
    "SortOrder": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [CreatedAfter \(p. 647\)](#)

A filter that returns only experiments created after the specified time.

Type: Timestamp

Required: No

#### [CreatedBefore \(p. 647\)](#)

A filter that returns only experiments created before the specified time.

Type: Timestamp

Required: No

#### [MaxResults \(p. 647\)](#)

The maximum number of experiments to return in the response. The default value is 10.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

#### [NextToken \(p. 647\)](#)

If the previous call to `ListExperiments` didn't return the full set of experiments, the call returns a token for getting the next set of experiments.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: `.*`

Required: No

[SortBy \(p. 647\)](#)

The property used to sort results. The default value is CreationTime.

Type: String

Valid Values: Name | CreationTime

Required: No

[SortOrder \(p. 647\)](#)

The sort order. The default value is Descending.

Type: String

Valid Values: Ascending | Descending

Required: No

## Response Syntax

```
{  
    "ExperimentSummaries": [  
        {  
            "CreationTime": number,  
            "DisplayName": "string",  
            "ExperimentArn": "string",  
            "ExperimentName": "string",  
            "ExperimentSource": {  
                "SourceArn": "string",  
                "SourceType": "string"  
            },  
            "LastModifiedTime": number  
        }  
    ],  
    "NextToken": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

[ExperimentSummaries \(p. 648\)](#)

A list of the summaries of your experiments.

Type: Array of [ExperimentSummary \(p. 1320\)](#) objects

[NextToken \(p. 648\)](#)

A token for getting the next set of experiments, if there are any.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## ListFeatureGroups

Service: Amazon SageMaker Service

List FeatureGroups based on given filter and order.

### Request Syntax

```
{  
    "CreationTimeAfter": number,  
    "CreationTimeBefore": number,  
    "FeatureGroupStatusEquals": "string",  
    "MaxResults": number,  
    "NameContains": "string",  
    "NextToken": "string",  
    "OfflineStoreStatusEquals": "string",  
    "SortBy": "string",  
    "SortOrder": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [CreationTimeAfter \(p. 650\)](#)

Use this parameter to search for FeatureGroupss created after a specific date and time.

Type: Timestamp

Required: No

#### [CreationTimeBefore \(p. 650\)](#)

Use this parameter to search for FeatureGroupss created before a specific date and time.

Type: Timestamp

Required: No

#### [FeatureGroupStatusEquals \(p. 650\)](#)

A FeatureGroup status. Filters by FeatureGroup status.

Type: String

Valid Values: Creating | Created | CreateFailed | Deleting | DeleteFailed

Required: No

#### [MaxResults \(p. 650\)](#)

The maximum number of results returned by ListFeatureGroups.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### [NameContains \(p. 650\)](#)

A string that partially matches one or more FeatureGroups names. Filters FeatureGroups by name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Required: No

### [NextToken \(p. 650\)](#)

A token to resume pagination of ListFeatureGroups results.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

### [OfflineStoreStatusEquals \(p. 650\)](#)

An OfflineStore status. Filters by OfflineStore status.

Type: String

Valid Values: Active | Blocked | Disabled

Required: No

### [SortBy \(p. 650\)](#)

The value on which the feature group list is sorted.

Type: String

Valid Values: Name | FeatureGroupStatus | OfflineStoreStatus | CreationTime

Required: No

### [SortOrder \(p. 650\)](#)

The order in which feature groups are listed.

Type: String

Valid Values: Ascending | Descending

Required: No

## Response Syntax

```
{  
  "FeatureGroupSummaries": [  
    {  
      "CreationTime": number,  
      "FeatureGroupArn": "string",  
      "FeatureGroupName": "string",  
      "FeatureGroupStatus": "string",  
      "OfflineStoreStatus": {  
        "Status": "string",  
        "Type": "string"  
      }  
    }  
  ]  
}
```

```
        "BlockedReason": "string",
        "Status": "string"
    }
],
"NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [FeatureGroupSummaries \(p. 651\)](#)

A summary of feature groups.

Type: Array of [FeatureGroupSummary \(p. 1330\)](#) objects

### [NextToken \(p. 651\)](#)

A token to resume pagination of `ListFeatureGroups` results.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## ListFlowDefinitions

Service: Amazon SageMaker Service

Returns information about the flow definitions in your account.

### Request Syntax

```
{  
    "CreationTimeAfter": number,  
    "CreationTimeBefore": number,  
    "MaxResults": number,  
    "NextToken": "string",  
    "SortOrder": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [CreationTimeAfter \(p. 653\)](#)

A filter that returns only flow definitions with a creation time greater than or equal to the specified timestamp.

Type: Timestamp

Required: No

#### [CreationTimeBefore \(p. 653\)](#)

A filter that returns only flow definitions that were created before the specified timestamp.

Type: Timestamp

Required: No

#### [MaxResults \(p. 653\)](#)

The total number of items to return. If the total number of available items is more than the value specified in MaxResults, then a NextToken will be provided in the output that you can use to resume pagination.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

#### [NextToken \(p. 653\)](#)

A token to resume pagination.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: *.\**

Required: No

#### **SortOrder (p. 653)**

An optional value that specifies whether you want the results sorted in Ascending or Descending order.

Type: String

Valid Values: Ascending | Descending

Required: No

## Response Syntax

```
{  
    "FlowDefinitionSummaries": [  
        {  
            "CreationTime": number,  
            "FailureReason": "string",  
            "FlowDefinitionArn": "string",  
            "FlowDefinitionName": "string",  
            "FlowDefinitionStatus": "string"  
        }  
    ],  
    "NextToken": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

#### **FlowDefinitionSummaries (p. 654)**

An array of objects describing the flow definitions.

Type: Array of [FlowDefinitionSummary \(p. 1345\)](#) objects

#### **NextToken (p. 654)**

A token to resume pagination.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)

- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## ListHubContents

Service: Amazon SageMaker Service

List the contents of a hub.

### Request Syntax

```
{  
    "CreationTimeAfter": number,  
    "CreationTimeBefore": number,  
    "HubContentType": "string",  
    "HubName": "string",  
    "MaxResults": number,  
    "MaxSchemaVersion": "string",  
    "NameContains": "string",  
    "NextToken": "string",  
    "SortBy": "string",  
    "SortOrder": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [CreationTimeAfter \(p. 656\)](#)

Only list hub content that was created after the time specified.

Type: Timestamp

Required: No

#### [CreationTimeBefore \(p. 656\)](#)

Only list hub content that was created before the time specified.

Type: Timestamp

Required: No

#### [HubContentType \(p. 656\)](#)

The type of hub content to list.

Type: String

Valid Values: Model | Notebook

Required: Yes

#### [HubName \(p. 656\)](#)

The name of the hub to list the contents of.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: Yes

#### [MaxResults \(p. 656\)](#)

The maximum amount of hub content to list.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

#### [MaxSchemaVersion \(p. 656\)](#)

The upper bound of the hub content schema verion.

Type: String

Length Constraints: Minimum length of 5. Maximum length of 14.

Pattern: ^\d{1,4}.\d{1,4}.\d{1,4}\$

Required: No

#### [NameContains \(p. 656\)](#)

Only list hub content if the name contains the specified string.

Type: String

Length Constraints: Maximum length of 63.

Pattern: [a-zA-Z0-9\-\-]+

Required: No

#### [NextToken \(p. 656\)](#)

If the response to a previous ListHubContents request was truncated, the response includes a NextToken. To retrieve the next set of hub content, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

#### [SortBy \(p. 656\)](#)

Sort hub content versions by either name or creation time.

Type: String

Valid Values: HubContentName | CreationTime | HubContentStatus

Required: No

#### [SortOrder \(p. 656\)](#)

Sort hubs by ascending or descending order.

Type: String

Valid Values: Ascending | Descending

Required: No

## Response Syntax

```
{  
    "HubContentSummaries": [  
        {  
            "CreationTime": number,  
            "DocumentSchemaVersion": "string",  
            "HubContentArn": "string",  
            "HubContentDescription": "string",  
            "HubContentDisplayName": "string",  
            "HubContentName": "string",  
            "HubContentSearchKeywords": [ "string" ],  
            "HubContentStatus": "string",  
            "HubContentType": "string",  
            "HubContentVersion": "string"  
        }  
    ],  
    "NextToken": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### **HubContentSummaries (p. 658)**

The summaries of the listed hub content.

Type: Array of [HubContentInfo \(p. 1350\)](#) objects

### **NextToken (p. 658)**

If the response is truncated, SageMaker returns this token. To retrieve the next set of hub content, use it in the subsequent request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## ListHubContentVersions

Service: Amazon SageMaker Service

List hub content versions.

### Request Syntax

```
{  
    "CreationTimeAfter": number,  
    "CreationTimeBefore": number,  
    "HubContentName": "string",  
    "HubContentType": "string",  
    "HubName": "string",  
    "MaxResults": number,  
    "MaxSchemaVersion": "string",  
    "MinVersion": "string",  
    "NextToken": "string",  
    "SortBy": "string",  
    "SortOrder": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [CreationTimeAfter \(p. 660\)](#)

Only list hub content versions that were created after the time specified.

Type: Timestamp

Required: No

#### [CreationTimeBefore \(p. 660\)](#)

Only list hub content versions that were created before the time specified.

Type: Timestamp

Required: No

#### [HubContentName \(p. 660\)](#)

The name of the hub content.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: Yes

#### [HubContentType \(p. 660\)](#)

The type of hub content to list versions of.

Type: String

Valid Values: Model | Notebook

Required: Yes

#### [HubName \(p. 660\)](#)

The name of the hub to list the content versions of.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: Yes

#### [MaxResults \(p. 660\)](#)

The maximum number of hub content versions to list.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

#### [MaxSchemaVersion \(p. 660\)](#)

The upper bound of the hub content schema version.

Type: String

Length Constraints: Minimum length of 5. Maximum length of 14.

Pattern: ^\d\{1,4\}.\d\{1,4\}.\d\{1,4\}\$

Required: No

#### [MinVersion \(p. 660\)](#)

The lower bound of the hub content versions to list.

Type: String

Length Constraints: Minimum length of 5. Maximum length of 14.

Pattern: ^\d\{1,4\}.\d\{1,4\}.\d\{1,4\}\$

Required: No

#### [NextToken \(p. 660\)](#)

If the response to a previous ListHubContentVersions request was truncated, the response includes a NextToken. To retrieve the next set of hub content versions, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

### [SortBy \(p. 660\)](#)

Sort hub content versions by either name or creation time.

Type: String

Valid Values: HubContentName | CreationTime | HubContentStatus

Required: No

### [SortOrder \(p. 660\)](#)

Sort hub content versions by ascending or descending order.

Type: String

Valid Values: Ascending | Descending

Required: No

## Response Syntax

```
{  
    "HubContentSummaries": [  
        {  
            "CreationTime": number,  
            "DocumentSchemaVersion": "string",  
            "HubContentArn": "string",  
            "HubContentDescription": "string",  
            "HubContentDisplayName": "string",  
            "HubContentName": "string",  
            "HubContentSearchKeywords": [ "string" ],  
            "HubContentStatus": "string",  
            "HubContentType": "string",  
            "HubContentVersion": "string"  
        }  
    ],  
    "NextToken": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [HubContentSummaries \(p. 662\)](#)

The summaries of the listed hub content versions.

Type: Array of [HubContentInfo \(p. 1350\)](#) objects

### [NextToken \(p. 662\)](#)

If the response is truncated, SageMaker returns this token. To retrieve the next set of hub content versions, use it in the subsequent request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: *.*\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## ListHubs

Service: Amazon SageMaker Service

List all existing hubs.

### Request Syntax

```
{  
    "CreationTimeAfter": number,  
    "CreationTimeBefore": number,  
    "LastModifiedTimeAfter": number,  
    "LastModifiedTimeBefore": number,  
    "MaxResults": number,  
    "NameContains": "string",  
    "NextToken": "string",  
    "SortBy": "string",  
    "SortOrder": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [CreationTimeAfter \(p. 664\)](#)

Only list hubs that were created after the time specified.

Type: Timestamp

Required: No

#### [CreationTimeBefore \(p. 664\)](#)

Only list hubs that were created before the time specified.

Type: Timestamp

Required: No

#### [LastModifiedTimeAfter \(p. 664\)](#)

Only list hubs that were last modified after the time specified.

Type: Timestamp

Required: No

#### [LastModifiedTimeBefore \(p. 664\)](#)

Only list hubs that were last modified before the time specified.

Type: Timestamp

Required: No

#### [MaxResults \(p. 664\)](#)

The maximum number of hubs to list.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

#### [NameContains \(p. 664\)](#)

Only list hubs with names that contain the specified string.

Type: String

Length Constraints: Maximum length of 63.

Pattern: [a-zA-Z0-9\-\+]

Required: No

#### [NextToken \(p. 664\)](#)

If the response to a previous ListHubs request was truncated, the response includes a NextToken. To retrieve the next set of hubs, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

#### [SortBy \(p. 664\)](#)

Sort hubs by either name or creation time.

Type: String

Valid Values: HubName | CreationTime | HubStatus | AccountIdOwner

Required: No

#### [SortOrder \(p. 664\)](#)

Sort hubs by ascending or descending order.

Type: String

Valid Values: Ascending | Descending

Required: No

## Response Syntax

```
{  
  "HubSummaries": [  
    {  
      "CreationTime": number,  
      "HubArn": "string",  
      "HubDescription": "string",  
      "HubDisplayName": "string",  
      "HubName": "string",  
      "HubSearchKeywords": [ "string" ],  
      "HubStatus": "string",  
      "LastModified": "string",  
      "Owner": "string",  
      "Tags": [ { "Key": "string", "Value": "string" } ]  
    }  
  ]  
}
```

```
        "LastModifiedTime": number
    }
],
"NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [HubSummaries \(p. 665\)](#)

The summaries of the listed hubs.

Type: Array of [HubInfo \(p. 1353\)](#) objects

### [NextToken \(p. 665\)](#)

If the response is truncated, SageMaker returns this token. To retrieve the next set of hubs, use it in the subsequent request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## ListHumanTaskUis

Service: Amazon SageMaker Service

Returns information about the human task user interfaces in your account.

### Request Syntax

```
{  
    "CreationTimeAfter": number,  
    "CreationTimeBefore": number,  
    "MaxResults": number,  
    "NextToken": "string",  
    "SortOrder": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [CreationTimeAfter \(p. 667\)](#)

A filter that returns only human task user interfaces with a creation time greater than or equal to the specified timestamp.

Type: Timestamp

Required: No

#### [CreationTimeBefore \(p. 667\)](#)

A filter that returns only human task user interfaces that were created before the specified timestamp.

Type: Timestamp

Required: No

#### [MaxResults \(p. 667\)](#)

The total number of items to return. If the total number of available items is more than the value specified in MaxResults, then a NextToken will be provided in the output that you can use to resume pagination.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

#### [NextToken \(p. 667\)](#)

A token to resume pagination.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

#### [SortOrder \(p. 667\)](#)

An optional value that specifies whether you want the results sorted in Ascending or Descending order.

Type: String

Valid Values: Ascending | Descending

Required: No

## Response Syntax

```
{  
    "HumanTaskUiSummaries": [  
        {  
            "CreationTime": number,  
            "HumanTaskUiArn": "string",  
            "HumanTaskUiName": "string"  
        }  
    ],  
    "NextToken": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

#### [HumanTaskUiSummaries \(p. 668\)](#)

An array of objects describing the human task user interfaces.

Type: Array of [HumanTaskUiSummary \(p. 1378\)](#) objects

#### [NextToken \(p. 668\)](#)

A token to resume pagination.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListHyperParameterTuningJobs

Service: Amazon SageMaker Service

Gets a list of [HyperParameterTuningJobSummary \(p. 1401\)](#) objects that describe the hyperparameter tuning jobs launched in your account.

## Request Syntax

```
{  
    "CreationTimeAfter": number,  
    "CreationTimeBefore": number,  
    "LastModifiedTimeAfter": number,  
    "LastModifiedTimeBefore": number,  
    "MaxResults": number,  
    "NameContains": "string",  
    "NextToken": "string",  
    "SortBy": "string",  
    "SortOrder": "string",  
    "StatusEquals": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### [CreationTimeAfter \(p. 670\)](#)

A filter that returns only tuning jobs that were created after the specified time.

Type: Timestamp

Required: No

### [CreationTimeBefore \(p. 670\)](#)

A filter that returns only tuning jobs that were created before the specified time.

Type: Timestamp

Required: No

### [LastModifiedTimeAfter \(p. 670\)](#)

A filter that returns only tuning jobs that were modified after the specified time.

Type: Timestamp

Required: No

### [LastModifiedTimeBefore \(p. 670\)](#)

A filter that returns only tuning jobs that were modified before the specified time.

Type: Timestamp

Required: No

### [MaxResults \(p. 670\)](#)

The maximum number of tuning jobs to return. The default value is 10.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

#### [NameContains \(p. 670\)](#)

A string in the tuning job name. This filter returns only tuning jobs whose name contains the specified string.

Type: String

Length Constraints: Maximum length of 63.

Pattern: [a-zA-Z0-9\-\+]

Required: No

#### [NextToken \(p. 670\)](#)

If the result of the previous `ListHyperParameterTuningJobs` request was truncated, the response includes a `NextToken`. To retrieve the next set of tuning jobs, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

#### [SortBy \(p. 670\)](#)

The field to sort results by. The default is `Name`.

Type: String

Valid Values: `Name` | `Status` | `CreationTime`

Required: No

#### [SortOrder \(p. 670\)](#)

The sort order for results. The default is `Ascending`.

Type: String

Valid Values: `Ascending` | `Descending`

Required: No

#### [StatusEquals \(p. 670\)](#)

A filter that returns only tuning jobs with the specified status.

Type: String

Valid Values: `Completed` | `InProgress` | `Failed` | `Stopped` | `Stopping`

Required: No

## [Response Syntax](#)

```
{
```

```
"HyperParameterTuningJobSummaries": [
    {
        "CreationTime": number,
        "HyperParameterTuningEndTime": number,
        "HyperParameterTuningJobArn": "string",
        "HyperParameterTuningJobName": "string",
        "HyperParameterTuningJobStatus": "string",
        "LastModifiedTime": number,
        "ObjectiveStatusCounters": {
            "Failed": number,
            "Pending": number,
            "Succeeded": number
        },
        "ResourceLimits": {
            "MaxNumberOfTrainingJobs": number,
            "MaxParallelTrainingJobs": number
        },
        "Strategy": "string",
        "TrainingJobStatusCounters": {
            "Completed": number,
            "InProgress": number,
            "NonRetryableError": number,
            "RetryableError": number,
            "Stopped": number
        }
    }
],
"NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [HyperParameterTuningJobSummaries \(p. 671\)](#)

A list of [HyperParameterTuningJobSummary \(p. 1401\)](#) objects that describe the tuning jobs that the ListHyperParameterTuningJobs request returned.

Type: Array of [HyperParameterTuningJobSummary \(p. 1401\)](#) objects

### [NextToken \(p. 671\)](#)

If the result of this ListHyperParameterTuningJobs request was truncated, the response includes a NextToken. To retrieve the next set of tuning jobs, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## ListImages

Service: Amazon SageMaker Service

Lists the images in your account and their properties. The list can be filtered by creation time or modified time, and whether the image name contains a specified string.

## Request Syntax

```
{  
    "CreationTimeAfter": number,  
    "CreationTimeBefore": number,  
    "LastModifiedTimeAfter": number,  
    "LastModifiedTimeBefore": number,  
    "MaxResults": number,  
    "NameContains": "string",  
    "NextToken": "string",  
    "SortBy": "string",  
    "SortOrder": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### [CreationTimeAfter \(p. 674\)](#)

A filter that returns only images created on or after the specified time.

Type: Timestamp

Required: No

### [CreationTimeBefore \(p. 674\)](#)

A filter that returns only images created on or before the specified time.

Type: Timestamp

Required: No

### [LastModifiedTimeAfter \(p. 674\)](#)

A filter that returns only images modified on or after the specified time.

Type: Timestamp

Required: No

### [LastModifiedTimeBefore \(p. 674\)](#)

A filter that returns only images modified on or before the specified time.

Type: Timestamp

Required: No

### [MaxResults \(p. 674\)](#)

The maximum number of images to return in the response. The default value is 10.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

#### [NameContains \(p. 674\)](#)

A filter that returns only images whose name contains the specified string.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9\-.]+\$

Required: No

#### [NextToken \(p. 674\)](#)

If the previous call to `ListImages` didn't return the full set of images, the call returns a token for getting the next set of images.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

#### [SortBy \(p. 674\)](#)

The property used to sort results. The default value is `CREATION_TIME`.

Type: String

Valid Values: `CREATION_TIME` | `LAST_MODIFIED_TIME` | `IMAGE_NAME`

Required: No

#### [SortOrder \(p. 674\)](#)

The sort order. The default value is `DESCENDING`.

Type: String

Valid Values: `ASCENDING` | `DESCENDING`

Required: No

## Response Syntax

```
{  
  "Images": [  
    {  
      "CreationTime": number,  
      "Description": "string",  
      "DisplayName": "string",  
      "FailureReason": "string",  
      "ImageArn": "string",  
      "ImageName": "string",  
      "ImageStatus": "string",  
      "LastModifiedDate": string,  
      "LastModifiedTime": number,  
      "Size": number,  
      "Tags": [  
        {  
          "Key": "string",  
          "Value": "string"  
        }  
      ]  
    }  
  ]  
}
```

```
        "LastModifiedTime": number
    }
],
"NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [Images \(p. 675\)](#)

A list of images and their properties.

Type: Array of [Image \(p. 1408\)](#) objects

### [NextToken \(p. 675\)](#)

A token for getting the next set of images, if there are any.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## ListImageVersions

Service: Amazon SageMaker Service

Lists the versions of a specified image and their properties. The list can be filtered by creation time or modified time.

### Request Syntax

```
{  
    "CreationTimeAfter": number,  
    "CreationTimeBefore": number,  
    "ImageName": "string",  
    "LastModifiedTimeAfter": number,  
    "LastModifiedTimeBefore": number,  
    "MaxResults": number,  
    "NextToken": "string",  
    "SortBy": "string",  
    "SortOrder": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [CreationTimeAfter \(p. 677\)](#)

A filter that returns only versions created on or after the specified time.

Type: Timestamp

Required: No

#### [CreationTimeBefore \(p. 677\)](#)

A filter that returns only versions created on or before the specified time.

Type: Timestamp

Required: No

#### [ImageName \(p. 677\)](#)

The name of the image to list the versions of.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9]([-.]?[a-zA-Z0-9])\{0,62\}\$

Required: Yes

#### [LastModifiedTimeAfter \(p. 677\)](#)

A filter that returns only versions modified on or after the specified time.

Type: Timestamp

Required: No

### [LastModifiedTimeBefore \(p. 677\)](#)

A filter that returns only versions modified on or before the specified time.

Type: Timestamp

Required: No

### [MaxResults \(p. 677\)](#)

The maximum number of versions to return in the response. The default value is 10.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### [NextToken \(p. 677\)](#)

If the previous call to ListImageVersions didn't return the full set of versions, the call returns a token for getting the next set of versions.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

### [SortBy \(p. 677\)](#)

The property used to sort results. The default value is CREATION\_TIME.

Type: String

Valid Values: CREATION\_TIME | LAST\_MODIFIED\_TIME | VERSION

Required: No

### [SortOrder \(p. 677\)](#)

The sort order. The default value is DESCENDING.

Type: String

Valid Values: ASCENDING | DESCENDING

Required: No

## Response Syntax

```
{  
  "ImageVersions": [  
    {  
      "CreationTime": number,  
      "FailureReason": "string",  
      "ImageArn": "string",  
      "ImageVersionArn": "string",  
      "ImageVersionStatus": "string",  
      "LastModifiedTime": number,  
      "Version": number  
    }  
  ]  
}
```

```
        },
        ],
        "NextToken": "string"
    }
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [ImageVersions \(p. 678\)](#)

A list of versions and their properties.

Type: Array of [ImageVersion \(p. 1411\)](#) objects

### [NextToken \(p. 678\)](#)

A token for getting the next set of versions, if there are any.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### [ResourceNotFound](#)

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListInferenceExperiments

Service: Amazon SageMaker Service

Returns the list of all inference experiments.

## Request Syntax

```
{  
    "CreationTimeAfter": number,  
    "CreationTimeBefore": number,  
    "LastModifiedTimeAfter": number,  
    "LastModifiedTimeBefore": number,  
    "MaxResults": number,  
    "NameContains": "string",  
    "NextToken": "string",  
    "SortBy": "string",  
    "SortOrder": "string",  
    "StatusEquals": "string",  
    "Type": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### [CreationTimeAfter \(p. 680\)](#)

Selects inference experiments which were created after this timestamp.

Type: Timestamp

Required: No

### [CreationTimeBefore \(p. 680\)](#)

Selects inference experiments which were created before this timestamp.

Type: Timestamp

Required: No

### [LastModifiedTimeAfter \(p. 680\)](#)

Selects inference experiments which were last modified after this timestamp.

Type: Timestamp

Required: No

### [LastModifiedTimeBefore \(p. 680\)](#)

Selects inference experiments which were last modified before this timestamp.

Type: Timestamp

Required: No

### [MaxResults \(p. 680\)](#)

The maximum number of results to select.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

#### [NameContains \(p. 680\)](#)

Selects inference experiments whose names contain this name.

Type: String

Length Constraints: Maximum length of 63.

Pattern: [a-zA-Z0-9\-\+]

Required: No

#### [NextToken \(p. 680\)](#)

The response from the last list when returning a list large enough to need tokening.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

#### [SortBy \(p. 680\)](#)

The column by which to sort the listed inference experiments.

Type: String

Valid Values: Name | CreationTime | Status

Required: No

#### [SortOrder \(p. 680\)](#)

The direction of sorting (ascending or descending).

Type: String

Valid Values: Ascending | Descending

Required: No

#### [StatusEquals \(p. 680\)](#)

Selects inference experiments which are in this status. For the possible statuses, see [DescribeInferenceExperiment>Status \(p. 444\)](#).

Type: String

Valid Values: Creating | Created | Updating | Running | Starting | Stopping | Completed | Cancelled

Required: No

#### [Type \(p. 680\)](#)

Selects inference experiments of this type. For the possible types of inference experiments, see [CreateInferenceExperiment>Type \(p. 123\)](#).

Type: String

Valid Values: ShadowMode

Required: No

## Response Syntax

```
{  
    "InferenceExperiments": [  
        {  
            "CompletionTime": number,  
            "CreationTime": number,  
            "Description": "string",  
            "LastModifiedTime": number,  
            "Name": "string",  
            "RoleArn": "string",  
            "Schedule": {  
                "EndTime": number,  
                "StartTime": number  
            },  
            "Status": "string",  
            "StatusReason": "string",  
            "Type": "string"  
        }  
    ],  
    "NextToken": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [InferenceExperiments \(p. 682\)](#)

List of inference experiments.

Type: Array of [InferenceExperimentSummary \(p. 1416\)](#) objects

### [NextToken \(p. 682\)](#)

The token to use when calling the next page of results.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: *.\**

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListInferenceRecommendationsJobs

Service: Amazon SageMaker Service

Lists recommendation jobs that satisfy various filters.

## Request Syntax

```
{  
    "CreationTimeAfter": number,  
    "CreationTimeBefore": number,  
    "LastModifiedTimeAfter": number,  
    "LastModifiedTimeBefore": number,  
    "MaxResults": number,  
    "NameContains": "string",  
    "NextToken": "string",  
    "SortBy": "string",  
    "SortOrder": "string",  
    "StatusEquals": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### [CreationTimeAfter \(p. 684\)](#)

A filter that returns only jobs created after the specified time (timestamp).

Type: Timestamp

Required: No

### [CreationTimeBefore \(p. 684\)](#)

A filter that returns only jobs created before the specified time (timestamp).

Type: Timestamp

Required: No

### [LastModifiedTimeAfter \(p. 684\)](#)

A filter that returns only jobs that were last modified after the specified time (timestamp).

Type: Timestamp

Required: No

### [LastModifiedTimeBefore \(p. 684\)](#)

A filter that returns only jobs that were last modified before the specified time (timestamp).

Type: Timestamp

Required: No

### [MaxResults \(p. 684\)](#)

The maximum number of recommendations to return in the response.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

#### [NameContains \(p. 684\)](#)

A string in the job name. This filter returns only recommendations whose name contains the specified string.

Type: String

Length Constraints: Maximum length of 63.

Pattern: [a-zA-Z0-9\-\-]+

Required: No

#### [NextToken \(p. 684\)](#)

If the response to a previous `ListInferenceRecommendationsJobsRequest` request was truncated, the response includes a `NextToken`. To retrieve the next set of recommendations, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

#### [SortBy \(p. 684\)](#)

The parameter by which to sort the results.

Type: String

Valid Values: Name | CreationTime | Status

Required: No

#### [SortOrder \(p. 684\)](#)

The sort order for the results.

Type: String

Valid Values: Ascending | Descending

Required: No

#### [StatusEquals \(p. 684\)](#)

A filter that retrieves only inference recommendations jobs with a specific status.

Type: String

Valid Values: PENDING | IN\_PROGRESS | COMPLETED | FAILED | STOPPING | STOPPED

Required: No

## [Response Syntax](#)

```
{
```

```
"InferenceRecommendationsJobs": [  
    {  
        "CompletionTime": number,  
        "CreationTime": number,  
        "FailureReason": "string",  
        "JobArn": "string",  
        "JobDescription": "string",  
        "JobName": "string",  
        "JobType": "string",  
        "LastModifiedTime": number,  
        "RoleArn": "string",  
        "Status": "string"  
    },  
    ...  
],  
"NextToken": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [InferenceRecommendationsJobs \(p. 685\)](#)

The recommendations created from the Amazon SageMaker Inference Recommender job.

Type: Array of [InferenceRecommendationsJob \(p. 1420\)](#) objects

### [NextToken \(p. 685\)](#)

A token for getting the next set of recommendations, if there are any.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## ListInferenceRecommendationsJobSteps

Service: Amazon SageMaker Service

Returns a list of the subtasks for an Inference Recommender job.

The supported subtasks are benchmarks, which evaluate the performance of your model on different instance types.

### Request Syntax

```
{  
    "JobName": "string",  
    "MaxResults": number,  
    "NextToken": "string",  
    "Status": "string",  
    "StepType": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### **JobName (p. 687)**

The name for the Inference Recommender job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,63\}

Required: Yes

#### **MaxResults (p. 687)**

The maximum number of results to return.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

#### **NextToken (p. 687)**

A token that you can specify to return more results from the list. Specify this field if you have a token that was returned from a previous request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

#### **Status (p. 687)**

A filter to return benchmarks of a specified status. If this field is left empty, then all benchmarks are returned.

Type: String

Valid Values: PENDING | IN\_PROGRESS | COMPLETED | FAILED | STOPPING | STOPPED

Required: No

#### StepType (p. 687)

A filter to return details about the specified type of subtask.

BENCHMARK: Evaluate the performance of your model on different instance types.

Type: String

Valid Values: BENCHMARK

Required: No

## Response Syntax

```
{  
    "NextToken": "string",  
    "Steps": [  
        {  
            "InferenceBenchmark": {  
                "EndpointConfiguration": {  
                    "EndpointName": "string",  
                    "InitialInstanceCount": number,  
                    "InstanceType": "string",  
                    "VariantName": "string"  
                },  
                "FailureReason": "string",  
                "Metrics": {  
                    "CostPerHour": number,  
                    "CostPerInference": number,  
                    "MaxInvocations": number,  
                    "ModelLatency": number  
                },  
                "ModelConfiguration": {  
                    "EnvironmentParameters": [  
                        {  
                            "Key": "string",  
                            "Value": "string",  
                            "ValueType": "string"  
                        }  
                    ],  
                    "InferenceSpecificationName": "string"  
                }  
            },  
            "JobName": "string",  
            "Status": "string",  
            "StepType": "string"  
        }  
    ]  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [NextToken \(p. 688\)](#)

A token that you can specify in your next request to return more results from the list.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

### [Steps \(p. 688\)](#)

A list of all subtask details in Inference Recommender.

Type: Array of [InferenceRecommendationsJobStep \(p. 1422\)](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## ListLabelingJobs

Service: Amazon SageMaker Service

Gets a list of labeling jobs.

### Request Syntax

```
{  
    "CreationTimeAfter": number,  
    "CreationTimeBefore": number,  
    "LastModifiedTimeAfter": number,  
    "LastModifiedTimeBefore": number,  
    "MaxResults": number,  
    "NameContains": "string",  
    "NextToken": "string",  
    "SortBy": "string",  
    "SortOrder": "string",  
    "StatusEquals": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [CreationTimeAfter \(p. 690\)](#)

A filter that returns only labeling jobs created after the specified time (timestamp).

Type: Timestamp

Required: No

#### [CreationTimeBefore \(p. 690\)](#)

A filter that returns only labeling jobs created before the specified time (timestamp).

Type: Timestamp

Required: No

#### [LastModifiedTimeAfter \(p. 690\)](#)

A filter that returns only labeling jobs modified after the specified time (timestamp).

Type: Timestamp

Required: No

#### [LastModifiedTimeBefore \(p. 690\)](#)

A filter that returns only labeling jobs modified before the specified time (timestamp).

Type: Timestamp

Required: No

#### [MaxResults \(p. 690\)](#)

The maximum number of labeling jobs to return in each page of the response.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

#### [NameContains \(p. 690\)](#)

A string in the labeling job name. This filter returns only labeling jobs whose name contains the specified string.

Type: String

Length Constraints: Maximum length of 63.

Pattern: [a-zA-Z0-9\-\-]+

Required: No

#### [NextToken \(p. 690\)](#)

If the result of the previous `ListLabelingJobs` request was truncated, the response includes a `NextToken`. To retrieve the next set of labeling jobs, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

#### [SortBy \(p. 690\)](#)

The field to sort results by. The default is `CreationTime`.

Type: String

Valid Values: Name | CreationTime | Status

Required: No

#### [SortOrder \(p. 690\)](#)

The sort order for results. The default is `Ascending`.

Type: String

Valid Values: Ascending | Descending

Required: No

#### [StatusEquals \(p. 690\)](#)

A filter that retrieves only labeling jobs with a specific status.

Type: String

Valid Values: Initializing | InProgress | Completed | Failed | Stopping | Stopped

Required: No

## Response Syntax

```
{
  "LabelingJobSummaryList": [
    {
      "AnnotationConsolidationLambdaArn": "string",
      "CreationTime": number,
      "FailureReason": "string",
      "InputConfig": {
        "DataAttributes": {
          "ContentClassifiers": [ "string" ]
        },
        "DataSource": {
          "S3DataSource": {
            "ManifestS3Uri": "string"
          },
          "SnsDataSource": {
            "SnsTopicArn": "string"
          }
        }
      },
      "LabelCounters": {
        "FailedNonRetryableError": number,
        "HumanLabeled": number,
        "MachineLabeled": number,
        "TotalLabeled": number,
        "Unlabeled": number
      },
      "LabelingJobArn": "string",
      "LabelingJobName": "string",
      "LabelingJobOutput": {
        "FinalActiveLearningModelArn": "string",
        "OutputDatasetS3Uri": "string"
      },
      "LabelingJobStatus": "string",
      "LastModifiedTime": number,
      "PreHumanTaskLambdaArn": "string",
      "WorkteamArn": "string"
    }
  ],
  "NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [LabelingJobSummaryList \(p. 692\)](#)

An array of `LabelingJobSummary` objects, each describing a labeling job.

Type: Array of [LabelingJobSummary \(p. 1457\)](#) objects

### [NextToken \(p. 692\)](#)

If the response is truncated, SageMaker returns this token. To retrieve the next set of labeling jobs, use it in the subsequent request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## ListLabelingJobsForWorkteam

Service: Amazon SageMaker Service

Gets a list of labeling jobs assigned to a specified work team.

### Request Syntax

```
{  
    "CreationTimeAfter": number,  
    "CreationTimeBefore": number,  
    "JobReferenceCodeContains": "string",  
    "MaxResults": number,  
    "NextToken": "string",  
    "SortBy": "string",  
    "SortOrder": "string",  
    "WorkteamArn": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [CreationTimeAfter \(p. 694\)](#)

A filter that returns only labeling jobs created after the specified time (timestamp).

Type: Timestamp

Required: No

#### [CreationTimeBefore \(p. 694\)](#)

A filter that returns only labeling jobs created before the specified time (timestamp).

Type: Timestamp

Required: No

#### [JobReferenceCodeContains \(p. 694\)](#)

A filter the limits jobs to only the ones whose job reference code contains the specified string.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: .+

Required: No

#### [MaxResults \(p. 694\)](#)

The maximum number of labeling jobs to return in each page of the response.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### [NextToken \(p. 694\)](#)

If the result of the previous `ListLabelingJobsForWorkteam` request was truncated, the response includes a `NextToken`. To retrieve the next set of labeling jobs, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: `.*`

Required: No

### [SortBy \(p. 694\)](#)

The field to sort results by. The default is `CreationTime`.

Type: String

Valid Values: `CreationTime`

Required: No

### [SortOrder \(p. 694\)](#)

The sort order for results. The default is `Ascending`.

Type: String

Valid Values: `Ascending` | `Descending`

Required: No

### [WorkteamArn \(p. 694\)](#)

The Amazon Resource Name (ARN) of the work team for which you want to see labeling jobs for.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-\-]*:sagemaker:[a-z0-9\-\-]*:[0-9]{12}:workteam/.*`

Required: Yes

## Response Syntax

```
{  
    "LabelingJobSummaryList": [  
        {  
            "CreationTime": number,  
            "JobReferenceCode": "string",  
            "LabelCounters": {  
                "HumanLabeled": number,  
                "PendingHuman": number,  
                "Total": number  
            },  
            "LabelingJobName": "string",  
            "NumberOfHumanWorkersPerDataObject": number,  
            "WorkRequesterAccountId": "string"  
        }  
    ],  
    "NextToken": "string"  
}
```

}

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [LabelingJobSummaryList \(p. 695\)](#)

An array of LabelingJobSummary objects, each describing a labeling job.

Type: Array of [LabelingJobForWorkteamSummary \(p. 1446\)](#) objects

### [NextToken \(p. 695\)](#)

If the response is truncated, SageMaker returns this token. To retrieve the next set of labeling jobs, use it in the subsequent request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: . \*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## ListLineageGroups

Service: Amazon SageMaker Service

A list of lineage groups shared with your AWS account. For more information, see [Cross-Account Lineage Tracking](#) in the *Amazon SageMaker Developer Guide*.

### Request Syntax

```
{  
    "CreatedAfter": number,  
    "CreatedBefore": number,  
    "MaxResults": number,  
    "NextToken": "string",  
    "SortBy": "string",  
    "SortOrder": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [CreatedAfter \(p. 697\)](#)

A timestamp to filter against lineage groups created after a certain point in time.

Type: Timestamp

Required: No

#### [CreatedBefore \(p. 697\)](#)

A timestamp to filter against lineage groups created before a certain point in time.

Type: Timestamp

Required: No

#### [MaxResults \(p. 697\)](#)

The maximum number of endpoints to return in the response. This value defaults to 10.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

#### [NextToken \(p. 697\)](#)

If the response is truncated, SageMaker returns this token. To retrieve the next set of algorithms, use it in the subsequent request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

### [SortBy \(p. 697\)](#)

The parameter by which to sort the results. The default is CreationTime.

Type: String

Valid Values: Name | CreationTime

Required: No

### [SortOrder \(p. 697\)](#)

The sort order for the results. The default is Ascending.

Type: String

Valid Values: Ascending | Descending

Required: No

## Response Syntax

```
{  
    "LineageGroupSummaries": [  
        {  
            "CreationTime": number,  
            "DisplayName": "string",  
            "LastModifiedTime": number,  
            "LineageGroupArn": "string",  
            "LineageGroupName": "string"  
        }  
    ],  
    "NextToken": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [LineageGroupSummaries \(p. 698\)](#)

A list of lineage groups and their properties.

Type: Array of [LineageGroupSummary \(p. 1462\)](#) objects

### [NextToken \(p. 698\)](#)

If the response is truncated, SageMaker returns this token. To retrieve the next set of algorithms, use it in the subsequent request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListModelBiasJobDefinitions

Service: Amazon SageMaker Service

Lists model bias jobs definitions that satisfy various filters.

## Request Syntax

```
{  
    "CreationTimeAfter": number,  
    "CreationTimeBefore": number,  
    "EndpointName": "string",  
    "MaxResults": number,  
    "NameContains": "string",  
    "NextToken": "string",  
    "SortBy": "string",  
    "SortOrder": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### **CreationTimeAfter (p. 700)**

A filter that returns only model bias jobs created after a specified time.

Type: Timestamp

Required: No

### **CreationTimeBefore (p. 700)**

A filter that returns only model bias jobs created before a specified time.

Type: Timestamp

Required: No

### **EndpointName (p. 700)**

Name of the endpoint to monitor for model bias.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: No

### **MaxResults (p. 700)**

The maximum number of model bias jobs to return in the response. The default value is 10.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### [NameContains \(p. 700\)](#)

Filter for model bias jobs whose name contains a specified string.

Type: String

Length Constraints: Maximum length of 63.

Pattern: [a-zA-Z0-9\-\\_]+

Required: No

### [NextToken \(p. 700\)](#)

The token returned if the response is truncated. To retrieve the next set of job executions, use it in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

### [SortBy \(p. 700\)](#)

Whether to sort results by the Name or CreationTime field. The default is CreationTime.

Type: String

Valid Values: Name | CreationTime

Required: No

### [SortOrder \(p. 700\)](#)

Whether to sort the results in Ascending or Descending order. The default is Descending.

Type: String

Valid Values: Ascending | Descending

Required: No

## Response Syntax

```
{  
    "JobDefinitionSummaries": [  
        {  
            "CreationTime": number,  
            "EndpointName": "string",  
            "MonitoringJobDefinitionArn": "string",  
            "MonitoringJobDefinitionName": "string"  
        }  
    ],  
    "NextToken": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

#### [JobDefinitionSummaries \(p. 701\)](#)

A JSON array in which each element is a summary for a model bias jobs.

Type: Array of [MonitoringJobDefinitionSummary \(p. 1560\)](#) objects

#### [NextToken \(p. 701\)](#)

If the response is truncated, Amazon SageMaker returns this token. To retrieve the next set of jobs, use it in the subsequent request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListModelCardExportJobs

Service: Amazon SageMaker Service

List the export jobs for the Amazon SageMaker Model Card.

## Request Syntax

```
{  
    "CreationTimeAfter": number,  
    "CreationTimeBefore": number,  
    "MaxResults": number,  
    "ModelCardExportJobNameContains": "string",  
    "ModelCardName": "string",  
    "ModelCardVersion": number,  
    "NextToken": "string",  
    "SortBy": "string",  
    "SortOrder": "string",  
    "StatusEquals": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### [CreationTimeAfter \(p. 703\)](#)

Only list model card export jobs that were created after the time specified.

Type: Timestamp

Required: No

### [CreationTimeBefore \(p. 703\)](#)

Only list model card export jobs that were created before the time specified.

Type: Timestamp

Required: No

### [MaxResults \(p. 703\)](#)

The maximum number of model card export jobs to list.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### [ModelCardExportJobNameContains \(p. 703\)](#)

Only list model card export jobs with names that contain the specified string.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: No

[ModelCardName \(p. 703\)](#)

List export jobs for the model card with the specified name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

[ModelCardVersion \(p. 703\)](#)

List export jobs for the model card with the specified version.

Type: Integer

Required: No

[NextToken \(p. 703\)](#)

If the response to a previous `ListModelCardExportJobs` request was truncated, the response includes a `NextToken`. To retrieve the next set of model card export jobs, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

[SortBy \(p. 703\)](#)

Sort model card export jobs by either name or creation time. Sorts by creation time by default.

Type: String

Valid Values: Name | CreationTime | Status

Required: No

[SortOrder \(p. 703\)](#)

Sort model card export jobs by ascending or descending order.

Type: String

Valid Values: Ascending | Descending

Required: No

[StatusEquals \(p. 703\)](#)

Only list model card export jobs with the specified status.

Type: String

Valid Values: InProgress | Completed | Failed

Required: No

## Response Syntax

```
{  
    "ModelCardExportJobSummaries": [  
        {  
            "CreatedAt": number,  
            "LastModifiedAt": number,  
            "ModelCardExportJobArn": "string",  
            "ModelCardExportJobName": "string",  
            "ModelCardName": "string",  
            "ModelCardVersion": number,  
            "Status": "string"  
        }  
    ],  
    "NextToken": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### **ModelCardExportJobSummaries (p. 705)**

The summaries of the listed model card export jobs.

Type: Array of [ModelCardExportJobSummary \(p. 1481\)](#) objects

### **NextToken (p. 705)**

If the response is truncated, SageMaker returns this token. To retrieve the next set of model card export jobs, use it in the subsequent request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)

- [AWS SDK for Ruby V3](#)

## ListModelCards

Service: Amazon SageMaker Service

List existing model cards.

### Request Syntax

```
{  
    "CreationTimeAfter": number,  
    "CreationTimeBefore": number,  
    "MaxResults": number,  
    "ModelCardStatus": "string",  
    "NameContains": "string",  
    "NextToken": "string",  
    "SortBy": "string",  
    "SortOrder": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [CreationTimeAfter \(p. 707\)](#)

Only list model cards that were created after the time specified.

Type: Timestamp

Required: No

#### [CreationTimeBefore \(p. 707\)](#)

Only list model cards that were created before the time specified.

Type: Timestamp

Required: No

#### [MaxResults \(p. 707\)](#)

The maximum number of model cards to list.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

#### [ModelCardStatus \(p. 707\)](#)

Only list model cards with the specified approval status.

Type: String

Valid Values: Draft | PendingReview | Approved | Archived

Required: No

### [NameContains \(p. 707\)](#)

Only list model cards with names that contain the specified string.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: No

### [NextToken \(p. 707\)](#)

If the response to a previous ListModelCards request was truncated, the response includes a NextToken. To retrieve the next set of model cards, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

### [SortBy \(p. 707\)](#)

Sort model cards by either name or creation time. Sorts by creation time by default.

Type: String

Valid Values: Name | CreationTime

Required: No

### [SortOrder \(p. 707\)](#)

Sort model cards by ascending or descending order.

Type: String

Valid Values: Ascending | Descending

Required: No

## Response Syntax

```
{  
    "ModelCardSummaries": [  
        {  
            "CreationTime": number,  
            "LastModifiedTime": number,  
            "ModelCardArn": "string",  
            "ModelCardName": "string",  
            "ModelCardStatus": "string"  
        }  
    ],  
    "NextToken": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

#### [ModelCardSummaries \(p. 708\)](#)

The summaries of the listed model cards.

Type: Array of [ModelCardSummary \(p. 1485\)](#) objects

#### [NextToken \(p. 708\)](#)

If the response is truncated, SageMaker returns this token. To retrieve the next set of model cards, use it in the subsequent request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## ListModelCardVersions

Service: Amazon SageMaker Service

List existing versions of an Amazon SageMaker Model Card.

### Request Syntax

```
{  
    "CreationTimeAfter": number,  
    "CreationTimeBefore": number,  
    "MaxResults": number,  
    "ModelCardName": "string",  
    "ModelCardStatus": "string",  
    "NextToken": "string",  
    "SortBy": "string",  
    "SortOrder": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [CreationTimeAfter \(p. 710\)](#)

Only list model card versions that were created after the time specified.

Type: Timestamp

Required: No

#### [CreationTimeBefore \(p. 710\)](#)

Only list model card versions that were created before the time specified.

Type: Timestamp

Required: No

#### [MaxResults \(p. 710\)](#)

The maximum number of model card versions to list.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

#### [ModelCardName \(p. 710\)](#)

List model card versions for the model card with the specified name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

### [ModelCardStatus \(p. 710\)](#)

Only list model card versions with the specified approval status.

Type: String

Valid Values: Draft | PendingReview | Approved | Archived

Required: No

### [NextToken \(p. 710\)](#)

If the response to a previous ListModelCardVersions request was truncated, the response includes a NextToken. To retrieve the next set of model card versions, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

### [SortBy \(p. 710\)](#)

Sort listed model card versions by version. Sorts by version by default.

Type: String

Valid Values: Version

Required: No

### [SortOrder \(p. 710\)](#)

Sort model card versions by ascending or descending order.

Type: String

Valid Values: Ascending | Descending

Required: No

## Response Syntax

```
{  
    "ModelCardVersionSummaryList": [  
        {  
            "CreationTime": number,  
            "LastModifiedTime": number,  
            "ModelCardArn": "string",  
            "ModelCardName": "string",  
            "ModelCardStatus": "string",  
            "ModelCardVersion": number  
        }  
    ],  
    "NextToken": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

#### **ModelCardVersionSummaryList (p. 711)**

The summaries of the listed versions of the model card.

Type: Array of [ModelCardVersionSummary \(p. 1487\)](#) objects

#### **NextToken (p. 711)**

If the response is truncated, SageMaker returns this token. To retrieve the next set of model card versions, use it in the subsequent request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## ListModelExplainabilityJobDefinitions

Service: Amazon SageMaker Service

Lists model explainability job definitions that satisfy various filters.

### Request Syntax

```
{  
    "CreationTimeAfter": number,  
    "CreationTimeBefore": number,  
    "EndpointName": "string",  
    "MaxResults": number,  
    "NameContains": "string",  
    "NextToken": "string",  
    "SortBy": "string",  
    "SortOrder": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [CreationTimeAfter \(p. 713\)](#)

A filter that returns only model explainability jobs created after a specified time.

Type: Timestamp

Required: No

#### [CreationTimeBefore \(p. 713\)](#)

A filter that returns only model explainability jobs created before a specified time.

Type: Timestamp

Required: No

#### [EndpointName \(p. 713\)](#)

Name of the endpoint to monitor for model explainability.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: No

#### [MaxResults \(p. 713\)](#)

The maximum number of jobs to return in the response. The default value is 10.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### [NameContains \(p. 713\)](#)

Filter for model explainability jobs whose name contains a specified string.

Type: String

Length Constraints: Maximum length of 63.

Pattern: [a-zA-Z0-9\-\\_]+

Required: No

### [NextToken \(p. 713\)](#)

The token returned if the response is truncated. To retrieve the next set of job executions, use it in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

### [SortBy \(p. 713\)](#)

Whether to sort results by the Name or CreationTime field. The default is CreationTime.

Type: String

Valid Values: Name | CreationTime

Required: No

### [SortOrder \(p. 713\)](#)

Whether to sort the results in Ascending or Descending order. The default is Descending.

Type: String

Valid Values: Ascending | Descending

Required: No

## Response Syntax

```
{  
    "JobDefinitionSummaries": [  
        {  
            "CreationTime": number,  
            "EndpointName": "string",  
            "MonitoringJobDefinitionArn": "string",  
            "MonitoringJobDefinitionName": "string"  
        }  
    ],  
    "NextToken": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

#### [JobDefinitionSummaries \(p. 714\)](#)

A JSON array in which each element is a summary for a explainability bias jobs.

Type: Array of [MonitoringJobDefinitionSummary \(p. 1560\)](#) objects

#### [NextToken \(p. 714\)](#)

If the response is truncated, Amazon SageMaker returns this token. To retrieve the next set of jobs, use it in the subsequent request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## ListModelMetadata

Service: Amazon SageMaker Service

Lists the domain, framework, task, and model name of standard machine learning models found in common model zoos.

### Request Syntax

```
{  
    "MaxResults": number,  
    "NextToken": string,  
    "SearchExpression": {  
        "Filters": [  
            {  
                "Name": string,  
                "Value": string  
            }  
        ]  
    }  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [MaxResults \(p. 716\)](#)

The maximum number of models to return in the response.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

#### [NextToken \(p. 716\)](#)

If the response to a previous ListModelMetadataResponse request was truncated, the response includes a NextToken. To retrieve the next set of model metadata, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: *.\**

Required: No

#### [SearchExpression \(p. 716\)](#)

One or more filters that searches for the specified resource or resources in a search. All resource objects that satisfy the expression's condition are included in the search results. Specify the Framework, FrameworkVersion, Domain or Task to filter supported. Filter names and values are case-sensitive.

Type: [ModelMetadataSearchExpression \(p. 1511\)](#) object

Required: No

## Response Syntax

```
{  
    "ModelMetadataSummaries": [  
        {  
            "Domain": "string",  
            "Framework": "string",  
            "FrameworkVersion": "string",  
            "Model": "string",  
            "Task": "string"  
        }  
    ],  
    "NextToken": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [ModelMetadataSummaries \(p. 717\)](#)

A structure that holds model metadata.

Type: Array of [ModelMetadataSummary \(p. 1512\)](#) objects

### [NextToken \(p. 717\)](#)

A token for getting the next set of recommendations, if there are any.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## ListModelPackageGroups

Service: Amazon SageMaker Service

Gets a list of the model groups in your AWS account.

### Request Syntax

```
{  
    "CreationTimeAfter": number,  
    "CreationTimeBefore": number,  
    "MaxResults": number,  
    "NameContains": "string",  
    "NextToken": "string",  
    "SortBy": "string",  
    "SortOrder": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [CreationTimeAfter \(p. 718\)](#)

A filter that returns only model groups created after the specified time.

Type: Timestamp

Required: No

#### [CreationTimeBefore \(p. 718\)](#)

A filter that returns only model groups created before the specified time.

Type: Timestamp

Required: No

#### [MaxResults \(p. 718\)](#)

The maximum number of results to return in the response.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

#### [NameContains \(p. 718\)](#)

A string in the model group name. This filter returns only model groups whose name contains the specified string.

Type: String

Length Constraints: Maximum length of 63.

Pattern: [a-zA-Z0-9\-\+]

Required: No

#### [NextToken \(p. 718\)](#)

If the result of the previous ListModelPackageGroups request was truncated, the response includes a NextToken. To retrieve the next set of model groups, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

#### [SortBy \(p. 718\)](#)

The field to sort results by. The default is CreationTime.

Type: String

Valid Values: Name | CreationTime

Required: No

#### [SortOrder \(p. 718\)](#)

The sort order for results. The default is Ascending.

Type: String

Valid Values: Ascending | Descending

Required: No

## Response Syntax

```
{  
    "ModelPackageGroupSummaryList": [  
        {  
            "CreationTime": number,  
            "ModelPackageGroupArn": "string",  
            "ModelPackageGroupDescription": "string",  
            "ModelPackageGroupName": "string",  
            "ModelPackageGroupStatus": "string"  
        }  
    ],  
    "NextToken": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

#### [ModelPackageGroupSummaryList \(p. 719\)](#)

A list of summaries of the model groups in your AWS account.

Type: Array of [ModelPackageGroupSummary \(p. 1524\)](#) objects

### [NextToken \(p. 719\)](#)

If the response is truncated, SageMaker returns this token. To retrieve the next set of model groups, use it in the subsequent request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListModelPackages

Service: Amazon SageMaker Service

Lists the model packages that have been created.

## Request Syntax

```
{  
    "CreationTimeAfter": number,  
    "CreationTimeBefore": number,  
    "MaxResults": number,  
    "ModelApprovalStatus": "string",  
    "ModelPackageGroupName": "string",  
    "ModelPackageType": "string",  
    "NameContains": "string",  
    "NextToken": "string",  
    "SortBy": "string",  
    "SortOrder": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### [CreationTimeAfter \(p. 721\)](#)

A filter that returns only model packages created after the specified time (timestamp).

Type: Timestamp

Required: No

### [CreationTimeBefore \(p. 721\)](#)

A filter that returns only model packages created before the specified time (timestamp).

Type: Timestamp

Required: No

### [MaxResults \(p. 721\)](#)

The maximum number of model packages to return in the response.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### [ModelApprovalStatus \(p. 721\)](#)

A filter that returns only the model packages with the specified approval status.

Type: String

Valid Values: Approved | Rejected | PendingManualApproval

Required: No

### [ModelPackageName \(p. 721\)](#)

A filter that returns only model versions that belong to the specified model group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 170.

Pattern: (`arn:aws[a-zA-Z-]*:sagemaker:[a-zA-Z0-9-]*:[0-9]{12}:[a-zA-Z-]*[/]?([a-zA-Z0-9]([a-zA-Z0-9-])\{0,62\})(?<|-)$`)

Required: No

### [ModelPackageType \(p. 721\)](#)

A filter that returns only the model packages of the specified type. This can be one of the following values.

- UNVERSIONED - List only unversioned models. This is the default value if no ModelPackageType is specified.
- VERSIONED - List only versioned models.
- BOTH - List both versioned and unversioned models.

Type: String

Valid Values: Versioned | Unversioned | Both

Required: No

### [NameContains \(p. 721\)](#)

A string in the model package name. This filter returns only model packages whose name contains the specified string.

Type: String

Length Constraints: Maximum length of 63.

Pattern: [a-zA-Z0-9-]+

Required: No

### [NextToken \(p. 721\)](#)

If the response to a previous ListModelPackages request was truncated, the response includes a NextToken. To retrieve the next set of model packages, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

### [SortBy \(p. 721\)](#)

The parameter by which to sort the results. The default is CreationTime.

Type: String

Valid Values: Name | CreationTime

Required: No

### [SortOrder \(p. 721\)](#)

The sort order for the results. The default is Ascending.

Type: String

Valid Values: Ascending | Descending

Required: No

## Response Syntax

```
{  
    "ModelPackageSummaryList": [  
        {  
            "CreationTime": number,  
            "ModelApprovalStatus": "string",  
            "ModelPackageArn": "string",  
            "ModelPackageDescription": "string",  
            "ModelPackageGroupName": "string",  
            "ModelPackageName": "string",  
            "ModelPackageStatus": "string",  
            "ModelPackageVersion": number  
        }  
    ],  
    "NextToken": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [ModelPackageSummaryList \(p. 723\)](#)

An array of ModelPackageSummary objects, each of which lists a model package.

Type: Array of [ModelPackageSummary \(p. 1528\)](#) objects

### [NextToken \(p. 723\)](#)

If the response is truncated, SageMaker returns this token. To retrieve the next set of model packages, use it in the subsequent request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: *.*\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListModelQualityJobDefinitions

Service: Amazon SageMaker Service

Gets a list of model quality monitoring job definitions in your account.

## Request Syntax

```
{  
    "CreationTimeAfter": number,  
    "CreationTimeBefore": number,  
    "EndpointName": "string",  
    "MaxResults": number,  
    "NameContains": "string",  
    "NextToken": "string",  
    "SortBy": "string",  
    "SortOrder": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### [CreationTimeAfter \(p. 725\)](#)

A filter that returns only model quality monitoring job definitions created after the specified time.

Type: Timestamp

Required: No

### [CreationTimeBefore \(p. 725\)](#)

A filter that returns only model quality monitoring job definitions created before the specified time.

Type: Timestamp

Required: No

### [EndpointName \(p. 725\)](#)

A filter that returns only model quality monitoring job definitions that are associated with the specified endpoint.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: No

### [MaxResults \(p. 725\)](#)

The maximum number of results to return in a call to `ListModelQualityJobDefinitions`.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

#### [NameContains \(p. 725\)](#)

A string in the transform job name. This filter returns only model quality monitoring job definitions whose name contains the specified string.

Type: String

Length Constraints: Maximum length of 63.

Pattern: [a-zA-Z0-9\-\-]+

Required: No

#### [NextToken \(p. 725\)](#)

If the result of the previous `ListModelQualityJobDefinitions` request was truncated, the response includes a `NextToken`. To retrieve the next set of model quality monitoring job definitions, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

#### [SortBy \(p. 725\)](#)

The field to sort results by. The default is `CreationTime`.

Type: String

Valid Values: Name | CreationTime

Required: No

#### [SortOrder \(p. 725\)](#)

The sort order for results. The default is Descending.

Type: String

Valid Values: Ascending | Descending

Required: No

## Response Syntax

```
{  
    "JobDefinitionSummaries": [  
        {  
            "CreationTime": number,  
            "EndpointName": "string",  
            "MonitoringJobDefinitionArn": "string",  
            "MonitoringJobDefinitionName": "string"  
        }  
    ],  
    "NextToken": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### **JobDefinitionSummaries (p. 726)**

A list of summaries of model quality monitoring job definitions.

Type: Array of [MonitoringJobDefinitionSummary \(p. 1560\)](#) objects

### **NextToken (p. 726)**

If the response is truncated, Amazon SageMaker returns this token. To retrieve the next set of model quality monitoring job definitions, use it in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## ListModels

Service: Amazon SageMaker Service

Lists models created with the `CreateModel` API.

### Request Syntax

```
{  
    "CreationTimeAfter": number,  
    "CreationTimeBefore": number,  
    "MaxResults": number,  
    "NameContains": "string",  
    "NextToken": "string",  
    "SortBy": "string",  
    "SortOrder": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [CreationTimeAfter \(p. 728\)](#)

A filter that returns only models with a creation time greater than or equal to the specified time (timestamp).

Type: Timestamp

Required: No

#### [CreationTimeBefore \(p. 728\)](#)

A filter that returns only models created before the specified time (timestamp).

Type: Timestamp

Required: No

#### [MaxResults \(p. 728\)](#)

The maximum number of models to return in the response.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

#### [NameContains \(p. 728\)](#)

A string in the model name. This filter returns only models whose name contains the specified string.

Type: String

Length Constraints: Maximum length of 63.

Pattern: [a-zA-Z0-9-]+

Required: No

### [NextToken \(p. 728\)](#)

If the response to a previous ListModels request was truncated, the response includes a NextToken. To retrieve the next set of models, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

### [SortBy \(p. 728\)](#)

Sorts the list of results. The default is CreationTime.

Type: String

Valid Values: Name | CreationTime

Required: No

### [SortOrder \(p. 728\)](#)

The sort order for results. The default is Descending.

Type: String

Valid Values: Ascending | Descending

Required: No

## Response Syntax

```
{  
  "Models": [  
    {  
      "CreationTime": number,  
      "ModelArn": "string",  
      "ModelName": "string"  
    }  
  ],  
  "NextToken": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [Models \(p. 729\)](#)

An array of ModelSummary objects, each of which lists a model.

Type: Array of [ModelSummary \(p. 1538\)](#) objects

### [NextToken \(p. 729\)](#)

If the response is truncated, SageMaker returns this token. To retrieve the next set of models, use it in the subsequent request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: . \*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListMonitoringAlertHistory

Service: Amazon SageMaker Service

Gets a list of past alerts in a model monitoring schedule.

## Request Syntax

```
{  
    "CreationTimeAfter": number,  
    "CreationTimeBefore": number,  
    "MaxResults": number,  
    "MonitoringAlertName": "string",  
    "MonitoringScheduleName": "string",  
    "NextToken": "string",  
    "SortBy": "string",  
    "SortOrder": "string",  
    "StatusEquals": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### **CreationTimeAfter (p. 731)**

A filter that returns only alerts created on or after the specified time.

Type: Timestamp

Required: No

### **CreationTimeBefore (p. 731)**

A filter that returns only alerts created on or before the specified time.

Type: Timestamp

Required: No

### **MaxResults (p. 731)**

The maximum number of results to display. The default is 100.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### **MonitoringAlertName (p. 731)**

The name of a monitoring alert.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: No

#### [MonitoringScheduleName \(p. 731\)](#)

The name of a monitoring schedule.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: No

#### [NextToken \(p. 731\)](#)

If the result of the previous ListMonitoringAlertHistory request was truncated, the response includes a NextToken. To retrieve the next set of alerts in the history, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

#### [SortBy \(p. 731\)](#)

The field used to sort results. The default is CreationTime.

Type: String

Valid Values: CreationTime | Status

Required: No

#### [SortOrder \(p. 731\)](#)

The sort order, whether Ascending or Descending, of the alert history. The default is Descending.

Type: String

Valid Values: Ascending | Descending

Required: No

#### [StatusEquals \(p. 731\)](#)

A filter that retrieves only alerts with a specific status.

Type: String

Valid Values: InAlert | OK

Required: No

## Response Syntax

```
{  
  "MonitoringAlertHistory": [
```

```
{  
    "AlertStatus": "string",  
    "CreationTime": number,  
    "MonitoringAlertName": "string",  
    "MonitoringScheduleName": "string"  
}  
],  
"NextToken": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [MonitoringAlertHistory \(p. 732\)](#)

An alert history for a model monitoring schedule.

Type: Array of [MonitoringAlertHistorySummary \(p. 1543\)](#) objects

### [NextToken \(p. 732\)](#)

If the response is truncated, SageMaker returns this token. To retrieve the next set of alerts, use it in the subsequent request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



## ListMonitoringAlerts

Service: Amazon SageMaker Service

Gets the alerts for a single monitoring schedule.

### Request Syntax

```
{  
    "MaxResults": number,  
    "MonitoringScheduleName": "string",  
    "NextToken": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [MaxResults \(p. 735\)](#)

The maximum number of results to display. The default is 100.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

#### [MonitoringScheduleName \(p. 735\)](#)

The name of a monitoring schedule.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9]){0,62}\$

Required: Yes

#### [NextToken \(p. 735\)](#)

If the result of the previous ListMonitoringAlerts request was truncated, the response includes a NextToken. To retrieve the next set of alerts in the history, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

### Response Syntax

```
{
```

```
"MonitoringAlertSummaries": [
    {
        "Actions": {
            "ModelDashboardIndicator": {
                "Enabled": boolean
            }
        },
        "AlertStatus": "string",
        "CreationTime": number,
        "DatapointsToAlert": number,
        "EvaluationPeriod": number,
        "LastModifiedTime": number,
        "MonitoringAlertName": "string"
    }
],
"NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [MonitoringAlertSummaries \(p. 735\)](#)

A JSON array where each element is a summary for a monitoring alert.

Type: Array of [MonitoringAlertSummary \(p. 1544\)](#) objects

Array Members: Minimum number of 1 item. Maximum number of 100 items.

### [NextToken \(p. 735\)](#)

If the response is truncated, SageMaker returns this token. To retrieve the next set of alerts, use it in the subsequent request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListMonitoringExecutions

Service: Amazon SageMaker Service

Returns list of all monitoring job executions.

## Request Syntax

```
{  
    "CreationTimeAfter": number,  
    "CreationTimeBefore": number,  
    "EndpointName": "string",  
    "LastModifiedTimeAfter": number,  
    "LastModifiedTimeBefore": number,  
    "MaxResults": number,  
    "MonitoringJobDefinitionName": "string",  
    "MonitoringScheduleName": "string",  
    "MonitoringTypeEquals": "string",  
    "NextToken": "string",  
    "ScheduledTimeAfter": number,  
    "ScheduledTimeBefore": number,  
    "SortBy": "string",  
    "SortOrder": "string",  
    "StatusEquals": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### [CreationTimeAfter \(p. 738\)](#)

A filter that returns only jobs created after a specified time.

Type: Timestamp

Required: No

### [CreationTimeBefore \(p. 738\)](#)

A filter that returns only jobs created before a specified time.

Type: Timestamp

Required: No

### [EndpointName \(p. 738\)](#)

Name of a specific endpoint to fetch jobs for.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: No

### [LastModifiedTimeAfter \(p. 738\)](#)

A filter that returns only jobs modified before a specified time.

Type: Timestamp

Required: No

[LastModifiedTimeBefore \(p. 738\)](#)

A filter that returns only jobs modified after a specified time.

Type: Timestamp

Required: No

[MaxResults \(p. 738\)](#)

The maximum number of jobs to return in the response. The default value is 10.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

[MonitoringJobDefinitionName \(p. 738\)](#)

Gets a list of the monitoring job runs of the specified monitoring job definitions.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\*\$

Required: No

[MonitoringScheduleName \(p. 738\)](#)

Name of a specific schedule to fetch jobs for.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: No

[MonitoringTypeEquals \(p. 738\)](#)

A filter that returns only the monitoring job runs of the specified monitoring type.

Type: String

Valid Values: DataQuality | ModelQuality | ModelBias | ModelExplainability

Required: No

[NextToken \(p. 738\)](#)

The token returned if the response is truncated. To retrieve the next set of job executions, use it in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

## ScheduledTimeAfter (p. 738)

Filter for jobs scheduled after a specified time.

Type: Timestamp

Required: No

## ScheduledTimeBefore (p. 738)

Filter for jobs scheduled before a specified time.

Type: Timestamp

Required: No

### **SortBy (p. 738)**

Whether to sort results by Status, CreationTime, ScheduledTime field. The default is CreationTime

Type: String

Valid Values: CreationTime | ScheduledTime | Status

**Required:** No

### **SortOrder (p. 738)**

Whether to sort the results in Ascending or Descending order. The default is Descending.

Type: String

Valid Values: Ascending | Descending

Required: No

#### **StatusEquals (n. 738)**

A filter that retrieves only jobs with a specific status

Type: String

Valid Values: Pending | Completed | CompletedWithViolations | InProgress | Failed | Stopping | Stopped

**Required:** No

## Response Syntax

```
{  
  "MonitoringExecutionSummaries": [  
    {  
      "CreationTime": number,  
      "EndpointName": "string",  
      "FailureReason": "string",  
      "LastModifiedTime": number,  
      "MonitoringExecutionStatus": "string",  
      "MonitoringJobDefinitionName": "string",  
      "MonitoringScheduleName": "string",  
      "MonitoringType": "string",  
      "ProcessingJobArn": "string".  
    }  
  ]  
}
```

```
        "ScheduledTime": number
    }
],
"NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [MonitoringExecutionSummaries \(p. 740\)](#)

A JSON array in which each element is a summary for a monitoring execution.

Type: Array of [MonitoringExecutionSummary \(p. 1554\)](#) objects

### [NextToken \(p. 740\)](#)

If the response is truncated, Amazon SageMaker returns this token. To retrieve the next set of jobs, use it in the subsequent request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListMonitoringSchedules

Service: Amazon SageMaker Service

Returns list of all monitoring schedules.

## Request Syntax

```
{  
    "CreationTimeAfter": number,  
    "CreationTimeBefore": number,  
    "EndpointName": "string",  
    "LastModifiedTimeAfter": number,  
    "LastModifiedTimeBefore": number,  
    "MaxResults": number,  
    "MonitoringJobDefinitionName": "string",  
    "MonitoringTypeEquals": "string",  
    "NameContains": "string",  
    "NextToken": "string",  
    "SortBy": "string",  
    "SortOrder": "string",  
    "StatusEquals": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### [CreationTimeAfter \(p. 742\)](#)

A filter that returns only monitoring schedules created after a specified time.

Type: Timestamp

Required: No

### [CreationTimeBefore \(p. 742\)](#)

A filter that returns only monitoring schedules created before a specified time.

Type: Timestamp

Required: No

### [EndpointName \(p. 742\)](#)

Name of a specific endpoint to fetch schedules for.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: No

### [LastModifiedTimeAfter \(p. 742\)](#)

A filter that returns only monitoring schedules modified after a specified time.

Type: Timestamp

Required: No

[LastModifiedTimeBefore \(p. 742\)](#)

A filter that returns only monitoring schedules modified before a specified time.

Type: Timestamp

Required: No

[MaxResults \(p. 742\)](#)

The maximum number of jobs to return in the response. The default value is 10.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

[MonitoringJobDefinitionName \(p. 742\)](#)

Gets a list of the monitoring schedules for the specified monitoring job definition.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\*\$

Required: No

[MonitoringTypeEquals \(p. 742\)](#)

A filter that returns only the monitoring schedules for the specified monitoring type.

Type: String

Valid Values: DataQuality | ModelQuality | ModelBias | ModelExplainability

Required: No

[NameContains \(p. 742\)](#)

Filter for monitoring schedules whose name contains a specified string.

Type: String

Length Constraints: Maximum length of 63.

Pattern: [a-zA-Z0-9\-\+]

Required: No

[NextToken \(p. 742\)](#)

The token returned if the response is truncated. To retrieve the next set of job executions, use it in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

#### [SortBy \(p. 742\)](#)

Whether to sort results by Status, CreationTime, ScheduledTime field. The default is CreationTime.

Type: String

Valid Values: Name | CreationTime | Status

Required: No

#### [SortOrder \(p. 742\)](#)

Whether to sort the results in Ascending or Descending order. The default is Descending.

Type: String

Valid Values: Ascending | Descending

Required: No

#### [StatusEquals \(p. 742\)](#)

A filter that returns only monitoring schedules modified before a specified time.

Type: String

Valid Values: Pending | Failed | Scheduled | Stopped

Required: No

## Response Syntax

```
{  
    "MonitoringScheduleSummaries": [  
        {  
            "CreationTime": number,  
            "EndpointName": "string",  
            "LastModifiedTime": number,  
            "MonitoringJobDefinitionName": "string",  
            "MonitoringScheduleArn": "string",  
            "MonitoringScheduleName": "string",  
            "MonitoringScheduleStatus": "string",  
            "MonitoringType": "string"  
        }  
    ],  
    "NextToken": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

#### [MonitoringScheduleSummaries \(p. 744\)](#)

A JSON array in which each element is a summary for a monitoring schedule.

Type: Array of [MonitoringScheduleSummary \(p. 1573\)](#) objects

#### [NextToken \(p. 744\)](#)

If the response is truncated, Amazon SageMaker returns this token. To retrieve the next set of jobs, use it in the subsequent request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListNotebookInstanceLifecycleConfigs

Service: Amazon SageMaker Service

Lists notebook instance lifestyle configurations created with the [CreateNotebookInstanceLifecycleConfig \(p. 181\)](#) API.

## Request Syntax

```
{  
    "CreationTimeAfter": number,  
    "CreationTimeBefore": number,  
    "LastModifiedTimeAfter": number,  
    "LastModifiedTimeBefore": number,  
    "MaxResults": number,  
    "NameContains": "string",  
    "NextToken": "string",  
    "SortBy": "string",  
    "SortOrder": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### [CreationTimeAfter \(p. 746\)](#)

A filter that returns only lifecycle configurations that were created after the specified time (timestamp).

Type: Timestamp

Required: No

### [CreationTimeBefore \(p. 746\)](#)

A filter that returns only lifecycle configurations that were created before the specified time (timestamp).

Type: Timestamp

Required: No

### [LastModifiedTimeAfter \(p. 746\)](#)

A filter that returns only lifecycle configurations that were modified after the specified time (timestamp).

Type: Timestamp

Required: No

### [LastModifiedTimeBefore \(p. 746\)](#)

A filter that returns only lifecycle configurations that were modified before the specified time (timestamp).

Type: Timestamp

Required: No

#### [MaxResults \(p. 746\)](#)

The maximum number of lifecycle configurations to return in the response.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

#### [NameContains \(p. 746\)](#)

A string in the lifecycle configuration name. This filter returns only lifecycle configurations whose name contains the specified string.

Type: String

Length Constraints: Maximum length of 63.

Pattern: [a-zA-Z0-9-]+

Required: No

#### [NextToken \(p. 746\)](#)

If the result of a ListNotebookInstanceLifecycleConfigs request was truncated, the response includes a NextToken. To get the next set of lifecycle configurations, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

#### [SortBy \(p. 746\)](#)

Sorts the list of results. The default is CreationTime.

Type: String

Valid Values: Name | CreationTime | LastModifiedTime

Required: No

#### [SortOrder \(p. 746\)](#)

The sort order for results.

Type: String

Valid Values: Ascending | Descending

Required: No

## Response Syntax

```
{  
    "NextToken": "string",
```

```
"NotebookInstanceLifecycleConfigs": [  
    {  
        "CreationTime": number,  
        "LastModifiedTime": number,  
        "NotebookInstanceLifecycleConfigArn": "string",  
        "NotebookInstanceLifecycleConfigName": "string"  
    }  
]
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [NextToken \(p. 747\)](#)

If the response is truncated, SageMaker returns this token. To get the next set of lifecycle configurations, use it in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

### [NotebookInstanceLifecycleConfigs \(p. 747\)](#)

An array of NotebookInstanceLifecycleConfiguration objects, each listing a lifecycle configuration.

Type: Array of [NotebookInstanceLifecycleConfigSummary \(p. 1581\)](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## ListNotebookInstances

Service: Amazon SageMaker Service

Returns a list of the SageMaker notebook instances in the requester's account in an AWS Region.

### Request Syntax

```
{  
    "AdditionalCodeRepositoryEquals": "string",  
    "CreationTimeAfter": number,  
    "CreationTimeBefore": number,  
    "DefaultCodeRepositoryContains": "string",  
    "LastModifiedTimeAfter": number,  
    "LastModifiedTimeBefore": number,  
    "MaxResults": number,  
    "NameContains": "string",  
    "NextToken": "string",  
    "NotebookInstanceLifecycleConfigNameContains": "string",  
    "SortBy": "string",  
    "SortOrder": "string",  
    "StatusEquals": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [AdditionalCodeRepositoryEquals \(p. 749\)](#)

A filter that returns only notebook instances with associated with the specified git repository.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: ^https://([/^]+)/(.\*\$|^[a-zA-Z0-9](-\*[a-zA-Z0-9])\*

Required: No

#### [CreationTimeAfter \(p. 749\)](#)

A filter that returns only notebook instances that were created after the specified time (timestamp).

Type: Timestamp

Required: No

#### [CreationTimeBefore \(p. 749\)](#)

A filter that returns only notebook instances that were created before the specified time (timestamp).

Type: Timestamp

Required: No

### [DefaultCodeRepositoryContains \(p. 749\)](#)

A string in the name or URL of a Git repository associated with this notebook instance. This filter returns only notebook instances associated with a git repository with a name that contains the specified string.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: [a-zA-Z0-9-]+

Required: No

### [LastModifiedTimeAfter \(p. 749\)](#)

A filter that returns only notebook instances that were modified after the specified time (timestamp).

Type: Timestamp

Required: No

### [LastModifiedTimeBefore \(p. 749\)](#)

A filter that returns only notebook instances that were modified before the specified time (timestamp).

Type: Timestamp

Required: No

### [MaxResults \(p. 749\)](#)

The maximum number of notebook instances to return.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### [NameContains \(p. 749\)](#)

A string in the notebook instances' name. This filter returns only notebook instances whose name contains the specified string.

Type: String

Length Constraints: Maximum length of 63.

Pattern: [a-zA-Z0-9-]+

Required: No

### [NextToken \(p. 749\)](#)

If the previous call to the `ListNotebookInstances` is truncated, the response includes a `NextToken`. You can use this token in your subsequent `ListNotebookInstances` request to fetch the next set of notebook instances.

#### Note

You might specify a filter or a sort order in your request. When response is truncated, you must use the same values for the filer and sort order in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: `.*`

Required: No

#### [NotebookInstanceLifecycleConfigNameContains \(p. 749\)](#)

A string in the name of a notebook instances lifecycle configuration associated with this notebook instance. This filter returns only notebook instances associated with a lifecycle configuration with a name that contains the specified string.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*`

Required: No

#### [SortBy \(p. 749\)](#)

The field to sort results by. The default is Name.

Type: String

Valid Values: Name | CreationTime | Status

Required: No

#### [SortOrder \(p. 749\)](#)

The sort order for results.

Type: String

Valid Values: Ascending | Descending

Required: No

#### [StatusEquals \(p. 749\)](#)

A filter that returns only notebook instances with the specified status.

Type: String

Valid Values: Pending | InService | Stopping | Stopped | Failed | Deleting | Updating

Required: No

## Response Syntax

```
{  
    "NextToken": "string",  
    "NotebookInstances": [  
        {  
            "AdditionalCodeRepositories": [ "string" ],  
            "CreationTime": number,  
            "DefaultCodeRepository": "string",  
            "InstanceType": "string",  
            "LastModifiedTime": number,  
            "NotebookInstanceArn": "string",  
            "NotebookInstanceConfigArn": "string",  
            "NotebookInstanceConfigName": "string",  
            "NotebookInstanceName": "string",  
            "Status": "string",  
            "StatusEquals": "string",  
            "StatusFilter": "string",  
            "StatusNotEquals": "string",  
            "StatusNotFilter": "string",  
            "StatusOrder": "string",  
            "StatusSort": "string",  
            "StatusValue": "string",  
            "StatusValues": [ "string" ]  
        }  
    ]  
}
```

```
        "NotebookInstanceLifecycleConfigName": "string",
        "NotebookInstanceName": "string",
        "NotebookInstanceStatus": "string",
        "Url": "string"
    }
]
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [NextToken \(p. 751\)](#)

If the response to the previous `ListNotebookInstances` request was truncated, SageMaker returns this token. To retrieve the next set of notebook instances, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: `.*`

### [NotebookInstances \(p. 751\)](#)

An array of `NotebookInstanceSummary` objects, one for each notebook instance.

Type: Array of [NotebookInstanceSummary \(p. 1583\)](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## ListPipelineExecutions

Service: Amazon SageMaker Service

Gets a list of the pipeline executions.

### Request Syntax

```
{  
    "CreatedAfter": number,  
    "CreatedBefore": number,  
    "MaxResults": number,  
    "NextToken": "string",  
    "PipelineName": "string",  
    "SortBy": "string",  
    "SortOrder": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [CreatedAfter \(p. 753\)](#)

A filter that returns the pipeline executions that were created after a specified time.

Type: Timestamp

Required: No

#### [CreatedBefore \(p. 753\)](#)

A filter that returns the pipeline executions that were created before a specified time.

Type: Timestamp

Required: No

#### [MaxResults \(p. 753\)](#)

The maximum number of pipeline executions to return in the response.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

#### [NextToken \(p. 753\)](#)

If the result of the previous ListPipelineExecutions request was truncated, the response includes a NextToken. To retrieve the next set of pipeline executions, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

#### [PipelineName \(p. 753\)](#)

The name of the pipeline.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: (`arn:aws[a-zA-Z-]*:sagemaker:[a-zA-Z0-9-]*:[0-9]{12}:pipeline/.*)?([a-zA-Z0-9](-*[a-zA-Z0-9])\{0,255\}`)

Required: Yes

#### [SortBy \(p. 753\)](#)

The field by which to sort results. The default is `CreatedTime`.

Type: String

Valid Values: `CreationTime` | `PipelineExecutionArn`

Required: No

#### [SortOrder \(p. 753\)](#)

The sort order for results.

Type: String

Valid Values: `Ascending` | `Descending`

Required: No

## Response Syntax

```
{  
    "NextToken": "string",  
    "PipelineExecutionSummaries": [  
        {  
            "PipelineExecutionArn": "string",  
            "PipelineExecutionDescription": "string",  
            "PipelineExecutionDisplayName": "string",  
            "PipelineExecutionFailureReason": "string",  
            "PipelineExecutionStatus": "string",  
            "StartTime": number  
        }  
    ]  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

#### [NextToken \(p. 754\)](#)

If the result of the previous `ListPipelineExecutions` request was truncated, the response includes a `NextToken`. To retrieve the next set of pipeline executions, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

#### [PipelineExecutionSummaries \(p. 754\)](#)

Contains a sorted list of pipeline execution summary objects matching the specified filters. Each run summary includes the Amazon Resource Name (ARN) of the pipeline execution, the run date, and the status. This list can be empty.

Type: Array of [PipelineExecutionSummary \(p. 1628\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 100 items.

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## ListPipelineExecutionSteps

Service: Amazon SageMaker Service

Gets a list of PipeLineExecutionStep objects.

### Request Syntax

```
{  
    "MaxResults": number,  
    "NextToken": "string",  
    "PipelineExecutionArn": "string",  
    "SortOrder": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [MaxResults \(p. 756\)](#)

The maximum number of pipeline execution steps to return in the response.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

#### [NextToken \(p. 756\)](#)

If the result of the previous ListPipelineExecutionSteps request was truncated, the response includes a NextToken. To retrieve the next set of pipeline execution steps, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

#### [PipelineExecutionArn \(p. 756\)](#)

The Amazon Resource Name (ARN) of the pipeline execution.

Type: String

Length Constraints: Maximum length of 256.

Pattern: ^arn:aws[a-z\-\]\*:sagemaker:[a-z0-9\-\\*:[0-9]{12}:pipeline\/.\*\\$/execution\/.\*\\$

Required: No

#### [SortOrder \(p. 756\)](#)

The field by which to sort results. The default is CreatedTime.

Type: String

Valid Values: Ascending | Descending

Required: No

## Response Syntax

```
{
    "NextToken": "string",
    "PipelineExecutionSteps": [
        {
            "AttemptCount": number,
            "CacheHitResult": {
                "SourcePipelineExecutionArn": "string"
            },
            "EndTime": number,
            "FailureReason": "string",
            "Metadata": {
                "AutoMLJob": {
                    "Arn": "string"
                },
                "Callback": {
                    "CallbackToken": "string",
                    "OutputParameters": [
                        {
                            "Name": "string",
                            "Value": "string"
                        }
                    ],
                    "SqsQueueUrl": "string"
                },
                "ClarifyCheck": {
                    "BaselineUsedForDriftCheckConstraints": "string",
                    "CalculatedBaselineConstraints": "string",
                    "CheckJobArn": "string",
                    "CheckType": "string",
                    "ModelPackageName": "string",
                    "RegisterNewBaseline": boolean,
                    "SkipCheck": boolean,
                    "ViolationReport": "string"
                },
                "Condition": {
                    "Outcome": "string"
                },
                "EMR": {
                    "ClusterId": "string",
                    "LogFilepath": "string",
                    "StepId": "string",
                    "StepName": "string"
                },
                "Fail": {
                    "ErrorMessage": "string"
                },
                "Lambda": {
                    "Arn": "string",
                    "OutputParameters": [
                        {
                            "Name": "string",
                            "Value": "string"
                        }
                    ]
                },
                ...
            }
        }
    ]
}
```

```

    "Model": {
        "Arn": "string"
    },
    "ProcessingJob": {
        "Arn": "string"
    },
    "QualityCheck": {
        "BaselineUsedForDriftCheckConstraints": "string",
        "BaselineUsedForDriftCheckStatistics": "string",
        "CalculatedBaselineConstraints": "string",
        "CalculatedBaselineStatistics": "string",
        "CheckJobArn": "string",
        "CheckType": "string",
        "ModelPackageGroupName": "string",
        "RegisterNewBaseline": boolean,
        "SkipCheck": boolean,
        "ViolationReport": "string"
    },
    "RegisterModel": {
        "Arn": "string"
    },
    "TrainingJob": {
        "Arn": "string"
    },
    "TransformJob": {
        "Arn": "string"
    },
    "TuningJob": {
        "Arn": "string"
    }
},
"StartTime": number,
"StepDescription": "string",
"StepDisplayName": "string",
"StepName": "string",
"StepStatus": "string"
}
]
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [NextToken \(p. 757\)](#)

If the result of the previous `ListPipelineExecutionSteps` request was truncated, the response includes a `NextToken`. To retrieve the next set of pipeline execution steps, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: `.*`

### [PipelineExecutionSteps \(p. 757\)](#)

A list of `PipeLineExecutionStep` objects. Each `PipeLineExecutionStep` consists of `StepName`, `StartTime`, `EndTime`, `StepStatus`, and `Metadata`. `Metadata` is an object with properties for each job that contains relevant information about the job created by the step.

Type: Array of [PipelineExecutionStep \(p. 1623\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 100 items.

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## ListPipelineParametersForExecution

Service: Amazon SageMaker Service

Gets a list of parameters for a pipeline execution.

### Request Syntax

```
{  
    "MaxResults": number,  
    "NextToken": "string",  
    "PipelineExecutionArn": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### **MaxResults (p. 760)**

The maximum number of parameters to return in the response.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

#### **NextToken (p. 760)**

If the result of the previous `ListPipelineParametersForExecution` request was truncated, the response includes a `NextToken`. To retrieve the next set of parameters, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: `.*`

Required: No

#### **PipelineExecutionArn (p. 760)**

The Amazon Resource Name (ARN) of the pipeline execution.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `^arn:aws[a-z\-\]*:sagemaker:[a-z0-9\-\]*:[0-9]{12}:pipeline\/.*\$execution\/.*\$`

Required: Yes

### Response Syntax

```
{
```

```
"NextToken": "string",
"PipelineParameters": [
    {
        "Name": "string",
        "Value": "string"
    }
]
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [NextToken \(p. 760\)](#)

If the result of the previous `ListPipelineParametersForExecution` request was truncated, the response includes a `NextToken`. To retrieve the next set of parameters, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

### [PipelineParameters \(p. 760\)](#)

Contains a list of pipeline parameters. This list can be empty.

Type: Array of [Parameter \(p. 1605\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceNotFound**

Resource being accessed is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)

- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## ListPipelines

Service: Amazon SageMaker Service

Gets a list of pipelines.

### Request Syntax

```
{  
    "CreatedAfter": number,  
    "CreatedBefore": number,  
    "MaxResults": number,  
    "NextToken": "string",  
    "PipelineNamePrefix": "string",  
    "SortBy": "string",  
    "SortOrder": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### **CreatedAfter (p. 763)**

A filter that returns the pipelines that were created after a specified time.

Type: Timestamp

Required: No

#### **CreatedBefore (p. 763)**

A filter that returns the pipelines that were created before a specified time.

Type: Timestamp

Required: No

#### **MaxResults (p. 763)**

The maximum number of pipelines to return in the response.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

#### **NextToken (p. 763)**

If the result of the previous `ListPipelines` request was truncated, the response includes a `NextToken`. To retrieve the next set of pipelines, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: `.*`

Required: No

#### [PipelineNamePrefix \(p. 763\)](#)

The prefix of the pipeline name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9]){0,255}

Required: No

#### [SortBy \(p. 763\)](#)

The field by which to sort results. The default is CreatedTime.

Type: String

Valid Values: Name | CreationTime

Required: No

#### [SortOrder \(p. 763\)](#)

The sort order for results.

Type: String

Valid Values: Ascending | Descending

Required: No

## Response Syntax

```
{  
    "NextToken": "string",  
    "PipelineSummaries": [  
        {  
            "CreationTime": number,  
            "LastExecutionTime": number,  
            "LastModifiedTime": number,  
            "PipelineArn": "string",  
            "PipelineDescription": "string",  
            "PipelineDisplayName": "string",  
            "PipelineName": "string",  
            "RoleArn": "string"  
        }  
    ]  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

#### [NextToken \(p. 764\)](#)

If the result of the previous ListPipelines request was truncated, the response includes a NextToken. To retrieve the next set of pipelines, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

#### [PipelineSummaries \(p. 764\)](#)

Contains a sorted list of PipelineSummary objects matching the specified filters. Each PipelineSummary consists of PipelineArn, PipelineName, ExperimentName, PipelineDescription, CreationTime, LastModifiedTime, LastRunTime, and RoleArn. This list can be empty.

Type: Array of [PipelineSummary \(p. 1631\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 100 items.

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## ListProcessingJobs

Service: Amazon SageMaker Service

Lists processing jobs that satisfy various filters.

### Request Syntax

```
{  
    "CreationTimeAfter": number,  
    "CreationTimeBefore": number,  
    "LastModifiedTimeAfter": number,  
    "LastModifiedTimeBefore": number,  
    "MaxResults": number,  
    "NameContains": "string",  
    "NextToken": "string",  
    "SortBy": "string",  
    "SortOrder": "string",  
    "StatusEquals": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [CreationTimeAfter \(p. 766\)](#)

A filter that returns only processing jobs created after the specified time.

Type: Timestamp

Required: No

#### [CreationTimeBefore \(p. 766\)](#)

A filter that returns only processing jobs created after the specified time.

Type: Timestamp

Required: No

#### [LastModifiedTimeAfter \(p. 766\)](#)

A filter that returns only processing jobs modified after the specified time.

Type: Timestamp

Required: No

#### [LastModifiedTimeBefore \(p. 766\)](#)

A filter that returns only processing jobs modified before the specified time.

Type: Timestamp

Required: No

#### [MaxResults \(p. 766\)](#)

The maximum number of processing jobs to return in the response.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

#### [NameContains \(p. 766\)](#)

A string in the processing job name. This filter returns only processing jobs whose name contains the specified string.

Type: String

Required: No

#### [NextToken \(p. 766\)](#)

If the result of the previous ListProcessingJobs request was truncated, the response includes a NextToken. To retrieve the next set of processing jobs, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

#### [SortBy \(p. 766\)](#)

The field to sort results by. The default is CreationTime.

Type: String

Valid Values: Name | CreationTime | Status

Required: No

#### [SortOrder \(p. 766\)](#)

The sort order for results. The default is Ascending.

Type: String

Valid Values: Ascending | Descending

Required: No

#### [StatusEquals \(p. 766\)](#)

A filter that retrieves only processing jobs with a specific status.

Type: String

Valid Values: InProgress | Completed | Failed | Stopping | Stopped

Required: No

## Response Syntax

```
{  
    "NextToken": "string",  
    "ProcessingJobSummaries": [
```

```
{  
    "CreationTime": number,  
    "ExitMessage": "string",  
    "FailureReason": "string",  
    "LastModifiedTime": number,  
    "ProcessingEndTime": number,  
    "ProcessingJobArn": "string",  
    "ProcessingJobName": "string",  
    "ProcessingJobStatus": "string"  
}  
]  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [NextToken \(p. 767\)](#)

If the response is truncated, Amazon SageMaker returns this token. To retrieve the next set of processing jobs, use it in the subsequent request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: `.*`

### [ProcessingJobSummaries \(p. 767\)](#)

An array of `ProcessingJobSummary` objects, each listing a processing job.

Type: Array of [ProcessingJobSummary \(p. 1642\)](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## ListProjects

Service: Amazon SageMaker Service

Gets a list of the projects in an AWS account.

### Request Syntax

```
{  
    "CreationTimeAfter": number,  
    "CreationTimeBefore": number,  
    "MaxResults": number,  
    "NameContains": "string",  
    "NextToken": "string",  
    "SortBy": "string",  
    "SortOrder": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [CreationTimeAfter \(p. 769\)](#)

A filter that returns the projects that were created after a specified time.

Type: Timestamp

Required: No

#### [CreationTimeBefore \(p. 769\)](#)

A filter that returns the projects that were created before a specified time.

Type: Timestamp

Required: No

#### [MaxResults \(p. 769\)](#)

The maximum number of projects to return in the response.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

#### [NameContains \(p. 769\)](#)

A filter that returns the projects whose name contains a specified string.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,31\}

Required: No

### [NextToken \(p. 769\)](#)

If the result of the previous `ListProjects` request was truncated, the response includes a `NextToken`. To retrieve the next set of projects, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: `.` \*

Required: No

### [SortBy \(p. 769\)](#)

The field by which to sort results. The default is `CreationTime`.

Type: String

Valid Values: `Name` | `CreationTime`

Required: No

### [SortOrder \(p. 769\)](#)

The sort order for results. The default is `Ascending`.

Type: String

Valid Values: `Ascending` | `Descending`

Required: No

## Response Syntax

```
{  
    "NextToken": "string",  
    "ProjectSummaryList": [  
        {  
            "CreationTime": number,  
            "ProjectArn": "string",  
            "ProjectDescription": "string",  
            "ProjectId": "string",  
            "ProjectName": "string",  
            "ProjectStatus": "string"  
        }  
    ]  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [NextToken \(p. 770\)](#)

If the result of the previous `ListCompilationJobs` request was truncated, the response includes a `NextToken`. To retrieve the next set of model compilation jobs, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

#### [ProjectSummaryList \(p. 770\)](#)

A list of summaries of projects.

Type: Array of [ProjectSummary \(p. 1671\)](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## ListSpaces

Service: Amazon SageMaker Service

Lists spaces.

### Request Syntax

```
{  
    "DomainIdEquals": "string",  
    "MaxResults": number,  
    "NextToken": "string",  
    "SortBy": "string",  
    "SortOrder": "string",  
    "SpaceNameContains": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [DomainIdEquals \(p. 772\)](#)

A parameter to search for the Domain ID.

Type: String

Length Constraints: Maximum length of 63.

Required: No

#### [MaxResults \(p. 772\)](#)

Returns a list up to a specified limit.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

#### [NextToken \(p. 772\)](#)

If the previous response was truncated, you will receive this token. Use it in your next request to receive the next set of results.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

#### [SortBy \(p. 772\)](#)

The parameter by which to sort the results. The default is CreationTime.

Type: String

Valid Values: CreationTime | LastModifiedTime

Required: No

#### [SortOrder \(p. 772\)](#)

The sort order for the results. The default is Ascending.

Type: String

Valid Values: Ascending | Descending

Required: No

#### [SpaceNameContains \(p. 772\)](#)

A parameter by which to filter the results.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: No

## Response Syntax

```
{  
    "NextToken": "string",  
    "Spaces": [  
        {  
            "CreationTime": number,  
            "DomainId": "string",  
            "LastModifiedTime": number,  
            "SpaceName": "string",  
            "Status": "string"  
        }  
    ]  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

#### [NextToken \(p. 773\)](#)

If the previous response was truncated, you will receive this token. Use it in your next request to receive the next set of results.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

#### [Spaces \(p. 773\)](#)

The list of spaces.

Type: Array of [SpaceDetails \(p. 1739\)](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## ListStageDevices

Service: Amazon SageMaker Service

Lists devices allocated to the stage, containing detailed device information and deployment status.

### Request Syntax

```
{  
    "EdgeDeploymentPlanName": "string",  
    "ExcludeDevicesDeployedInOtherStage": boolean,  
    "MaxResults": number,  
    "NextToken": "string",  
    "StageName": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [EdgeDeploymentPlanName \(p. 775\)](#)

The name of the edge deployment plan.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

#### [ExcludeDevicesDeployedInOtherStage \(p. 775\)](#)

Toggle for excluding devices deployed in other stages.

Type: Boolean

Required: No

#### [MaxResults \(p. 775\)](#)

The maximum number of requests to select.

Type: Integer

Valid Range: Maximum value of 100.

Required: No

#### [NextToken \(p. 775\)](#)

The response from the last list when returning a list large enough to need tokening.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

#### [StageName \(p. 775\)](#)

The name of the stage in the deployment.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

## Response Syntax

```
{  
    "DeviceDeploymentSummaries": [  
        {  
            "DeployedStageName": "string",  
            "DeploymentStartTime": number,  
            "Description": "string",  
            "DeviceArn": "string",  
            "DeviceDeploymentStatus": "string",  
            "DeviceDeploymentStatusMessage": "string",  
            "DeviceFleetName": "string",  
            "DeviceName": "string",  
            "EdgeDeploymentPlanArn": "string",  
            "EdgeDeploymentPlanName": "string",  
            "StageName": "string"  
        }  
    ],  
    "NextToken": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

#### [DeviceDeploymentSummaries \(p. 776\)](#)

List of summaries of devices allocated to the stage.

Type: Array of [DeviceDeploymentSummary \(p. 1262\)](#) objects

#### [NextToken \(p. 776\)](#)

The token to use when calling the next page of results.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## ListStudioLifecycleConfigs

Service: Amazon SageMaker Service

Lists the Studio Lifecycle Configurations in your AWS Account.

### Request Syntax

```
{  
    "AppTypeEquals": "string",  
    "CreationTimeAfter": number,  
    "CreationTimeBefore": number,  
    "MaxResults": number,  
    "ModifiedTimeAfter": number,  
    "ModifiedTimeBefore": number,  
    "NameContains": "string",  
    "NextToken": "string",  
    "SortBy": "string",  
    "SortOrder": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [AppTypeEquals \(p. 778\)](#)

A parameter to search for the App Type to which the Lifecycle Configuration is attached.

Type: String

Valid Values: JupyterServer | KernelGateway

Required: No

#### [CreationTimeAfter \(p. 778\)](#)

A filter that returns only Lifecycle Configurations created on or after the specified time.

Type: Timestamp

Required: No

#### [CreationTimeBefore \(p. 778\)](#)

A filter that returns only Lifecycle Configurations created on or before the specified time.

Type: Timestamp

Required: No

#### [MaxResults \(p. 778\)](#)

The maximum number of Studio Lifecycle Configurations to return in the response. The default value is 10.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### [ModifiedTimeAfter \(p. 778\)](#)

A filter that returns only Lifecycle Configurations modified after the specified time.

Type: Timestamp

Required: No

### [ModifiedTimeBefore \(p. 778\)](#)

A filter that returns only Lifecycle Configurations modified before the specified time.

Type: Timestamp

Required: No

### [NameContains \(p. 778\)](#)

A string in the Lifecycle Configuration name. This filter returns only Lifecycle Configurations whose name contains the specified string.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: No

### [NextToken \(p. 778\)](#)

If the previous call to ListStudioLifecycleConfigs didn't return the full set of Lifecycle Configurations, the call returns a token for getting the next set of Lifecycle Configurations.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

### [SortBy \(p. 778\)](#)

The property used to sort results. The default value is CreationTime.

Type: String

Valid Values: CreationTime | LastModifiedTime | Name

Required: No

### [SortOrder \(p. 778\)](#)

The sort order. The default value is Descending.

Type: String

Valid Values: Ascending | Descending

Required: No

## [Response Syntax](#)

```
{
```

```
"NextToken": "string",
"StudioLifecycleConfigs": [
    {
        "CreationTime": number,
        "LastModifiedTime": number,
        "StudioLifecycleConfigAppType": "string",
        "StudioLifecycleConfigArn": "string",
        "StudioLifecycleConfigName": "string"
    }
]
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [NextToken \(p. 779\)](#)

A token for getting the next set of actions, if there are any.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

### [StudioLifecycleConfigs \(p. 779\)](#)

A list of Lifecycle Configurations and their properties.

Type: Array of [StudioLifecycleConfigDetails \(p. 1744\)](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceInUse**

Resource being accessed is in use.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)

- [AWS SDK for Ruby V3](#)

## ListSubscribedWorkteams

Service: Amazon SageMaker Service

Gets a list of the work teams that you are subscribed to in the AWS Marketplace. The list may be empty if no work team satisfies the filter specified in the NameContains parameter.

### Request Syntax

```
{  
    "MaxResults": number,  
    "NameContains": "string",  
    "NextToken": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [MaxResults \(p. 782\)](#)

The maximum number of work teams to return in each page of the response.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

#### [NameContains \(p. 782\)](#)

A string in the work team name. This filter returns only work teams whose name contains the specified string.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: No

#### [NextToken \(p. 782\)](#)

If the result of the previous ListSubscribedWorkteams request was truncated, the response includes a NextToken. To retrieve the next set of labeling jobs, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

### Response Syntax

```
{
```

```
"NextToken": "string",
"SubscribedWorkteams": [
    {
        "ListingId": "string",
        "MarketplaceDescription": "string",
        "MarketplaceTitle": "string",
        "SellerName": "string",
        "WorkteamArn": "string"
    }
]
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [NextToken \(p. 782\)](#)

If the response is truncated, Amazon SageMaker returns this token. To retrieve the next set of work teams, use it in the subsequent request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

### [SubscribedWorkteams \(p. 782\)](#)

An array of Workteam objects, each describing a work team.

Type: Array of [SubscribedWorkteam \(p. 1746\)](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## ListTags

Service: Amazon SageMaker Service

Returns the tags for the specified SageMaker resource.

## Request Syntax

```
{  
    "MaxResults": number,  
    "NextToken": "string",  
    "ResourceArn": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### [MaxResults \(p. 784\)](#)

Maximum number of tags to return.

Type: Integer

Valid Range: Minimum value of 50.

Required: No

### [NextToken \(p. 784\)](#)

If the response to the previous ListTags request is truncated, SageMaker returns this token. To retrieve the next set of tags, use it in the subsequent request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

### [ResourceArn \(p. 784\)](#)

The Amazon Resource Name (ARN) of the resource whose tags you want to retrieve.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z-]\*:sagemaker:[a-z0-9-]\*:[0-9]{12}:+

Required: Yes

## Response Syntax

```
{
```

```
"NextToken": "string",
"Tags": [
  {
    "Key": "string",
    "Value": "string"
  }
]
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [NextToken \(p. 784\)](#)

If response is truncated, SageMaker includes a token in the response. You can use this token in your subsequent request to fetch next set of tokens.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

### [Tags \(p. 784\)](#)

An array of Tag objects, each with a tag key and a value.

Type: Array of [Tag \(p. 1749\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## ListTrainingJobs

Service: Amazon SageMaker Service

Lists training jobs.

### Note

When `StatusEquals` and `MaxResults` are set at the same time, the `MaxResults` number of training jobs are first retrieved ignoring the `StatusEquals` parameter and then they are filtered by the `StatusEquals` parameter, which is returned as a response.

For example, if `ListTrainingJobs` is invoked with the following parameters:

```
{ ... MaxResults: 100, StatusEquals: InProgress ... }
```

First, 100 trainings jobs with any status, including those other than `InProgress`, are selected (sorted according to the creation time, from the most current to the oldest). Next, those with a status of `InProgress` are returned.

You can quickly test the API using the following AWS CLI code.

```
aws sagemaker list-training-jobs --max-results 100 --status-equals InProgress
```

## Request Syntax

```
{
    "CreationTimeAfter": number,
    "CreationTimeBefore": number,
    "LastModifiedTimeAfter": number,
    "LastModifiedTimeBefore": number,
    "MaxResults": number,
    "NameContains": "string",
    "NextToken": "string",
    "SortBy": "string",
    "SortOrder": "string",
    "StatusEquals": "string",
    "WarmPoolStatusEquals": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### [CreationTimeAfter \(p. 786\)](#)

A filter that returns only training jobs created after the specified time (timestamp).

Type: Timestamp

Required: No

### [CreationTimeBefore \(p. 786\)](#)

A filter that returns only training jobs created before the specified time (timestamp).

Type: Timestamp

Required: No

### [LastModifiedTimeAfter \(p. 786\)](#)

A filter that returns only training jobs modified after the specified time (timestamp).

Type: Timestamp

Required: No

**LastModifiedTimeBefore (p. 786)**

A filter that returns only training jobs modified before the specified time (timestamp).

Type: Timestamp

Required: No

**MaxResults (p. 786)**

The maximum number of training jobs to return in the response.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

**NameContains (p. 786)**

A string in the training job name. This filter returns only training jobs whose name contains the specified string.

Type: String

Length Constraints: Maximum length of 63.

Pattern: [a-zA-Z0-9\-\-]+

Required: No

**NextToken (p. 786)**

If the result of the previous ListTrainingJobs request was truncated, the response includes a NextToken. To retrieve the next set of training jobs, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

**SortBy (p. 786)**

The field to sort results by. The default is CreationTime.

Type: String

Valid Values: Name | CreationTime | Status

Required: No

**SortOrder (p. 786)**

The sort order for results. The default is Ascending.

Type: String

Valid Values: Ascending | Descending

Required: No

### [StatusEquals \(p. 786\)](#)

A filter that retrieves only training jobs with a specific status.

Type: String

Valid Values: InProgress | Completed | Failed | Stopping | Stopped

Required: No

### [WarmPoolStatusEquals \(p. 786\)](#)

A filter that retrieves only training jobs with a specific warm pool status.

Type: String

Valid Values: Available | Terminated | Reused | InUse

Required: No

## Response Syntax

```
{  
    "NextToken": "string",  
    "TrainingJobSummaries": [  
        {  
            "CreationTime": number,  
            "LastModifiedTime": number,  
            "TrainingEndTime": number,  
            "TrainingJobArn": "string",  
            "TrainingJobName": "string",  
            "TrainingJobStatus": "string",  
            "WarmPoolStatus": {  
                "ResourceRetainedBillableTimeInSeconds": number,  
                "ReusedByJob": "string",  
                "Status": "string"  
            }  
        }  
    ]  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [NextToken \(p. 788\)](#)

If the response is truncated, SageMaker returns this token. To retrieve the next set of training jobs, use it in the subsequent request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

### [TrainingJobSummaries \(p. 788\)](#)

An array of TrainingJobSummary objects, each listing a training job.

Type: Array of [TrainingJobSummary \(p. 1771\)](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## ListTrainingJobsForHyperParameterTuningJob

Service: Amazon SageMaker Service

Gets a list of [TrainingJobSummary](#) (p. 1771) objects that describe the training jobs that a hyperparameter tuning job launched.

### Request Syntax

```
{  
    "HyperParameterTuningJobName": "string",  
    "MaxResults": number,  
    "NextToken": "string",  
    "SortBy": "string",  
    "SortOrder": "string",  
    "StatusEquals": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#) (p. 1920).

The request accepts the following data in JSON format.

#### [HyperParameterTuningJobName](#) (p. 790)

The name of the tuning job whose training jobs you want to list.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9]){0,31}

Required: Yes

#### [MaxResults](#) (p. 790)

The maximum number of training jobs to return. The default value is 10.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

#### [NextToken](#) (p. 790)

If the result of the previous `ListTrainingJobsForHyperParameterTuningJob` request was truncated, the response includes a `NextToken`. To retrieve the next set of training jobs, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

#### [SortBy](#) (p. 790)

The field to sort results by. The default is Name.

If the value of this field is FinalObjectiveMetricValue, any training jobs that did not return an objective metric are not listed.

Type: String

Valid Values: Name | CreationTime | Status | FinalObjectiveMetricValue

Required: No

#### [SortOrder \(p. 790\)](#)

The sort order for results. The default is Ascending.

Type: String

Valid Values: Ascending | Descending

Required: No

#### [StatusEquals \(p. 790\)](#)

A filter that returns only training jobs with the specified status.

Type: String

Valid Values: InProgress | Completed | Failed | Stopping | Stopped

Required: No

## Response Syntax

```
{  
    "NextToken": "string",  
    "TrainingJobSummaries": [  
        {  
            "CreationTime": number,  
            "FailureReason": "string",  
            "FinalHyperParameterTuningJobObjectiveMetric": {  
                "MetricName": "string",  
                "Type": "string",  
                "Value": number  
            },  
            "ObjectiveStatus": "string",  
            "TrainingEndTime": number,  
            "TrainingJobArn": "string",  
            "TrainingJobDefinitionName": "string",  
            "TrainingJobName": "string",  
            "TrainingJobStatus": "string",  
            "TrainingStartTime": number,  
            "TunedHyperParameters": {  
                "string" : "string"  
            },  
            "TuningJobName": "string"  
        }  
    ]  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [NextToken \(p. 791\)](#)

If the result of this `ListTrainingJobsForHyperParameterTuningJob` request was truncated, the response includes a `NextToken`. To retrieve the next set of training jobs, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

### [TrainingJobSummaries \(p. 791\)](#)

A list of [TrainingJobSummary \(p. 1771\)](#) objects that describe the training jobs that the `ListTrainingJobsForHyperParameterTuningJob` request returned.

Type: Array of [HyperParameterTrainingJobSummary \(p. 1389\)](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## ListTransformJobs

Service: Amazon SageMaker Service

Lists transform jobs.

### Request Syntax

```
{  
    "CreationTimeAfter": number,  
    "CreationTimeBefore": number,  
    "LastModifiedTimeAfter": number,  
    "LastModifiedTimeBefore": number,  
    "MaxResults": number,  
    "NameContains": "string",  
    "NextToken": "string",  
    "SortBy": "string",  
    "SortOrder": "string",  
    "StatusEquals": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [CreationTimeAfter \(p. 793\)](#)

A filter that returns only transform jobs created after the specified time.

Type: Timestamp

Required: No

#### [CreationTimeBefore \(p. 793\)](#)

A filter that returns only transform jobs created before the specified time.

Type: Timestamp

Required: No

#### [LastModifiedTimeAfter \(p. 793\)](#)

A filter that returns only transform jobs modified after the specified time.

Type: Timestamp

Required: No

#### [LastModifiedTimeBefore \(p. 793\)](#)

A filter that returns only transform jobs modified before the specified time.

Type: Timestamp

Required: No

#### [MaxResults \(p. 793\)](#)

The maximum number of transform jobs to return in the response. The default value is 10.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

#### [NameContains \(p. 793\)](#)

A string in the transform job name. This filter returns only transform jobs whose name contains the specified string.

Type: String

Length Constraints: Maximum length of 63.

Pattern: [a-zA-Z0-9\-\-]+

Required: No

#### [NextToken \(p. 793\)](#)

If the result of the previous `ListTransformJobs` request was truncated, the response includes a `NextToken`. To retrieve the next set of transform jobs, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

#### [SortBy \(p. 793\)](#)

The field to sort results by. The default is `CreationTime`.

Type: String

Valid Values: Name | CreationTime | Status

Required: No

#### [SortOrder \(p. 793\)](#)

The sort order for results. The default is Descending.

Type: String

Valid Values: Ascending | Descending

Required: No

#### [StatusEquals \(p. 793\)](#)

A filter that retrieves only transform jobs with a specific status.

Type: String

Valid Values: InProgress | Completed | Failed | Stopping | Stopped

Required: No

## [Response Syntax](#)

```
{
```

```
"NextToken": "string",
"TransformJobSummaries": [
    {
        "CreationTime": number,
        "FailureReason": "string",
        "LastModifiedTime": number,
        "TransformEndTime": number,
        "TransformJobArn": "string",
        "TransformJobName": "string",
        "TransformJobStatus": "string"
    }
]
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [NextToken \(p. 794\)](#)

If the response is truncated, Amazon SageMaker returns this token. To retrieve the next set of transform jobs, use it in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

### [TransformJobSummaries \(p. 794\)](#)

An array of [TransformJobSummary](#) objects.

Type: Array of [TransformJobSummary \(p. 1786\)](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## ListTrialComponents

Service: Amazon SageMaker Service

Lists the trial components in your account. You can sort the list by trial component name or creation time. You can filter the list to show only components that were created in a specific time range. You can also filter on one of the following:

- `ExperimentName`
- `SourceArn`
- `TrialName`

## Request Syntax

```
{  
    "CreatedAfter": number,  
    "CreatedBefore": number,  
    "ExperimentName": "string",  
    "MaxResults": number,  
    "NextToken": "string",  
    "SortBy": "string",  
    "SortOrder": "string",  
    "SourceArn": "string",  
    "TrialName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### **CreatedAfter (p. 796)**

A filter that returns only components created after the specified time.

Type: Timestamp

Required: No

### **CreatedBefore (p. 796)**

A filter that returns only components created before the specified time.

Type: Timestamp

Required: No

### **ExperimentName (p. 796)**

A filter that returns only components that are part of the specified experiment. If you specify `ExperimentName`, you can't filter by `SourceArn` or `TrialName`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,119\}

Required: No

#### [MaxResults \(p. 796\)](#)

The maximum number of components to return in the response. The default value is 10.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

#### [NextToken \(p. 796\)](#)

If the previous call to `ListTrialComponents` didn't return the full set of components, the call returns a token for getting the next set of components.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

#### [SortBy \(p. 796\)](#)

The property used to sort results. The default value is `CreationTime`.

Type: String

Valid Values: `Name` | `CreationTime`

Required: No

#### [SortOrder \(p. 796\)](#)

The sort order. The default value is `Descending`.

Type: String

Valid Values: `Ascending` | `Descending`

Required: No

#### [SourceArn \(p. 796\)](#)

A filter that returns only components that have the specified source Amazon Resource Name (ARN). If you specify `SourceArn`, you can't filter by `ExperimentName` or `TrialName`.

Type: String

Length Constraints: Maximum length of 256.

Required: No

#### [TrialName \(p. 796\)](#)

A filter that returns only components that are part of the specified trial. If you specify `TrialName`, you can't filter by `ExperimentName` or `SourceArn`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,119\}

Required: No

## Response Syntax

```
{  
    "NextToken": "string",  
    "TrialComponentSummaries": [  
        {  
            "CreatedBy": {  
                "DomainId": "string",  
                "UserProfileArn": "string",  
                "UserProfileName": "string"  
            },  
            "CreationTime": number,  
            "DisplayName": "string",  
            "EndTime": number,  
            "LastModifiedBy": {  
                "DomainId": "string",  
                "UserProfileArn": "string",  
                "UserProfileName": "string"  
            },  
            "LastModifiedTime": number,  
            "StartTime": number,  
            "Status": {  
                "Message": "string",  
                "PrimaryStatus": "string"  
            },  
            "TrialComponentArn": "string",  
            "TrialComponentName": "string",  
            "TrialComponentSource": {  
                "SourceArn": "string",  
                "SourceType": "string"  
            }  
        }  
    ]  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [NextToken \(p. 798\)](#)

A token for getting the next set of components, if there are any.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

### [TrialComponentSummaries \(p. 798\)](#)

A list of the summaries of your trial components.

Type: Array of [TrialComponentSummary \(p. 1810\)](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## ListTrials

Service: Amazon SageMaker Service

Lists the trials in your account. Specify an experiment name to limit the list to the trials that are part of that experiment. Specify a trial component name to limit the list to the trials that associated with that trial component. The list can be filtered to show only trials that were created in a specific time range. The list can be sorted by trial name or creation time.

## Request Syntax

```
{  
    "CreatedAfter": number,  
    "CreatedBefore": number,  
    "ExperimentName": "string",  
    "MaxResults": number,  
    "NextToken": "string",  
    "SortBy": "string",  
    "SortOrder": "string",  
    "TrialComponentName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### [CreatedAfter \(p. 800\)](#)

A filter that returns only trials created after the specified time.

Type: Timestamp

Required: No

### [CreatedBefore \(p. 800\)](#)

A filter that returns only trials created before the specified time.

Type: Timestamp

Required: No

### [ExperimentName \(p. 800\)](#)

A filter that returns only trials that are part of the specified experiment.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,119\}

Required: No

### [MaxResults \(p. 800\)](#)

The maximum number of trials to return in the response. The default value is 10.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

#### [NextToken \(p. 800\)](#)

If the previous call to `ListTrials` didn't return the full set of trials, the call returns a token for getting the next set of trials.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: `.*`

Required: No

#### [SortBy \(p. 800\)](#)

The property used to sort results. The default value is `CreationTime`.

Type: String

Valid Values: `Name` | `CreationTime`

Required: No

#### [SortOrder \(p. 800\)](#)

The sort order. The default value is `Descending`.

Type: String

Valid Values: `Ascending` | `Descending`

Required: No

#### [TrialComponentName \(p. 800\)](#)

A filter that returns only trials that are associated with the specified trial component.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^ [a-zA-Z0-9](-*[a-zA-Z0-9]) {0,119}`

Required: No

## Response Syntax

```
{  
    "NextToken": "string",  
    "TrialSummaries": [  
        {  
            "CreationTime": number,  
            "DisplayName": "string",  
            "LastModifiedTime": number,  
            "TrialArn": "string",  
            "TrialName": "string",  
            "TrialSource": {  
                "SourceArn": "string",  
                "SourceType": "string"  
            }  
        }  
    ]  
}
```

```
        }  
    ]  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [NextToken \(p. 801\)](#)

A token for getting the next set of trials, if there are any.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

### [TrialSummaries \(p. 801\)](#)

A list of the summaries of your trials.

Type: Array of [TrialSummary \(p. 1813\)](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## ListUserProfiles

Service: Amazon SageMaker Service

Lists user profiles.

### Request Syntax

```
{  
    "DomainIdEquals": "string",  
    "MaxResults": number,  
    "NextToken": "string",  
    "SortBy": "string",  
    "SortOrder": "string",  
    "UserProfileNameContains": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [DomainIdEquals \(p. 803\)](#)

A parameter by which to filter the results.

Type: String

Length Constraints: Maximum length of 63.

Required: No

#### [MaxResults \(p. 803\)](#)

Returns a list up to a specified limit.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

#### [NextToken \(p. 803\)](#)

If the previous response was truncated, you will receive this token. Use it in your next request to receive the next set of results.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

#### [SortBy \(p. 803\)](#)

The parameter by which to sort the results. The default is CreationTime.

Type: String

Valid Values: `CreationTime` | `LastModifiedTime`

Required: No

#### [SortOrder \(p. 803\)](#)

The sort order for the results. The default is Ascending.

Type: String

Valid Values: Ascending | Descending

Required: No

#### [UserProfileNameContains \(p. 803\)](#)

A parameter by which to filter the results.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])\{0,62\}`

Required: No

## Response Syntax

```
{  
    "NextToken": "string",  
    "UserProfiles": [  
        {  
            "CreationTime": number,  
            "DomainId": "string",  
            "LastModifiedTime": number,  
            "Status": "string",  
            "UserProfileName": "string"  
        }  
    ]  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

#### [NextToken \(p. 804\)](#)

If the previous response was truncated, you will receive this token. Use it in your next request to receive the next set of results.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: `.*`

#### [UserProfiles \(p. 804\)](#)

The list of user profiles.

Type: Array of [UserProfileDetails \(p. 1823\)](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## ListWorkforces

Service: Amazon SageMaker Service

Use this operation to list all private and vendor workforces in an AWS Region. Note that you can only have one private workforce per AWS Region.

### Request Syntax

```
{  
    "MaxResults": number,  
    "NameContains": "string",  
    "NextToken": "string",  
    "SortBy": "string",  
    "SortOrder": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [MaxResults \(p. 806\)](#)

The maximum number of workforces returned in the response.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

#### [NameContains \(p. 806\)](#)

A filter you can use to search for workforces using part of the workforce name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9]([a-zA-Z0-9\-\-])\{0,62\}\$

Required: No

#### [NextToken \(p. 806\)](#)

A token to resume pagination.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

#### [SortBy \(p. 806\)](#)

Sort workforces using the workforce name or creation date.

Type: String

Valid Values: Name | CreateDate

Required: No

#### [SortOrder \(p. 806\)](#)

Sort workforces in ascending or descending order.

Type: String

Valid Values: Ascending | Descending

Required: No

## Response Syntax

```
{  
    "NextToken": "string",  
    "Workforces": [  
        {  
            "CognitoConfig": {  
                "ClientId": "string",  
                "UserPool": "string"  
            },  
            "CreateDate": number,  
            "FailureReason": "string",  
            "LastUpdatedDate": number,  
            "OidcConfig": {  
                "AuthorizationEndpoint": "string",  
                "ClientId": "string",  
                "Issuer": "string",  
                "JwksUri": "string",  
                "LogoutEndpoint": "string",  
                "TokenEndpoint": "string",  
                "UserInfoEndpoint": "string"  
            },  
            "SourceIpConfig": {  
                "Cidrs": [ "string" ]  
            },  
            "Status": "string",  
            "SubDomain": "string",  
            "WorkforceArn": "string",  
            "WorkforceName": "string",  
            "WorkforceVpcConfig": {  
                "SecurityGroupIds": [ "string" ],  
                "Subnets": [ "string" ],  
                "VpcEndpointId": "string",  
                "VpcId": "string"  
            }  
        }  
    ]  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

#### [NextToken \(p. 807\)](#)

A token to resume pagination.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: . \*

### [Workforces \(p. 807\)](#)

A list containing information about your workforce.

Type: Array of [Workforce \(p. 1832\)](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## ListWorkteams

Service: Amazon SageMaker Service

Gets a list of private work teams that you have defined in a region. The list may be empty if no work team satisfies the filter specified in the NameContains parameter.

### Request Syntax

```
{  
    "MaxResults": number,  
    "NameContains": "string",  
    "NextToken": "string",  
    "SortBy": "string",  
    "SortOrder": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [MaxResults \(p. 809\)](#)

The maximum number of work teams to return in each page of the response.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

#### [NameContains \(p. 809\)](#)

A string in the work team's name. This filter returns only work teams whose name contains the specified string.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9]){0,62}

Required: No

#### [NextToken \(p. 809\)](#)

If the result of the previous ListWorkteams request was truncated, the response includes a NextToken. To retrieve the next set of labeling jobs, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

#### [SortBy \(p. 809\)](#)

The field to sort results by. The default is CreationTime.

Type: String

Valid Values: Name | CreateDate

Required: No

#### [SortOrder \(p. 809\)](#)

The sort order for results. The default is Ascending.

Type: String

Valid Values: Ascending | Descending

Required: No

## Response Syntax

```
{  
    "NextToken": "string",  
    "Workteams": [  
        {  
            "CreateDate": number,  
            "Description": "string",  
            "LastUpdatedDate": number,  
            "MemberDefinitions": [  
                {  
                    "CognitoMemberDefinition": {  
                        "ClientId": "string",  
                        "UserGroup": "string",  
                        "UserPool": "string"  
                    },  
                    "OidcMemberDefinition": {  
                        "Groups": [ "string" ]  
                    }  
                }  
            ],  
            "NotificationConfiguration": {  
                "NotificationTopicArn": "string"  
            },  
            "ProductListingIds": [ "string" ],  
            "SubDomain": "string",  
            "WorkforceArn": "string",  
            "WorkteamArn": "string",  
            "WorkteamName": "string"  
        }  
    ]  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

#### [NextToken \(p. 810\)](#)

If the response is truncated, Amazon SageMaker returns this token. To retrieve the next set of work teams, use it in the subsequent request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

### [Workteams \(p. 810\)](#)

An array of Workteam objects, each describing a work team.

Type: Array of [Workteam \(p. 1837\)](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## PutModelPackageGroupPolicy

Service: Amazon SageMaker Service

Adds a resource policy to control access to a model group. For information about resource policies, see [Identity-based policies and resource-based policies](#) in the *AWS Identity and Access Management User Guide*.

### Request Syntax

```
{  
    "ModelPackageGroupName": "string",  
    "ResourcePolicy": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### **ModelPackageGroupName (p. 812)**

The name of the model group to add a resource policy to.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

#### **ResourcePolicy (p. 812)**

The resource policy for the model group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 20480.

Pattern: .\*

Required: Yes

### Response Syntax

```
{  
    "ModelPackageGroupArn": "string"  
}
```

### Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [ModelPackageGroupArn \(p. 812\)](#)

The Amazon Resource Name (ARN) of the model package group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `arn:aws[a-z\-\]*:sagemaker:[a-z0-9\-\]*:[0-9]{12}:model-package-group/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# QueryLineage

Service: Amazon SageMaker Service

Use this action to inspect your lineage and discover relationships between entities. For more information, see [Querying Lineage Entities](#) in the *Amazon SageMaker Developer Guide*.

## Request Syntax

```
{  
    "Direction": "string",  
    "Filters": {  
        "CreatedAfter": number,  
        "CreatedBefore": number,  
        "LineageTypes": [ "string" ],  
        "ModifiedAfter": number,  
        "ModifiedBefore": number,  
        "Properties": {  
            "string" : "string"  
        },  
        "Types": [ "string" ]  
    },  
    "IncludeEdges": boolean,  
    "MaxDepth": number,  
    "MaxResults": number,  
    "NextToken": "string",  
    "StartArns": [ "string" ]  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### Direction (p. 814)

Associations between lineage entities have a direction. This parameter determines the direction from the StartArn(s) that the query traverses.

Type: String

Valid Values: Both | Ascendants | Descendants

Required: No

### Filters (p. 814)

A set of filtering parameters that allow you to specify which entities should be returned.

- Properties - Key-value pairs to match on the lineage entities' properties.
- LineageTypes - A set of lineage entity types to match on. For example: TrialComponent, Artifact, or Context.
- CreatedBefore - Filter entities created before this date.
- ModifiedBefore - Filter entities modified before this date.
- ModifiedAfter - Filter entities modified after this date.

Type: [QueryFilters \(p. 1681\)](#) object

Required: No

### [IncludeEdges \(p. 814\)](#)

Setting this value to True retrieves not only the entities of interest but also the [Associations](#) and lineage entities on the path. Set to False to only return lineage entities that match your query.

Type: Boolean

Required: No

### [MaxDepth \(p. 814\)](#)

The maximum depth in lineage relationships from the StartArns that are traversed. Depth is a measure of the number of Associations from the StartArn entity to the matched results.

Type: Integer

Valid Range: Maximum value of 10.

Required: No

### [MaxResults \(p. 814\)](#)

Limits the number of vertices in the results. Use the NextToken in a response to retrieve the next page of results.

Type: Integer

Valid Range: Maximum value of 50.

Required: No

### [NextToken \(p. 814\)](#)

Limits the number of vertices in the request. Use the NextToken in a response to retrieve the next page of results.

Type: String

Length Constraints: Maximum length of 8192.

Required: No

### [StartArns \(p. 814\)](#)

A list of resource Amazon Resource Name (ARN) that represent the starting point for your lineage query.

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 1 item.

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-\]\*:sagemaker:[a-z0-9\-\\*]:[0-9]{12}:(experiment|experiment-trial-component|artifact|action|context)/.\*

Required: No

## [Response Syntax](#)

```
{  
  "Edges": [  
    {
```

```
        "AssociationType": "string",
        "DestinationArn": "string",
        "SourceArn": "string"
    }
],
"NextToken": "string",
"Vertices": [
    {
        "Arn": "string",
        "LineageType": "string",
        "Type": "string"
    }
]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [Edges \(p. 815\)](#)

A list of edges that connect vertices in the response.

Type: Array of [Edge \(p. 1280\)](#) objects

### [NextToken \(p. 815\)](#)

Limits the number of vertices in the response. Use the NextToken in a response to to retrieve the next page of results.

Type: String

Length Constraints: Maximum length of 8192.

### [Vertices \(p. 815\)](#)

A list of vertices connected to the start entity(ies) in the lineage graph.

Type: Array of [Vertex \(p. 1828\)](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)

- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# RegisterDevices

Service: Amazon SageMaker Service

Register devices.

## Request Syntax

```
{  
    "DeviceFleetName": "string",  
    "Devices": [  
        {  
            "Description": "string",  
            "DeviceName": "string",  
            "IoTThingName": "string"  
        }  
    ],  
    "Tags": [  
        {  
            "Key": "string",  
            "Value": "string"  
        }  
    ]  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### [DeviceFleetName \(p. 818\)](#)

The name of the fleet.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

### [Devices \(p. 818\)](#)

A list of devices to register with SageMaker Edge Manager.

Type: Array of [Device \(p. 1261\)](#) objects

Required: Yes

### [Tags \(p. 818\)](#)

The tags associated with devices.

Type: Array of [Tag \(p. 1749\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### ResourceLimitExceeded

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## RenderUiTemplate

Service: Amazon SageMaker Service

Renders the UI template so that you can preview the worker's experience.

### Request Syntax

```
{  
    "HumanTaskUiArn": "string",  
    "RoleArn": "string",  
    "Task": {  
        "Input": "string"  
    },  
    "UiTemplate": {  
        "Content": "string"  
    }  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [HumanTaskUiArn \(p. 820\)](#)

The HumanTaskUiArn of the worker UI that you want to render. Do not provide a HumanTaskUiArn if you use the UiTemplate parameter.

See a list of available Human Ui Amazon Resource Names (ARNs) in [UiConfig \(p. 1817\)](#).

Type: String

Length Constraints: Maximum length of 1024.

Pattern: arn:aws[a-z\-]\*:sagemaker:[a-z0-9\-]\*:[0-9]{12}:human-task-ui/.\*

Required: No

#### [RoleArn \(p. 820\)](#)

The Amazon Resource Name (ARN) that has access to the S3 objects that are used by the template.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: ^arn:aws[a-z\-]\*:iam::\d{12}:role/?[a-zA-Z\_0-9+=,.@\\-/]+\$

Required: Yes

#### [Task \(p. 820\)](#)

A RenderableTask object containing a representative task to render.

Type: [RenderableTask \(p. 1698\)](#) object

Required: Yes

### [UiTemplate \(p. 820\)](#)

A Template object containing the worker UI template to render.

Type: [UiTemplate \(p. 1819\)](#) object

Required: No

## Response Syntax

```
{  
    "Errors": [  
        {  
            "Code": "string",  
            "Message": "string"  
        }  
    ],  
    "RenderedContent": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [Errors \(p. 821\)](#)

A list of one or more `RenderingError` objects if any were encountered while rendering the template. If there were no errors, the list is empty.

Type: Array of [RenderingError \(p. 1699\)](#) objects

### [RenderedContent \(p. 821\)](#)

A Liquid template that renders the HTML for the worker UI.

Type: String

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)

- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## RetryPipelineExecution

Service: Amazon SageMaker Service

Retry the execution of the pipeline.

### Request Syntax

```
{  
    "ClientRequestToken": "string",  
    "ParallelismConfiguration": {  
        "MaxParallelExecutionSteps": number  
    },  
    "PipelineExecutionArn": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [ClientRequestToken \(p. 823\)](#)

A unique, case-sensitive identifier that you provide to ensure the idempotency of the operation. An idempotent operation completes no more than once.

Type: String

Length Constraints: Minimum length of 32. Maximum length of 128.

Required: Yes

#### [ParallelismConfiguration \(p. 823\)](#)

This configuration, if specified, overrides the parallelism configuration of the parent pipeline.

Type: [ParallelismConfiguration \(p. 1604\)](#) object

Required: No

#### [PipelineExecutionArn \(p. 823\)](#)

The Amazon Resource Name (ARN) of the pipeline execution.

Type: String

Length Constraints: Maximum length of 256.

Pattern: ^arn:aws[a-z\-\]\*:sagemaker:[a-z0-9\-\]\*:[0-9]{12}:pipeline\/\*\execution\/\*\$

Required: Yes

### Response Syntax

```
{  
    "PipelineExecutionArn": "string"
```

}

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### **PipelineExecutionArn (p. 823)**

The Amazon Resource Name (ARN) of the pipeline execution.

Type: String

Length Constraints: Maximum length of 256.

Pattern: ^arn:aws[a-z\-]\*:sagemaker:[a-z0-9\-]\*:[0-9]{12}:pipeline\/.\*\execution\/.\*\$

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ConflictException**

There was a conflict when you attempted to modify a SageMaker entity such as an Experiment or Artifact.

HTTP Status Code: 400

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

### **ResourceNotFoundException**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)



## Search

Service: Amazon SageMaker Service

Finds Amazon SageMaker resources that match a search query. Matching resources are returned as a list of `SearchRecord` objects in the response. You can sort the search results by any resource property in a ascending or descending order.

You can query against the following value types: numeric, text, Boolean, and timestamp.

## Request Syntax

```
{  
    "MaxResults": number,  
    "NextToken": string,  
    "Resource": string,  
    "SearchExpression": {  
        "Filters": [  
            {  
                "Name": string,  
                "Operator": string,  
                "Value": string  
            }  
        ],  
        "NestedFilters": [  
            {  
                "Filters": [  
                    {  
                        "Name": string,  
                        "Operator": string,  
                        "Value": string  
                    }  
                ],  
                "NestedPropertyName": string  
            }  
        ],  
        "Operator": string,  
        "SubExpressions": [  
            "SearchExpression"  
        ]  
    },  
    "SortBy": string,  
    "SortOrder": string  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### MaxResults (p. 826)

The maximum number of results to return.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

### [NextToken \(p. 826\)](#)

If more than MaxResults resources match the specified SearchExpression, the response includes a NextToken. The NextToken can be passed to the next SearchRequest to continue retrieving results.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

Required: No

### [Resource \(p. 826\)](#)

The name of the Amazon SageMaker resource to search for.

Type: String

Valid Values: TrainingJob | Experiment | ExperimentTrial | ExperimentTrialComponent | Endpoint | ModelPackage | ModelPackageGroup | Pipeline | PipelineExecution | FeatureGroup | Project | FeatureMetadata | HyperParameterTuningJob | ModelCard | Model

Required: Yes

### [SearchExpression \(p. 826\)](#)

A Boolean conditional statement. Resources must satisfy this condition to be included in search results. You must provide at least one subexpression, filter, or nested filter. The maximum number of recursive SubExpressions, NestedFilters, and Filters that can be included in a SearchExpression object is 50.

Type: [SearchExpression \(p. 1721\)](#) object

Required: No

### [SortBy \(p. 826\)](#)

The name of the resource property used to sort the SearchResults. The default is LastModifiedTime.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: .+

Required: No

### [SortOrder \(p. 826\)](#)

How SearchResults are ordered. Valid values are Ascending or Descending. The default is Descending.

Type: String

Valid Values: Ascending | Descending

Required: No

## Response Syntax

```
{
```

```

"NextToken": "string",
"Results": [
    {
        "Endpoint": {
            "CreationTime": number,
            "DataCaptureConfig": {
                "CaptureStatus": "string",
                "CurrentSamplingPercentage": number,
                "DestinationS3Uri": "string",
                "EnableCapture": boolean,
                "KmsKeyId": "string"
            },
            "EndpointArn": "string",
            "EndpointConfigName": "string",
            "EndpointName": "string",
            "EndpointStatus": "string",
            "FailureReason": "string",
            "LastModifiedTime": number,
            "MonitoringSchedules": [
                {
                    "CreationTime": number,
                    "EndpointName": "string",
                    "FailureReason": "string",
                    "LastModifiedTime": number,
                    "LastMonitoringExecutionSummary": {
                        "CreationTime": number,
                        "EndpointName": "string",
                        "FailureReason": "string",
                        "LastModifiedTime": number,
                        "MonitoringExecutionStatus": "string",
                        "MonitoringJobDefinitionName": "string",
                        "MonitoringScheduleName": "string",
                        "MonitoringType": "string",
                        "ProcessingJobArn": "string",
                        "ScheduledTime": number
                    },
                    "MonitoringScheduleArn": "string",
                    "MonitoringScheduleConfig": {
                        "MonitoringJobDefinition": {
                            "BaselineConfig": {
                                "BaseliningJobName": "string",
                                "ConstraintsResource": {
                                    "S3Uri": "string"
                                },
                                "StatisticsResource": {
                                    "S3Uri": "string"
                                }
                            },
                            "Environment": {
                                "string" : "string"
                            },
                            "MonitoringAppSpecification": {
                                "ContainerArguments": [ "string" ],
                                "ContainerEntrypoint": [ "string" ],
                                "ImageUri": "string",
                                "PostAnalyticsProcessorSourceUri": "string",
                                "RecordPreprocessorSourceUri": "string"
                            }
                        },
                        "MonitoringInputs": [
                            {
                                "BatchTransformInput": {
                                    "DataCapturedDestinationS3Uri": "string",
                                    "DatasetFormat": {
                                        "Csv": {
                                            "Header": boolean
                                        }
                                    }
                                }
                            }
                        ]
                    }
                }
            ]
        }
    }
]

```

```

        "Json": {
            "Line": boolean
        },
        "Parquet": {
        }
    },
    "EndTimeOffset": "string",
    "FeaturesAttribute": "string",
    "InferenceAttribute": "string",
    "LocalPath": "string",
    "ProbabilityAttribute": "string",
    "ProbabilityThresholdAttribute": number,
    "S3DataDistributionType": "string",
    "S3InputMode": "string",
    "StartTimeOffset": "string"
},
"EndpointInput": {
    "EndpointName": "string",
    "EndTimeOffset": "string",
    "FeaturesAttribute": "string",
    "InferenceAttribute": "string",
    "LocalPath": "string",
    "ProbabilityAttribute": "string",
    "ProbabilityThresholdAttribute": number,
    "S3DataDistributionType": "string",
    "S3InputMode": "string",
    "StartTimeOffset": "string"
}
}
],
"MonitoringOutputConfig": {
    "KmsKeyId": "string",
    "MonitoringOutputs": [
        {
            "S3Output": {
                "LocalPath": "string",
                "S3UploadMode": "string",
                "S3Uri": "string"
            }
        }
    ]
},
"MonitoringResources": {
    "ClusterConfig": {
        "InstanceCount": number,
        "InstanceType": "string",
        "VolumeKmsKeyId": "string",
        "VolumeSizeInGB": number
    }
},
"NetworkConfig": {
    "EnableInterContainerTrafficEncryption": boolean,
    "EnableNetworkIsolation": boolean,
    "VpcConfig": {
        "SecurityGroupIds": [ "string" ],
        "Subnets": [ "string" ]
    }
},
"RoleArn": "string",
"StoppingCondition": {
    "MaxRuntimeInSeconds": number
}
},
"MonitoringJobDefinitionName": "string",
"MonitoringType": "string",
"ScheduleConfig": {

```

```

        "ScheduleExpression": "string"
    }
},
"MonitoringScheduleName": "string",
"MonitoringScheduleStatus": "string",
"MonitoringType": "string",
"Tags": [
    {
        "Key": "string",
        "Value": "string"
    }
]
],
"ProductionVariants": [
{
    "CurrentInstanceCount": number,
    "CurrentServerlessConfig": {
        "MaxConcurrency": number,
        "MemorySizeInMB": number
    },
    "CurrentWeight": number,
    "DeployedImages": [
        {
            "ResolutionTime": number,
            "ResolvedImage": "string",
            "SpecifiedImage": "string"
        }
    ],
    "DesiredInstanceCount": number,
    "DesiredServerlessConfig": {
        "MaxConcurrency": number,
        "MemorySizeInMB": number
    },
    "DesiredWeight": number,
    "VariantName": "string",
    "VariantStatus": [
        {
            "StartTime": number,
            "Status": "string",
            "StatusMessage": "string"
        }
    ]
}
],
"ShadowProductionVariants": [
{
    "CurrentInstanceCount": number,
    "CurrentServerlessConfig": {
        "MaxConcurrency": number,
        "MemorySizeInMB": number
    },
    "CurrentWeight": number,
    "DeployedImages": [
        {
            "ResolutionTime": number,
            "ResolvedImage": "string",
            "SpecifiedImage": "string"
        }
    ],
    "DesiredInstanceCount": number,
    "DesiredServerlessConfig": {
        "MaxConcurrency": number,
        "MemorySizeInMB": number
    },
    "DesiredWeight": number,
}
]
]
```

```

        "VariantName": "string",
        "VariantStatus": [
            {
                "StartTime": number,
                "Status": "string",
                "StatusMessage": "string"
            }
        ],
        "Tags": [
            {
                "Key": "string",
                "Value": "string"
            }
        ]
    },
    "Experiment": {
        "CreatedBy": {
            "DomainId": "string",
            "UserProfileArn": "string",
            "UserProfileName": "string"
        },
        "CreationTime": number,
        "Description": "string",
        "DisplayName": "string",
        "ExperimentArn": "string",
        "ExperimentName": "string",
        "LastModifiedBy": {
            "DomainId": "string",
            "UserProfileArn": "string",
            "UserProfileName": "string"
        },
        "LastModifiedTime": number,
        "Source": {
            "SourceArn": "string",
            "SourceType": "string"
        },
        "Tags": [
            {
                "Key": "string",
                "Value": "string"
            }
        ]
    },
    "FeatureGroup": {
        "CreationTime": number,
        "Description": "string",
        "EventTimeFeatureName": "string",
        "FailureReason": "string",
        "FeatureDefinitions": [
            {
                "FeatureName": "string",
                "FeatureType": "string"
            }
        ],
        "FeatureGroupArn": "string",
        "FeatureGroupName": "string",
        "FeatureGroupStatus": "string",
        "LastModifiedTime": number,
        "LastUpdateStatus": {
            "FailureReason": "string",
            "Status": "string"
        },
        "OfflineStoreConfig": {
            "DataCatalogConfig": {

```

```

        "Catalog": "string",
        "Database": "string",
        "TableName": "string"
    },
    "DisableGlueTableCreation": boolean,
    "S3StorageConfig": {
        "KmsKeyId": "string",
        "ResolvedOutputS3Uri": "string",
        "S3Uri": "string"
    },
    "TableFormat": "string"
},
"OfflineStoreStatus": {
    "BlockedReason": "string",
    "Status": "string"
},
"OnLineStoreConfig": {
    "EnableOnLineStore": boolean,
    "SecurityConfig": {
        "KmsKeyId": "string"
    }
},
"RecordIdentifierFeatureName": "string",
"RoleArn": "string",
"Tags": [
    {
        "Key": "string",
        "Value": "string"
    }
]
},
"FeatureMetadata": {
    "CreationTime": number,
    "Description": "string",
    "FeatureGroupArn": "string",
    "FeatureGroupName": "string",
    "FeatureName": "string",
    "FeatureType": "string",
    "LastModifiedTime": number,
    "Parameters": [
        {
            "Key": "string",
            "Value": "string"
        }
    ]
},
"HyperParameterTuningJob": {
    "BestTrainingJob": {
        "CreationTime": number,
        "FailureReason": "string",
        "FinalHyperParameterTuningJobObjectiveMetric": {
            "MetricName": "string",
            "Type": "string",
            "Value": number
        },
        "ObjectiveStatus": "string",
        "TrainingEndTime": number,
        "TrainingJobArn": "string",
        "TrainingJobDefinitionName": "string",
        "TrainingJobName": "string",
        "TrainingJobStatus": "string",
        "TrainingStartTime": number,
        "TunedHyperParameters": {
            "string" : "string"
        }
    },
    "TuningJobName": "string"
}

```

```

},
"CreationTime": number,
"FailureReason": "string",
"HyperParameterTuningEndTime": number,
"HyperParameterTuningJobArn": "string",
"HyperParameterTuningJobConfig": {
    "HyperParameterTuningJobObjective": {
        "MetricName": "string",
        "Type": "string"
    },
    "ParameterRanges": {
        "CategoricalParameterRanges": [
            {
                "Name": "string",
                "Values": [ "string" ]
            }
        ],
        "ContinuousParameterRanges": [
            {
                "MaxValue": "string",
                "MinValue": "string",
                "Name": "string",
                "ScalingType": "string"
            }
        ],
        "IntegerParameterRanges": [
            {
                "MaxValue": "string",
                "MinValue": "string",
                "Name": "string",
                "ScalingType": "string"
            }
        ]
    },
    "ResourceLimits": {
        "MaxNumberOfTrainingJobs": number,
        "MaxParallelTrainingJobs": number
    },
    "Strategy": "string",
    "StrategyConfig": {
        "HyperbandStrategyConfig": {
            "MaxResource": number,
            "MinResource": number
        }
    },
    "TrainingJobEarlyStoppingType": "string",
    "TuningJobCompletionCriteria": {
        "TargetObjectiveMetricValue": number
    }
},
"HyperParameterTuningJobName": "string",
"HyperParameterTuningJobStatus": "string",
"LastModifiedTime": number,
"ObjectiveStatusCounters": {
    "Failed": number,
    "Pending": number,
    "Succeeded": number
},
"OverallBestTrainingJob": {
    "CreationTime": number,
    "FailureReason": "string",
    "FinalHyperParameterTuningJobObjectiveMetric": {
        "MetricName": "string",
        "Type": "string",
        "Value": number
    }
},

```

```

    "ObjectiveStatus": "string",
    "TrainingEndTime": number,
    "TrainingJobArn": "string",
    "TrainingJobDefinitionName": "string",
    "TrainingJobName": "string",
    "TrainingJobStatus": "string",
    "TrainingStartTime": number,
    "TunedHyperParameters": {
        "string" : "string"
    },
    "TuningJobName": "string"
},
"Tags": [
    {
        "Key": "string",
        "Value": "string"
    }
],
"TrainingJobDefinition": {
    "AlgorithmSpecification": {
        "AlgorithmName": "string",
        "MetricDefinitions": [
            {
                "Name": "string",
                "Regex": "string"
            }
        ],
        "TrainingImage": "string",
        "TrainingInputMode": "string"
    },
    "CheckpointConfig": {
        "LocalPath": "string",
        "S3Uri": "string"
    },
    "DefinitionName": "string",
    "EnableInterContainerTrafficEncryption": boolean,
    "EnableManagedSpotTraining": boolean,
    "EnableNetworkIsolation": boolean,
    "HyperParameterRanges": {
        "CategoricalParameterRanges": [
            {
                "Name": "string",
                "Values": [ "string" ]
            }
        ],
        "ContinuousParameterRanges": [
            {
                "MaxValue": "string",
                "MinValue": "string",
                "Name": "string",
                "ScalingType": "string"
            }
        ],
        "IntegerParameterRanges": [
            {
                "MaxValue": "string",
                "MinValue": "string",
                "Name": "string",
                "ScalingType": "string"
            }
        ]
    },
    "HyperParameterTuningResourceConfig": {
        "AllocationStrategy": "string",
        "InstanceConfigs": [
            {

```

```

        "InstanceCount": number,
        "InstanceType": "string",
        "VolumeSizeInGB": number
    }
],
"InstanceCount": number,
"InstanceType": "string",
"VolumeKmsKeyId": "string",
"VolumeSizeInGB": number
},
"InputDataConfig": [
{
    "ChannelName": "string",
    "CompressionType": "string",
    "ContentType": "string",
    "DataSource": {
        "FileSystemDataSource": {
            "DirectoryPath": "string",
            "FileSystemAccessMode": "string",
            "FileSystemId": "string",
            "FileSystemType": "string"
        },
        "S3DataSource": {
            "AttributeNames": [ "string" ],
            "InstanceGroupNames": [ "string" ],
            "S3DataDistributionType": "string",
            "S3DataType": "string",
            "S3Uri": "string"
        }
    },
    "InputMode": "string",
    "RecordWrapperType": "string",
    "ShuffleConfig": {
        "Seed": number
    }
}
],
"OutputDataConfig": {
    "KmsKeyId": "string",
    "S3OutputPath": "string"
},
"ResourceConfig": {
    "InstanceCount": number,
    "InstanceGroups": [
        {
            "InstanceCount": number,
            "InstanceGroupName": "string",
            "InstanceType": "string"
        }
    ],
    "InstanceType": "string",
    "KeepAlivePeriodInSeconds": number,
    "VolumeKmsKeyId": "string",
    "VolumeSizeInGB": number
},
"RetryStrategy": {
    "MaximumRetryAttempts": number
},
"RoleArn": "string",
"StaticHyperParameters": {
    "string" : "string"
},
"StoppingCondition": {
    "MaxRuntimeInSeconds": number,
    "MaxWaitTimeInSeconds": number
}
},

```

```

    "TuningObjective": {
        "MetricName": "string",
        "Type": "string"
    },
    "VpcConfig": {
        "SecurityGroupIds": [ "string" ],
        "Subnets": [ "string" ]
    }
},
"TrainingJobDefinitions": [
    {
        "AlgorithmSpecification": {
            "AlgorithmName": "string",
            "MetricDefinitions": [
                {
                    "Name": "string",
                    "Regex": "string"
                }
            ],
            "TrainingImage": "string",
            "TrainingInputMode": "string"
        },
        "CheckpointConfig": {
            "LocalPath": "string",
            "S3Uri": "string"
        },
        "DefinitionName": "string",
        "EnableInterContainerTrafficEncryption": boolean,
        "EnableManagedSpotTraining": boolean,
        "EnableNetworkIsolation": boolean,
        "HyperParameterRanges": [
            "CategoricalParameterRanges": [
                {
                    "Name": "string",
                    "Values": [ "string" ]
                }
            ],
            "ContinuousParameterRanges": [
                {
                    "MaxValue": "string",
                    "MinValue": "string",
                    "Name": "string",
                    "ScalingType": "string"
                }
            ],
            "IntegerParameterRanges": [
                {
                    "MaxValue": "string",
                    "MinValue": "string",
                    "Name": "string",
                    "ScalingType": "string"
                }
            ]
        ],
        "HyperParameterTuningResourceConfig": {
            "AllocationStrategy": "string",
            "InstanceConfigs": [
                {
                    "InstanceCount": number,
                    "InstanceType": "string",
                    "VolumeSizeInGB": number
                }
            ],
            "InstanceCount": number,
            "InstanceType": "string",
            "VolumeKmsKeyId": "string",
            "VolumeType": "string"
        }
    }
]
}

```

```

        "VolumeSizeInGB": number
    },
    "InputDataConfig": [
        {
            "ChannelName": "string",
            "CompressionType": "string",
            "ContentType": "string",
            "DataSource": {
                "FileSystemDataSource": {
                    "DirectoryPath": "string",
                    "FileSystemAccessMode": "string",
                    "FileSystemId": "string",
                    "FileSystemType": "string"
                },
                "S3DataSource": {
                    "AttributeNames": [ "string" ],
                    "InstanceGroupNames": [ "string" ],
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        "RetryableError": number,
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    "VolumeKmsKeyId": "string"
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            "Environment": {
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                "RepositoryAuthConfig": {
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    "ExecutionRoleArn": "string",
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        "UserProfileArn": "string",
        "UserProfileName": "string"
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    "CreationTime": number,
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        "UserProfileArn": "string",
        "UserProfileName": "string"
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    "SecurityConfig": {
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        "Value": "string"
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        "ProcessingJobArn": "string",
        "ScheduledTime": number
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            "StatisticsResource": {
                "S3Uri": "string"
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            "ContainerEntrypoint": [ "string" ],
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            "RecordPreprocessorSourceUri": "string"
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        "VolumeSizeInGB": number
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        "UserProfileName": "string"
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    "LastModifiedBy": {
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        "UserProfileArn": "string",
        "UserProfileName": "string"
    }
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]
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                        "ProductId": "string"
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    }
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]

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                "Status": "string"
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                    },
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        "UserProfileArn": "string",
        "UserProfileName": "string"
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    "PipelineName": "string",
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    "RoleArn": "string",
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        "ProvisionedProductStatusMessage": "string"
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        ]
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            "Value": "string"
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}

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                    "Regex": "string"
                }
            ],
            "TrainingImage": "string",
            "TrainingInputMode": "string"
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                "VolumeSizeInGB": number
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                "RuleEvaluationStatus": "string",
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        "Value": number
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                "FileSystemType": "string"
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                "InstanceGroupNames": [ "string" ],
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                "S3DataType": "string",
                "S3Uri": "string"
            }
        },
        "InputMode": "string",
        "RecordWrapperType": "string",
        "ShuffleConfig": {
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        "Status": "string",
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    "MaxWaitTimeInSeconds": number
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        "Value": "string"
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    "Subnets": [ "string" ]
}
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        "UserProfileArn": "string",
        "UserProfileName": "string"
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    "ExperimentName": "string",
    "LastModifiedBy": {
        "DomainId": "string",
        "UserProfileArn": "string",
        "UserProfileName": "string"
    },
    "LastModifiedTime": number,
    "MetadataProperties": {
        "CommitId": "string",
        "GeneratedBy": "string",
        "ProjectId": "string",
        "Repository": "string"
    },
    "Source": {
        "SourceArn": "string",
        "SourceType": "string"
    }
}
}

```

```

        },
        "Tags": [
            {
                "Key": "string",
                "Value": "string"
            }
        ],
        "TrialArn": "string",
        "TrialComponentSummaries": [
            {
                "CreatedBy": {
                    "DomainId": "string",
                    "UserProfileArn": "string",
                    "UserProfileName": "string"
                },
                "CreationTime": number,
                "TrialComponentArn": "string",
                "TrialComponentName": "string",
                "TrialComponentSource": {
                    "SourceArn": "string",
                    "SourceType": "string"
                }
            }
        ],
        "TrialName": "string"
    },
    "TrialComponent": {
        "CreatedBy": {
            "DomainId": "string",
            "UserProfileArn": "string",
            "UserProfileName": "string"
        },
        "CreationTime": number,
        "DisplayName": "string",
        "EndTime": number,
        "InputArtifacts": {
            "string" : {
                "MediaType": "string",
                "Value": "string"
            }
        },
        "LastModifiedBy": {
            "DomainId": "string",
            "UserProfileArn": "string",
            "UserProfileName": "string"
        },
        "LastModifiedTime": number,
        "LineageGroupArn": "string",
        "MetadataProperties": {
            "CommitId": "string",
            "GeneratedBy": "string",
            "ProjectId": "string",
            "Repository": "string"
        },
        "Metrics": [
            {
                "Avg": number,
                "Count": number,
                "Last": number,
                "Max": number,
                "MetricName": "string",
                "Min": number,
                "SourceArn": "string",
                "StdDev": number,
                "TimeStamp": number
            }
        ]
    }
}

```

```

        ],
        "OutputArtifacts": {
            "string" : {
                "MediaType": "string",
                "Value": "string"
            }
        },
        "Parameters": {
            "string" : {
                "NumberValue": number,
                "StringValue": "string"
            }
        },
        "Parents": [
            {
                "ExperimentName": "string",
                "TrialName": "string"
            }
        ],
        "RunName": "string",
        "Source": {
            "SourceArn": "string",
            "SourceType": "string"
        },
        "SourceDetail": {
            "ProcessingJob": {
                "AppSpecification": {
                    "ContainerArguments": [ "string" ],
                    "ContainerEntrypoint": [ "string" ],
                    "ImageUri": "string"
                },
                "AutoMLJobArn": "string",
                "CreationTime": number,
                "Environment": {
                    "string" : "string"
                },
                "ExitMessage": "string",
                "ExperimentConfig": {
                    "ExperimentName": "string",
                    "RunName": "string",
                    "TrialComponentDisplayName": "string",
                    "TrialName": "string"
                },
                "FailureReason": "string",
                "LastModifiedTime": number,
                "MonitoringScheduleArn": "string",
                "NetworkConfig": {
                    "EnableInterContainerTrafficEncryption": boolean,
                    "EnableNetworkIsolation": boolean,
                    "VpcConfig": {
                        "SecurityGroupIds": [ "string" ],
                        "Subnets": [ "string" ]
                    }
                },
                "ProcessingEndTime": number,
                "ProcessingInputs": [
                    {
                        "AppManaged": boolean,
                        "DatasetDefinition": {
                            "AthenaDatasetDefinition": {
                                "Catalog": "string",
                                "Database": "string",
                                "KmsKeyId": "string",
                                "OutputCompression": "string",
                                "OutputFormat": "string",
                                "OutputS3Uri": "string",
                                "Table": "string"
                            }
                        }
                    }
                ],
                "ProcessingJobArn": "string",
                "ProcessingOutput": [
                    {
                        "AppManaged": boolean,
                        "DatasetDefinition": {
                            "AthenaDatasetDefinition": {
                                "Catalog": "string",
                                "Database": "string",
                                "KmsKeyId": "string",
                                "OutputCompression": "string",
                                "OutputFormat": "string",
                                "OutputS3Uri": "string",
                                "Table": "string"
                            }
                        }
                    }
                ],
                "ProcessingStatus": "string",
                "ProcessingTime": number
            }
        }
    }
}

```

```

        "QueryString": "string",
        "WorkGroup": "string"
    },
    "DataDistributionType": "string",
    "InputMode": "string",
    "LocalPath": "string",
    "RedshiftDatasetDefinition": {
        "ClusterId": "string",
        "ClusterRoleArn": "string",
        "Database": "string",
        "DbUser": "string",
        "KmsKeyId": "string",
        "OutputCompression": "string",
        "OutputFormat": "string",
        "OutputS3Uri": "string",
        "QueryString": "string"
    }
},
"InputName": "string",
"S3Input": {
    "LocalPath": "string",
    "S3CompressionType": "string",
    "S3DataDistributionType": "string",
    "S3DataType": "string",
    "S3InputMode": "string",
    "S3Uri": "string"
}
}
],
"ProcessingJobArn": "string",
"ProcessingJobName": "string",
"ProcessingJobStatus": "string",
"ProcessingOutputConfig": {
    "KmsKeyId": "string",
    "Outputs": [
        {
            "AppManaged": boolean,
            "FeatureStoreOutput": {
                "FeatureGroupName": "string"
            },
            "OutputName": "string",
            "S3Output": {
                "LocalPath": "string",
                "S3UploadMode": "string",
                "S3Uri": "string"
            }
        }
    ]
},
"ProcessingResources": {
    "ClusterConfig": {
        "InstanceCount": number,
        "InstanceType": "string",
        "VolumeKmsKeyId": "string",
        "VolumeSizeInGB": number
    }
},
"ProcessingStartTime": number,
"RoleArn": "string",
"StoppingCondition": {
    "MaxRuntimeInSeconds": number
},
"Tags": [
{
    "Key": "string",
    "Value": "string"
}
]
}

```

```

        }
    ],
    "TrainingJobArn": "string"
},
"SourceArn": "string",
"TrainingJob": {
    "AlgorithmSpecification": {
        "AlgorithmName": "string",
        "ContainerArguments": [ "string" ],
        "ContainerEntrypoint": [ "string" ],
        "EnableSageMakerMetricsTimeSeries": boolean,
        "MetricDefinitions": [
            {
                "Name": "string",
                "Regex": "string"
            }
        ],
        "TrainingImage": "string",
        "TrainingInputMode": "string"
    },
    "AutoMLJobArn": "string",
    "BillableTimeInSeconds": number,
    "CheckpointConfig": {
        "LocalPath": "string",
        "S3Uri": "string"
    },
    "CreationTime": number,
    "DebugHookConfig": {
        "CollectionConfigurations": [
            {
                "CollectionName": "string",
                "CollectionParameters": {
                    "string" : "string"
                }
            }
        ],
        "HookParameters": {
            "string" : "string"
        },
        "LocalPath": "string",
        "S3OutputPath": "string"
    },
    "DebugRuleConfigurations": [
        {
            "InstanceType": "string",
            "LocalPath": "string",
            "RuleConfigurationName": "string",
            "RuleEvaluatorImage": "string",
            "RuleParameters": {
                "string" : "string"
            },
            "S3OutputPath": "string",
            "VolumeSizeInGB": number
        }
    ],
    "DebugRuleEvaluationStatuses": [
        {
            "LastModifiedTime": number,
            "RuleConfigurationName": "string",
            "RuleEvaluationJobArn": "string",
            "RuleEvaluationStatus": "string",
            "StatusDetails": "string"
        }
    ],
    "EnableInterContainerTrafficEncryption": boolean,
    "EnableManagedSpotTraining": boolean,

```

```

"EnableNetworkIsolation": boolean,
"Environment": {
    "string" : "string"
},
"ExperimentConfig": {
    "ExperimentName": "string",
    "RunName": "string",
    "TrialComponentDisplayName": "string",
    "TrialName": "string"
},
"FailureReason": "string",
"FinalMetricDataList": [
    {
        "MetricName": "string",
        "Timestamp": number,
        "Value": number
    }
],
"HyperParameters": {
    "string" : "string"
},
"InputDataConfig": [
    {
        "ChannelName": "string",
        "CompressionType": "string",
        "ContentType": "string",
        "DataSource": {
            "FileSystemDataSource": {
                "DirectoryPath": "string",
                "FileSystemAccessMode": "string",
                "FileSystemId": "string",
                "FileSystemType": "string"
            },
            "S3DataSource": {
                "AttributeNames": [ "string" ],
                "InstanceGroupNames": [ "string" ],
                "S3DataDistributionType": "string",
                "S3DataType": "string",
                "S3Uri": "string"
            }
        },
        "InputMode": "string",
        "RecordWrapperType": "string",
        "ShuffleConfig": {
            "Seed": number
        }
    }
],
"LabelingJobArn": "string",
"LastModifiedTime": number,
"ModelArtifacts": {
    "S3ModelArtifacts": "string"
},
"OutputDataConfig": {
    "KmsKeyId": "string",
    "S3 outputPath": "string"
},
"ResourceConfig": {
    "InstanceCount": number,
    "InstanceGroups": [
        {
            "InstanceCount": number,
            "InstanceGroupName": "string",
            "InstanceType": "string"
        }
    ],
}

```

```
"InstanceType": "string",
"KeepAlivePeriodInSeconds": number,
"VolumeKmsKeyId": "string",
"VolumeSizeInGB": number
},
"RetryStrategy": {
    "MaximumRetryAttempts": number
},
"RoleArn": "string",
"SecondaryStatus": "string",
"SecondaryStatusTransitions": [
    {
        "EndTime": number,
        "StartTime": number,
        "Status": "string",
        "StatusMessage": "string"
    }
],
"StoppingCondition": {
    "MaxRuntimeInSeconds": number,
    "MaxWaitTimeInSeconds": number
},
"Tags": [
    {
        "Key": "string",
        "Value": "string"
    }
],
"TensorBoardOutputConfig": {
    "LocalPath": "string",
    "S3OutputPath": "string"
},
"TrainingEndTime": number,
"TrainingJobArn": "string",
"TrainingJobName": "string",
"TrainingJobStatus": "string",
"TrainingStartTime": number,
"TrainingTimeInSeconds": number,
"TrainingJobArn": "string",
"VpcConfig": {
    "SecurityGroupIds": [ "string" ],
    "Subnets": [ "string" ]
}
},
"TransformJob": {
    "AutoMLJobArn": "string",
    "BatchStrategy": "string",
    "CreationTime": number,
    "DataProcessing": {
        "InputFilter": "string",
        "JoinSource": "string",
        "OutputFilter": "string"
    }
},
"Environment": {
    "string" : "string"
},
"ExperimentConfig": {
    "ExperimentName": "string",
    "RunName": "string",
    "TrialComponentDisplayName": "string",
    "TrialName": "string"
},
"FailureReason": "string",
"LabelingJobArn": "string",
"MaxConcurrentTransforms": number,
"MaxPayloadInMB": number,
```

```

    "ModelClientConfig": {
        "InvocationsMaxRetries": number,
        "InvocationsTimeoutInSeconds": number
    },
    "ModelName": "string",
    "Tags": [
        {
            "Key": "string",
            "Value": "string"
        }
    ],
    "TransformEndTime": number,
    "TransformInput": {
        "CompressionType": "string",
        "ContentType": "string",
        "DataSource": {
            "S3DataSource": {
                "S3DataType": "string",
                "S3Uri": "string"
            }
        },
        "SplitType": "string"
    },
    "TransformJobArn": "string",
    "TransformJobName": "string",
    "TransformJobStatus": "string",
    "TransformOutput": {
        "Accept": "string",
        "AssembleWith": "string",
        "KmsKeyId": "string",
        "S3OutputPath": "string"
    },
    "TransformResources": {
        "InstanceCount": number,
        "InstanceType": "string",
        "VolumeKmsKeyId": "string"
    },
    "TransformStartTime": number
},
{
    "StartTime": number,
    "Status": {
        "Message": "string",
        "PrimaryStatus": "string"
    },
    "Tags": [
        {
            "Key": "string",
            "Value": "string"
        }
    ],
    "TrialComponentArn": "string",
    "TrialComponentName": "string"
}
]
}
}

```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [NextToken \(p. 827\)](#)

If the result of the previous Search request was truncated, the response includes a NextToken. To retrieve the next set of results, use the token in the next request.

Type: String

Length Constraints: Maximum length of 8192.

Pattern: .\*

### [Results \(p. 827\)](#)

A list of SearchRecord objects.

Type: Array of [SearchRecord \(p. 1723\)](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## SendPipelineExecutionStepFailure

Service: Amazon SageMaker Service

Notifies the pipeline that the execution of a callback step failed, along with a message describing why. When a callback step is run, the pipeline generates a callback token and includes the token in a message sent to Amazon Simple Queue Service (Amazon SQS).

### Request Syntax

```
{  
    "CallbackToken": "string",  
    "ClientRequestToken": "string",  
    "FailureReason": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [CallbackToken \(p. 860\)](#)

The pipeline generated token from the Amazon SQS queue.

Type: String

Length Constraints: Fixed length of 10.

Pattern: ^[a-zA-Z0-9]+\$

Required: Yes

#### [ClientRequestToken \(p. 860\)](#)

A unique, case-sensitive identifier that you provide to ensure the idempotency of the operation. An idempotent operation completes no more than one time.

Type: String

Length Constraints: Minimum length of 32. Maximum length of 128.

Required: No

#### [FailureReason \(p. 860\)](#)

A message describing why the step failed.

Type: String

Length Constraints: Maximum length of 256.

Required: No

### Response Syntax

```
{
```

```
    "PipelineExecutionArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [PipelineExecutionArn \(p. 860\)](#)

The Amazon Resource Name (ARN) of the pipeline execution.

Type: String

Length Constraints: Maximum length of 256.

Pattern: ^arn:aws[a-z\-\]\*:sagemaker:[a-z0-9\-\-]\*:[0-9]{12}:pipeline\/.\*\\$execution\/.\*\\$

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# SendPipelineExecutionStepSuccess

Service: Amazon SageMaker Service

Notifies the pipeline that the execution of a callback step succeeded and provides a list of the step's output parameters. When a callback step is run, the pipeline generates a callback token and includes the token in a message sent to Amazon Simple Queue Service (Amazon SQS).

## Request Syntax

```
{  
    "CallbackToken": "string",  
    "ClientRequestToken": "string",  
    "OutputParameters": [  
        {  
            "Name": "string",  
            "Value": "string"  
        }  
    ]  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### [CallbackToken \(p. 862\)](#)

The pipeline generated token from the Amazon SQS queue.

Type: String

Length Constraints: Fixed length of 10.

Pattern: ^[a-zA-Z0-9]+\$

Required: Yes

### [ClientRequestToken \(p. 862\)](#)

A unique, case-sensitive identifier that you provide to ensure the idempotency of the operation. An idempotent operation completes no more than one time.

Type: String

Length Constraints: Minimum length of 32. Maximum length of 128.

Required: No

### [OutputParameters \(p. 862\)](#)

A list of the output parameters of the callback step.

Type: Array of [OutputParameter \(p. 1603\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## Response Syntax

```
{  
    "PipelineExecutionArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### **PipelineExecutionArn** (p. 863)

The Amazon Resource Name (ARN) of the pipeline execution.

Type: String

Length Constraints: Maximum length of 256.

Pattern: ^arn:aws[a-z\-\]\*:sagemaker:[a-z0-9\-\\*]:[0-9]{12}:pipeline\/.\*\\$/execution\/.\*\\$

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# StartEdgeDeploymentStage

Service: Amazon SageMaker Service

Starts a stage in an edge deployment plan.

## Request Syntax

```
{  
    "EdgeDeploymentPlanName": "string",  
    "StageName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### [EdgeDeploymentPlanName \(p. 864\)](#)

The name of the edge deployment plan to start.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

### [StageName \(p. 864\)](#)

The name of the stage to start.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)

- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# StartInferenceExperiment

Service: Amazon SageMaker Service

Starts an inference experiment.

## Request Syntax

```
{  
    "Name": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### Name (p. 866)

The name of the inference experiment to start.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,119\}

Required: Yes

## Response Syntax

```
{  
    "InferenceExperimentArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### InferenceExperimentArn (p. 866)

The ARN of the started inference experiment to start.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-zA-Z-]\*:sagemaker:[a-zA-Z0-9-]\*:[0-9]\{12\}:inference-experiment/.\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ConflictException**

There was a conflict when you attempted to modify a SageMaker entity such as an Experiment or Artifact.

HTTP Status Code: 400

### **ResourceNotFoundException**

Resource being accessed is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## StartMonitoringSchedule

Service: Amazon SageMaker Service

Starts a previously stopped monitoring schedule.

### Note

By default, when you successfully create a new schedule, the status of a monitoring schedule is scheduled.

## Request Syntax

```
{  
    "MonitoringScheduleName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### MonitoringScheduleName (p. 868)

The name of the schedule to start.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9]){0,62}\$

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)

- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## StartNotebookInstance

Service: Amazon SageMaker Service

Launches an ML compute instance with the latest version of the libraries and attaches your ML storage volume. After configuring the notebook instance, SageMaker sets the notebook instance status to InService. A notebook instance's status must be InService before you can connect to your Jupyter notebook.

### Request Syntax

```
{  
    "NotebookInstanceName": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### NotebookInstanceName (p. 870)

The name of the notebook instance to start.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\*

Required: Yes

### Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

### Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

#### ResourceLimitExceeded

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# StartPipelineExecution

Service: Amazon SageMaker Service

Starts a pipeline execution.

## Request Syntax

```
{  
    "ClientRequestToken": "string",  
    "ParallelismConfiguration": {  
        "MaxParallelExecutionSteps": number  
    },  
    "PipelineExecutionDescription": "string",  
    "PipelineExecutionDisplayName": "string",  
    "PipelineName": "string",  
    "PipelineParameters": [  
        {  
            "Name": "string",  
            "Value": "string"  
        }  
    ]  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### [ClientRequestToken \(p. 872\)](#)

A unique, case-sensitive identifier that you provide to ensure the idempotency of the operation. An idempotent operation completes no more than once.

Type: String

Length Constraints: Minimum length of 32. Maximum length of 128.

Required: Yes

### [ParallelismConfiguration \(p. 872\)](#)

This configuration, if specified, overrides the parallelism configuration of the parent pipeline for this specific run.

Type: [ParallelismConfiguration \(p. 1604\)](#) object

Required: No

### [PipelineExecutionDescription \(p. 872\)](#)

The description of the pipeline execution.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 3072.

Pattern: .\*

Required: No

#### [PipelineExecutionDisplayName \(p. 872\)](#)

The display name of the pipeline execution.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 82.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9]){0,81}

Required: No

#### [PipelineName \(p. 872\)](#)

The name of the pipeline.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: (arn:aws[a-z\-\]\*:sagemaker:[a-zA-Z0-9\-\-]\*:[0-9]{12}:pipeline/.\*)?([a-zA-Z0-9](-\*[a-zA-Z0-9]){0,255})

Required: Yes

#### [PipelineParameters \(p. 872\)](#)

Contains a list of pipeline parameters. This list can be empty.

Type: Array of [Parameter \(p. 1605\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## Response Syntax

```
{  
    "PipelineExecutionArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

#### [PipelineExecutionArn \(p. 873\)](#)

The Amazon Resource Name (ARN) of the pipeline execution.

Type: String

Length Constraints: Maximum length of 256.

Pattern: ^arn:aws[a-z\-\]\*:sagemaker:[a-zA-Z0-9\-\-]\*:[0-9]{12}:pipeline\/.\*\//execution\\$.\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## StopAutoMLJob

Service: Amazon SageMaker Service

A method for forcing the termination of a running job.

### Request Syntax

```
{  
    "AutoMLJobName": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### **AutoMLJobName (p. 875)**

The name of the object you are requesting.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9]){0,31}

Required: Yes

### Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

### Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

#### **ResourceNotFoundException**

Resource being accessed is not found.

HTTP Status Code: 400

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)

- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## StopCompilationJob

Service: Amazon SageMaker Service

Stops a model compilation job.

To stop a job, Amazon SageMaker sends the algorithm the SIGTERM signal. This gracefully shuts the job down. If the job hasn't stopped, it sends the SIGKILL signal.

When it receives a StopCompilationJob request, Amazon SageMaker changes the [CompilationJobSummary:CompilationJobStatus \(p. 1222\)](#) of the job to Stopping. After Amazon SageMaker stops the job, it sets the [CompilationJobSummary:CompilationJobStatus \(p. 1222\)](#) to Stopped.

### Request Syntax

```
{  
    "CompilationJobName": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [CompilationJobName \(p. 877\)](#)

The name of the model compilation job to stop.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

### Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

### Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

#### **ResourceNotFound**

Resource being accessed is not found.

HTTP Status Code: 400

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# StopEdgeDeploymentStage

Service: Amazon SageMaker Service

Stops a stage in an edge deployment plan.

## Request Syntax

```
{  
    "EdgeDeploymentPlanName": "string",  
    "StageName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### [EdgeDeploymentPlanName \(p. 879\)](#)

The name of the edge deployment plan to stop.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

### [StageName \(p. 879\)](#)

The name of the stage to stop.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)

- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# StopEdgePackagingJob

Service: Amazon SageMaker Service

Request to stop an edge packaging job.

## Request Syntax

```
{  
    "EdgePackagingJobName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### [EdgePackagingJobName \(p. 881\)](#)

The name of the edge packaging job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# StopHyperParameterTuningJob

Service: Amazon SageMaker Service

Stops a running hyperparameter tuning job and all running training jobs that the tuning job launched.

All model artifacts output from the training jobs are stored in Amazon Simple Storage Service (Amazon S3). All data that the training jobs write to Amazon CloudWatch Logs are still available in CloudWatch. After the tuning job moves to the Stopped state, it releases all reserved resources for the tuning job.

## Request Syntax

```
{  
    "HyperParameterTuningJobName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### HyperParameterTuningJobName (p. 882)

The name of the tuning job to stop.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9]){0,31}

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# StopInferenceExperiment

Service: Amazon SageMaker Service

Stops an inference experiment.

## Request Syntax

```
{  
    "DesiredModelVariants": [  
        {  
            "InfrastructureConfig": {  
                "InfrastructureType": "string",  
                "RealTimeInferenceConfig": {  
                    "InstanceCount": number,  
                    "InstanceType": "string"  
                }  
            },  
            "ModelName": "string",  
            "VariantName": "string"  
        }  
    ],  
    "DesiredState": "string",  
    "ModelVariantActions": {  
        "string": "string"  
    },  
    "Name": "string",  
    "Reason": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### DesiredModelVariants ([p. 884](#))

An array of ModelVariantConfig objects. There is one for each variant that you want to deploy after the inference experiment stops. Each ModelVariantConfig describes the infrastructure configuration for deploying the corresponding variant.

Type: Array of [ModelVariantConfig \(p. 1539\)](#) objects

Array Members: Minimum number of 1 item. Maximum number of 2 items.

Required: No

### DesiredState ([p. 884](#))

The desired state of the experiment after stopping. The possible states are the following:

- Completed: The experiment completed successfully
- Cancelled: The experiment was canceled

Type: String

Valid Values: Completed | Cancelled

Required: No

### [ModelVariantActions \(p. 884\)](#)

Array of key-value pairs, with names of variants mapped to actions. The possible actions are the following:

- Promote - Promote the shadow variant to a production variant
- Remove - Delete the variant
- Retain - Keep the variant as it is

Type: String to string map

Map Entries: Maximum number of 2 items.

Key Length Constraints: Maximum length of 63.

Key Pattern: ^[a-zA-Z0-9]([\\-a-zA-Z0-9]\*[a-zA-Z0-9])?

Valid Values: Retain | Remove | Promote

Required: Yes

### [Name \(p. 884\)](#)

The name of the inference experiment to stop.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,119\}

Required: Yes

### [Reason \(p. 884\)](#)

The reason for stopping the experiment.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: .\*

Required: No

## Response Syntax

```
{  
    "InferenceExperimentArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [InferenceExperimentArn \(p. 885\)](#)

The ARN of the stopped inference experiment.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-\-]\*:sagemaker:[a-z0-9\-\-]\*:[0-9]{12}:inference-experiment/.\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### ConflictException

There was a conflict when you attempted to modify a SageMaker entity such as an Experiment or Artifact.

HTTP Status Code: 400

### ResourceNotFoundException

Resource being accessed is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## StopInferenceRecommendationsJob

Service: Amazon SageMaker Service

Stops an Inference Recommender job.

### Request Syntax

```
{  
    "JobName": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### **JobName (p. 887)**

The name of the job you want to stop.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9]){0,63}

Required: Yes

### Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

### Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

#### **ResourceNotFoundException**

Resource being accessed is not found.

HTTP Status Code: 400

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)

- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## StopLabelingJob

Service: Amazon SageMaker Service

Stops a running labeling job. A job that is stopped cannot be restarted. Any results obtained before the job is stopped are placed in the Amazon S3 output bucket.

### Request Syntax

```
{  
    "LabelingJobName": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### **LabelingJobName (p. 889)**

The name of the labeling job to stop.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9]){0,62}

Required: Yes

### Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

### Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

#### **ResourceNotFound**

Resource being accessed is not found.

HTTP Status Code: 400

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)

- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# StopMonitoringSchedule

Service: Amazon SageMaker Service

Stops a previously started monitoring schedule.

## Request Syntax

```
{  
    "MonitoringScheduleName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### MonitoringScheduleName (p. 891)

The name of the schedule to stop.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)

- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## StopNotebookInstance

Service: Amazon SageMaker Service

Terminates the ML compute instance. Before terminating the instance, SageMaker disconnects the ML storage volume from it. SageMaker preserves the ML storage volume. SageMaker stops charging you for the ML compute instance when you call StopNotebookInstance.

To access data on the ML storage volume for a notebook instance that has been terminated, call the StartNotebookInstance API. StartNotebookInstance launches another ML compute instance, configures it, and attaches the preserved ML storage volume so you can continue your work.

### Request Syntax

```
{  
    "NotebookInstanceName": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### NotebookInstanceName (p. 893)

The name of the notebook instance to terminate.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\*

Required: Yes

### Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

### Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)

- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# StopPipelineExecution

Service: Amazon SageMaker Service

Stops a pipeline execution.

## Callback Step

A pipeline execution won't stop while a callback step is running. When you call StopPipelineExecution on a pipeline execution with a running callback step, SageMaker Pipelines sends an additional Amazon SQS message to the specified SQS queue. The body of the SQS message contains a "Status" field which is set to "Stopping".

You should add logic to your Amazon SQS message consumer to take any needed action (for example, resource cleanup) upon receipt of the message followed by a call to SendPipelineExecutionStepSuccess or SendPipelineExecutionStepFailure.

Only when SageMaker Pipelines receives one of these calls will it stop the pipeline execution.

## Lambda Step

A pipeline execution can't be stopped while a lambda step is running because the Lambda function invoked by the lambda step can't be stopped. If you attempt to stop the execution while the Lambda function is running, the pipeline waits for the Lambda function to finish or until the timeout is hit, whichever occurs first, and then stops. If the Lambda function finishes, the pipeline execution status is Stopped. If the timeout is hit the pipeline execution status is Failed.

## Request Syntax

```
{  
    "ClientRequestToken": "string",  
    "PipelineExecutionArn": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### [ClientRequestToken \(p. 895\)](#)

A unique, case-sensitive identifier that you provide to ensure the idempotency of the operation. An idempotent operation completes no more than once.

Type: String

Length Constraints: Minimum length of 32. Maximum length of 128.

Required: Yes

### [PipelineExecutionArn \(p. 895\)](#)

The Amazon Resource Name (ARN) of the pipeline execution.

Type: String

Length Constraints: Maximum length of 256.

Pattern: ^arn:aws[a-z\-]\*:sagemaker:[a-z0-9\-]\*:[0-9]{12}:pipeline\/\*\/\*execution\/\*\$

Required: Yes

## Response Syntax

```
{  
    "PipelineExecutionArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [PipelineExecutionArn \(p. 896\)](#)

The Amazon Resource Name (ARN) of the pipeline execution.

Type: String

Length Constraints: Maximum length of 256.

Pattern: ^arn:aws[a-z\-]\*:sagemaker:[a-z0-9\-]\*:[0-9]{12}:pipeline\/\*\/\*execution\/\*\$

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceNotFound**

Resource being accessed is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# StopProcessingJob

Service: Amazon SageMaker Service

Stops a processing job.

## Request Syntax

```
{  
    "ProcessingJobName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### **ProcessingJobName (p. 897)**

The name of the processing job to stop.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9]){0,62}

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceNotFoundException**

Resource being accessed is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)

- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## StopTrainingJob

Service: Amazon SageMaker Service

Stops a training job. To stop a job, SageMaker sends the algorithm the SIGTERM signal, which delays job termination for 120 seconds. Algorithms might use this 120-second window to save the model artifacts, so the results of the training is not lost.

When it receives a StopTrainingJob request, SageMaker changes the status of the job to Stopping. After SageMaker stops the job, it sets the status to Stopped.

### Request Syntax

```
{  
    "TrainingJobName": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [TrainingJobName \(p. 899\)](#)

The name of the training job to stop.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: Yes

### Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

### Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

#### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## StopTransformJob

Service: Amazon SageMaker Service

Stops a batch transform job.

When Amazon SageMaker receives a `StopTransformJob` request, the status of the job changes to `Stopping`. After Amazon SageMaker stops the job, the status is set to `Stopped`. When you stop a batch transform job before it is completed, Amazon SageMaker doesn't store the job's output in Amazon S3.

### Request Syntax

```
{  
    "TransformJobName": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [TransformJobName \(p. 901\)](#)

The name of the batch transform job to stop.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9]){0,62}

Required: Yes

### Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

### Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

#### **ResourceNotFoundException**

Resource being accessed is not found.

HTTP Status Code: 400

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdateAction

Service: Amazon SageMaker Service

Updates an action.

## Request Syntax

```
{  
    "ActionName": "string",  
    "Description": "string",  
    "Properties": {  
        "string" : "string"  
    },  
    "PropertiesToRemove": [ "string" ],  
    "Status": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### ActionName ([p. 903](#))

The name of the action to update.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,119\}

Required: Yes

### Description ([p. 903](#))

The new description for the action.

Type: String

Length Constraints: Maximum length of 3072.

Pattern: .\*

Required: No

### Properties ([p. 903](#))

The new list of properties. Overwrites the current property list.

Type: String to string map

Map Entries: Maximum number of 30 items.

Key Length Constraints: Maximum length of 256.

Key Pattern: .\*

Value Length Constraints: Maximum length of 256.

Value Pattern: .\*

Required: No

#### [PropertiesToRemove \(p. 903\)](#)

A list of properties to remove.

Type: Array of strings

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: No

#### [Status \(p. 903\)](#)

The new status for the action.

Type: String

Valid Values: Unknown | InProgress | Completed | Failed | Stopping | Stopped

Required: No

## Response Syntax

```
{  
    "ActionArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

#### [ActionArn \(p. 904\)](#)

The Amazon Resource Name (ARN) of the action.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-\-]\*:sagemaker:[a-z0-9\-\-]\*:[0-9]{12}:action/.\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

#### **ConflictException**

There was a conflict when you attempted to modify a SageMaker entity such as an Experiment or Artifact.

HTTP Status Code: 400

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdateAppImageConfig

Service: Amazon SageMaker Service

Updates the properties of an AppImageConfig.

## Request Syntax

```
{  
    "AppImageConfigName": "string",  
    "KernelGatewayImageConfig": {  
        "FileSystemConfig": {  
            "DefaultGid": number,  
            "DefaultUid": number,  
            "MountPath": "string"  
        },  
        "KernelSpecs": [  
            {  
                "DisplayName": "string",  
                "Name": "string"  
            }  
        ]  
    }  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### AppImageConfigName (p. 906)

The name of the AppImageConfig to update.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: Yes

### KernelGatewayImageConfig (p. 906)

The new KernelGateway app to run on the image.

Type: [KernelGatewayImageConfig \(p. 1437\)](#) object

Required: No

## Response Syntax

```
{  
    "AppImageConfigArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [AppImageConfigArn \(p. 906\)](#)

The Amazon Resource Name (ARN) for the AppImageConfig.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:app-image-config/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdateArtifact

Service: Amazon SageMaker Service

Updates an artifact.

## Request Syntax

```
{  
    "ArtifactArn": "string",  
    "ArtifactName": "string",  
    "Properties": {  
        "string" : "string"  
    },  
    "PropertiesToRemove": [ "string" ]  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### [ArtifactArn \(p. 908\)](#)

The Amazon Resource Name (ARN) of the artifact to update.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-]\*:sagemaker:[a-z0-9\-]\*:[0-9]{12}:artifact/.\*

Required: Yes

### [ArtifactName \(p. 908\)](#)

The new name for the artifact.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9]){0,119}

Required: No

### [Properties \(p. 908\)](#)

The new list of properties. Overwrites the current property list.

Type: String to string map

Map Entries: Maximum number of 30 items.

Key Length Constraints: Maximum length of 256.

Key Pattern: .\*

Value Length Constraints: Maximum length of 256.

Value Pattern: .\*

Required: No

#### [PropertiesToRemove \(p. 908\)](#)

A list of properties to remove.

Type: Array of strings

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: No

## Response Syntax

```
{  
    "ArtifactArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

#### [ArtifactArn \(p. 909\)](#)

The Amazon Resource Name (ARN) of the artifact.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-]\*:sagemaker:[a-z0-9\-]\*:[0-9]{12}:artifact/.\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

#### **ConflictException**

There was a conflict when you attempted to modify a SageMaker entity such as an Experiment or Artifact.

HTTP Status Code: 400

#### **ResourceNotFoundException**

Resource being accessed is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdateCodeRepository

Service: Amazon SageMaker Service

Updates the specified Git repository with the specified values.

## Request Syntax

```
{  
    "CodeRepositoryName": "string",  
    "GitConfig": {  
        "SecretArn": "string"  
    }  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### [CodeRepositoryName \(p. 911\)](#)

The name of the Git repository to update.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

### [GitConfig \(p. 911\)](#)

The configuration of the git repository, including the URL and the Amazon Resource Name (ARN) of the AWS Secrets Manager secret that contains the credentials used to access the repository. The secret must have a staging label of AWSCURRENT and must be in the following format:

```
{"username": UserName, "password": Password}
```

Type: [GitConfigForUpdate \(p. 1348\)](#) object

Required: No

## Response Syntax

```
{  
    "CodeRepositoryArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [CodeRepositoryArn \(p. 911\)](#)

The ARN of the Git repository.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `arn:aws[a-z\-\-]*:sagemaker:[a-z0-9\-\-]*:[0-9]{12}:code-repository/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## UpdateContext

Service: Amazon SageMaker Service

Updates a context.

### Request Syntax

```
{  
    "ContextName": "string",  
    "Description": "string",  
    "Properties": {  
        "string" : "string"  
    },  
    "PropertiesToRemove": [ "string" ]  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [ContextName \(p. 913\)](#)

The name of the context to update.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9]){0,119}

Required: Yes

#### [Description \(p. 913\)](#)

The new description for the context.

Type: String

Length Constraints: Maximum length of 3072.

Pattern: .\*

Required: No

#### [Properties \(p. 913\)](#)

The new list of properties. Overwrites the current property list.

Type: String to string map

Map Entries: Maximum number of 30 items.

Key Length Constraints: Maximum length of 256.

Key Pattern: .\*

Value Length Constraints: Maximum length of 256.

Value Pattern: .\*

Required: No

#### [PropertiesToRemove \(p. 913\)](#)

A list of properties to remove.

Type: Array of strings

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: No

## Response Syntax

```
{  
    "ContextArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

#### [ContextArn \(p. 914\)](#)

The Amazon Resource Name (ARN) of the context.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-]\*:sagemaker:[a-z0-9\-]\*:[0-9]{12}:context/.\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

#### **ConflictException**

There was a conflict when you attempted to modify a SageMaker entity such as an Experiment or Artifact.

HTTP Status Code: 400

#### **ResourceNotFoundException**

Resource being accessed is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdateDeviceFleet

Service: Amazon SageMaker Service

Updates a fleet of devices.

## Request Syntax

```
{  
    "Description": "string",  
    "DeviceFleetName": "string",  
    "EnableIoTRoleAlias": boolean,  
    "OutputConfig": {  
        "KmsKeyId": "string",  
        "PresetDeploymentConfig": "string",  
        "PresetDeploymentType": "string",  
        "S3OutputLocation": "string"  
    },  
    "RoleArn": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### Description (p. 916)

Description of the fleet.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 800.

Pattern: [\S\s]+

Required: No

### DeviceFleetName (p. 916)

The name of the fleet.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

### EnableIoTRoleAlias (p. 916)

Whether to create an AWS IoT Role Alias during device fleet creation. The name of the role alias generated will match this pattern: "SageMakerEdge-{DeviceFleetName}".

For example, if your device fleet is called "demo-fleet", the name of the role alias will be "SageMakerEdge-demo-fleet".

Type: Boolean

Required: No

#### [OutputConfig \(p. 916\)](#)

Output configuration for storing sample data collected by the fleet.

Type: [EdgeOutputConfig \(p. 1291\)](#) object

Required: Yes

#### [RoleArn \(p. 916\)](#)

The Amazon Resource Name (ARN) of the device.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: ^arn:aws[a-zA-Z-]\*:iam::\d{12}:role/[a-zA-Z0-9+=,.@-\_/.]+\$

Required: No

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceInUse**

Resource being accessed is in use.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## UpdateDevices

Service: Amazon SageMaker Service

Updates one or more devices in a fleet.

### Request Syntax

```
{  
    "DeviceFleetName": "string",  
    "Devices": [  
        {  
            "Description": "string",  
            "DeviceName": "string",  
            "IoTThingName": "string"  
        }  
    ]  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [DeviceFleetName \(p. 918\)](#)

The name of the fleet the devices belong to.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

#### [Devices \(p. 918\)](#)

List of devices to register with Edge Manager agent.

Type: Array of [Device \(p. 1261\)](#) objects

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdateDomain

Service: Amazon SageMaker Service

Updates the default settings for new user profiles in the domain.

## Request Syntax

```
{  
    "DefaultSpaceSettings": {  
        "ExecutionRole": "string",  
        "JupyterServerAppSettings": {  
            "CodeRepositories": [  
                {  
                    "RepositoryUrl": "string"  
                }  
            ],  
            "DefaultResourceSpec": {  
                "InstanceType": "string",  
                "LifecycleConfigArn": "string",  
                "SageMakerImageArn": "string",  
                "SageMakerImageVersionArn": "string"  
            },  
            "LifecycleConfigArns": [ "string" ]  
        },  
        "KernelGatewayAppSettings": {  
            "CustomImages": [  
                {  
                    "AppImageConfigName": "string",  
                    "ImageName": "string",  
                    "ImageVersionNumber": number  
                }  
            ],  
            "DefaultResourceSpec": {  
                "InstanceType": "string",  
                "LifecycleConfigArn": "string",  
                "SageMakerImageArn": "string",  
                "SageMakerImageVersionArn": "string"  
            },  
            "LifecycleConfigArns": [ "string" ]  
        },  
        "SecurityGroups": [ "string" ]  
    },  
    "DefaultUserSettings": {  
        "CanvasAppSettings": {  
            "TimeSeriesForecastingSettings": {  
                "AmazonForecastRoleArn": "string",  
                "Status": "string"  
            }  
        },  
        "ExecutionRole": "string",  
        "JupyterServerAppSettings": {  
            "CodeRepositories": [  
                {  
                    "RepositoryUrl": "string"  
                }  
            ],  
            "DefaultResourceSpec": {  
                "InstanceType": "string",  
                "LifecycleConfigArn": "string",  
                "SageMakerImageArn": "string",  
                "SageMakerImageVersionArn": "string"  
            },  
            "LifecycleConfigArns": [ "string" ]  
        }  
    }  
}
```

```

    },
    "KernelGatewayAppSettings": {
        "CustomImages": [
            {
                "AppImageConfigName": "string",
                "ImageName": "string",
                "ImageVersionNumber": number
            }
        ],
        "DefaultResourceSpec": {
            "InstanceType": "string",
            "LifecycleConfigArn": "string",
            "SageMakerImageArn": "string",
            "SageMakerImageVersionArn": "string"
        },
        "LifecycleConfigArns": [ "string" ]
    },
    "RSessionAppSettings": {
        "CustomImages": [
            {
                "AppImageConfigName": "string",
                "ImageName": "string",
                "ImageVersionNumber": number
            }
        ],
        "DefaultResourceSpec": {
            "InstanceType": "string",
            "LifecycleConfigArn": "string",
            "SageMakerImageArn": "string",
            "SageMakerImageVersionArn": "string"
        }
    },
    "RStudioServerProAppSettings": {
        "AccessStatus": "string",
        "UserGroup": "string"
    },
    "SecurityGroups": [ "string" ],
    "SharingSettings": {
        "NotebookOutputOption": "string",
        "S3KmsKeyId": "string",
        "S3OutputPath": "string"
    },
    "TensorBoardAppSettings": {
        "DefaultResourceSpec": {
            "InstanceType": "string",
            "LifecycleConfigArn": "string",
            "SageMakerImageArn": "string",
            "SageMakerImageVersionArn": "string"
        }
    },
    "DomainId": "string",
    "DomainSettingsForUpdate": {
        "ExecutionRoleIdentityConfig": "string",
        "RStudioServerProDomainSettingsForUpdate": {
            "DefaultResourceSpec": {
                "InstanceType": "string",
                "LifecycleConfigArn": "string",
                "SageMakerImageArn": "string",
                "SageMakerImageVersionArn": "string"
            },
            "DomainExecutionRoleArn": "string"
        }
    }
}

```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### [DefaultSpaceSettings \(p. 920\)](#)

The default settings used to create a space within the Domain.

Type: [DefaultSpaceSettings \(p. 1255\)](#) object

Required: No

### [DefaultUserSettings \(p. 920\)](#)

A collection of settings.

Type: [UserSettings \(p. 1825\)](#) object

Required: No

### [DomainId \(p. 920\)](#)

The ID of the domain to be updated.

Type: String

Length Constraints: Maximum length of 63.

Required: Yes

### [DomainSettingsForUpdate \(p. 920\)](#)

A collection of DomainSettings configuration values to update.

Type: [DomainSettingsForUpdate \(p. 1274\)](#) object

Required: No

## Response Syntax

```
{  
    "DomainArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [DomainArn \(p. 922\)](#)

The Amazon Resource Name (ARN) of the domain.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:domain/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceInUse**

Resource being accessed is in use.

HTTP Status Code: 400

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdateEndpoint

Service: Amazon SageMaker Service

Deploys the new EndpointConfig specified in the request, switches to using newly created endpoint, and then deletes resources provisioned for the endpoint using the previous EndpointConfig (there is no availability loss).

When SageMaker receives the request, it sets the endpoint status to Updating. After updating the endpoint, it sets the status to InService. To check the status of an endpoint, use the [DescribeEndpoint \(p. 391\)](#) API.

## Note

You must not delete an EndpointConfig in use by an endpoint that is live or while the UpdateEndpoint or CreateEndpoint operations are being performed on the endpoint. To update an endpoint, you must create a new EndpointConfig.

If you delete the EndpointConfig of an endpoint that is active or being created or updated you may lose visibility into the instance type the endpoint is using. The endpoint must be deleted in order to stop incurring charges.

## Request Syntax

```
{  
    "DeploymentConfig": {  
        "AutoRollbackConfiguration": {  
            "Alarms": [  
                {  
                    "AlarmName": "string"  
                }  
            ]  
        },  
        "BlueGreenUpdatePolicy": {  
            "MaximumExecutionTimeoutInSeconds": number,  
            "TerminationWaitInSeconds": number,  
            "TrafficRoutingConfiguration": {  
                "CanarySize": {  
                    "Type": "string",  
                    "Value": number  
                },  
                "LinearStepSize": {  
                    "Type": "string",  
                    "Value": number  
                },  
                "Type": "string",  
                "WaitIntervalInSeconds": number  
            }  
        },  
        "EndpointConfigName": "string",  
        "EndpointName": "string",  
        "ExcludeRetainedVariantProperties": [  
            {  
                "VariantPropertyType": "string"  
            }  
        ],  
        "RetainAllVariantProperties": boolean,  
        "RetainDeploymentConfig": boolean  
    }  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### [DeploymentConfig \(p. 924\)](#)

The deployment configuration for an endpoint, which contains the desired deployment strategy and rollback configurations.

Type: [DeploymentConfig \(p. 1257\)](#) object

Required: No

### [EndpointConfigName \(p. 924\)](#)

The name of the new endpoint configuration.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: Yes

### [EndpointName \(p. 924\)](#)

The name of the endpoint whose configuration you want to update.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: Yes

### [ExcludeRetainedVariantProperties \(p. 924\)](#)

When you are updating endpoint resources with [UpdateEndpoint:RetainAllVariantProperties \(p. 925\)](#), whose value is set to true, `ExcludeRetainedVariantProperties` specifies the list of type [VariantProperty \(p. 1827\)](#) to override with the values provided by `EndpointConfig`. If you don't specify a value for `ExcludeAllVariantProperties`, no variant properties are overridden.

Type: Array of [VariantProperty \(p. 1827\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 3 items.

Required: No

### [RetainAllVariantProperties \(p. 924\)](#)

When updating endpoint resources, enables or disables the retention of variant properties, such as the instance count or the variant weight. To retain the variant properties of an endpoint when updating it, set `RetainAllVariantProperties` to true. To use the variant properties specified in a new `EndpointConfig` call when updating an endpoint, set `RetainAllVariantProperties` to false. The default is false.

Type: Boolean

Required: No

#### [RetainDeploymentConfig \(p. 924\)](#)

Specifies whether to reuse the last deployment configuration. The default value is false (the configuration is not reused).

Type: Boolean

Required: No

## Response Syntax

```
{  
    "EndpointArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

#### [EndpointArn \(p. 926\)](#)

The Amazon Resource Name (ARN) of the endpoint.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: arn:aws[a-z\-\]\*:sagemaker:[a-z0-9\-\]\*:[0-9]{12}:endpoint/.\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

#### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)

- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdateEndpointWeightsAndCapacities

Service: Amazon SageMaker Service

Updates variant weight of one or more variants associated with an existing endpoint, or capacity of one variant associated with an existing endpoint. When it receives the request, SageMaker sets the endpoint status to Updating. After updating the endpoint, it sets the status to InService. To check the status of an endpoint, use the [DescribeEndpoint \(p. 391\)](#) API.

## Request Syntax

```
{  
    "DesiredWeightsAndCapacities": [  
        {  
            "DesiredInstanceCount": number,  
            "DesiredWeight": number,  
            "VariantName": "string"  
        }  
    ],  
    "EndpointName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### DesiredWeightsAndCapacities (p. 928)

An object that provides new capacity and weight values for a variant.

Type: Array of [DesiredWeightAndCapacity \(p. 1260\)](#) objects

Array Members: Minimum number of 1 item.

Required: Yes

### EndpointName (p. 928)

The name of an existing SageMaker endpoint.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: Yes

## Response Syntax

```
{  
    "EndpointArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### **EndpointArn (p. 928)**

The Amazon Resource Name (ARN) of the updated endpoint.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:endpoint/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdateExperiment

Service: Amazon SageMaker Service

Adds, updates, or removes the description of an experiment. Updates the display name of an experiment.

## Request Syntax

```
{  
    "Description": "string",  
    "DisplayName": "string",  
    "ExperimentName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### Description (p. 930)

The description of the experiment.

Type: String

Length Constraints: Maximum length of 3072.

Pattern: .\*

Required: No

### DisplayName (p. 930)

The name of the experiment as displayed. The name doesn't need to be unique. If DisplayName isn't specified, ExperimentName is displayed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,119\}

Required: No

### ExperimentName (p. 930)

The name of the experiment to update.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,119\}

Required: Yes

## Response Syntax

```
{
```

```
    "ExperimentArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [ExperimentArn \(p. 930\)](#)

The Amazon Resource Name (ARN) of the experiment.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:experiment/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ConflictException**

There was a conflict when you attempted to modify a SageMaker entity such as an Experiment or Artifact.

HTTP Status Code: 400

### **ResourceNotFoundException**

Resource being accessed is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdateFeatureGroup

Service: Amazon SageMaker Service

Updates the feature group.

## Request Syntax

```
{  
    "FeatureAdditions": [  
        {  
            "FeatureName": "string",  
            "FeatureType": "string"  
        }  
    ],  
    "FeatureGroupName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### FeatureAdditions ([p. 932](#))

Updates the feature group. Updating a feature group is an asynchronous operation. When you get an HTTP 200 response, you've made a valid request. It takes some time after you've made a valid request for Feature Store to update the feature group.

Type: Array of [FeatureDefinition \(p. 1325\)](#) objects

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Required: No

### FeatureGroupName ([p. 932](#))

The name of the feature group that you're updating.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,63\}

Required: Yes

## Response Syntax

```
{  
    "FeatureGroupArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

#### [FeatureGroupArn \(p. 932\)](#)

The Amazon Resource Number (ARN) of the feature group that you're updating.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:feature-group/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdateFeatureMetadata

Service: Amazon SageMaker Service

Updates the description and parameters of the feature group.

## Request Syntax

```
{  
    "Description": "string",  
    "FeatureGroupName": "string",  
    "FeatureName": "string",  
    "ParameterAdditions": [  
        {  
            "Key": "string",  
            "Value": "string"  
        }  
    ],  
    "ParameterRemovals": [ "string" ]  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### Description (p. 934)

A description that you can write to better describe the feature.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 255.

Pattern: .\*

Required: No

### FeatureGroupName (p. 934)

The name of the feature group containing the feature that you're updating.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,63\}

Required: Yes

### FeatureName (p. 934)

The name of the feature that you're updating.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: ^[a-zA-Z0-9]([-\_]\*[a-zA-Z0-9])\{0,63\}

Required: Yes

#### **ParameterAdditions (p. 934)**

A list of key-value pairs that you can add to better describe the feature.

Type: Array of [FeatureParameter \(p. 1334\)](#) objects

Array Members: Maximum number of 25 items.

Required: No

#### **ParameterRemovals (p. 934)**

A list of parameter keys that you can specify to remove parameters that describe your feature.

Type: Array of strings

Array Members: Maximum number of 25 items.

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: ^([\p{L}\p{Z}\p{N}\_.:=/=+\-]\*\$

Required: No

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdateHub

Service: Amazon SageMaker Service

Update a hub.

## Request Syntax

```
{  
    "HubDescription": "string",  
    "HubDisplayName": "string",  
    "HubName": "string",  
    "HubSearchKeywords": [ "string" ]  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### [HubDescription \(p. 936\)](#)

A description of the updated hub.

Type: String

Length Constraints: Maximum length of 1023.

Pattern: .\*

Required: No

### [HubDisplayName \(p. 936\)](#)

The display name of the hub.

Type: String

Length Constraints: Maximum length of 255.

Pattern: .\*

Required: No

### [HubName \(p. 936\)](#)

The name of the hub to update.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: Yes

### [HubSearchKeywords \(p. 936\)](#)

The searchable keywords for the hub.

Type: Array of strings

Array Members: Maximum number of 50 items.

Length Constraints: Maximum length of 255.

Pattern: ^[^\u00c0-\u00ff]\*\$

Required: No

## Response Syntax

```
{  
    "HubArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [HubArn \(p. 937\)](#)

The Amazon Resource Name (ARN) of the updated hub.

Type: String

Length Constraints: Maximum length of 255.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceNotFound**

Resource being accessed is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)

- [AWS SDK for Ruby V3](#)

## UpdateImage

Service: Amazon SageMaker Service

Updates the properties of a SageMaker image. To change the image's tags, use the [AddTags \(p. 20\)](#) and [DeleteTags \(p. 313\)](#) APIs.

### Request Syntax

```
{  
    "DeleteProperties": [ "string" ],  
    "Description": "string",  
    "DisplayName": "string",  
    "ImageName": "string",  
    "RoleArn": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [DeleteProperties \(p. 939\)](#)

A list of properties to delete. Only the Description and DisplayName properties can be deleted.

Type: Array of strings

Array Members: Maximum number of 2 items.

Length Constraints: Minimum length of 1. Maximum length of 11.

Pattern: (^DisplayName\$)|(^Description\$)

Required: No

#### [Description \(p. 939\)](#)

The new description for the image.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: .\*

Required: No

#### [DisplayName \(p. 939\)](#)

The new display name for the image.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: ^\S(.\*\S)?\$

Required: No

### [ImageName \(p. 939\)](#)

The name of the image to update.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9]([-.]?[a-zA-Z0-9])\{0,62\}\$

Required: Yes

### [RoleArn \(p. 939\)](#)

The new Amazon Resource Name (ARN) for the IAM role that enables Amazon SageMaker to perform tasks on your behalf.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: ^arn:aws[a-zA-Z-]\*:iam::\d{12}:role/?[a-zA-Z\_0-9+=,.@/-/\_]+\$

Required: No

## Response Syntax

```
{  
    "ImageArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [ImageArn \(p. 940\)](#)

The Amazon Resource Name (ARN) of the image.

Type: String

Length Constraints: Maximum length of 256.

Pattern: ^arn:aws(-[\w]+)\*:sagemaker:+:[0-9]{12}:image/[a-zA-Z0-9]([-.]?[a-zA-Z0-9])\*\$

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceInUse**

Resource being accessed is in use.

HTTP Status Code: 400

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdateInferenceExperiment

Service: Amazon SageMaker Service

Updates an inference experiment that you created. The status of the inference experiment has to be either `Created`, `Running`. For more information on the status of an inference experiment, see [DescribeInferenceExperiment>Status \(p. 444\)](#).

## Request Syntax

```
{  
    "DataStorageConfig": {  
        "ContentType": {  
            "CsvContentTypes": [ "string" ],  
            "JsonContentTypes": [ "string" ]  
        },  
        "Destination": "string",  
        "KmsKey": "string"  
    },  
    "Description": "string",  
    "ModelVariants": [  
        {  
            "InfrastructureConfig": {  
                "InfrastructureType": "string",  
                "RealTimeInferenceConfig": {  
                    "InstanceCount": number,  
                    "InstanceType": "string"  
                }  
            },  
            "modelName": "string",  
            "VariantName": "string"  
        }  
    ],  
    "Name": "string",  
    "Schedule": {  
        "EndTime": number,  
        "StartTime": number  
    },  
    "ShadowModeConfig": {  
        "ShadowModelVariants": [  
            {  
                "SamplingPercentage": number,  
                "ShadowModelVariantName": "string"  
            }  
        ],  
        "SourceModelVariantName": "string"  
    }  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### DataStorageConfig (p. 942)

The Amazon S3 location and configuration for storing inference request and response data.

Type: [InferenceExperimentDataStorageConfig \(p. 1414\)](#) object

Required: No

#### Description (p. 942)

The description of the inference experiment.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: .\*

Required: No

#### ModelVariants (p. 942)

An array of ModelVariantConfig objects. There is one for each variant, whose infrastructure configuration you want to update.

Type: Array of [ModelVariantConfig \(p. 1539\)](#) objects

Array Members: Minimum number of 1 item. Maximum number of 2 items.

Required: No

#### Name (p. 942)

The name of the inference experiment to be updated.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,119\}

Required: Yes

#### Schedule (p. 942)

The duration for which the inference experiment will run. If the status of the inference experiment is Created, then you can update both the start and end dates. If the status of the inference experiment is Running, then you can update only the end date.

Type: [InferenceExperimentSchedule \(p. 1415\)](#) object

Required: No

#### ShadowModeConfig (p. 942)

The configuration of ShadowMode inference experiment type. Use this field to specify a production variant which takes all the inference requests, and a shadow variant to which Amazon SageMaker replicates a percentage of the inference requests. For the shadow variant also specify the percentage of requests that Amazon SageMaker replicates.

Type: [ShadowModeConfig \(p. 1732\)](#) object

Required: No

## Response Syntax

```
{  
    "InferenceExperimentArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### **InferenceExperimentArn (p. 943)**

The ARN of the updated inference experiment.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:inference-experiment/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ConflictException**

There was a conflict when you attempted to modify a SageMaker entity such as an Experiment or Artifact.

HTTP Status Code: 400

### **ResourceNotFoundException**

Resource being accessed is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdateModelCard

Service: Amazon SageMaker Service

Update an Amazon SageMaker Model Card.

**Important**

You cannot update both model card content and model card status in a single call.

## Request Syntax

```
{  
    "Content": "string",  
    "ModelCardName": "string",  
    "ModelCardStatus": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### [Content \(p. 945\)](#)

The updated model card content. Content must be in [model card JSON schema](#) and provided as a string.

When updating model card content, be sure to include the full content and not just updated content.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 100000.

Pattern: .\*

Required: No

### [ModelCardName \(p. 945\)](#)

The name of the model card to update.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

### [ModelCardStatus \(p. 945\)](#)

The approval status of the model card within your organization. Different organizations might have different criteria for model card review and approval.

- **Draft:** The model card is a work in progress.
- **PendingReview:** The model card is pending review.
- **Approved:** The model card is approved.
- **Archived:** The model card is archived. No more updates should be made to the model card, but it can still be exported.

Type: String

Valid Values: Draft | PendingReview | Approved | Archived

Required: No

## Response Syntax

```
{  
    "ModelCardArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### **ModelCardArn** (p. 946)

The Amazon Resource Name (ARN) of the updated model card.

Type: String

Length Constraints: Maximum length of 256.

Pattern: ^arn:aws[a-zA-Z-]\*:sagemaker:[a-zA-Z0-9-]{9,16}:[0-9]{12}:model-card/[a-zA-Z0-9](-\*[a-zA-Z0-9]){\emptyset,62}\\$

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ConflictException**

There was a conflict when you attempted to modify a SageMaker entity such as an Experiment or Artifact.

HTTP Status Code: 400

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

### **ResourceNotFoundException**

Resource being accessed is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdateModelPackage

Service: Amazon SageMaker Service

Updates a versioned model.

## Request Syntax

```
{  
    "AdditionalInferenceSpecificationsToAdd": [  
        {  
            "Containers": [  
                {  
                    "ContainerHostname": "string",  
                    "Environment": {  
                        "string" : "string"  
                    },  
                    "Framework": "string",  
                    "FrameworkVersion": "string",  
                    "Image": "string",  
                    "ImageDigest": "string",  
                    "ModelDataURL": "string",  
                    "ModelInput": {  
                        "DataInputConfig": "string"  
                    },  
                    "NearestmodelName": "string",  
                    "ProductId": "string"  
                }  
            ],  
            "Description": "string",  
            "Name": "string",  
            "SupportedContentTypes": [ "string" ],  
            "SupportedRealtimeInferenceInstanceTypes": [ "string" ],  
            "SupportedResponseMIMETypes": [ "string" ],  
            "SupportedTransformInstanceTypes": [ "string" ]  
        }  
    ],  
    "ApprovalDescription": "string",  
    "CustomerMetadataProperties": {  
        "string" : "string"  
    },  
    "CustomerMetadataPropertiesToRemove": [ "string" ],  
    "ModelApprovalStatus": "string",  
    "ModelPackageArn": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### **AdditionalInferenceSpecificationsToAdd (p. 948)**

An array of additional Inference Specification objects to be added to the existing array additional Inference Specification. Total number of additional Inference Specifications can not exceed 15. Each additional Inference Specification specifies artifacts based on this model package that can be used on inference endpoints. Generally used with SageMaker Neo to store the compiled artifacts.

Type: Array of [AdditionalInferenceSpecificationDefinition \(p. 1112\)](#) objects

Array Members: Minimum number of 1 item. Maximum number of 15 items.

Required: No

#### [ApprovalDescription \(p. 948\)](#)

A description for the approval status of the model.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: .\*

Required: No

#### [CustomerMetadataProperties \(p. 948\)](#)

The metadata properties associated with the model package versions.

Type: String to string map

Map Entries: Maximum number of 50 items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Key Pattern: ^([\p{L}\p{Z}\p{N}\_.:\v=+\-\@]\*){1,128}

Value Length Constraints: Minimum length of 1. Maximum length of 256.

Value Pattern: ^([\p{L}\p{Z}\p{N}\_.:\v=+\-\@]\*){1,256}

Required: No

#### [CustomerMetadataPropertiesToRemove \(p. 948\)](#)

The metadata properties associated with the model package versions to remove.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: ^([\p{L}\p{Z}\p{N}\_.:\v=+\-\@]\*){1,128}

Required: No

#### [ModelApprovalStatus \(p. 948\)](#)

The approval status of the model.

Type: String

Valid Values: Approved | Rejected | PendingManualApproval

Required: No

#### [ModelPackageArn \(p. 948\)](#)

The Amazon Resource Name (ARN) of the model package.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: arn:aws[a-z\-\:]\*:sagemaker:[a-z0-9\-\:]\*:[0-9]{12}:model-package/.\*

Required: Yes

## Response Syntax

```
{  
    "ModelPackageArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [ModelPackageArn \(p. 950\)](#)

The Amazon Resource Name (ARN) of the model.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: arn:aws[a-z\-]\*:sagemaker:[a-z0-9\-]\*:[0-9]{12}:model-package/.\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdateMonitoringAlert

Service: Amazon SageMaker Service

Update the parameters of a model monitor alert.

## Request Syntax

```
{  
    "DatapointsToAlert": number,  
    "EvaluationPeriod": number,  
    "MonitoringAlertName": "string",  
    "MonitoringScheduleName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### DatapointsToAlert (p. 951)

Within EvaluationPeriod, how many execution failures will raise an alert.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: Yes

### EvaluationPeriod (p. 951)

The number of most recent monitoring executions to consider when evaluating alert status.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: Yes

### MonitoringAlertName (p. 951)

The name of a monitoring alert.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

### MonitoringScheduleName (p. 951)

The name of a monitoring schedule.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

## Response Syntax

```
{  
    "MonitoringAlertName": "string",  
    "MonitoringScheduleArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### **MonitoringAlertName** (p. 952)

The name of a monitoring alert.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

### **MonitoringScheduleArn** (p. 952)

The Amazon Resource Name (ARN) of the monitoring schedule.

Type: String

Length Constraints: Maximum length of 256.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

### **ResourceNotFound**

Resource being accessed is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdateMonitoringSchedule

Service: Amazon SageMaker Service

Updates a previously created schedule.

## Request Syntax

```
{  
    "MonitoringScheduleConfig": {  
        "MonitoringJobDefinition": {  
            "BaselineConfig": {  
                "BaseliningJobName": "string",  
                "ConstraintsResource": {  
                    "S3Uri": "string"  
                },  
                "StatisticsResource": {  
                    "S3Uri": "string"  
                }  
            },  
            "Environment": {  
                "string" : "string"  
            },  
            "MonitoringAppSpecification": {  
                "ContainerArguments": [ "string" ],  
                "ContainerEntrypoint": [ "string" ],  
                "ImageUri": "string",  
                "PostAnalyticsProcessorSourceUri": "string",  
                "RecordPreprocessorSourceUri": "string"  
            },  
            "MonitoringInputs": [  
                {  
                    "BatchTransformInput": {  
                        "DataCapturedDestinationS3Uri": "string",  
                        "DatasetFormat": {  
                            "Csv": {  
                                "Header": boolean  
                            },  
                            "Json": {  
                                "Line": boolean  
                            },  
                            "Parquet": {  
                            }  
                        },  
                        "EndTimeOffset": "string",  
                        "FeaturesAttribute": "string",  
                        "InferenceAttribute": "string",  
                        "LocalPath": "string",  
                        "ProbabilityAttribute": "string",  
                        "ProbabilityThresholdAttribute": number,  
                        "S3DataDistributionType": "string",  
                        "S3InputMode": "string",  
                        "StartTimeOffset": "string"  
                    },  
                    "EndpointInput": {  
                        "EndpointName": "string",  
                        "EndTimeOffset": "string",  
                        "FeaturesAttribute": "string",  
                        "InferenceAttribute": "string",  
                        "LocalPath": "string",  
                        "ProbabilityAttribute": "string",  
                        "ProbabilityThresholdAttribute": number,  
                        "S3DataDistributionType": "string",  
                        "S3InputMode": "string",  
                    }  
                }  
            ]  
        }  
    }  
}
```

```

        "StartTimeOffset": "string"
    }
}
],
"MonitoringOutputConfig": {
    "KmsKeyId": "string",
    "MonitoringOutputs": [
        {
            "S3Output": {
                "LocalPath": "string",
                "S3UploadMode": "string",
                "S3Uri": "string"
            }
        }
    ]
},
"MonitoringResources": {
    "ClusterConfig": {
        "InstanceCount": number,
        "InstanceType": "string",
        "VolumeKmsKeyId": "string",
        "VolumeSizeInGB": number
    }
},
"NetworkConfig": {
    "EnableInterContainerTrafficEncryption": boolean,
    "EnableNetworkIsolation": boolean,
    "VpcConfig": {
        "SecurityGroupIds": [ "string" ],
        "Subnets": [ "string" ]
    }
},
"RoleArn": "string",
"StoppingCondition": {
    "MaxRuntimeInSeconds": number
}
},
"MonitoringJobDefinitionName": "string",
"MonitoringType": "string",
"ScheduleConfig": {
    "ScheduleExpression": "string"
}
},
"MonitoringScheduleName": "string"
}

```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### [MonitoringScheduleConfig \(p. 954\)](#)

The configuration object that specifies the monitoring schedule and defines the monitoring job.

Type: [MonitoringScheduleConfig \(p. 1572\)](#) object

Required: Yes

### [MonitoringScheduleName \(p. 954\)](#)

The name of the monitoring schedule. The name must be unique within an AWS Region within an AWS account.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

## Response Syntax

```
{  
    "MonitoringScheduleArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [MonitoringScheduleArn \(p. 956\)](#)

The Amazon Resource Name (ARN) of the monitoring schedule.

Type: String

Length Constraints: Maximum length of 256.

Pattern: .\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdateNotebookInstance

Service: Amazon SageMaker Service

Updates a notebook instance. NotebookInstance updates include upgrading or downgrading the ML compute instance used for your notebook instance to accommodate changes in your workload requirements.

## Request Syntax

```
{  
    "AcceleratorTypes": [ "string" ],  
    "AdditionalCodeRepositories": [ "string" ],  
    "DefaultCodeRepository": "string",  
    "DisassociateAcceleratorTypes": boolean,  
    "DisassociateAdditionalCodeRepositories": boolean,  
    "DisassociateDefaultCodeRepository": boolean,  
    "DisassociateLifecycleConfig": boolean,  
    "InstanceMetadataServiceConfiguration": {  
        "MinimumInstanceMetadataServiceVersion": "string"  
    },  
    "InstanceType": "string",  
    "LifecycleConfigName": "string",  
    "NotebookInstanceName": "string",  
    "RoleArn": "string",  
    "RootAccess": "string",  
    "VolumeSizeInGB": number  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### AcceleratorTypes (p. 958)

A list of the Elastic Inference (EI) instance types to associate with this notebook instance. Currently only one EI instance type can be associated with a notebook instance. For more information, see [Using Elastic Inference in Amazon SageMaker](#).

Type: Array of strings

Valid Values: ml.eia1.medium | ml.eia1.large | ml.eia1.xlarge | ml.eia2.medium | ml.eia2.large | ml.eia2.xlarge

Required: No

### AdditionalCodeRepositories (p. 958)

An array of up to three Git repositories to associate with the notebook instance. These can be either the names of Git repositories stored as resources in your account, or the URL of Git repositories in [AWS CodeCommit](#) or in any other Git repository. These repositories are cloned at the same level as the default repository of your notebook instance. For more information, see [Associating Git Repositories with SageMaker Notebook Instances](#).

Type: Array of strings

Array Members: Maximum number of 3 items.

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: ^https://([/]+)?(.\*\$|^\*[a-zA-Z0-9](-\*[a-zA-Z0-9])\*|

Required: No

#### [DefaultCodeRepository \(p. 958\)](#)

The Git repository to associate with the notebook instance as its default code repository. This can be either the name of a Git repository stored as a resource in your account, or the URL of a Git repository in [AWS CodeCommit](#) or in any other Git repository. When you open a notebook instance, it opens in the directory that contains this repository. For more information, see [Associating Git Repositories with SageMaker Notebook Instances](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: ^https://([/]+)?(.\*\$|^\*[a-zA-Z0-9](-\*[a-zA-Z0-9])\*|

Required: No

#### [DisassociateAcceleratorTypes \(p. 958\)](#)

A list of the Elastic Inference (EI) instance types to remove from this notebook instance. This operation is idempotent. If you specify an accelerator type that is not associated with the notebook instance when you call this method, it does not throw an error.

Type: Boolean

Required: No

#### [DisassociateAdditionalCodeRepositories \(p. 958\)](#)

A list of names or URLs of the default Git repositories to remove from this notebook instance. This operation is idempotent. If you specify a Git repository that is not associated with the notebook instance when you call this method, it does not throw an error.

Type: Boolean

Required: No

#### [DisassociateDefaultCodeRepository \(p. 958\)](#)

The name or URL of the default Git repository to remove from this notebook instance. This operation is idempotent. If you specify a Git repository that is not associated with the notebook instance when you call this method, it does not throw an error.

Type: Boolean

Required: No

#### [DisassociateLifecycleConfig \(p. 958\)](#)

Set to true to remove the notebook instance lifecycle configuration currently associated with the notebook instance. This operation is idempotent. If you specify a lifecycle configuration that is not associated with the notebook instance when you call this method, it does not throw an error.

Type: Boolean

Required: No

#### [InstanceMetadataServiceConfiguration \(p. 958\)](#)

Information on the IMDS configuration of the notebook instance

Type: [InstanceMetadataServiceConfiguration \(p. 1431\)](#) object

Required: No

#### [InstanceType \(p. 958\)](#)

The Amazon ML compute instance type.

Type: String

Valid Values: ml.t2.medium | ml.t2.large | ml.t2.xlarge | ml.t2.2xlarge | ml.t3.medium | ml.t3.large | ml.t3.xlarge | ml.t3.2xlarge | ml.m4.xlarge | ml.m4.2xlarge | ml.m4.4xlarge | ml.m4.10xlarge | ml.m4.16xlarge | ml.m5.xlarge | ml.m5.2xlarge | ml.m5.4xlarge | ml.m5.12xlarge | ml.m5.24xlarge | ml.m5d.large | ml.m5d.xlarge | ml.m5d.2xlarge | ml.m5d.4xlarge | ml.m5d.8xlarge | ml.m5d.12xlarge | ml.m5d.16xlarge | ml.m5d.24xlarge | ml.c4.xlarge | ml.c4.2xlarge | ml.c4.4xlarge | ml.c4.8xlarge | ml.c5.xlarge | ml.c5.2xlarge | ml.c5.4xlarge | ml.c5.9xlarge | ml.c5.18xlarge | ml.c5d.xlarge | ml.c5d.2xlarge | ml.c5d.4xlarge | ml.c5d.9xlarge | ml.c5d.18xlarge | ml.p2.xlarge | ml.p2.8xlarge | ml.p2.16xlarge | ml.p3.2xlarge | ml.p3.8xlarge | ml.p3.16xlarge | ml.p3dn.24xlarge | ml.g4dn.xlarge | ml.g4dn.2xlarge | ml.g4dn.4xlarge | ml.g4dn.8xlarge | ml.g4dn.12xlarge | ml.g4dn.16xlarge | ml.r5.large | ml.r5.xlarge | ml.r5.2xlarge | ml.r5.4xlarge | ml.r5.8xlarge | ml.r5.12xlarge | ml.r5.16xlarge | ml.r5.24xlarge | ml.g5.xlarge | ml.g5.2xlarge | ml.g5.4xlarge | ml.g5.8xlarge | ml.g5.16xlarge | ml.g5.12xlarge | ml.g5.24xlarge | ml.g5.48xlarge

Required: No

#### [LifecycleConfigName \(p. 958\)](#)

The name of a lifecycle configuration to associate with the notebook instance. For information about lifestyle configurations, see [Step 2.1: \(Optional\) Customize a Notebook Instance](#).

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\*

Required: No

#### [NotebookInstanceName \(p. 958\)](#)

The name of the notebook instance to update.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\*

Required: Yes

#### [RoleArn \(p. 958\)](#)

The Amazon Resource Name (ARN) of the IAM role that SageMaker can assume to access the notebook instance. For more information, see [SageMaker Roles](#).

##### **Note**

To be able to pass this role to SageMaker, the caller of this API must have the `iam:PassRole` permission.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: ^arn:aws[a-zA-Z-]\*:iam::\d{12}:role/?[a-zA-Z\_0-9+=,.@\\-\_/.]+\$

Required: No

#### [RootAccess \(p. 958\)](#)

Whether root access is enabled or disabled for users of the notebook instance. The default value is Enabled.

##### **Note**

If you set this to Disabled, users don't have root access on the notebook instance, but lifecycle configuration scripts still run with root permissions.

Type: String

Valid Values: Enabled | Disabled

Required: No

#### [VolumeSizeInGB \(p. 958\)](#)

The size, in GB, of the ML storage volume to attach to the notebook instance. The default value is 5 GB. ML storage volumes are encrypted, so SageMaker can't determine the amount of available free space on the volume. Because of this, you can increase the volume size when you update a notebook instance, but you can't decrease the volume size. If you want to decrease the size of the ML storage volume in use, create a new notebook instance with the desired size.

Type: Integer

Valid Range: Minimum value of 5. Maximum value of 16384.

Required: No

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)

- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdateNotebookInstanceLifecycleConfig

Service: Amazon SageMaker Service

Updates a notebook instance lifecycle configuration created with the [CreateNotebookInstanceLifecycleConfig \(p. 181\)](#) API.

## Request Syntax

```
{  
    "NotebookInstanceLifecycleConfigName": "string",  
    "OnCreate": [  
        {  
            "Content": "string"  
        }  
    ],  
    "OnStart": [  
        {  
            "Content": "string"  
        }  
    ]  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### NotebookInstanceLifecycleConfigName (p. 963)

The name of the lifecycle configuration.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\*

Required: Yes

### OnCreate (p. 963)

The shell script that runs only once, when you create a notebook instance. The shell script must be a base64-encoded string.

Type: Array of [NotebookInstanceLifecycleHook \(p. 1582\)](#) objects

Array Members: Maximum number of 1 item.

Required: No

### OnStart (p. 963)

The shell script that runs every time you start a notebook instance, including when you create the notebook instance. The shell script must be a base64-encoded string.

Type: Array of [NotebookInstanceLifecycleHook \(p. 1582\)](#) objects

Array Members: Maximum number of 1 item.

Required: No

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### ResourceLimitExceeded

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdatePipeline

Service: Amazon SageMaker Service

Updates a pipeline.

## Request Syntax

```
{  
    "ParallelismConfiguration": {  
        "MaxParallelExecutionSteps": number  
    },  
    "PipelineDefinition": "string",  
    "PipelineDefinitionS3Location": {  
        "Bucket": "string",  
        "ObjectKey": "string",  
        "VersionId": "string"  
    },  
    "PipelineDescription": "string",  
    "PipelineDisplayName": "string",  
    "PipelineName": "string",  
    "RoleArn": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### [ParallelismConfiguration \(p. 965\)](#)

If specified, it applies to all executions of this pipeline by default.

Type: [ParallelismConfiguration \(p. 1604\)](#) object

Required: No

### [PipelineDefinition \(p. 965\)](#)

The JSON pipeline definition.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1048576.

Pattern: .\*(?:[ \r\n\t].\*)\*

Required: No

### [PipelineDefinitionS3Location \(p. 965\)](#)

The location of the pipeline definition stored in Amazon S3. If specified, SageMaker will retrieve the pipeline definition from this location.

Type: [PipelineDefinitionS3Location \(p. 1619\)](#) object

Required: No

### [PipelineDescription \(p. 965\)](#)

The description of the pipeline.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 3072.

Pattern: .\*

Required: No

#### [PipelineDisplayName \(p. 965\)](#)

The display name of the pipeline.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,255\}

Required: No

#### [PipelineName \(p. 965\)](#)

The name of the pipeline to update.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,255\}

Required: Yes

#### [RoleArn \(p. 965\)](#)

The Amazon Resource Name (ARN) that the pipeline uses to execute.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: ^arn:aws[a-zA-Z-]\*:iam::\d{12}:role/?[a-zA-Z\_0-9+=,.@-\_/.]+\\${}

Required: No

## Response Syntax

```
{  
    "PipelineArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

#### [PipelineArn \(p. 966\)](#)

The Amazon Resource Name (ARN) of the updated pipeline.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-\-]\*:sagemaker:[a-z0-9\-\-]\*:[0-9]{12}:pipeline/.\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdatePipelineExecution

Service: Amazon SageMaker Service

Updates a pipeline execution.

## Request Syntax

```
{  
    "ParallelismConfiguration": {  
        "MaxParallelExecutionSteps": number  
    },  
    "PipelineExecutionArn": "string",  
    "PipelineExecutionDescription": "string",  
    "PipelineExecutionDisplayName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### [ParallelismConfiguration \(p. 968\)](#)

This configuration, if specified, overrides the parallelism configuration of the parent pipeline for this specific run.

Type: [ParallelismConfiguration \(p. 1604\)](#) object

Required: No

### [PipelineExecutionArn \(p. 968\)](#)

The Amazon Resource Name (ARN) of the pipeline execution.

Type: String

Length Constraints: Maximum length of 256.

Pattern: ^arn:aws[a-z\-]\*:sagemaker:[a-z0-9\-]\*:[0-9]{12}:pipeline\/.\*\vexecution\/.\*\\$

Required: Yes

### [PipelineExecutionDescription \(p. 968\)](#)

The description of the pipeline execution.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 3072.

Pattern: .\*

Required: No

### [PipelineExecutionDisplayName \(p. 968\)](#)

The display name of the pipeline execution.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 82.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,81\}

Required: No

## Response Syntax

```
{  
    "PipelineExecutionArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### PipelineExecutionArn (p. 969)

The Amazon Resource Name (ARN) of the updated pipeline execution.

Type: String

Length Constraints: Maximum length of 256.

Pattern: ^arn:aws[a-zA-Z-]\*:sagemaker:[a-zA-Z0-9-]\*:[0-9]{12}:pipeline\/\*\execution\/\*\$

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)

- [AWS SDK for Ruby V3](#)

# UpdateProject

Service: Amazon SageMaker Service

Updates a machine learning (ML) project that is created from a template that sets up an ML pipeline from training to deploying an approved model.

## Note

You must not update a project that is in use. If you update the `ServiceCatalogProvisioningUpdateDetails` of a project that is active or being created, or updated, you may lose resources already created by the project.

## Request Syntax

```
{  
    "ProjectDescription": "string",  
    "ProjectName": "string",  
    "ServiceCatalogProvisioningUpdateDetails": {  
        "ProvisioningArtifactId": "string",  
        "ProvisioningParameters": [  
            {  
                "Key": "string",  
                "Value": "string"  
            }  
        ]  
    },  
    "Tags": [  
        {  
            "Key": "string",  
            "Value": "string"  
        }  
    ]  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### [ProjectDescription \(p. 971\)](#)

The description for the project.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: [\p{L}\p{M}\p{Z}\p{S}\p{N}\p{P}]\*

Required: No

### [ProjectName \(p. 971\)](#)

The name of the project.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,31\}

Required: Yes

#### [ServiceCatalogProvisioningUpdateDetails \(p. 971\)](#)

The product ID and provisioning artifact ID to provision a service catalog. The provisioning artifact ID will default to the latest provisioning artifact ID of the product, if you don't provide the provisioning artifact ID. For more information, see [What is AWS Service Catalog](#).

Type: [ServiceCatalogProvisioningUpdateDetails \(p. 1731\)](#) object

Required: No

#### [Tags \(p. 971\)](#)

An array of key-value pairs. You can use tags to categorize your AWS resources in different ways, for example, by purpose, owner, or environment. For more information, see [Tagging AWS Resources](#). In addition, the project must have tag update constraints set in order to include this parameter in the request. For more information, see [AWS Service Catalog Tag Update Constraints](#).

Type: Array of [Tag \(p. 1749\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## Response Syntax

```
{  
    "ProjectArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

#### [ProjectArn \(p. 972\)](#)

The Amazon Resource Name (ARN) of the project.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:project:.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## UpdateSpace

Service: Amazon SageMaker Service

Updates the settings of a space.

### Request Syntax

```
{  
    "DomainId": "string",  
    "SpaceName": "string",  
    "SpaceSettings": {  
        "JupyterServerAppSettings": {  
            "CodeRepositories": [  
                {  
                    "RepositoryUrl": "string"  
                }  
            ],  
            "DefaultResourceSpec": {  
                "InstanceType": "string",  
                "LifecycleConfigArn": "string",  
                "SageMakerImageArn": "string",  
                "SageMakerImageVersionArn": "string"  
            },  
            "LifecycleConfigArns": [ "string" ]  
        },  
        "KernelGatewayAppSettings": {  
            "CustomImages": [  
                {  
                    "AppImageConfigName": "string",  
                    "ImageName": "string",  
                    "ImageVersionNumber": number  
                }  
            ],  
            "DefaultResourceSpec": {  
                "InstanceType": "string",  
                "LifecycleConfigArn": "string",  
                "SageMakerImageArn": "string",  
                "SageMakerImageVersionArn": "string"  
            },  
            "LifecycleConfigArns": [ "string" ]  
        }  
    }  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### [DomainId \(p. 974\)](#)

The ID of the associated Domain.

Type: String

Length Constraints: Maximum length of 63.

Required: Yes

### [SpaceName \(p. 974\)](#)

The name of the space.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: Yes

### [SpaceSettings \(p. 974\)](#)

A collection of space settings.

Type: [SpaceSettings \(p. 1741\)](#) object

Required: No

## Response Syntax

```
{  
    "SpaceArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [SpaceArn \(p. 975\)](#)

The space's Amazon Resource Name (ARN).

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-zA-Z-]\*:sagemaker:[a-zA-Z0-9-]\*:[0-9]{12}:space/.\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceInUse**

Resource being accessed is in use.

HTTP Status Code: 400

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

### ResourceNotFound

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdateTrainingJob

Service: Amazon SageMaker Service

Update a model training job to request a new Debugger profiling configuration or to change warm pool retention length.

## Request Syntax

```
{  
    "ProfilerConfig": {  
        "DisableProfiler": boolean,  
        "ProfilingIntervalInMilliseconds": number,  
        "ProfilingParameters": {  
            "string" : "string"  
        },  
        "S3OutputPath": "string"  
    },  
    "ProfilerRuleConfigurations": [  
        {  
            "InstanceType": "string",  
            "LocalPath": "string",  
            "RuleConfigurationName": "string",  
            "RuleEvaluatorImage": "string",  
            "RuleParameters": {  
                "string" : "string"  
            },  
            "S3OutputPath": "string",  
            "VolumeSizeInGB": number  
        }  
    ],  
    "ResourceConfig": {  
        "KeepAlivePeriodInSeconds": number  
    },  
    "TrainingJobName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### ProfilerConfig (p. 977)

Configuration information for Amazon SageMaker Debugger system monitoring, framework profiling, and storage paths.

Type: [ProfilerConfigForUpdate \(p. 1662\)](#) object

Required: No

### ProfilerRuleConfigurations (p. 977)

Configuration information for Amazon SageMaker Debugger rules for profiling system and framework metrics.

Type: Array of [ProfilerRuleConfiguration \(p. 1664\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 20 items.

Required: No

#### [ResourceConfig \(p. 977\)](#)

The training job ResourceConfig to update warm pool retention length.

Type: [ResourceConfigForUpdate \(p. 1705\)](#) object

Required: No

#### [TrainingJobName \(p. 977\)](#)

The name of a training job to update the Debugger profiling configuration.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: Yes

## Response Syntax

```
{  
    "TrainingJobArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

#### [TrainingJobArn \(p. 978\)](#)

The Amazon Resource Name (ARN) of the training job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-zA-Z-]\*:sagemaker:[a-zA-Z0-9-]\*:[0-9]\{12\}:training-job/.\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

#### **ResourceNotFound**

Resource being accessed is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## UpdateTrial

Service: Amazon SageMaker Service

Updates the display name of a trial.

### Request Syntax

```
{  
    "DisplayName": "string",  
    "TrialName": "string"  
}
```

### Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### DisplayName (p. 980)

The name of the trial as displayed. The name doesn't need to be unique. If DisplayName isn't specified, TrialName is displayed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,119\}

Required: No

#### TrialName (p. 980)

The name of the trial to update.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,119\}

Required: Yes

### Response Syntax

```
{  
    "TrialArn": "string"  
}
```

### Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [TrialArn \(p. 980\)](#)

The Amazon Resource Name (ARN) of the trial.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws:[a-z\-\-]*:sagemaker:[a-z0-9\-\-]*:[0-9]{12}:experiment-trial/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ConflictException**

There was a conflict when you attempted to modify a SageMaker entity such as an Experiment or Artifact.

HTTP Status Code: 400

### **ResourceNotFoundException**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdateTrialComponent

Service: Amazon SageMaker Service

Updates one or more properties of a trial component.

## Request Syntax

```
{  
    "DisplayName": "string",  
    "EndTime": number,  
    "InputArtifacts": {  
        "string" : {  
            "MediaType": "string",  
            "Value": "string"  
        }  
    },  
    "InputArtifactsToRemove": [ "string" ],  
    "OutputArtifacts": {  
        "string" : {  
            "MediaType": "string",  
            "Value": "string"  
        }  
    },  
    "OutputArtifactsToRemove": [ "string" ],  
    "Parameters": {  
        "string" : {  
            "NumberValue": number,  
            "StringValue": "string"  
        }  
    },  
    "ParametersToRemove": [ "string" ],  
    "StartTime": number,  
    "Status": {  
        "Message": "string",  
        "PrimaryStatus": "string"  
    },  
    "TrialComponentName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### DisplayName (p. 982)

The name of the component as displayed. The name doesn't need to be unique. If DisplayName isn't specified, TrialComponentName is displayed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,119\}

Required: No

### EndTime (p. 982)

When the component ended.

Type: Timestamp

Required: No

#### [InputArtifacts \(p. 982\)](#)

Replaces all of the component's input artifacts with the specified artifacts.

Type: String to [TrialComponentArtifact \(p. 1801\)](#) object map

Map Entries: Maximum number of 30 items.

Key Length Constraints: Maximum length of 64.

Key Pattern: .\*

Required: No

#### [InputArtifactsToRemove \(p. 982\)](#)

The input artifacts to remove from the component.

Type: Array of strings

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: No

#### [OutputArtifacts \(p. 982\)](#)

Replaces all of the component's output artifacts with the specified artifacts.

Type: String to [TrialComponentArtifact \(p. 1801\)](#) object map

Map Entries: Maximum number of 30 items.

Key Length Constraints: Maximum length of 64.

Key Pattern: .\*

Required: No

#### [OutputArtifactsToRemove \(p. 982\)](#)

The output artifacts to remove from the component.

Type: Array of strings

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: No

#### [Parameters \(p. 982\)](#)

Replaces all of the component's hyperparameters with the specified hyperparameters.

Type: String to [TrialComponentParameterValue \(p. 1804\)](#) object map

Map Entries: Maximum number of 150 items.

Key Length Constraints: Maximum length of 256.

Key Pattern: .\*

Required: No

#### [ParametersToRemove \(p. 982\)](#)

The hyperparameters to remove from the component.

Type: Array of strings

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: No

#### [StartTime \(p. 982\)](#)

When the component started.

Type: Timestamp

Required: No

#### [Status \(p. 982\)](#)

The new status of the component.

Type: [TrialComponentStatus \(p. 1809\)](#) object

Required: No

#### [TrialComponentName \(p. 982\)](#)

The name of the component to update.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,119\}

Required: Yes

## Response Syntax

```
{  
    "TrialComponentArn": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

#### [TrialComponentArn \(p. 984\)](#)

The Amazon Resource Name (ARN) of the trial component.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-\-]\*:sagemaker:[a-z0-9\-\-]\*:[0-9]{12}:experiment-trial-component/.\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ConflictException**

There was a conflict when you attempted to modify a SageMaker entity such as an Experiment or Artifact.

HTTP Status Code: 400

### **ResourceNotFoundException**

Resource being accessed is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdateUserProfile

Service: Amazon SageMaker Service

Updates a user profile.

## Request Syntax

```
{  
    "DomainId": "string",  
    "UserProfileName": "string",  
    "UserSettings": {  
        "CanvasAppSettings": {  
            "TimeSeriesForecastingSettings": {  
                "AmazonForecastRoleArn": "string",  
                "Status": "string"  
            }  
        },  
        "ExecutionRole": "string",  
        "JupyterServerAppSettings": {  
            "CodeRepositories": [  
                {  
                    "RepositoryUrl": "string"  
                }  
            ],  
            "DefaultResourceSpec": {  
                "InstanceType": "string",  
                "LifecycleConfigArn": "string",  
                "SageMakerImageArn": "string",  
                "SageMakerImageVersionArn": "string"  
            },  
            "LifecycleConfigArns": [ "string" ]  
        },  
        "KernelGatewayAppSettings": {  
            "CustomImages": [  
                {  
                    "AppImageConfigName": "string",  
                    "ImageName": "string",  
                    "ImageVersionNumber": number  
                }  
            ],  
            "DefaultResourceSpec": {  
                "InstanceType": "string",  
                "LifecycleConfigArn": "string",  
                "SageMakerImageArn": "string",  
                "SageMakerImageVersionArn": "string"  
            },  
            "LifecycleConfigArns": [ "string" ]  
        },  
        "RSessionAppSettings": {  
            "CustomImages": [  
                {  
                    "AppImageConfigName": "string",  
                    "ImageName": "string",  
                    "ImageVersionNumber": number  
                }  
            ],  
            "DefaultResourceSpec": {  
                "InstanceType": "string",  
                "LifecycleConfigArn": "string",  
                "SageMakerImageArn": "string",  
                "SageMakerImageVersionArn": "string"  
            }  
        },  
    }  
},
```

```
"RStudioServerProAppSettings": {  
    "AccessStatus": "string",  
    "UserGroup": "string"  
},  
"SecurityGroups": [ "string" ],  
"SharingSettings": {  
    "NotebookOutputOption": "string",  
    "S3KmsKeyId": "string",  
    "S3OutputPath": "string"  
},  
"TensorBoardAppSettings": {  
    "DefaultResourceSpec": {  
        "InstanceType": "string",  
        "LifecycleConfigArn": "string",  
        "SageMakerImageArn": "string",  
        "SageMakerImageVersionArn": "string"  
    }  
}  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### [DomainId \(p. 986\)](#)

The domain ID.

Type: String

Length Constraints: Maximum length of 63.

Required: Yes

### [UserProfileName \(p. 986\)](#)

The user profile name.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: Yes

### [UserSettings \(p. 986\)](#)

A collection of settings.

Type: [UserSettings \(p. 1825\)](#) object

Required: No

## Response Syntax

```
{  
    "UserProfileArn": "string"
```

}

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### **UserProfileArn** (p. 987)

The user profile Amazon Resource Name (ARN).

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:user-profile/.*`

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceInUse**

Resource being accessed is in use.

HTTP Status Code: 400

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

### **ResourceNotFound**

Resource being access is not found.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## UpdateWorkforce

Service: Amazon SageMaker Service

Use this operation to update your workforce. You can use this operation to require that workers use specific IP addresses to work on tasks and to update your OpenID Connect (OIDC) Identity Provider (IdP) workforce configuration.

The worker portal is now supported in VPC and public internet.

Use `SourceIpConfig` to restrict worker access to tasks to a specific range of IP addresses. You specify allowed IP addresses by creating a list of up to ten [CIDRs](#). By default, a workforce isn't restricted to specific IP addresses. If you specify a range of IP addresses, workers who attempt to access tasks using any IP address outside the specified range are denied and get a `Not Found` error message on the worker portal.

To restrict access to all the workers in public internet, add the `SourceIpConfig` CIDR value as "0.0.0.0/0".

**Important**

Amazon SageMaker does not support Source Ip restriction for worker portals in VPC.

Use `OidcConfig` to update the configuration of a workforce created using your own OIDC IdP.

**Important**

You can only update your OIDC IdP configuration when there are no work teams associated with your workforce. You can delete work teams using the [DeleteWorkteam \(p. 323\)](#) operation.

After restricting access to a range of IP addresses or updating your OIDC IdP configuration with this operation, you can view details about your update workforce using the [DescribeWorkforce \(p. 562\)](#) operation.

**Important**

This operation only applies to private workforces.

## Request Syntax

```
{  
    "OidcConfig": {  
        "AuthorizationEndpoint": "string",  
        "ClientId": "string",  
        "ClientSecret": "string",  
        "Issuer": "string",  
        "JwksUri": "string",  
        "LogoutEndpoint": "string",  
        "TokenEndpoint": "string",  
        "UserInfoEndpoint": "string"  
    },  
    "SourceIpConfig": {  
        "Cidrs": [ "string" ]  
    },  
    "WorkforceName": "string",  
    "WorkforceVpcConfig": {  
        "SecurityGroupIds": [ "string" ],  
        "Subnets": [ "string" ],  
        "VpcId": "string"  
    }  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

#### OidcConfig (p. 989)

Use this parameter to update your OIDC Identity Provider (IdP) configuration for a workforce made using your own IdP.

Type: [OidcConfig \(p. 1590\)](#) object

Required: No

#### SourcelpConfig (p. 989)

A list of one to ten worker IP address ranges ([CIDRs](#)) that can be used to access tasks assigned to this workforce.

Maximum: Ten CIDR values

Type: [SourcelpConfig \(p. 1738\)](#) object

Required: No

#### WorkforceName (p. 989)

The name of the private workforce that you want to update. You can find your workforce name by using the [ListWorkforces \(p. 806\)](#) operation.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9]([a-zA-Z0-9\-\-])\{0,62\}\$

Required: Yes

#### WorkforceVpcConfig (p. 989)

Use this parameter to update your VPC configuration for a workforce.

Type: [WorkforceVpcConfigRequest \(p. 1834\)](#) object

Required: No

## Response Syntax

```
{  
    "Workforce": {  
        "CognitoConfig": {  
            "ClientId": "string",  
            "UserPool": "string"  
        },  
        "CreateDate": number,  
        "FailureReason": "string",  
        "LastUpdatedDate": number,  
        "OidcConfig": {  
            "AuthorizationEndpoint": "string",  
            "ClientId": "string",  
            "Issuer": "string",  
            "JwksUri": "string",  
            "LogoutEndpoint": "string",  
            "TokenEndpoint": "string",  
            "UserInfoEndpoint": "string"  
        },  
    },  
}
```

```
    "SourceIpConfig": {  
        "Cidrs": [ "string" ]  
    },  
    "Status": "string",  
    "SubDomain": "string",  
    "WorkforceArn": "string",  
    "WorkforceName": "string",  
    "WorkforceVpcConfig": {  
        "SecurityGroupIds": [ "string" ],  
        "Subnets": [ "string" ],  
        "VpcEndpointId": "string",  
        "VpcId": "string"  
    }  
}  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [Workforce \(p. 990\)](#)

A single private workforce. You can create one private work force in each AWS Region. By default, any workforce-related API operation used in a specific region will apply to the workforce created in that region. To learn how to create a private workforce, see [Create a Private Workforce](#).

Type: [Workforce \(p. 1832\)](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ConflictException**

There was a conflict when you attempted to modify a SageMaker entity such as an Experiment or Artifact.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UpdateWorkteam

Service: Amazon SageMaker Service

Updates an existing work team with new member definitions or description.

## Request Syntax

```
{  
    "Description": "string",  
    "MemberDefinitions": [  
        {  
            "CognitoMemberDefinition": {  
                "ClientId": "string",  
                "UserGroup": "string",  
                "UserPool": "string"  
            },  
            "OidcMemberDefinition": {  
                "Groups": [ "string" ]  
            }  
        }  
    ],  
    "NotificationConfiguration": {  
        "NotificationTopicArn": "string"  
    },  
    "WorkteamName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1920\)](#).

The request accepts the following data in JSON format.

### Description (p. 992)

An updated description for the work team.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 200.

Pattern: .+

Required: No

### MemberDefinitions (p. 992)

A list of MemberDefinition objects that contains objects that identify the workers that make up the work team.

Workforces can be created using Amazon Cognito or your own OIDC Identity Provider (IdP). For private workforces created using Amazon Cognito use CognitoMemberDefinition. For workforces created using your own OIDC identity provider (IdP) use OidcMemberDefinition. You should not provide input for both of these parameters in a single request.

For workforces created using Amazon Cognito, private work teams correspond to Amazon Cognito *user groups* within the user pool used to create a workforce. All of the CognitoMemberDefinition objects that make up the member definition must have the same ClientId and UserPool values.

To add a Amazon Cognito user group to an existing worker pool, see [Adding groups to a User Pool](#). For more information about user pools, see [Amazon Cognito User Pools](#).

For workforces created using your own OIDC IdP, specify the user groups that you want to include in your private work team in `OidcMemberDefinition` by listing those groups in `Groups`. Be aware that user groups that are already in the work team must also be listed in `Groups` when you make this request to remain on the work team. If you do not include these user groups, they will no longer be associated with the work team you update.

Type: Array of [MemberDefinition \(p. 1464\)](#) objects

Array Members: Minimum number of 1 item. Maximum number of 10 items.

Required: No

#### [NotificationConfiguration \(p. 992\)](#)

Configures SNS topic notifications for available or expiring work items

Type: [NotificationConfiguration \(p. 1586\)](#) object

Required: No

#### [WorkteamName \(p. 992\)](#)

The name of the work team to update.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9]){0,62}

Required: Yes

## Response Syntax

```
{
  "Workteam": {
    "CreateDate": number,
    "Description": "string",
    "LastUpdatedDate": number,
    "MemberDefinitions": [
      {
        "CognitoMemberDefinition": {
          "ClientId": "string",
          "UserGroup": "string",
          "UserPool": "string"
        },
        "OidcMemberDefinition": {
          "Groups": [ "string" ]
        }
      }
    ],
    "NotificationConfiguration": {
      "NotificationTopicArn": "string"
    },
    "ProductListingIds": [ "string" ],
    "SubDomain": "string",
    "WorkforceArn": "string",
    "WorkteamArn": "string",
    "WorkteamName": "string"
  }
}
```

}

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### **Workteam (p. 993)**

A Workteam object that describes the updated work team.

Type: [Workteam \(p. 1837\)](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **ResourceLimitExceeded**

You have exceeded an SageMaker resource limit. For example, you might have too many training jobs created.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## Amazon SageMaker Runtime

The following actions are supported by Amazon SageMaker Runtime:

- [InvokeEndpoint \(p. 995\)](#)
- [InvokeEndpointAsync \(p. 1001\)](#)

## InvokeEndpoint

Service: Amazon SageMaker Runtime

After you deploy a model into production using Amazon SageMaker hosting services, your client applications use this API to get inferences from the model hosted at the specified endpoint.

For an overview of Amazon SageMaker, see [How It Works](#).

Amazon SageMaker strips all POST headers except those supported by the API. Amazon SageMaker might add additional headers. You should not rely on the behavior of headers outside those enumerated in the request syntax.

Calls to InvokeEndpoint are authenticated by using AWS Signature Version 4. For information, see [Authenticating Requests \(AWS Signature Version 4\)](#) in the *Amazon S3 API Reference*.

A customer's model containers must respond to requests within 60 seconds. The model itself can have a maximum processing time of 60 seconds before responding to invocations. If your model is going to take 50-60 seconds of processing time, the SDK socket timeout should be set to be 70 seconds.

### Note

Endpoints are scoped to an individual account, and are not public. The URL does not contain the account ID, but Amazon SageMaker determines the account ID from the authentication token that is supplied by the caller.

## Request Syntax

```
POST /endpoints/EndpointName/invocations HTTP/1.1
Content-Type: ContentType
Accept: Accept
X-Amzn-SageMaker-Custom-Attributes: CustomAttributes
X-Amzn-SageMaker-Target-Model: TargetModel
X-Amzn-SageMaker-Target-Variant: TargetVariant
X-Amzn-SageMaker-Target-Container-Hostname: TargetContainerHostname
X-Amzn-SageMaker-Inference-Id: InferenceId
X-Amzn-SageMaker-Enable-Explanations: EnableExplanations
```

*Body*

## URI Request Parameters

The request uses the following URI parameters.

### Accept (p. 995)

The desired MIME type of the inference in the response.

Length Constraints: Maximum length of 1024.

Pattern: \p{ASCII}\*

### ContentType (p. 995)

The MIME type of the input data in the request body.

Length Constraints: Maximum length of 1024.

Pattern: \p{ASCII}\*

### CustomAttributes (p. 995)

Provides additional information about a request for an inference submitted to a model hosted at an Amazon SageMaker endpoint. The information is an opaque value that is forwarded verbatim. You

could use this value, for example, to provide an ID that you can use to track a request or to provide other metadata that a service endpoint was programmed to process. The value must consist of no more than 1024 visible US-ASCII characters as specified in [Section 3.3.6. Field Value Components](#) of the Hypertext Transfer Protocol (HTTP/1.1).

The code in your model is responsible for setting or updating any custom attributes in the response. If your code does not set this value in the response, an empty value is returned. For example, if a custom attribute represents the trace ID, your model can prepend the custom attribute with Trace ID: in your post-processing function.

This feature is currently supported in the AWS SDKs but not in the Amazon SageMaker Python SDK.

Length Constraints: Maximum length of 1024.

Pattern: \p{ASCII}\*

#### [EnableExplanations \(p. 995\)](#)

An optional JMESPath expression used to override the EnableExplanations parameter of the ClarifyExplainerConfig API. See the [EnableExplanations](#) section in the developer guide for more information.

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: .\*

#### [EndpointName \(p. 995\)](#)

The name of the endpoint that you specified when you created the endpoint using the [CreateEndpoint](#) API.

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\*

Required: Yes

#### [InferenceId \(p. 995\)](#)

If you provide a value, it is added to the captured data when you enable data capture on the endpoint. For information about data capture, see [Capture Data](#).

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: \A\\$[\p{Print}]\*)\z

#### [TargetContainerHostname \(p. 995\)](#)

If the endpoint hosts multiple containers and is configured to use direct invocation, this parameter specifies the host name of the container to invoke.

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\*

#### [TargetModel \(p. 995\)](#)

The model to request for inference when invoking a multi-model endpoint.

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: \A\\$[\p{Print}]\*)\z

### [TargetVariant \(p. 995\)](#)

Specify the production variant to send the inference request to when invoking an endpoint that is running two or more variants. Note that this parameter overrides the default behavior for the endpoint, which is to distribute the invocation traffic based on the variant weights.

For information about how to use variant targeting to perform a/b testing, see [Test models in production](#)

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\*

## Request Body

The request accepts the following binary data.

### [Body \(p. 995\)](#)

Provides input data, in the format specified in the `ContentType` request header. Amazon SageMaker passes all of the data in the body to the model.

For information about the format of the request body, see [Common Data Formats-Inference](#).

Length Constraints: Maximum length of 6291456.

Required: Yes

## Response Syntax

```
HTTP/1.1 200
Content-Type: ContentType
x-Amzn-Invoked-Production-Variant: InvokedProductionVariant
X-Amzn-SageMaker-Custom-Attributes: CustomAttributes

Body
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The response returns the following HTTP headers.

### [ContentType \(p. 997\)](#)

The MIME type of the inference returned in the response body.

Length Constraints: Maximum length of 1024.

Pattern: \p{ASCII}\*

### [CustomAttributes \(p. 997\)](#)

Provides additional information in the response about the inference returned by a model hosted at an Amazon SageMaker endpoint. The information is an opaque value that is forwarded verbatim. You could use this value, for example, to return an ID received in the `CustomAttributes` header of a request or other metadata that a service endpoint was programmed to produce. The value must consist of no more than 1024 visible US-ASCII characters as specified in [Section 3.3.6. Field](#)

[Value Components](#) of the Hypertext Transfer Protocol (HTTP/1.1). If the customer wants the custom attribute returned, the model must set the custom attribute to be included on the way back.

The code in your model is responsible for setting or updating any custom attributes in the response. If your code does not set this value in the response, an empty value is returned. For example, if a custom attribute represents the trace ID, your model can prepend the custom attribute with Trace ID: in your post-processing function.

This feature is currently supported in the AWS SDKs but not in the Amazon SageMaker Python SDK.

Length Constraints: Maximum length of 1024.

Pattern: `\p{ASCII}*`

#### [InvokedProductionVariant \(p. 997\)](#)

Identifies the production variant that was invoked.

Length Constraints: Maximum length of 1024.

Pattern: `\p{ASCII}*`

The response returns the following as the HTTP body.

#### [Body \(p. 997\)](#)

Includes the inference provided by the model.

For information about the format of the response body, see [Common Data Formats-Inference](#).

If the explainer is activated, the body includes the explanations provided by the model. For more information, see the **Response section** under [Invoke the Endpoint](#) in the Developer Guide.

Length Constraints: Maximum length of 6291456.

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **InternalDependencyException**

Your request caused an exception with an internal dependency. Contact customer support.

HTTP Status Code: 530

### **InternalFailure**

An internal failure occurred.

HTTP Status Code: 500

### **ModelError**

Model (owned by the customer in the container) returned 4xx or 5xx error code.

HTTP Status Code: 424

### **ModelNotReadyException**

Either a serverless endpoint variant's resources are still being provisioned, or a multi-model endpoint is still downloading or loading the target model. Wait and try your request again.

HTTP Status Code: 429

### ServiceUnavailable

The service is unavailable. Try your call again.

HTTP Status Code: 503

### ValidationError

Inspect your request and try again.

HTTP Status Code: 400

## Examples

### Pass a trace ID in the CustomAttribute of a request and return it in the CustomAttribute of the response.

In this example a trace ID is passed to the service endpoint in the CustomAttributes header of the request and then retrieved and returned in the CustomAttributes header of the response.

#### Sample Request

```
import boto3

client = boto3.client('sagemaker-runtime')

custom_attributes = "c000b4f9-df62-4c85-a0bf-7c525f9104a4" # An example of a trace ID.
endpoint_name = "..." # Your endpoint name.
content_type = "..." # The MIME type of the input
data in the request body.
accept = "..." # The desired MIME type of the
inference in the response.
payload = "..." # Payload for inference.
response = client.invoke_endpoint(
    EndpointName=endpoint_name,
   CustomAttributes=custom_attributes,
    ContentType=content_type,
    Accept=accept,
    Body=payload
)

print(response['CustomAttributes']) # If model receives and updates
# the custom_attributes header

# by adding "Trace id: " in
# front of custom_attributes in the request,
# becomes
# "Trace ID: c000b4f9-
df62-4c85-a0bf-7c525f9104a4"
```

#### Sample Response

```
Trace ID: c000b4f9-df62-4c85-a0bf-7c525f9104a4
```

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## InvokeEndpointAsync

Service: Amazon SageMaker Runtime

After you deploy a model into production using Amazon SageMaker hosting services, your client applications use this API to get inferences from the model hosted at the specified endpoint in an asynchronous manner.

Inference requests sent to this API are enqueued for asynchronous processing. The processing of the inference request may or may not complete before you receive a response from this API. The response from this API will not contain the result of the inference request but contain information about where you can locate it.

Amazon SageMaker strips all POST headers except those supported by the API. Amazon SageMaker might add additional headers. You should not rely on the behavior of headers outside those enumerated in the request syntax.

Calls to `InvokeEndpointAsync` are authenticated by using AWS Signature Version 4. For information, see [Authenticating Requests \(AWS Signature Version 4\)](#) in the *Amazon S3 API Reference*.

## Request Syntax

```
POST /endpoints/EndpointName/async-invocations HTTP/1.1
X-Amzn-SageMaker-Content-Type: ContentType
X-Amzn-SageMaker-Accept: Accept
X-Amzn-SageMaker-Custom-Attributes: CustomAttributes
X-Amzn-SageMaker-Inference-Id: InferenceId
X-Amzn-SageMaker-InputLocation: InputLocation
X-Amzn-SageMaker-RequestTTLSeconds: RequestTTLSeconds
```

## URI Request Parameters

The request uses the following URI parameters.

### [Accept \(p. 1001\)](#)

The desired MIME type of the inference in the response.

Length Constraints: Maximum length of 1024.

Pattern: \p{ASCII}\*

### [ContentType \(p. 1001\)](#)

The MIME type of the input data in the request body.

Length Constraints: Maximum length of 1024.

Pattern: \p{ASCII}\*

### [CustomAttributes \(p. 1001\)](#)

Provides additional information about a request for an inference submitted to a model hosted at an Amazon SageMaker endpoint. The information is an opaque value that is forwarded verbatim. You could use this value, for example, to provide an ID that you can use to track a request or to provide other metadata that a service endpoint was programmed to process. The value must consist of no more than 1024 visible US-ASCII characters as specified in [Section 3.3.6. Field Value Components](#) of the Hypertext Transfer Protocol (HTTP/1.1).

The code in your model is responsible for setting or updating any custom attributes in the response. If your code does not set this value in the response, an empty value is returned. For example, if a

custom attribute represents the trace ID, your model can prepend the custom attribute with Trace ID: in your post-processing function.

This feature is currently supported in the AWS SDKs but not in the Amazon SageMaker Python SDK.

Length Constraints: Maximum length of 1024.

Pattern: \p{ASCII}\*

#### [EndpointName \(p. 1001\)](#)

The name of the endpoint that you specified when you created the endpoint using the [CreateEndpoint](#) API.

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\*

Required: Yes

#### [InferenceId \(p. 1001\)](#)

The identifier for the inference request. Amazon SageMaker will generate an identifier for you if none is specified.

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: \A\S[\p{Print}]\*)\z

#### [InputLocation \(p. 1001\)](#)

The Amazon S3 URI where the inference request payload is stored.

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: ^(https|s3)://([^\/]+)/(.\*\$)

Required: Yes

#### [RequestTTLSeconds \(p. 1001\)](#)

Maximum age in seconds a request can be in the queue before it is marked as expired.

Valid Range: Minimum value of 60. Maximum value of 21600.

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 202
X-Amzn-SageMaker-OutputLocation: OutputLocation
Content-type: application/json

{
    "InferenceId": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 202 response.

The response returns the following HTTP headers.

#### **OutputLocation (p. 1002)**

The Amazon S3 URI where the inference response payload is stored.

Length Constraints: Maximum length of 1024.

Pattern: \p{ASCII}\*

The following data is returned in JSON format by the service.

#### **InferenceId (p. 1002)**

Identifier for an inference request. This will be the same as the InferenceId specified in the input. Amazon SageMaker will generate an identifier for you if you do not specify one.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: \p{ASCII}\*

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **InternalFailure**

An internal failure occurred.

HTTP Status Code: 500

### **ServiceUnavailable**

The service is unavailable. Try your call again.

HTTP Status Code: 503

### **ValidationException**

Inspect your request and try again.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)

- [AWS SDK for Ruby V3](#)

## Amazon Sagemaker Edge Manager

The following actions are supported by Amazon Sagemaker Edge Manager:

- [GetDeployments \(p. 1005\)](#)
- [GetDeviceRegistration \(p. 1007\)](#)
- [SendHeartbeat \(p. 1009\)](#)

## GetDeployments

Service: Amazon Sagemaker Edge Manager

Use to get the active deployments from a device.

### Request Syntax

```
POST /GetDeployments HTTP/1.1
Content-type: application/json

{
    "DeviceFleetName": "string",
    "DeviceName": "string"
}
```

### URI Request Parameters

The request does not use any URI parameters.

### Request Body

The request accepts the following data in JSON format.

#### [DeviceFleetName \(p. 1005\)](#)

The name of the fleet to which the device belongs.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*\_[a-zA-Z0-9])\*\$

Required: Yes

#### [DeviceName \(p. 1005\)](#)

The unique name of the device from which you want to get the configuration of active deployments.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*\_[a-zA-Z0-9])\*\$

Required: Yes

### Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
    "Deployments": [
        {
            "Definitions": [
                {
                    "Checksum": {
```

```
        "Sum": "string",
        "Type": "string"
    },
    "ModelHandle": "string",
    "S3Url": "string",
    "State": "string"
}
],
"DeploymentName": "string",
"FailureHandlingPolicy": "string",
"Type": "string"
}
]
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [Deployments \(p. 1005\)](#)

Returns a list of the configurations of the active deployments on the device.

Type: Array of [EdgeDeployment \(p. 1846\)](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **InternalServiceException**

An internal failure occurred. Try your request again. If the problem persists, contact AWS customer support.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## GetDeviceRegistration

Service: Amazon Sagemaker Edge Manager

Use to check if a device is registered with SageMaker Edge Manager.

### Request Syntax

```
POST /GetDeviceRegistration HTTP/1.1
Content-type: application/json

{
    "DeviceFleetName": "string",
    "DeviceName": "string"
}
```

### URI Request Parameters

The request does not use any URI parameters.

### Request Body

The request accepts the following data in JSON format.

#### [DeviceFleetName \(p. 1007\)](#)

The name of the fleet to which the device belongs.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*\_[a-zA-Z0-9])\*\$

Required: Yes

#### [DeviceName \(p. 1007\)](#)

The unique name of the device from which you want to get the registration status.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*\_[a-zA-Z0-9])\*\$

Required: Yes

### Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
    "CacheTTL": "string",
    "DeviceRegistration": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [CacheTTL \(p. 1007\)](#)

The amount of time, in seconds, that the registration status is stored on the device's cache before it is refreshed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1000.

### [DeviceRegistration \(p. 1007\)](#)

Describes if the device is currently registered with SageMaker Edge Manager.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1000.

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **InternalServiceException**

An internal failure occurred. Try your request again. If the problem persists, contact AWS customer support.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## SendHeartbeat

Service: Amazon Sagemaker Edge Manager

Use to get the current status of devices registered on SageMaker Edge Manager.

### Request Syntax

```
POST /SendHeartbeat HTTP/1.1
Content-type: application/json

{
  "AgentMetrics": [
    {
      "Dimension": "string",
      "MetricName": "string",
      "Timestamp": number,
      "Value": number
    }
  ],
  "AgentVersion": "string",
  "DeploymentResult": [
    {
      "DeploymentEndTime": number,
      "DeploymentModels": [
        {
          "DesiredState": "string",
          "ModelHandle": "string",
          "ModelName": "string",
          "ModelVersion": "string",
          "RollbackFailureReason": "string",
          "State": "string",
          "Status": "string",
          "StatusReason": "string"
        }
      ],
      "DeploymentName": "string",
      "DeploymentStartTime": number,
      "DeploymentStatus": "string",
      "DeploymentStatusMessage": "string"
    },
    {
      "DeviceFleetName": "string",
      "DeviceName": "string",
      "Models": [
        {
          "LatestInference": number,
          "LatestSampleTime": number,
          "ModelMetrics": [
            {
              "Dimension": "string",
              "MetricName": "string",
              "Timestamp": number,
              "Value": number
            }
          ],
          "modelName": "string",
          "ModelVersion": "string"
        }
      ]
    }
  ]
}
```

### URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request accepts the following data in JSON format.

### [AgentMetrics \(p. 1009\)](#)

For internal use. Returns a list of SageMaker Edge Manager agent operating metrics.

Type: Array of [EdgeMetric \(p. 1847\)](#) objects

Required: No

### [AgentVersion \(p. 1009\)](#)

Returns the version of the agent.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: [a-zA-Z0-9\ \\_\.\ ]+

Required: Yes

### [DeploymentResult \(p. 1009\)](#)

Returns the result of a deployment on the device.

Type: [DeploymentResult \(p. 1844\)](#) object

Required: No

### [DeviceFleetName \(p. 1009\)](#)

The name of the fleet to which the device belongs.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*\_\*[a-zA-Z0-9])\*\$

Required: Yes

### [DeviceName \(p. 1009\)](#)

The unique name of the device.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*\_\*[a-zA-Z0-9])\*\$

Required: Yes

### [Models \(p. 1009\)](#)

Returns a list of models deployed on the the device.

Type: Array of [Model \(p. 1848\)](#) objects

Required: No

## Response Syntax

HTTP/1.1 200

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **InternalServiceException**

An internal failure occurred. Try your request again. If the problem persists, contact AWS customer support.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## Amazon SageMaker Feature Store Runtime

The following actions are supported by Amazon SageMaker Feature Store Runtime:

- [BatchGetRecord \(p. 1012\)](#)
- [DeleteRecord \(p. 1015\)](#)
- [GetRecord \(p. 1017\)](#)
- [PutRecord \(p. 1020\)](#)

## BatchGetRecord

Service: Amazon SageMaker Feature Store Runtime

Retrieves a batch of Records from a FeatureGroup.

### Request Syntax

```
POST /BatchGetRecord HTTP/1.1
Content-type: application/json

{
  "Identifiers": [
    {
      "FeatureGroupName": "string",
      "FeatureNames": [ "string" ],
      "RecordIdentifiersValueAsString": [ "string" ]
    }
  ]
}
```

### URI Request Parameters

The request does not use any URI parameters.

### Request Body

The request accepts the following data in JSON format.

#### Identifiers (p. 1012)

A list of FeatureGroup names, with their corresponding RecordIdentifier value, and Feature name that have been requested to be retrieved in batch.

Type: Array of [BatchGetRecordIdentifier \(p. 1852\)](#) objects

Array Members: Minimum number of 1 item. Maximum number of 10 items.

Required: Yes

### Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "Errors": [
    {
      "ErrorCode": "string",
      "ErrorMessage": "string",
      "FeatureGroupName": "string",
      "RecordIdentifierValueAsString": "string"
    }
  ],
  "Records": [
    {
      "FeatureGroupName": "string",
      "Record": [
        ...
      ]
    }
  ]
}
```

```
{  
    "FeatureName": "string",  
    "ValueAsString": "string"  
},  
    "RecordIdentifierValueAsString": "string"  
]  
,  
"UnprocessedIdentifiers": [  
    {  
        "FeatureGroupName": "string",  
        "FeatureNames": [ "string" ],  
        "RecordIdentifiersValueAsString": [ "string" ]  
    }  
]  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [Errors \(p. 1012\)](#)

A list of errors that have occurred when retrieving a batch of Records.

Type: Array of [BatchGetRecordError \(p. 1850\)](#) objects

Array Members: Minimum number of 0 items.

### [Records \(p. 1012\)](#)

A list of Records you requested to be retrieved in batch.

Type: Array of [BatchGetRecordResultDetail \(p. 1853\)](#) objects

Array Members: Minimum number of 0 items.

### [UnprocessedIdentifiers \(p. 1012\)](#)

A unprocessed list of FeatureGroup names, with their corresponding RecordIdentifier value, and Feature name.

Type: Array of [BatchGetRecordIdentifier \(p. 1852\)](#) objects

Array Members: Minimum number of 0 items.

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **AccessForbidden**

You do not have permission to perform an action.

HTTP Status Code: 403

### **InternalFailure**

An internal failure occurred. Try your request again. If the problem persists, contact AWS customer support.

HTTP Status Code: 500

**ServiceUnavailable**

The service is currently unavailable.

HTTP Status Code: 503

**ValidationError**

There was an error validating your request.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DeleteRecord

Service: Amazon SageMaker Feature Store Runtime

Deletes a Record from a FeatureGroup. When the DeleteRecord API is called a new record will be added to the OfflineStore and the Record will be removed from the OnlineStore. This record will have a value of True in the `is_deleted` column.

## Request Syntax

```
DELETE /FeatureGroup/FeatureGroupName?  
EventTime=EventTime&RecordIdentifierValueAsString=RecordIdentifierValueAsString&TargetStores=TargetStores  
HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### EventTime (p. 1015)

Timestamp indicating when the deletion event occurred. EventTime can be used to query data at a certain point in time.

Length Constraints: Maximum length of 358400.

Pattern: .\*

Required: Yes

### FeatureGroupName (p. 1015)

The name of the feature group to delete the record from.

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,63\}

Required: Yes

### RecordIdentifierValueAsString (p. 1015)

The value for the RecordIdentifier that uniquely identifies the record, in string format.

Length Constraints: Maximum length of 358400.

Pattern: .\*

Required: Yes

### TargetStores (p. 1015)

A list of stores from which you're deleting the record. By default, Feature Store deletes the record from all of the stores that you're using for the FeatureGroup.

Array Members: Minimum number of 1 item. Maximum number of 2 items.

Valid Values: OnlineStore | OfflineStore

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **AccessForbidden**

You do not have permission to perform an action.

HTTP Status Code: 403

### **InternalFailure**

An internal failure occurred. Try your request again. If the problem persists, contact AWS customer support.

HTTP Status Code: 500

### **ServiceUnavailable**

The service is currently unavailable.

HTTP Status Code: 503

### **ValidationException**

There was an error validating your request.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## GetRecord

Service: Amazon SageMaker Feature Store Runtime

Use for OnlineStore serving from a FeatureStore. Only the latest records stored in the OnlineStore can be retrieved. If no Record with RecordIdentifierValue is found, then an empty result is returned.

## Request Syntax

```
GET /FeatureGroup/FeatureGroupName?  
FeatureName=FeatureNames&RecordIdentifierValueAsString=RecordIdentifierValueAsString  
HTTP/1.1
```

## URI Request Parameters

The request uses the following URI parameters.

### **FeatureGroupName (p. 1017)**

The name of the feature group from which you want to retrieve a record.

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,63\}

Required: Yes

### **FeatureNames (p. 1017)**

List of names of Features to be retrieved. If not specified, the latest value for all the Features are returned.

Array Members: Minimum number of 1 item.

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: ^[a-zA-Z0-9]([-\_]\*[a-zA-Z0-9])\{0,63\}

### **RecordIdentifierValueAsString (p. 1017)**

The value that corresponds to RecordIdentifier type and uniquely identifies the record in the FeatureGroup.

Length Constraints: Maximum length of 358400.

Pattern: .\*

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200  
Content-type: application/json
```

```
{  
    "Record": [  
        {  
            "FeatureName": "string",  
            "ValueAsString": "string"  
        }  
    ]  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### **Record** (p. 1017)

The record you requested. A list of FeatureValues.

Type: Array of [FeatureValue](#) (p. 1854) objects

Array Members: Minimum number of 1 item.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#) (p. 1922).

### **AccessForbidden**

You do not have permission to perform an action.

HTTP Status Code: 403

### **InternalFailure**

An internal failure occurred. Try your request again. If the problem persists, contact AWS customer support.

HTTP Status Code: 500

### **ResourceNotFound**

A resource that is required to perform an action was not found.

HTTP Status Code: 404

### **ServiceUnavailable**

The service is currently unavailable.

HTTP Status Code: 503

### **ValidationException**

There was an error validating your request.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## PutRecord

Service: Amazon SageMaker Feature Store Runtime

Used for data ingestion into the FeatureStore. The PutRecord API writes to both the OnlineStore and OfflineStore. If the record is the latest record for the recordIdentifier, the record is written to both the OnlineStore and OfflineStore. If the record is a historic record, it is written only to the OfflineStore.

## Request Syntax

```
PUT /FeatureGroup/FeatureGroupName HTTP/1.1
Content-type: application/json

{
  "Record": [
    {
      "FeatureName": "string",
      "ValueAsString": "string"
    }
  ],
  "TargetStores": [ "string" ]
}
```

## URI Request Parameters

The request uses the following URI parameters.

### **FeatureGroupName (p. 1020)**

The name of the feature group that you want to insert the record into.

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,63\}

Required: Yes

## Request Body

The request accepts the following data in JSON format.

### **Record (p. 1020)**

List of FeatureValues to be inserted. This will be a full over-write. If you only want to update few of the feature values, do the following:

- Use GetRecord to retrieve the latest record.
- Update the record returned from GetRecord.
- Use PutRecord to update feature values.

Type: Array of [FeatureValue \(p. 1854\)](#) objects

Array Members: Minimum number of 1 item.

Required: Yes

### [TargetStores \(p. 1020\)](#)

A list of stores to which you're adding the record. By default, Feature Store adds the record to all of the stores that you're using for the FeatureGroup.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 2 items.

Valid Values: OnlineStore | OfflineStore

Required: No

## Response Syntax

HTTP/1.1 200

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **AccessForbidden**

You do not have permission to perform an action.

HTTP Status Code: 403

### **InternalFailure**

An internal failure occurred. Try your request again. If the problem persists, contact AWS customer support.

HTTP Status Code: 500

### **ServiceUnavailable**

The service is currently unavailable.

HTTP Status Code: 503

### **ValidationErrorResponse**

There was an error validating your request.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## Amazon SageMaker geospatial capabilities

The following actions are supported by Amazon SageMaker geospatial capabilities:

- [DeleteEarthObservationJob \(p. 1023\)](#)
- [DeleteVectorEnrichmentJob \(p. 1025\)](#)
- [ExportEarthObservationJob \(p. 1027\)](#)
- [ExportVectorEnrichmentJob \(p. 1031\)](#)
- [GetEarthObservationJob \(p. 1034\)](#)
- [GetRasterDataCollection \(p. 1040\)](#)
- [GetTile \(p. 1043\)](#)
- [GetVectorEnrichmentJob \(p. 1046\)](#)
- [ListEarthObservationJobs \(p. 1050\)](#)
- [ListRasterDataCollections \(p. 1053\)](#)
- [ListTagsForResource \(p. 1056\)](#)
- [ListVectorEnrichmentJobs \(p. 1058\)](#)
- [SearchRasterDataCollection \(p. 1061\)](#)
- [StartEarthObservationJob \(p. 1065\)](#)
- [StartVectorEnrichmentJob \(p. 1073\)](#)
- [StopEarthObservationJob \(p. 1078\)](#)
- [StopVectorEnrichmentJob \(p. 1080\)](#)
- [TagResource \(p. 1082\)](#)
- [UntagResource \(p. 1084\)](#)

## DeleteEarthObservationJob

Service: Amazon SageMaker geospatial capabilities

Use this operation to delete an Earth Observation job.

### Request Syntax

```
DELETE /earth-observation-jobs/Arn HTTP/1.1
```

### URI Request Parameters

The request uses the following URI parameters.

#### Arn (p. 1023)

The Amazon Resource Name (ARN) of the Earth Observation job being deleted.

Pattern: ^arn:aws[a-z-]{0,12}:sagemaker-geospatial:[a-z0-9-]{1,25}:[0-9]{12}:earth-observation-job/[a-z0-9]{12,}\$\$

Required: Yes

### Request Body

The request does not have a request body.

### Response Syntax

```
HTTP/1.1 200
```

### Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

### Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

#### AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 403

#### ConflictException

HTTP Status Code: 409

#### InternalServerError

The request processing has failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

#### ResourceNotFoundException

HTTP Status Code: 404

**ThrottlingException**

The request was denied due to request throttling.

HTTP Status Code: 429

**ValidationException**

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## DeleteVectorEnrichmentJob

Service: Amazon SageMaker geospatial capabilities

Use this operation to delete a Vector Enrichment job.

### Request Syntax

```
DELETE /vector-enrichment-jobs/Arn HTTP/1.1
```

### URI Request Parameters

The request uses the following URI parameters.

#### Arn (p. 1025)

The Amazon Resource Name (ARN) of the Vector Enrichment job being deleted.

Pattern: ^arn:aws[a-z-]{0,12}:sagemaker-geospatial:[a-z0-9-]{1,25}:[0-9]{12}:vector-enrichment-job/[a-z0-9]{12,}\$

Required: Yes

### Request Body

The request does not have a request body.

### Response Syntax

```
HTTP/1.1 200
```

### Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

### Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

#### AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 403

#### ConflictException

HTTP Status Code: 409

#### InternalServerError

The request processing has failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

#### ResourceNotFoundException

HTTP Status Code: 404

**ThrottlingException**

The request was denied due to request throttling.

HTTP Status Code: 429

**ValidationException**

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ExportEarthObservationJob

Service: Amazon SageMaker geospatial capabilities

Use this operation to export results of an Earth Observation job and optionally source images used as input to the EOJ to an S3 location.

## Request Syntax

```
POST /export-earth-observation-job HTTP/1.1
Content-type: application/json

{
    "Arn": "string",
    "ExecutionRoleArn": "string",
    "ExportSourceImages": boolean,
    "OutputConfig": {
        "S3Data": {
            "KmsKeyId": "string",
            "S3Uri": "string"
        }
    }
}
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request accepts the following data in JSON format.

### [Arn \(p. 1027\)](#)

The input Amazon Resource Name (ARN) of the Earth Observation job being exported.

Type: String

Pattern: ^arn:aws[a-z-]{0,12}:sagemaker-geospatial:[a-z0-9-]{1,25}:[0-9]{12}:earth-observation-job/[a-z0-9]{12,}\$\$

Required: Yes

### [ExecutionRoleArn \(p. 1027\)](#)

The Amazon Resource Name (ARN) of the IAM role that you specified for the job.

Type: String

Required: Yes

### [ExportSourceImages \(p. 1027\)](#)

The source images provided to the Earth Observation job being exported.

Type: Boolean

Required: No

### [OutputConfig \(p. 1027\)](#)

An object containing information about the output file.

Type: [OutputConfigInput \(p. 1889\)](#) object

Required: Yes

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
    "Arn": "string",
    "CreationTime": number,
    "ExecutionRoleArn": "string",
    "ExportSourceImages": boolean,
    "ExportStatus": "string",
    "OutputConfig": {
        "S3Data": {
            "KmsKeyId": "string",
            "S3Uri": "string"
        }
    }
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [Arn \(p. 1028\)](#)

The output Amazon Resource Name (ARN) of the Earth Observation job being exported.

Type: String

Pattern: ^arn:aws[a-z-]{0,12}:sagemaker-geospatial:[a-z0-9-]{1,25}:[0-9]{12}:earth-observation-job/[a-z0-9]{12,}\$

### [CreationTime \(p. 1028\)](#)

The creation time.

Type: Timestamp

### [ExecutionRoleArn \(p. 1028\)](#)

The Amazon Resource Name (ARN) of the IAM role that you specified for the job.

Type: String

### [ExportSourceImages \(p. 1028\)](#)

The source images provided to the Earth Observation job being exported.

Type: Boolean

### [ExportStatus \(p. 1028\)](#)

The status of the results of the Earth Observation job being exported.

Type: String

Valid Values: IN\_PROGRESS | SUCCEEDED | FAILED

### [OutputConfig \(p. 1028\)](#)

An object containing information about the output file.

Type: [OutputConfigInput \(p. 1889\)](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **AccessDeniedException**

You do not have sufficient access to perform this action.

HTTP Status Code: 403

### **ConflictException**

HTTP Status Code: 409

### **InternalServerError**

The request processing has failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

### **ResourceNotFoundException**

HTTP Status Code: 404

### **ServiceQuotaExceededException**

You have exceeded the service quota.

HTTP Status Code: 402

### **ThrottlingException**

The request was denied due to request throttling.

HTTP Status Code: 429

### **ValidationException**

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)

- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## ExportVectorEnrichmentJob

Service: Amazon SageMaker geospatial capabilities

Use this operation to copy results of a Vector Enrichment job to an S3 location.

### Request Syntax

```
POST /export-vector-enrichment-jobs HTTP/1.1
Content-type: application/json

{
    "Arn": "string",
    "ExecutionRoleArn": "string",
    "OutputConfig": {
        "S3Data": {
            "KmsKeyId": "string",
            "S3Uri": "string"
        }
    }
}
```

### URI Request Parameters

The request does not use any URI parameters.

### Request Body

The request accepts the following data in JSON format.

#### [Arn \(p. 1031\)](#)

The Amazon Resource Name (ARN) of the Vector Enrichment job.

Type: String

Pattern: ^arn:aws[a-z-]{0,12}:sagemaker-geospatial:[a-z0-9-]{1,25}:[0-9]{12}:vector-enrichment-job/[a-z0-9]{12,}\$

Required: Yes

#### [ExecutionRoleArn \(p. 1031\)](#)

The Amazon Resource Name (ARN) of the IAM rolewith permission to upload to the location in OutputConfig.

Type: String

Required: Yes

#### [OutputConfig \(p. 1031\)](#)

Output location information for exporting Vector Enrichment Job results.

Type: [ExportVectorEnrichmentJobOutputConfig \(p. 1870\)](#) object

Required: Yes

### Response Syntax

```
HTTP/1.1 200
```

```
Content-type: application/json

{
    "Arn": "string",
    "CreationTime": number,
    "ExecutionRoleArn": "string",
    "ExportStatus": "string",
    "OutputConfig": {
        "S3Data": {
            "KmsKeyId": "string",
            "S3Uri": "string"
        }
    }
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [Arn \(p. 1031\)](#)

The Amazon Resource Name (ARN) of the Vector Enrichment job being exported.

Type: String

Pattern: ^arn:aws[a-z-]{0,12}:sagemaker-geospatial:[a-z0-9-]{1,25}:[0-9]{12}:vector-enrichment-job/[a-z0-9]{12,}\$

### [CreationTime \(p. 1031\)](#)

The creation time.

Type: Timestamp

### [ExecutionRoleArn \(p. 1031\)](#)

The Amazon Resource Name (ARN) of the IAM role with permission to upload to the location in OutputConfig.

Type: String

### [ExportStatus \(p. 1031\)](#)

The status of the results the Vector Enrichment job being exported.

Type: String

Valid Values: IN\_PROGRESS | SUCCEEDED | FAILED

### [OutputConfig \(p. 1031\)](#)

Output location information for exporting Vector Enrichment Job results.

Type: [ExportVectorEnrichmentJobOutputConfig \(p. 1870\)](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **AccessDeniedException**

You do not have sufficient access to perform this action.

HTTP Status Code: 403

**ConflictException**

HTTP Status Code: 409

**InternalServerException**

The request processing has failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

**ResourceNotFoundException**

HTTP Status Code: 404

**ServiceQuotaExceededException**

You have exceeded the service quota.

HTTP Status Code: 402

**ThrottlingException**

The request was denied due to request throttling.

HTTP Status Code: 429

**ValidationException**

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## GetEarthObservationJob

Service: Amazon SageMaker geospatial capabilities

Get the details for a previously initiated Earth Observation job.

### Request Syntax

```
GET /earth-observation-jobs/Arn HTTP/1.1
```

### URI Request Parameters

The request uses the following URI parameters.

#### Arn (p. 1034)

The Amazon Resource Name (ARN) of the Earth Observation job.

Pattern: ^arn:aws[a-z-]{0,12}:sagemaker-geospatial:[a-z0-9-]{1,25}:[0-9]{12}:earth-observation-job/[a-z0-9]{12,}\$

Required: Yes

### Request Body

The request does not have a request body.

### Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
    "Arn": "string",
    "CreationTime": number,
    "DurationInSeconds": number,
    "ErrorDetails": {
        "Message": "string",
        "Type": "string"
    },
    "ExecutionRoleArn": "string",
    "ExportErrorDetails": {
        "ExportResults": {
            "Message": "string",
            "Type": "string"
        }
    },
    "ExportSourceImages": {
        "Message": "string",
        "Type": "string"
    }
},
    "ExportStatus": "string",
    "InputConfig": {
        "DataSourceConfig": {
            "S3Data": {
                "KmsKeyId": "string",
                "MetadataProvider": "string",
                "S3Uri": "string"
            }
        }
    }
}
```

```

        },
        "PreviousEarthObservationJobArn": "string",
        "RasterDataCollectionQuery": {
            "AreaOfInterest": {
                "AreaOfInterestGeometry": {
                    "MultiPolygonGeometry": {
                        "Coordinates": [
                            [
                                [
                                    [
                                        [ number ]
                                    ]
                                ]
                            ],
                            "PolygonGeometry": {
                                "Coordinates": [
                                    [
                                        [
                                            [ number ]
                                        ]
                                    ]
                                ]
                            }
                        ]
                    }
                }
            },
            "PropertyFilters": {
                "LogicalOperator": "string",
                "Properties": [
                    {
                        "Property": {
                            "EoCloudCover": {
                                "LowerBound": number,
                                "UpperBound": number
                            },
                            "LandsatCloudCoverLand": {
                                "LowerBound": number,
                                "UpperBound": number
                            },
                            "Platform": {
                                "ComparisonOperator": "string",
                                "Value": "string"
                            },
                            "ViewOffNadir": {
                                "LowerBound": number,
                                "UpperBound": number
                            },
                            "ViewSunAzimuth": {
                                "LowerBound": number,
                                "UpperBound": number
                            },
                            "ViewSunElevation": {
                                "LowerBound": number,
                                "UpperBound": number
                            }
                        }
                    }
                ]
            }
        },
        "RasterDataCollectionArn": "string",
        "RasterDataCollectionName": "string",
        "TimeRangeFilter": {
            "EndTime": number,
            "StartTime": number
        }
    }
},
"JobConfig": {
    "BandMathConfig": {

```

```

    "CustomIndices": {
        "Operations": [
            {
                "Equation": "string",
                "Name": "string",
                "OutputType": "string"
            }
        ]
    },
    "PredefinedIndices": [ "string" ]
},
"CloudMaskingConfig": {
},
"CloudRemovalConfig": {
    "AlgorithmName": "string",
    "InterpolationValue": "string",
    "TargetBands": [ "string" ]
},
"GeoMosaicConfig": {
    "AlgorithmName": "string",
    "TargetBands": [ "string" ]
},
"LandCoverSegmentationConfig": {
},
"ResamplingConfig": {
    "AlgorithmName": "string",
    "OutputResolution": {
        "UserDefined": {
            "Unit": "string",
            "Value": number
        }
    },
    "TargetBands": [ "string" ]
},
"StackConfig": {
    "OutputResolution": {
        "Predefined": "string",
        "UserDefined": {
            "Unit": "string",
            "Value": number
        }
    }
},
"TargetBands": [ "string" ]
},
"TemporalStatisticsConfig": {
    "GroupBy": "string",
    "Statistics": [ "string" ],
    "TargetBands": [ "string" ]
},
"ZonalStatisticsConfig": {
    "Statistics": [ "string" ],
    "TargetBands": [ "string" ],
    "ZoneS3Path": "string"
}
},
"KmsKeyId": "string",
"Name": "string",
"OutputBands": [
    {
        "BandName": "string",
        "OutputDataType": "string"
    }
],
"Status": "string",
"Tags": {
    "string" : "string"
}

```

```
    }
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [Arn \(p. 1034\)](#)

The Amazon Resource Name (ARN) of the Earth Observation job.

Type: String

### [CreationTime \(p. 1034\)](#)

The creation time of the initiated Earth Observation job.

Type: Timestamp

### [DurationInSeconds \(p. 1034\)](#)

The duration of Earth Observation job, in seconds.

Type: Integer

### [ErrorDetails \(p. 1034\)](#)

Details about the errors generated during the Earth Observation job.

Type: [EarthObservationJobErrorDetails \(p. 1864\)](#) object

### [ExecutionRoleArn \(p. 1034\)](#)

The Amazon Resource Name (ARN) of the IAM role that you specified for the job.

Type: String

### [ExportErrorDetails \(p. 1034\)](#)

Details about the errors generated during ExportEarthObservationJob.

Type: [ExportErrorDetails \(p. 1867\)](#) object

### [ExportStatus \(p. 1034\)](#)

The status of the Earth Observation job.

Type: String

Valid Values: IN\_PROGRESS | SUCCEEDED | FAILED

### [InputConfig \(p. 1034\)](#)

Input data for the Earth Observation job.

Type: [InputConfigOutput \(p. 1875\)](#) object

### [JobConfig \(p. 1034\)](#)

An object containing information about the job configuration.

Type: [JobConfigInput \(p. 1877\)](#) object

### [KmsKeyId \(p. 1034\)](#)

The Amazon Key Management Service (KMS) key ID for server-side encryption.

Type: String

#### [Name \(p. 1034\)](#)

The name of the Earth Observation job.

Type: String

#### [OutputBands \(p. 1034\)](#)

Type: Array of [OutputBand \(p. 1888\)](#) objects

#### [Status \(p. 1034\)](#)

The status of a previously initiated Earth Observation job.

Type: String

Valid Values: INITIALIZING | IN\_PROGRESS | STOPPING | COMPLETED | STOPPED | FAILED | DELETING | DELETED

#### [Tags \(p. 1034\)](#)

Each tag consists of a key and a value.

Type: String to string map

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **AccessDeniedException**

You do not have sufficient access to perform this action.

HTTP Status Code: 403

### **InternalServerError**

The request processing has failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

### **ResourceNotFoundException**

HTTP Status Code: 404

### **ThrottlingException**

The request was denied due to request throttling.

HTTP Status Code: 429

### **ValidationException**

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## GetRasterDataCollection

Service: Amazon SageMaker geospatial capabilities

Use this operation to get details of a specific raster data collection.

### Request Syntax

```
GET /raster-data-collection/Arn HTTP/1.1
```

### URI Request Parameters

The request uses the following URI parameters.

#### **Arn (p. 1040)**

The Amazon Resource Name (ARN) of the raster data collection.

Pattern: ^arn:aws[a-z-]{0,12}:sagemaker-geospatial:[a-z0-9-]{1,25}:[0-9]{12}:raster-data-collection/(public|premium|user)/[a-z0-9]{12,}\$\$

Required: Yes

### Request Body

The request does not have a request body.

### Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
    "Arn": "string",
    "Description": "string",
    "DescriptionPageUrl": "string",
    "ImageSourceBands": [ "string" ],
    "Name": "string",
    "SupportedFilters": [
        {
            "Maximum": number,
            "Minimum": number,
            "Name": "string",
            "Type": "string"
        }
    ],
    "Tags": {
        "string": "string"
    },
    "Type": "string"
}
```

### Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [Arn \(p. 1040\)](#)

The Amazon Resource Name (ARN) of the raster data collection.

Type: String

Pattern: ^arn:aws[a-z-]{0,12}:sagemaker-geospatial:[a-z0-9-]{1,25}:[0-9]{12}:raster-data-collection/(public|premium|user)/[a-z0-9]{12,}\$

### [Description \(p. 1040\)](#)

A description of the raster data collection.

Type: String

### [DescriptionPageUrl \(p. 1040\)](#)

The URL of the description page.

Type: String

### [ImageSourceBands \(p. 1040\)](#)

Type: Array of strings

### [Name \(p. 1040\)](#)

The name of the raster data collection.

Type: String

### [SupportedFilters \(p. 1040\)](#)

The filters supported by the raster data collection.

Type: Array of [Filter \(p. 1871\)](#) objects

### [Tags \(p. 1040\)](#)

Each tag consists of a key and a value.

Type: String to string map

### [Type \(p. 1040\)](#)

The raster data collection type.

Type: String

Valid Values: PUBLIC | PREMIUM | USER

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **AccessDeniedException**

You do not have sufficient access to perform this action.

HTTP Status Code: 403

### **InternalServerError**

The request processing has failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

**ResourceNotFoundException**

HTTP Status Code: 404

**ThrottlingException**

The request was denied due to request throttling.

HTTP Status Code: 429

**ValidationException**

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## GetTile

Service: Amazon SageMaker geospatial capabilities

Gets a web mercator tile for the given Earth Observation job.

### Request Syntax

```
GET /tile/z/x/y?  
Arn=Arn&ImageAssets=ImageAssets&ImageMask=ImageMask&OutputDataType=OutputDataType&OutputFormat=OutputFormat  
HTTP/1.1
```

### URI Request Parameters

The request uses the following URI parameters.

#### [Arn \(p. 1043\)](#)

The Amazon Resource Name (ARN) of the tile operation.

Pattern: ^arn:aws[a-z-]{0,12}:sagemaker-geospatial:[a-z0-9-]{1,25}:[0-9]{12}:earth-observation-job/[a-z0-9]{12,}\$

Required: Yes

#### [ImageAssets \(p. 1043\)](#)

The particular assets or bands to tile.

Array Members: Minimum number of 1 item.

Required: Yes

#### [ImageMask \(p. 1043\)](#)

Determines whether or not to return a valid data mask.

#### [OutputDataType \(p. 1043\)](#)

The output data type of the tile operation.

Valid Values: INT32 | FLOAT32 | INT16 | FLOAT64 | UINT16

#### [OutputFormat \(p. 1043\)](#)

The data format of the output tile. The formats include .npy, .png and .jpg.

#### [PropertyFilters \(p. 1043\)](#)

Property filters for the imagery to tile.

#### [Target \(p. 1043\)](#)

Determines what part of the Earth Observation job to tile. 'INPUT' or 'OUTPUT' are the valid options.

Valid Values: INPUT | OUTPUT

Required: Yes

#### [TimeRangeFilter \(p. 1043\)](#)

Time range filter applied to imagery to find the images to tile.

#### [x \(p. 1043\)](#)

The x coordinate of the tile input.

Required: Yes

### [y \(p. 1043\)](#)

The y coordinate of the tile input.

Required: Yes

### [z \(p. 1043\)](#)

The z coordinate of the tile input.

Required: Yes

## Request Body

The request does not have a request body.

## Response Syntax

```
HTTP/1.1 200
```

```
BinaryFile
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The response returns the following as the HTTP body.

### [BinaryFile \(p. 1044\)](#)

The output binary file.

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **AccessDeniedException**

You do not have sufficient access to perform this action.

HTTP Status Code: 403

### **InternalServerException**

The request processing has failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

### **ResourceNotFoundException**

HTTP Status Code: 404

### **ThrottlingException**

The request was denied due to request throttling.

HTTP Status Code: 429

### ValidationException

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## GetVectorEnrichmentJob

Service: Amazon SageMaker geospatial capabilities

Retrieves details of a Vector Enrichment Job for a given job Amazon Resource Name (ARN).

### Request Syntax

```
GET /vector-enrichment-jobs/Arn HTTP/1.1
```

### URI Request Parameters

The request uses the following URI parameters.

#### Arn (p. 1046)

The Amazon Resource Name (ARN) of the Vector Enrichment job.

Pattern: ^arn:aws[a-z-]{0,12}:sagemaker-geospatial:[a-z0-9-]{1,25}:[0-9]{12}:vector-enrichment-job/[a-z0-9]{12,}\$

Required: Yes

### Request Body

The request does not have a request body.

### Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
    "Arn": "string",
    "CreationTime": number,
    "DurationInSeconds": number,
    "ErrorDetails": {
        "ErrorMessage": "string",
        "ErrorType": "string"
    },
    "ExecutionRoleArn": "string",
    "ExportErrorDetails": {
        "Message": "string",
        "Type": "string"
    },
    "ExportStatus": "string",
    "InputConfig": {
        "DataSourceConfig": {
            "S3Data": {
                "KmsKeyId": "string",
                "S3Uri": "string"
            }
        },
        "DocumentType": "string"
    },
    "JobConfig": {
        "MapMatchingConfig": {
            "IdAttributeName": "string",
            "TimestampAttributeName": "string",
            "TimestampFormat": "string"
        }
    }
}
```

```
        "XAttributeName": "string",
        "YAttributeName": "string"
    },
    "ReverseGeocodingConfig": {
        "XAttributeName": "string",
        "YAttributeName": "string"
    }
},
"KmsKeyId": "string",
"Name": "string",
"Status": "string",
"Tags": {
    "string" : "string"
},
"Type": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [Arn \(p. 1046\)](#)

The Amazon Resource Name (ARN) of the Vector Enrichment job.

Type: String

### [CreationTime \(p. 1046\)](#)

The creation time.

Type: Timestamp

### [DurationInSeconds \(p. 1046\)](#)

The duration of the Vector Enrichment job, in seconds.

Type: Integer

### [ErrorDetails \(p. 1046\)](#)

Details about the errors generated during the Vector Enrichment job.

Type: [VectorEnrichmentJobErrorDetails \(p. 1912\)](#) object

### [ExecutionRoleArn \(p. 1046\)](#)

The Amazon Resource Name (ARN) of the IAM role that you specified for the job.

Type: String

### [ExportErrorDetails \(p. 1046\)](#)

Details about the errors generated during the ExportVectorEnrichmentJob.

Type: [VectorEnrichmentJobExportErrorDetails \(p. 1913\)](#) object

### [ExportStatus \(p. 1046\)](#)

The export status of the Vector Enrichment job being initiated.

Type: String

Valid Values: IN\_PROGRESS | SUCCEEDED | FAILED

### [InputConfig \(p. 1046\)](#)

Input configuration information for the Vector Enrichment job.

Type: [VectorEnrichmentJobInputConfig \(p. 1914\)](#) object

### [JobConfig \(p. 1046\)](#)

An object containing information about the job configuration.

Type: [VectorEnrichmentJobConfig \(p. 1910\)](#) object

### [KmsKeyId \(p. 1046\)](#)

The Amazon Key Management Service (KMS) key ID for server-side encryption.

Type: String

### [Name \(p. 1046\)](#)

The name of the Vector Enrichment job.

Type: String

### [Status \(p. 1046\)](#)

The status of the initiated Vector Enrichment job.

Type: String

Valid Values: INITIALIZING | IN\_PROGRESS | STOPPING | STOPPED | COMPLETED | FAILED | DELETING | DELETED

### [Tags \(p. 1046\)](#)

Each tag consists of a key and a value.

Type: String to string map

### [Type \(p. 1046\)](#)

The type of the Vector Enrichment job being initiated.

Type: String

Valid Values: REVERSE\_GEOCODING | MAP\_MATCHING

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **AccessDeniedException**

You do not have sufficient access to perform this action.

HTTP Status Code: 403

### **InternalServerException**

The request processing has failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

### **ResourceNotFoundException**

HTTP Status Code: 404

**ThrottlingException**

The request was denied due to request throttling.

HTTP Status Code: 429

**ValidationException**

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## ListEarthObservationJobs

Service: Amazon SageMaker geospatial capabilities

Use this operation to get a list of the Earth Observation jobs associated with the calling AWS account.

### Request Syntax

```
POST /list-earth-observation-jobs HTTP/1.1
Content-type: application/json

{
    "MaxResults": number,
    "NextToken": string,
    "SortBy": string,
    "SortOrder": string,
    "StatusEquals": string
}
```

### URI Request Parameters

The request does not use any URI parameters.

### Request Body

The request accepts the following data in JSON format.

#### [MaxResults \(p. 1050\)](#)

The total number of items to return.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 20.

Required: No

#### [NextToken \(p. 1050\)](#)

If the previous response was truncated, you receive this token. Use it in your next request to receive the next set of results.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Required: No

#### [SortBy \(p. 1050\)](#)

The parameter by which to sort the results.

Type: String

Required: No

#### [SortOrder \(p. 1050\)](#)

An optional value that specifies whether you want the results sorted in Ascending or Descending order.

Type: String

Valid Values: ASCENDING | DESCENDING

Required: No

#### [StatusEquals \(p. 1050\)](#)

A filter that retrieves only jobs with a specific status.

Type: String

Valid Values: INITIALIZING | IN\_PROGRESS | STOPPING | COMPLETED | STOPPED | FAILED | DELETING | DELETED

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
    "EarthObservationJobSummaries": [
        {
            "Arn": "string",
            "CreationTime": number,
            "DurationInSeconds": number,
            "Name": "string",
            "OperationType": "string",
            "Status": "string",
            "Tags": {
                "string" : "string"
            }
        }
    ],
    "NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

#### [EarthObservationJobSummaries \(p. 1051\)](#)

Contains summary information about the Earth Observation jobs.

Type: Array of [ListEarthObservationJobOutputConfig \(p. 1881\)](#) objects

#### [NextToken \(p. 1051\)](#)

If the previous response was truncated, you receive this token. Use it in your next request to receive the next set of results.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **AccessDeniedException**

You do not have sufficient access to perform this action.

HTTP Status Code: 403

### **InternalServerException**

The request processing has failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

### **ResourceNotFoundException**

HTTP Status Code: 404

### **ThrottlingException**

The request was denied due to request throttling.

HTTP Status Code: 429

### **ValidationException**

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## ListRasterDataCollections

Service: Amazon SageMaker geospatial capabilities

Use this operation to get raster data collections.

### Request Syntax

```
GET /raster-data-collections?MaxResults=MaxResults&NextToken=NextToken HTTP/1.1
```

### URI Request Parameters

The request uses the following URI parameters.

#### MaxResults (p. 1053)

The total number of items to return.

Valid Range: Minimum value of 1. Maximum value of 20.

#### NextToken (p. 1053)

If the previous response was truncated, you receive this token. Use it in your next request to receive the next set of results.

Length Constraints: Minimum length of 0. Maximum length of 8192.

### Request Body

The request does not have a request body.

### Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
    "NextToken": "string",
    "RasterDataCollectionSummaries": [
        {
            "Arn": "string",
            "Description": "string",
            "DescriptionPageUrl": "string",
            "Name": "string",
            "SupportedFilters": [
                {
                    "Maximum": number,
                    "Minimum": number,
                    "Name": "string",
                    "Type": "string"
                }
            ],
            "Tags": {
                "string" : "string"
            },
            "Type": "string"
        }
    ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [NextToken \(p. 1053\)](#)

If the previous response was truncated, you receive this token. Use it in your next request to receive the next set of results.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

### [RasterDataCollectionSummaries \(p. 1053\)](#)

Contains summary information about the raster data collection.

Type: Array of [RasterDataCollectionMetadata \(p. 1898\)](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **AccessDeniedException**

You do not have sufficient access to perform this action.

HTTP Status Code: 403

### **InternalServerException**

The request processing has failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

### **ResourceNotFoundException**

HTTP Status Code: 404

### **ThrottlingException**

The request was denied due to request throttling.

HTTP Status Code: 429

### **ValidationException**

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)

- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## ListTagsForResource

Service: Amazon SageMaker geospatial capabilities

Lists the tags attached to the resource.

### Request Syntax

```
GET /tags/ResourceArn HTTP/1.1
```

### URI Request Parameters

The request uses the following URI parameters.

#### **ResourceArn (p. 1056)**

The Amazon Resource Name (ARN) of the resource you want to tag.

Length Constraints: Minimum length of 1. Maximum length of 2048.

Required: Yes

### Request Body

The request does not have a request body.

### Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "Tags": [
    {
      "string": "string"
    }
}
```

### Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

#### **Tags (p. 1056)**

Each tag consists of a key and a value.

Type: String to string map

### Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

#### **AccessDeniedException**

You do not have sufficient access to perform this action.

HTTP Status Code: 403

**InternalServerError**

The request processing has failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

**ResourceNotFoundException**

HTTP Status Code: 404

**ThrottlingException**

The request was denied due to request throttling.

HTTP Status Code: 429

**ValidationException**

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## ListVectorEnrichmentJobs

Service: Amazon SageMaker geospatial capabilities

Retrieves a list of vector enrichment jobs.

### Request Syntax

```
POST /list-vector-enrichment-jobs HTTP/1.1
Content-type: application/json

{
    "MaxResults": number,
    "NextToken": string,
    "SortBy": string,
    "SortOrder": string,
    "StatusEquals": string
}
```

### URI Request Parameters

The request does not use any URI parameters.

### Request Body

The request accepts the following data in JSON format.

#### [MaxResults \(p. 1058\)](#)

The maximum number of items to return.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 20.

Required: No

#### [NextToken \(p. 1058\)](#)

If the previous response was truncated, you receive this token. Use it in your next request to receive the next set of results.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Required: No

#### [SortBy \(p. 1058\)](#)

The parameter by which to sort the results.

Type: String

Required: No

#### [SortOrder \(p. 1058\)](#)

An optional value that specifies whether you want the results sorted in Ascending or Descending order.

Type: String

Valid Values: ASCENDING | DESCENDING

Required: No

#### [StatusEquals \(p. 1058\)](#)

A filter that retrieves only jobs with a specific status.

Type: String

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "NextToken": "string",
  "VectorEnrichmentJobSummaries": [
    {
      "Arn": "string",
      "CreationTime": number,
      "DurationInSeconds": number,
      "Name": "string",
      "Status": "string",
      "Tags": {
        "string" : "string"
      },
      "Type": "string"
    }
  ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

#### [NextToken \(p. 1059\)](#)

If the previous response was truncated, you receive this token. Use it in your next request to receive the next set of results.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

#### [VectorEnrichmentJobSummaries \(p. 1059\)](#)

Contains summary information about the Vector Enrichment jobs.

Type: Array of [ListVectorEnrichmentJobOutputConfig \(p. 1883\)](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **AccessDeniedException**

You do not have sufficient access to perform this action.

HTTP Status Code: 403

### **InternalServerException**

The request processing has failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

### **ResourceNotFoundException**

HTTP Status Code: 404

### **ThrottlingException**

The request was denied due to request throttling.

HTTP Status Code: 429

### **ValidationException**

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## SearchRasterDataCollection

Service: Amazon SageMaker geospatial capabilities

Allows you run image query on a specific raster data collection to get a list of the satellite imagery matching the selected filters.

### Request Syntax

```
POST /search-raster-data-collection HTTP/1.1
Content-type: application/json

{
    "Arn": "string",
    "NextToken": "string",
    "RasterDataCollectionQuery": {
        "AreaOfInterest": {
            "AreaOfInterestGeometry": {
                "MultiPolygonGeometry": {
                    "Coordinates": [
                        [
                            [
                                [
                                    [ number ]
                                ]
                            ]
                        ]
                    ],
                    "PolygonGeometry": {
                        "Coordinates": [
                            [
                                [
                                    [ number ]
                                ]
                            ]
                        ]
                    }
                }
            }
        },
        "BandFilter": [ "string" ],
        "PropertyFilters": {
            "LogicalOperator": "string",
            "Properties": [
                {
                    "Property": {
                        "EoCloudCover": {
                            "LowerBound": number,
                            "UpperBound": number
                        },
                        "LandsatCloudCoverLand": {
                            "LowerBound": number,
                            "UpperBound": number
                        },
                        "Platform": {
                            "ComparisonOperator": "string",
                            "Value": "string"
                        },
                        "ViewOffNadir": {
                            "LowerBound": number,
                            "UpperBound": number
                        },
                        "ViewSunAzimuth": {
                            "LowerBound": number,
                            "UpperBound": number
                        },
                        "ViewSunElevation": {
                            "LowerBound": number,
                            "UpperBound": number
                        }
                    }
                }
            ]
        }
    }
}
```

```
        "UpperBound": number
    }
}
]
},
"TimeRangeFilter": {
    "EndTime": number,
    "StartTime": number
}
}
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request accepts the following data in JSON format.

Arn (p. 1061)

The Amazon Resource Name (ARN) of the raster data collection.

Type: String

Pattern: ^arn:aws[a-z-]{0,12}:sagemaker-geospatial:[a-z0-9-]{1,25}:[0-9]{12}:raster-data-collection/(public|premium|user)/[a-z0-9]{12,}\$

Required: Yes

## NextToken (p. 1061)

If the previous response was truncated, you receive this token. Use it in your next request to receive the next set of results.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

Required: No

## RasterDataCollectionQuery (p. 1061)

Type: [RasterDataCollectionQueryWithBandFilterInput](#) (p. 1902) object

Required: Yes

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
    "ApproximateResultCount": number,
    "Items": [
        {
            "Assets": {
                "string" : {
                    "Href": "string"
                }
            }
        }
    ]
}
```

```
        },
        "DateTime": number,
        "Geometry": {
            "Coordinates": [
                [
                    [ number ]
                ]
            ],
            "Type": "string"
        },
        "Id": "string",
        "Properties": {
            "EoCloudCover": number,
            "LandsatCloudCoverLand": number,
            "Platform": "string",
            "ViewOffNadir": number,
            "ViewSunAzimuth": number,
            "ViewSunElevation": number
        }
    }
],
"NextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [ApproximateResultCount \(p. 1062\)](#)

Type: Integer

### [Items \(p. 1062\)](#)

Type: Array of [ItemSource \(p. 1876\)](#) objects

### [NextToken \(p. 1062\)](#)

If the previous response was truncated, you receive this token. Use it in your next request to receive the next set of results.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 8192.

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **AccessDeniedException**

You do not have sufficient access to perform this action.

HTTP Status Code: 403

### **InternalServerError**

The request processing has failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

**ResourceNotFoundException**

HTTP Status Code: 404

**ThrottlingException**

The request was denied due to request throttling.

HTTP Status Code: 429

**ValidationException**

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# StartEarthObservationJob

Service: Amazon SageMaker geospatial capabilities

Use this operation to create an Earth observation job.

## Request Syntax

```
POST /earth-observation-jobs HTTP/1.1
Content-type: application/json

{
  "ClientToken": "string",
  "ExecutionRoleArn": "string",
  "InputConfig": {
    "DataSourceConfig": {
      "S3Data": {
        "KmsKeyId": "string",
        "MetadataProvider": "string",
        "S3Uri": "string"
      }
    },
    "PreviousEarthObservationJobArn": "string",
    "RasterDataCollectionQuery": {
      "AreaOfInterest": {
        "AreaOfInterestGeometry": {
          "MultiPolygonGeometry": {
            "Coordinates": [
              [
                [
                  [
                    [ number ]
                  ]
                ]
              ],
              [
                [
                  [
                    [ number ]
                  ]
                ]
              ]
            ]
          }
        }
      }
    }
  },
  "PropertyFilters": {
    "LogicalOperator": "string",
    "Properties": [
      {
        "Property": {
          "EoCloudCover": {
            "LowerBound": number,
            "UpperBound": number
          },
          "LandsatCloudCoverLand": {
            "LowerBound": number,
            "UpperBound": number
          },
          "Platform": {
            "ComparisonOperator": "string",
            "Value": "string"
          },
          "ViewOffNadir": {
            "LowerBound": number,
            "UpperBound": number
          }
        }
      }
    ]
  }
}
```

```

        },
        "ViewSunAzimuth": {
            "LowerBound": number,
            "UpperBound": number
        },
        "ViewSunElevation": {
            "LowerBound": number,
            "UpperBound": number
        }
    }
}
],
"RasterDataCollectionArn": "string",
"TimeRangeFilter": {
    "EndTime": number,
    "StartTime": number
}
}
},
"JobConfig": {
    "BandMathConfig": {
        "CustomIndices": {
            "Operations": [
                {
                    "Equation": "string",
                    "Name": "string",
                    "OutputType": "string"
                }
            ]
        },
        "PredefinedIndices": [ "string" ]
    },
    "CloudMaskingConfig": {
    },
    "CloudRemovalConfig": {
        "AlgorithmName": "string",
        "InterpolationValue": "string",
        "TargetBands": [ "string" ]
    },
    "GeoMosaicConfig": {
        "AlgorithmName": "string",
        "TargetBands": [ "string" ]
    },
    "LandCoverSegmentationConfig": {
    },
    "ResamplingConfig": {
        "AlgorithmName": "string",
        "OutputResolution": {
            "UserDefined": {
                "Unit": "string",
                "Value": number
            }
        },
        "TargetBands": [ "string" ]
    },
    "StackConfig": {
        "OutputResolution": {
            "Predefined": "string",
            "UserDefined": {
                "Unit": "string",
                "Value": number
            }
        },
        "TargetBands": [ "string" ]
    },
}

```

```
    "TemporalStatisticsConfig": {  
        "GroupBy": "string",  
        "Statistics": [ "string" ],  
        "TargetBands": [ "string" ]  
    },  
    "ZonalStatisticsConfig": {  
        "Statistics": [ "string" ],  
        "TargetBands": [ "string" ],  
        "ZoneS3Path": "string"  
    }  
},  
"KmsKeyId": "string",  
"Name": "string",  
"Tags": {  
    "string" : "string"  
}  
}
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request accepts the following data in JSON format.

### [ClientToken \(p. 1065\)](#)

A unique token that guarantees that the call to this API is idempotent.

Type: String

Required: No

### [ExecutionRoleArn \(p. 1065\)](#)

The Amazon Resource Name (ARN) of the IAM role that you specified for the job.

Type: String

Required: No

### [InputConfig \(p. 1065\)](#)

Input configuration information for the Earth Observation job.

Type: [InputConfigInput \(p. 1874\)](#) object

Required: Yes

### [JobConfig \(p. 1065\)](#)

An object containing information about the job configuration.

Type: [JobConfigInput \(p. 1877\)](#) object

Required: Yes

### [KmsKeyId \(p. 1065\)](#)

The Amazon Key Management Service (KMS) key ID for server-side encryption.

Type: String

Required: No

### Name (p. 1065)

The name of the Earth Observation job.

Type: String

Required: Yes

### Tags (p. 1065)

Each tag consists of a key and a value.

Type: String to string map

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
    "Arn": "string",
    "CreationTime": number,
    "DurationInSeconds": number,
    "ExecutionRoleArn": "string",
    "InputConfig": {
        "DataSourceConfig": {
            "S3Data": {
                "KmsKeyId": "string",
                "MetadataProvider": "string",
                "S3Uri": "string"
            }
        },
        "PreviousEarthObservationJobArn": "string",
        "RasterDataCollectionQuery": {
            "AreaOfInterest": {
                "AreaOfInterestGeometry": {
                    "MultiPolygonGeometry": {
                        "Coordinates": [
                            [
                                [
                                    [
                                        [ number ]
                                    ]
                                ]
                            ]
                        ],
                        "PolygonGeometry": {
                            "Coordinates": [
                                [
                                    [
                                        [ number ]
                                    ]
                                ]
                            ]
                        }
                    }
                }
            },
            "PropertyFilters": {
                "LogicalOperator": "string",
                "Properties": [
                    {
                        "Property": {
                            "EoCloudCover": {
                                "LowerBound": number,
                                "UpperBound": number
                            }
                        }
                    }
                ]
            }
        }
    }
}
```

```

        "UpperBound": number
    },
    "LandsatCloudCoverLand": {
        "LowerBound": number,
        "UpperBound": number
    },
    "Platform": {
        "ComparisonOperator": "string",
        "Value": "string"
    },
    "ViewOffNadir": {
        "LowerBound": number,
        "UpperBound": number
    },
    "ViewSunAzimuth": {
        "LowerBound": number,
        "UpperBound": number
    },
    "ViewSunElevation": {
        "LowerBound": number,
        "UpperBound": number
    }
}
]
},
"RasterDataCollectionArn": "string",
"RasterDataCollectionName": "string",
"TimeRangeFilter": {
    "EndTime": number,
    "StartTime": number
}
}
},
"JobConfig": {
    "BandMathConfig": {
        "CustomIndices": {
            "Operations": [
                {
                    "Equation": "string",
                    "Name": "string",
                    "OutputType": "string"
                }
            ]
        },
        "PredefinedIndices": [ "string" ]
    },
    "CloudMaskingConfig": {
    },
    "CloudRemovalConfig": {
        "AlgorithmName": "string",
        "InterpolationValue": "string",
        "TargetBands": [ "string" ]
    },
    "GeoMosaicConfig": {
        "AlgorithmName": "string",
        "TargetBands": [ "string" ]
    },
    "LandCoverSegmentationConfig": {
    },
    "ResamplingConfig": {
        "AlgorithmName": "string",
        "OutputResolution": {
            "UserDefined": {
                "Unit": "string",
                "Value": number
            }
        }
    }
}
]
```

```
        },
        "TargetBands": [ "string" ]
    },
    "StackConfig": {
        "OutputResolution": {
            "Predefined": "string",
            "UserDefined": {
                "Unit": "string",
                "Value": number
            }
        },
        "TargetBands": [ "string" ]
    },
    "TemporalStatisticsConfig": {
        "GroupBy": "string",
        "Statistics": [ "string" ],
        "TargetBands": [ "string" ]
    },
    "ZonalStatisticsConfig": {
        "Statistics": [ "string" ],
        "TargetBands": [ "string" ],
        "ZoneS3Path": "string"
    }
},
"KmsKeyId": "string",
"Name": "string",
"Status": "string",
"Tags": {
    "string" : "string"
}
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [Arn \(p. 1068\)](#)

The Amazon Resource Name (ARN) of the Earth Observation job.

Type: String

### [CreationTime \(p. 1068\)](#)

The creation time.

Type: Timestamp

### [DurationInSeconds \(p. 1068\)](#)

The duration of the session, in seconds.

Type: Integer

### [ExecutionRoleArn \(p. 1068\)](#)

The Amazon Resource Name (ARN) of the IAM role that you specified for the job.

Type: String

### [InputConfig \(p. 1068\)](#)

Input configuration information for the Earth Observation job.

Type: [InputConfigOutput \(p. 1875\)](#) object

#### [JobConfig \(p. 1068\)](#)

An object containing information about the job configuration.

Type: [JobConfigInput \(p. 1877\)](#) object

#### [KmsKeyId \(p. 1068\)](#)

The Amazon Key Management Service (KMS) key ID for server-side encryption.

Type: String

#### [Name \(p. 1068\)](#)

The name of the Earth Observation job.

Type: String

#### [Status \(p. 1068\)](#)

The status of the Earth Observation job.

Type: String

Valid Values: INITIALIZING | IN\_PROGRESS | STOPPING | COMPLETED | STOPPED | FAILED | DELETING | DELETED

#### [Tags \(p. 1068\)](#)

Each tag consists of a key and a value.

Type: String to string map

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **AccessDeniedException**

You do not have sufficient access to perform this action.

HTTP Status Code: 403

### **ConflictException**

HTTP Status Code: 409

### **InternalServerException**

The request processing has failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

### **ResourceNotFoundException**

HTTP Status Code: 404

### **ServiceQuotaExceededException**

You have exceeded the service quota.

HTTP Status Code: 402

### **ThrottlingException**

The request was denied due to request throttling.

HTTP Status Code: 429

### **ValidationException**

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## StartVectorEnrichmentJob

Service: Amazon SageMaker geospatial capabilities

Creates a Vector Enrichment job for the supplied job type. Currently, there are two supported job types: reverse geocoding and map matching.

### Request Syntax

```
POST /vector-enrichment-jobs HTTP/1.1
Content-type: application/json

{
  "ClientToken": "string",
  "ExecutionRoleArn": "string",
  "InputConfig": {
    "DataSourceConfig": {
      "S3Data": {
        "KmsKeyId": "string",
        "S3Uri": "string"
      }
    },
    "DocumentType": "string"
  },
  "JobConfig": {
    "MapMatchingConfig": {
      "IdAttributeName": "string",
      "TimestampAttributeName": "string",
      "XAttributeName": "string",
      "YAttributeName": "string"
    },
    "ReverseGeocodingConfig": {
      "XAttributeName": "string",
      "YAttributeName": "string"
    }
  },
  "KmsKeyId": "string",
  "Name": "string",
  "Tags": {
    "string" : "string"
  }
}
```

### URI Request Parameters

The request does not use any URI parameters.

### Request Body

The request accepts the following data in JSON format.

#### [ClientToken \(p. 1073\)](#)

A unique token that guarantees that the call to this API is idempotent.

Type: String

Required: No

#### [ExecutionRoleArn \(p. 1073\)](#)

The Amazon Resource Name (ARN) of the IAM role that you specified for the job.

Type: String

Required: Yes

#### [InputConfig \(p. 1073\)](#)

Input configuration information for the Vector Enrichment job.

Type: [VectorEnrichmentJobInputConfig \(p. 1914\)](#) object

Required: Yes

#### [JobConfig \(p. 1073\)](#)

An object containing information about the job configuration.

Type: [VectorEnrichmentJobConfig \(p. 1910\)](#) object

Required: Yes

#### [KmsKeyId \(p. 1073\)](#)

The Amazon Key Management Service (KMS) key ID for server-side encryption.

Type: String

Required: No

#### [Name \(p. 1073\)](#)

The name of the Vector Enrichment job.

Type: String

Required: Yes

#### [Tags \(p. 1073\)](#)

Each tag consists of a key and a value.

Type: String to string map

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
    "Arn": "string",
    "CreationTime": number,
    "DurationInSeconds": number,
    "ExecutionRoleArn": "string",
    "InputConfig": {
        "DataSourceConfig": {
            "S3Data": {
                "KmsKeyId": "string",
                "S3Uri": "string"
            }
        },
        "DocumentType": "string"
    },
    "JobConfig": {
```

```
"MapMatchingConfig": {  
    "IdAttributeName": "string",  
    "TimestampAttributeName": "string",  
    "XAttributeName": "string",  
    "YAttributeName": "string"  
},  
"ReverseGeocodingConfig": {  
    "XAttributeName": "string",  
    "YAttributeName": "string"  
}  
},  
"KmsKeyId": "string",  
"Name": "string",  
"Status": "string",  
"Tags": {  
    "string" : "string"  
},  
"Type": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [Arn \(p. 1074\)](#)

The Amazon Resource Name (ARN) of the Vector Enrichment job.

Type: String

Pattern: ^arn:aws[a-z-]{0,12}:sagemaker-geospatial:[a-z0-9-]{1,25}:[0-9]{12}:vector-enrichment-job/[a-z0-9]{12,}\$

### [CreationTime \(p. 1074\)](#)

The creation time.

Type: Timestamp

### [DurationInSeconds \(p. 1074\)](#)

The duration of the Vector Enrichment job, in seconds.

Type: Integer

### [ExecutionRoleArn \(p. 1074\)](#)

The Amazon Resource Name (ARN) of the IAM role that you specified for the job.

Type: String

### [InputConfig \(p. 1074\)](#)

Input configuration information for starting the Vector Enrichment job.

Type: [VectorEnrichmentJobInputConfig \(p. 1914\)](#) object

### [JobConfig \(p. 1074\)](#)

An object containing information about the job configuration.

Type: [VectorEnrichmentJobConfig \(p. 1910\)](#) object

### [KmsKeyId \(p. 1074\)](#)

The Amazon Key Management Service (KMS) key ID for server-side encryption.

Type: String

### [Name \(p. 1074\)](#)

The name of the Vector Enrichment job.

Type: String

### [Status \(p. 1074\)](#)

The status of the Vector Enrichment job being started.

Type: String

Valid Values: INITIALIZING | IN\_PROGRESS | STOPPING | STOPPED | COMPLETED | FAILED | DELETING | DELETED

### [Tags \(p. 1074\)](#)

Each tag consists of a key and a value.

Type: String to string map

### [Type \(p. 1074\)](#)

The type of the Vector Enrichment job.

Type: String

Valid Values: REVERSE\_GEOCODING | MAP\_MATCHING

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **AccessDeniedException**

You do not have sufficient access to perform this action.

HTTP Status Code: 403

### **ConflictException**

HTTP Status Code: 409

### **InternalServerError**

The request processing has failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

### **ResourceNotFoundException**

HTTP Status Code: 404

### **ServiceQuotaExceededException**

You have exceeded the service quota.

HTTP Status Code: 402

### **ThrottlingException**

The request was denied due to request throttling.

HTTP Status Code: 429

### **ValidationException**

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## StopEarthObservationJob

Service: Amazon SageMaker geospatial capabilities

Use this operation to stop an existing earth observation job.

### Request Syntax

```
POST /earth-observation-jobs/stop HTTP/1.1
Content-type: application/json

{
    "Arn": "string"
}
```

### URI Request Parameters

The request does not use any URI parameters.

### Request Body

The request accepts the following data in JSON format.

#### Arn (p. 1078)

The Amazon Resource Name (ARN) of the Earth Observation job being stopped.

Type: String

Pattern: ^arn:aws[a-z-]{0,12}:sagemaker-geospatial:[a-z0-9-]{1,25}:[0-9]{12}:earth-observation-job/[a-z0-9]{12,}\$

Required: Yes

### Response Syntax

```
HTTP/1.1 200
```

### Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

### Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

#### AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 403

#### ConflictException

HTTP Status Code: 409

### **InternalServerError**

The request processing has failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

### **ResourceNotFoundException**

HTTP Status Code: 404

### **ThrottlingException**

The request was denied due to request throttling.

HTTP Status Code: 429

### **ValidationException**

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## StopVectorEnrichmentJob

Service: Amazon SageMaker geospatial capabilities

Stops the Vector Enrichment job for a given job ARN.

### Request Syntax

```
POST /vector-enrichment-jobs/stop HTTP/1.1
Content-type: application/json

{
    "Arn": "string"
}
```

### URI Request Parameters

The request does not use any URI parameters.

### Request Body

The request accepts the following data in JSON format.

#### Arn (p. 1080)

The Amazon Resource Name (ARN) of the Vector Enrichment job.

Type: String

Pattern: ^arn:aws[a-z-]{0,12}:sagemaker-geospatial:[a-z0-9-]{1,25}:[0-9]{12}:vector-enrichment-job/[a-z0-9]{12,}\$

Required: Yes

### Response Syntax

```
HTTP/1.1 200
```

### Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

### Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

#### AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 403

#### ConflictException

HTTP Status Code: 409

### **InternalServerError**

The request processing has failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

### **ResourceNotFoundException**

HTTP Status Code: 404

### **ThrottlingException**

The request was denied due to request throttling.

HTTP Status Code: 429

### **ValidationException**

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

## TagResource

Service: Amazon SageMaker geospatial capabilities

The resource you want to tag.

## Request Syntax

```
PUT /tags/ResourceArn HTTP/1.1
Content-type: application/json

{
  "Tags": [
    "string": "string"
  ]
}
```

## URI Request Parameters

The request uses the following URI parameters.

### **ResourceArn (p. 1082)**

The Amazon Resource Name (ARN) of the resource you want to tag.

Length Constraints: Minimum length of 1. Maximum length of 2048.

Required: Yes

## Request Body

The request accepts the following data in JSON format.

### **Tags (p. 1082)**

Each tag consists of a key and a value.

Type: String to string map

Required: Yes

## Response Syntax

```
HTTP/1.1 200
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

### **AccessDeniedException**

You do not have sufficient access to perform this action.

HTTP Status Code: 403

**InternalServerError**

The request processing has failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

**ResourceNotFoundException**

HTTP Status Code: 404

**ThrottlingException**

The request was denied due to request throttling.

HTTP Status Code: 429

**ValidationException**

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
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- [AWS SDK for Java V2](#)
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- [AWS SDK for Ruby V3](#)

## UntagResource

Service: Amazon SageMaker geospatial capabilities

The resource you want to untag.

### Request Syntax

```
DELETE /tags/ResourceArn?tagKeys=TagKeys HTTP/1.1
```

### URI Request Parameters

The request uses the following URI parameters.

#### **ResourceArn** (p. 1084)

The Amazon Resource Name (ARN) of the resource you want to untag.

Length Constraints: Minimum length of 1. Maximum length of 2048.

Required: Yes

#### **TagKeys** (p. 1084)

Keys of the tags you want to remove.

Array Members: Minimum number of 1 item. Maximum number of 50 items.

Required: Yes

### Request Body

The request does not have a request body.

### Response Syntax

```
HTTP/1.1 200
```

### Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

### Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1922\)](#).

#### **AccessDeniedException**

You do not have sufficient access to perform this action.

HTTP Status Code: 403

#### **InternalServerException**

The request processing has failed because of an unknown error, exception, or failure.

HTTP Status Code: 500

### **ResourceNotFoundException**

HTTP Status Code: 404

### **ThrottlingException**

The request was denied due to request throttling.

HTTP Status Code: 429

### **ValidationException**

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
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# Data Types

The following data types are supported by Amazon SageMaker Service:

- [ActionSource \(p. 1109\)](#)
- [ActionSummary \(p. 1110\)](#)
- [AdditionalInferenceSpecificationDefinition \(p. 1112\)](#)
- [AgentVersion \(p. 1115\)](#)
- [Alarm \(p. 1116\)](#)
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- [RStudioServerProDomainSettingsForUpdate \(p. 1714\)](#)
- [S3DataSource \(p. 1715\)](#)
- [S3StorageConfig \(p. 1718\)](#)
- [ScheduleConfig \(p. 1720\)](#)
- [SearchExpression \(p. 1721\)](#)
- [SearchRecord \(p. 1723\)](#)
- [SecondaryStatusTransition \(p. 1726\)](#)
- [ServiceCatalogProvisionedProductDetails \(p. 1728\)](#)
- [ServiceCatalogProvisioningDetails \(p. 1729\)](#)
- [ServiceCatalogProvisioningUpdateDetails \(p. 1731\)](#)
- [ShadowModeConfig \(p. 1732\)](#)
- [ShadowModelVariantConfig \(p. 1733\)](#)
- [SharingSettings \(p. 1734\)](#)
- [ShuffleConfig \(p. 1735\)](#)
- [SourceAlgorithm \(p. 1736\)](#)
- [SourceAlgorithmSpecification \(p. 1737\)](#)
- [SourceIpConfig \(p. 1738\)](#)
- [SpaceDetails \(p. 1739\)](#)
- [SpaceSettings \(p. 1741\)](#)

- [StoppingCondition \(p. 1742\)](#)
- [StudioLifecycleConfigDetails \(p. 1744\)](#)
- [SubscribedWorkteam \(p. 1746\)](#)
- [SuggestionQuery \(p. 1748\)](#)
- [Tag \(p. 1749\)](#)
- [TargetPlatform \(p. 1750\)](#)
- [TensorBoardAppSettings \(p. 1752\)](#)
- [TensorBoardOutputConfig \(p. 1753\)](#)
- [TimeSeriesForecastingSettings \(p. 1754\)](#)
- [TrafficPattern \(p. 1755\)](#)
- [TrafficRoutingConfig \(p. 1756\)](#)
- [TrainingJob \(p. 1758\)](#)
- [TrainingJobDefinition \(p. 1766\)](#)
- [TrainingJobStatusCounters \(p. 1768\)](#)
- [TrainingJobStepMetadata \(p. 1770\)](#)
- [TrainingJobSummary \(p. 1771\)](#)
- [TrainingSpecification \(p. 1773\)](#)
- [TransformDataSource \(p. 1775\)](#)
- [TransformInput \(p. 1776\)](#)
- [TransformJob \(p. 1778\)](#)
- [TransformJobDefinition \(p. 1783\)](#)
- [TransformJobStepMetadata \(p. 1785\)](#)
- [TransformJobSummary \(p. 1786\)](#)
- [TransformOutput \(p. 1788\)](#)
- [TransformResources \(p. 1790\)](#)
- [TransformS3DataSource \(p. 1792\)](#)
- [Trial \(p. 1794\)](#)
- [TrialComponent \(p. 1797\)](#)
- [TrialComponentArtifact \(p. 1801\)](#)
- [TrialComponentMetricSummary \(p. 1802\)](#)
- [TrialComponentParameterValue \(p. 1804\)](#)
- [TrialComponentSimpleSummary \(p. 1805\)](#)
- [TrialComponentSource \(p. 1807\)](#)
- [TrialComponentSourceDetail \(p. 1808\)](#)
- [TrialComponentStatus \(p. 1809\)](#)
- [TrialComponentSummary \(p. 1810\)](#)
- [TrialSource \(p. 1812\)](#)
- [TrialSummary \(p. 1813\)](#)
- [TuningJobCompletionCriteria \(p. 1815\)](#)
- [TuningJobStepMetaData \(p. 1816\)](#)
- [UiConfig \(p. 1817\)](#)
- [UiTemplate \(p. 1819\)](#)
- [UiTemplateInfo \(p. 1820\)](#)
- [USD \(p. 1821\)](#)
- [UserContext \(p. 1822\)](#)
- [UserProfileDetails \(p. 1823\)](#)

- [UserSettings \(p. 1825\)](#)
- [VariantProperty \(p. 1827\)](#)
- [Vertex \(p. 1828\)](#)
- [VpcConfig \(p. 1829\)](#)
- [WarmPoolStatus \(p. 1830\)](#)
- [Workforce \(p. 1832\)](#)
- [WorkforceVpcConfigRequest \(p. 1834\)](#)
- [WorkforceVpcConfigResponse \(p. 1835\)](#)
- [Workteam \(p. 1837\)](#)

## ActionSource

Service: Amazon SageMaker Service

A structure describing the source of an action.

### Contents

#### SouceId

The ID of the source.

Type: String

Length Constraints: Maximum length of 256.

Required: No

#### SourceType

The type of the source.

Type: String

Length Constraints: Maximum length of 256.

Required: No

#### SourceUri

The URI of the source.

Type: String

Length Constraints: Maximum length of 2048.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ActionSummary

Service: Amazon SageMaker Service

Lists the properties of an *action*. An action represents an action or activity. Some examples are a workflow step and a model deployment. Generally, an action involves at least one input artifact or output artifact.

## Contents

### ActionArn

The Amazon Resource Name (ARN) of the action.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-zA-Z-]*:sagemaker:[a-zA-Z0-9-]*:[0-9]{12}:action/.*`

Required: No

### ActionName

The name of the action.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[\w+][\w-]*[\w+]{0,119}`

Required: No

### ActionType

The type of the action.

Type: String

Length Constraints: Maximum length of 64.

Required: No

### CreationTime

When the action was created.

Type: Timestamp

Required: No

### LastModifiedTime

When the action was last modified.

Type: Timestamp

Required: No

### Source

The source of the action.

Type: [ActionSource \(p. 1109\)](#) object

Required: No

**Status**

The status of the action.

Type: String

Valid Values: Unknown | InProgress | Completed | Failed | Stopping | Stopped

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# AdditionalInferenceSpecificationDefinition

Service: Amazon SageMaker Service

A structure of additional Inference Specification. Additional Inference Specification specifies details about inference jobs that can be run with models based on this model package

## Contents

### Containers

The Amazon ECR registry path of the Docker image that contains the inference code.

Type: Array of [ModelPackageContainerDefinition \(p. 1519\)](#) objects

Array Members: Minimum number of 1 item. Maximum number of 15 items.

Required: Yes

### Description

A description of the additional Inference specification

Type: String

Length Constraints: Maximum length of 1024.

Pattern: [\\p{L}\\p{M}\\p{Z}\\p{S}\\p{N}\\p{P}]<sup>\*</sup>

Required: No

### Name

A unique name to identify the additional inference specification. The name must be unique within the list of your additional inference specifications for a particular model package.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])<sup>{0,62}</sup>\$

Required: Yes

### SupportedContentTypes

The supported MIME types for the input data.

Type: Array of strings

Length Constraints: Maximum length of 256.

Pattern: .<sup>\*</sup>

Required: No

### SupportedRealtimeInferenceInstanceTypes

A list of the instance types that are used to generate inferences in real-time.

Type: Array of strings

Valid Values: ml.t2.medium | ml.t2.large | ml.t2.xlarge | ml.t2.2xlarge | ml.m4.xlarge | ml.m4.2xlarge | ml.m4.4xlarge | ml.m4.10xlarge |

```
ml.m4.16xlarge | ml.m5.large | ml.m5.xlarge | ml.m5.2xlarge | ml.m5.4xlarge
| ml.m5.12xlarge | ml.m5.24xlarge | ml.m5d.large | ml.m5d.xlarge |
ml.m5d.2xlarge | ml.m5d.4xlarge | ml.m5d.12xlarge | ml.m5d.24xlarge |
ml.c4.large | ml.c4.xlarge | ml.c4.2xlarge | ml.c4.4xlarge | ml.c4.8xlarge
| ml.p2.xlarge | ml.p2.8xlarge | ml.p2.16xlarge | ml.p3.2xlarge |
ml.p3.8xlarge | ml.p3.16xlarge | ml.c5.large | ml.c5.xlarge | ml.c5.2xlarge
| ml.c5.4xlarge | ml.c5.9xlarge | ml.c5.18xlarge | ml.c5d.large |
ml.c5d.xlarge | ml.c5d.2xlarge | ml.c5d.4xlarge | ml.c5d.9xlarge |
ml.c5d.18xlarge | ml.g4dn.xlarge | ml.g4dn.2xlarge | ml.g4dn.4xlarge
| ml.g4dn.8xlarge | ml.g4dn.12xlarge | ml.g4dn.16xlarge | ml.r5.large
| ml.r5.xlarge | ml.r5.2xlarge | ml.r5.4xlarge | ml.r5.12xlarge |
ml.r5.24xlarge | ml.r5d.large | ml.r5d.xlarge | ml.r5d.2xlarge |
ml.r5d.4xlarge | ml.r5d.12xlarge | ml.r5d.24xlarge | ml.inf1.xlarge
| ml.inf1.2xlarge | ml.inf1.6xlarge | ml.inf1.24xlarge | ml.c6i.large
| ml.c6i.xlarge | ml.c6i.2xlarge | ml.c6i.4xlarge | ml.c6i.8xlarge |
ml.c6i.12xlarge | ml.c6i.16xlarge | ml.c6i.24xlarge | ml.c6i.32xlarge
| ml.g5.xlarge | ml.g5.2xlarge | ml.g5.4xlarge | ml.g5.8xlarge |
ml.g5.12xlarge | ml.g5.16xlarge | ml.g5.24xlarge | ml.g5.48xlarge
| ml.p4d.24xlarge | ml.c7g.large | ml.c7g.xlarge | ml.c7g.2xlarge |
ml.c7g.4xlarge | ml.c7g.8xlarge | ml.c7g.12xlarge | ml.c7g.16xlarge
| ml.m6g.large | ml.m6g.xlarge | ml.m6g.2xlarge | ml.m6g.4xlarge |
ml.m6g.8xlarge | ml.m6g.12xlarge | ml.m6g.16xlarge | ml.m6gd.large |
ml.m6gd.xlarge | ml.m6gd.2xlarge | ml.m6gd.4xlarge | ml.m6gd.8xlarge
| ml.m6gd.12xlarge | ml.m6gd.16xlarge | ml.c6g.large | ml.c6g.xlarge
| ml.c6g.2xlarge | ml.c6g.4xlarge | ml.c6g.8xlarge | ml.c6g.12xlarge
| ml.c6g.16xlarge | ml.c6gd.large | ml.c6gd.xlarge | ml.c6gd.2xlarge |
ml.c6gd.4xlarge | ml.c6gd.8xlarge | ml.c6gd.12xlarge | ml.c6gd.16xlarge
| ml.c6gn.large | ml.c6gn.xlarge | ml.c6gn.2xlarge | ml.c6gn.4xlarge
| ml.c6gn.8xlarge | ml.c6gn.12xlarge | ml.c6gn.16xlarge | ml.r6g.large
| ml.r6g.xlarge | ml.r6g.2xlarge | ml.r6g.4xlarge | ml.r6g.8xlarge |
ml.r6g.12xlarge | ml.r6g.16xlarge | ml.r6gd.large | ml.r6gd.xlarge |
ml.r6gd.2xlarge | ml.r6gd.4xlarge | ml.r6gd.8xlarge | ml.r6gd.12xlarge |
ml.r6gd.16xlarge
```

Required: No

#### **SupportedResponseMIMETypes**

The supported MIME types for the output data.

Type: Array of strings

Length Constraints: Maximum length of 1024.

Pattern: ^[-\w]+\\.+\$

Required: No

#### **SupportedTransformInstanceTypes**

A list of the instance types on which a transformation job can be run or on which an endpoint can be deployed.

Type: Array of strings

Array Members: Minimum number of 1 item.

Valid Values: ml.m4.xlarge | ml.m4.2xlarge | ml.m4.4xlarge | ml.m4.10xlarge
| ml.m4.16xlarge | ml.c4.xlarge | ml.c4.2xlarge | ml.c4.4xlarge
| ml.c4.8xlarge | ml.p2.xlarge | ml.p2.8xlarge | ml.p2.16xlarge

| ml.p3.2xlarge | ml.p3.8xlarge | ml.p3.16xlarge | ml.c5.xlarge |  
ml.c5.2xlarge | ml.c5.4xlarge | ml.c5.9xlarge | ml.c5.18xlarge | ml.m5.large  
| ml.m5.xlarge | ml.m5.2xlarge | ml.m5.4xlarge | ml.m5.12xlarge |  
ml.m5.24xlarge | ml.g4dn.xlarge | ml.g4dn.2xlarge | ml.g4dn.4xlarge |  
ml.g4dn.8xlarge | ml.g4dn.12xlarge | ml.g4dn.16xlarge

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# AgentVersion

Service: Amazon SageMaker Service

Edge Manager agent version.

## Contents

### AgentCount

The number of Edge Manager agents.

Type: Long

Required: Yes

### Version

Version of the agent.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 30.

Pattern: [a-zA-Z0-9\ \\_\\_.]+

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## Alarm

Service: Amazon SageMaker Service

An Amazon CloudWatch alarm configured to monitor metrics on an endpoint.

## Contents

### AlarmName

The name of a CloudWatch alarm in your account.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `^(?!\\s*$).+`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# AlgorithmSpecification

Service: Amazon SageMaker Service

Specifies the training algorithm to use in a [CreateTrainingJob \(p. 207\)](#) request.

For more information about algorithms provided by SageMaker, see [Algorithms](#). For information about using your own algorithms, see [Using Your Own Algorithms with Amazon SageMaker](#).

## Contents

### AlgorithmName

The name of the algorithm resource to use for the training job. This must be an algorithm resource that you created or subscribe to on AWS Marketplace.

#### Note

You must specify either the algorithm name to the AlgorithmName parameter or the image URI of the algorithm container to the TrainingImage parameter.

Note that the AlgorithmName parameter is mutually exclusive with the TrainingImage parameter. If you specify a value for the AlgorithmName parameter, you can't specify a value for TrainingImage, and vice versa.

If you specify values for both parameters, the training job might break; if you don't specify any value for both parameters, the training job might raise a null error.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 170.

Pattern: (`arn:aws[a-z\-\]*:sagemaker:[a-z0-9\-\]*:[0-9]{12}:[a-z\-\]*\/*)?([a-zA-Z0-9]([a-zA-Z0-9-])\{0,62\})(?<!-)$`

Required: No

### ContainerArguments

The arguments for a container used to run a training job. See [How Amazon SageMaker Runs Your Training Image](#) for additional information.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: No

### ContainerEntrypoint

The [entrypoint script for a Docker container](#) used to run a training job. This script takes precedence over the default train processing instructions. See [How Amazon SageMaker Runs Your Training Image](#) for more information.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 10 items.

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: No

#### **EnableSageMakerMetricsTimeSeries**

To generate and save time-series metrics during training, set to `true`. The default is `false` and time-series metrics aren't generated except in the following cases:

- You use one of the SageMaker built-in algorithms
- You use one of the following [Prebuilt SageMaker Docker Images](#):
  - Tensorflow (version  $\geq 1.15$ )
  - MXNet (version  $\geq 1.6$ )
  - PyTorch (version  $\geq 1.3$ )
- You specify at least one [MetricDefinition \(p. 1469\)](#)

Type: Boolean

Required: No

#### **MetricDefinitions**

A list of metric definition objects. Each object specifies the metric name and regular expressions used to parse algorithm logs. SageMaker publishes each metric to Amazon CloudWatch.

Type: Array of [MetricDefinition \(p. 1469\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 40 items.

Required: No

#### **TrainingImage**

The registry path of the Docker image that contains the training algorithm. For information about docker registry paths for SageMaker built-in algorithms, see [Docker Registry Paths and Example Code](#) in the *Amazon SageMaker developer guide*. SageMaker supports both `registry/repository[:tag]` and `registry/repository[@digest]` image path formats. For more information about using your custom training container, see [Using Your Own Algorithms with Amazon SageMaker](#).

##### **Note**

You must specify either the algorithm name to the `AlgorithmName` parameter or the image URI of the algorithm container to the `TrainingImage` parameter.

For more information, see the note in the `AlgorithmName` parameter description.

Type: String

Length Constraints: Maximum length of 255.

Pattern: `.*`

Required: No

#### **TrainingInputMode**

The training input mode that the algorithm supports. For more information about input modes, see [Algorithms](#).

##### **Pipe mode**

If an algorithm supports Pipe mode, Amazon SageMaker streams data directly from Amazon S3 to the container.

##### **File mode**

If an algorithm supports File mode, SageMaker downloads the training data from S3 to the provisioned ML storage volume, and mounts the directory to the Docker volume for the training container.

You must provision the ML storage volume with sufficient capacity to accommodate the data downloaded from S3. In addition to the training data, the ML storage volume also stores the output model. The algorithm container uses the ML storage volume to also store intermediate information, if any.

For distributed algorithms, training data is distributed uniformly. Your training duration is predictable if the input data objects sizes are approximately the same. SageMaker does not split the files any further for model training. If the object sizes are skewed, training won't be optimal as the data distribution is also skewed when one host in a training cluster is overloaded, thus becoming a bottleneck in training.

#### FastFile mode

If an algorithm supports FastFile mode, SageMaker streams data directly from S3 to the container with no code changes, and provides file system access to the data. Users can author their training script to interact with these files as if they were stored on disk.

FastFile mode works best when the data is read sequentially. Augmented manifest files aren't supported. The startup time is lower when there are fewer files in the S3 bucket provided.

Type: String

Valid Values: Pipe | File | FastFile

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# AlgorithmStatusDetails

Service: Amazon SageMaker Service

Specifies the validation and image scan statuses of the algorithm.

## Contents

### ImageScanStatuses

The status of the scan of the algorithm's Docker image container.

Type: Array of [AlgorithmStatusItem \(p. 1121\)](#) objects

Required: No

### ValidationStatuses

The status of algorithm validation.

Type: Array of [AlgorithmStatusItem \(p. 1121\)](#) objects

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# AlgorithmStatusItem

Service: Amazon SageMaker Service

Represents the overall status of an algorithm.

## Contents

### FailureReason

if the overall status is Failed, the reason for the failure.

Type: String

Required: No

### Name

The name of the algorithm for which the overall status is being reported.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

### Status

The current status.

Type: String

Valid Values: NotStarted | InProgress | Completed | Failed

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# AlgorithmSummary

Service: Amazon SageMaker Service

Provides summary information about an algorithm.

## Contents

### AlgorithmArn

The Amazon Resource Name (ARN) of the algorithm.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `arn:aws[a-zA-Z-]*:sagemaker:[a-zA-Z0-9-]*:[0-9]{12}:algorithm/*`

Required: Yes

### AlgorithmDescription

A brief description of the algorithm.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `[^\p{L}\p{M}\p{Z}\p{S}\p{N}\p{P}]^*`

Required: No

### AlgorithmName

The name of the algorithm that is described by the summary.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])\{0,62\}$`

Required: Yes

### AlgorithmStatus

The overall status of the algorithm.

Type: String

Valid Values: Pending | InProgress | Completed | Failed | Deleting

Required: Yes

### CreationTime

A timestamp that shows when the algorithm was created.

Type: Timestamp

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# AlgorithmValidationProfile

Service: Amazon SageMaker Service

Defines a training job and a batch transform job that SageMaker runs to validate your algorithm.

The data provided in the validation profile is made available to your buyers on AWS Marketplace.

## Contents

### ProfileName

The name of the profile for the algorithm. The name must have 1 to 63 characters. Valid characters are a-z, A-Z, 0-9, and - (hyphen).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

### TrainingJobDefinition

The TrainingJobDefinition object that describes the training job that SageMaker runs to validate your algorithm.

Type: [TrainingJobDefinition \(p. 1766\)](#) object

Required: Yes

### TransformJobDefinition

The TransformJobDefinition object that describes the transform job that SageMaker runs to validate your algorithm.

Type: [TransformJobDefinition \(p. 1783\)](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# AlgorithmValidationSpecification

Service: Amazon SageMaker Service

Specifies configurations for one or more training jobs that SageMaker runs to test the algorithm.

## Contents

### ValidationProfiles

An array of AlgorithmValidationProfile objects, each of which specifies a training job and batch transform job that SageMaker runs to validate your algorithm.

Type: Array of [AlgorithmValidationProfile \(p. 1124\)](#) objects

Array Members: Fixed number of 1 item.

Required: Yes

### ValidationRole

The IAM roles that SageMaker uses to run the training jobs.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: ^arn:aws[a-zA-Z-]\*:iam::\d{12}:role/?[a-zA-Z\_0-9+=,.@/-/\_]+\$

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# AnnotationConsolidationConfig

Service: Amazon SageMaker Service

Configures how labels are consolidated across human workers and processes output data.

## Contents

### AnnotationConsolidationLambdaArn

The Amazon Resource Name (ARN) of a Lambda function implements the logic for [annotation consolidation](#) and to process output data.

This parameter is required for all labeling jobs. For [built-in task types](#), use one of the following Amazon SageMaker Ground Truth Lambda function ARNs for AnnotationConsolidationLambdaArn. For custom labeling workflows, see [Post-annotation Lambda](#).

**Bounding box** - Finds the most similar boxes from different workers based on the Jaccard index of the boxes.

- arn:aws:lambda:us-east-1:432418664414:function:ACS-BoundingBox
- arn:aws:lambda:us-east-2:266458841044:function:ACS-BoundingBox
- arn:aws:lambda:us-west-2:081040173940:function:ACS-BoundingBox
- arn:aws:lambda:eu-west-1:568282634449:function:ACS-BoundingBox
- arn:aws:lambda:ap-northeast-1:477331159723:function:ACS-BoundingBox
- arn:aws:lambda:ap-southeast-2:454466003867:function:ACS-BoundingBox
- arn:aws:lambda:ap-south-1:565803892007:function:ACS-BoundingBox
- arn:aws:lambda:eu-central-1:203001061592:function:ACS-BoundingBox
- arn:aws:lambda:ap-northeast-2:845288260483:function:ACS-BoundingBox
- arn:aws:lambda:eu-west-2:487402164563:function:ACS-BoundingBox
- arn:aws:lambda:ap-southeast-1:377565633583:function:ACS-BoundingBox
- arn:aws:lambda:ca-central-1:918755190332:function:ACS-BoundingBox

**Image classification** - Uses a variant of the Expectation Maximization approach to estimate the true class of an image based on annotations from individual workers.

- arn:aws:lambda:us-east-1:432418664414:function:ACS-ImageMultiClass
- arn:aws:lambda:us-east-2:266458841044:function:ACS-ImageMultiClass
- arn:aws:lambda:us-west-2:081040173940:function:ACS-ImageMultiClass
- arn:aws:lambda:eu-west-1:568282634449:function:ACS-ImageMultiClass
- arn:aws:lambda:ap-northeast-1:477331159723:function:ACS-ImageMultiClass
- arn:aws:lambda:ap-southeast-2:454466003867:function:ACS-ImageMultiClass
- arn:aws:lambda:ap-south-1:565803892007:function:ACS-ImageMultiClass
- arn:aws:lambda:eu-central-1:203001061592:function:ACS-ImageMultiClass
- arn:aws:lambda:ap-northeast-2:845288260483:function:ACS-ImageMultiClass
- arn:aws:lambda:eu-west-2:487402164563:function:ACS-ImageMultiClass
- arn:aws:lambda:ap-southeast-1:377565633583:function:ACS-ImageMultiClass
- arn:aws:lambda:ca-central-1:918755190332:function:ACS-ImageMultiClass

**Multi-label image classification** - Uses a variant of the Expectation Maximization approach to estimate the true classes of an image based on annotations from individual workers.

- arn:aws:lambda:us-east-1:432418664414:function:ACS-ImageMultiClassMultiLabel
- arn:aws:lambda:us-east-2:266458841044:function:ACS-ImageMultiClassMultiLabel
- arn:aws:lambda:us-west-2:081040173940:function:ACS-ImageMultiClassMultiLabel
- arn:aws:lambda:eu-west-1:568282634449:function:ACS-ImageMultiClassMultiLabel
- arn:aws:lambda:ap-northeast-1:477331159723:function:ACS-ImageMultiClassMultiLabel
- arn:aws:lambda:ap-southeast-2:454466003867:function:ACS-ImageMultiClassMultiLabel
- arn:aws:lambda:ap-south-1:565803892007:function:ACS-ImageMultiClassMultiLabel
- arn:aws:lambda:eu-central-1:203001061592:function:ACS-ImageMultiClassMultiLabel
- arn:aws:lambda:ap-northeast-2:845288260483:function:ACS-ImageMultiClassMultiLabel
- arn:aws:lambda:eu-west-2:487402164563:function:ACS-ImageMultiClassMultiLabel
- arn:aws:lambda:ap-southeast-1:377565633583:function:ACS-ImageMultiClassMultiLabel
- arn:aws:lambda:ca-central-1:918755190332:function:ACS-ImageMultiClassMultiLabel

**Semantic segmentation** - Treats each pixel in an image as a multi-class classification and treats pixel annotations from workers as "votes" for the correct label.

- arn:aws:lambda:us-east-1:432418664414:function:ACS-SemanticSegmentation
- arn:aws:lambda:us-east-2:266458841044:function:ACS-SemanticSegmentation
- arn:aws:lambda:us-west-2:081040173940:function:ACS-SemanticSegmentation
- arn:aws:lambda:eu-west-1:568282634449:function:ACS-SemanticSegmentation
- arn:aws:lambda:ap-northeast-1:477331159723:function:ACS-SemanticSegmentation
- arn:aws:lambda:ap-southeast-2:454466003867:function:ACS-SemanticSegmentation
- arn:aws:lambda:ap-south-1:565803892007:function:ACS-SemanticSegmentation
- arn:aws:lambda:eu-central-1:203001061592:function:ACS-SemanticSegmentation
- arn:aws:lambda:ap-northeast-2:845288260483:function:ACS-SemanticSegmentation
- arn:aws:lambda:eu-west-2:487402164563:function:ACS-SemanticSegmentation
- arn:aws:lambda:ap-southeast-1:377565633583:function:ACS-SemanticSegmentation
- arn:aws:lambda:ca-central-1:918755190332:function:ACS-SemanticSegmentation

**Text classification** - Uses a variant of the Expectation Maximization approach to estimate the true class of text based on annotations from individual workers.

- arn:aws:lambda:us-east-1:432418664414:function:ACS-TextMultiClass
- arn:aws:lambda:us-east-2:266458841044:function:ACS-TextMultiClass
- arn:aws:lambda:us-west-2:081040173940:function:ACS-TextMultiClass
- arn:aws:lambda:eu-west-1:568282634449:function:ACS-TextMultiClass

- arn:aws:lambda:ap-northeast-1:477331159723:function:ACS-TextMultiClass
- arn:aws:lambda:ap-southeast-2:454466003867:function:ACS-TextMultiClass
- arn:aws:lambda:ap-south-1:565803892007:function:ACS-TextMultiClass
- arn:aws:lambda:eu-central-1:203001061592:function:ACS-TextMultiClass
- arn:aws:lambda:ap-northeast-2:845288260483:function:ACS-TextMultiClass
- arn:aws:lambda:eu-west-2:487402164563:function:ACS-TextMultiClass
- arn:aws:lambda:ap-southeast-1:377565633583:function:ACS-TextMultiClass
- arn:aws:lambda:ca-central-1:918755190332:function:ACS-TextMultiClass

**Multi-label text classification** - Uses a variant of the Expectation Maximization approach to estimate the true classes of text based on annotations from individual workers.

- arn:aws:lambda:us-east-1:432418664414:function:ACS-TextMultiClassMultiLabel
- arn:aws:lambda:us-east-2:266458841044:function:ACS-TextMultiClassMultiLabel
- arn:aws:lambda:us-west-2:081040173940:function:ACS-TextMultiClassMultiLabel
- arn:aws:lambda:eu-west-1:568282634449:function:ACS-TextMultiClassMultiLabel
- arn:aws:lambda:ap-northeast-1:477331159723:function:ACS-TextMultiClassMultiLabel
- arn:aws:lambda:ap-southeast-2:454466003867:function:ACS-TextMultiClassMultiLabel
- arn:aws:lambda:ap-south-1:565803892007:function:ACS-TextMultiClassMultiLabel
- arn:aws:lambda:eu-central-1:203001061592:function:ACS-TextMultiClassMultiLabel
- arn:aws:lambda:ap-northeast-2:845288260483:function:ACS-TextMultiClassMultiLabel
- arn:aws:lambda:eu-west-2:487402164563:function:ACS-TextMultiClassMultiLabel
- arn:aws:lambda:ap-southeast-1:377565633583:function:ACS-TextMultiClassMultiLabel
- arn:aws:lambda:ca-central-1:918755190332:function:ACS-TextMultiClassMultiLabel

**Named entity recognition** - Groups similar selections and calculates aggregate boundaries, resolving to most-assigned label.

- arn:aws:lambda:us-east-1:432418664414:function:ACS-NamedEntityRecognition
- arn:aws:lambda:us-east-2:266458841044:function:ACS-NamedEntityRecognition
- arn:aws:lambda:us-west-2:081040173940:function:ACS-NamedEntityRecognition
- arn:aws:lambda:eu-west-1:568282634449:function:ACS-NamedEntityRecognition
- arn:aws:lambda:ap-northeast-1:477331159723:function:ACS-NamedEntityRecognition
- arn:aws:lambda:ap-southeast-2:454466003867:function:ACS-NamedEntityRecognition
- arn:aws:lambda:ap-south-1:565803892007:function:ACS-NamedEntityRecognition
- arn:aws:lambda:eu-central-1:203001061592:function:ACS-NamedEntityRecognition

- arn:aws:lambda:ap-northeast-2:845288260483:function:ACS-NamedEntityRecognition
- arn:aws:lambda:eu-west-2:487402164563:function:ACS-NamedEntityRecognition
- arn:aws:lambda:ap-southeast-1:377565633583:function:ACS-NamedEntityRecognition
- arn:aws:lambda:ca-central-1:918755190332:function:ACS-NamedEntityRecognition

**Video Classification** - Use this task type when you need workers to classify videos using predefined labels that you specify. Workers are shown videos and are asked to choose one label for each video.

- arn:aws:lambda:us-east-1:432418664414:function:ACS-VideoMultiClass
- arn:aws:lambda:us-east-2:266458841044:function:ACS-VideoMultiClass
- arn:aws:lambda:us-west-2:081040173940:function:ACS-VideoMultiClass
- arn:aws:lambda:eu-west-1:568282634449:function:ACS-VideoMultiClass
- arn:aws:lambda:ap-northeast-1:477331159723:function:ACS-VideoMultiClass
- arn:aws:lambda:ap-southeast-2:454466003867:function:ACS-VideoMultiClass
- arn:aws:lambda:ap-south-1:565803892007:function:ACS-VideoMultiClass
- arn:aws:lambda:eu-central-1:203001061592:function:ACS-VideoMultiClass
- arn:aws:lambda:ap-northeast-2:845288260483:function:ACS-VideoMultiClass
- arn:aws:lambda:eu-west-2:487402164563:function:ACS-VideoMultiClass
- arn:aws:lambda:ap-southeast-1:377565633583:function:ACS-VideoMultiClass
- arn:aws:lambda:ca-central-1:918755190332:function:ACS-VideoMultiClass

**Video Frame Object Detection** - Use this task type to have workers identify and locate objects in a sequence of video frames (images extracted from a video) using bounding boxes. For example, you can use this task to ask workers to identify and localize various objects in a series of video frames, such as cars, bikes, and pedestrians.

- arn:aws:lambda:us-east-1:432418664414:function:ACS-VideoObjectDetection
- arn:aws:lambda:us-east-2:266458841044:function:ACS-VideoObjectDetection
- arn:aws:lambda:us-west-2:081040173940:function:ACS-VideoObjectDetection
- arn:aws:lambda:eu-west-1:568282634449:function:ACS-VideoObjectDetection
- arn:aws:lambda:ap-northeast-1:477331159723:function:ACS-VideoObjectDetection
- arn:aws:lambda:ap-southeast-2:454466003867:function:ACS-VideoObjectDetection
- arn:aws:lambda:ap-south-1:565803892007:function:ACS-VideoObjectDetection
- arn:aws:lambda:eu-central-1:203001061592:function:ACS-VideoObjectDetection
- arn:aws:lambda:ap-northeast-2:845288260483:function:ACS-VideoObjectDetection
- arn:aws:lambda:eu-west-2:487402164563:function:ACS-VideoObjectDetection
- arn:aws:lambda:ap-southeast-1:377565633583:function:ACS-VideoObjectDetection
- arn:aws:lambda:ca-central-1:918755190332:function:ACS-VideoObjectDetection

**Video Frame Object Tracking** - Use this task type to have workers track the movement of objects in a sequence of video frames (images extracted from a video) using bounding boxes. For example, you can use this task to ask workers to track the movement of objects, such as cars, bikes, and pedestrians.

- arn:aws:lambda:us-east-1:432418664414:function:ACS-VideoObjectTracking

- arn:aws:lambda:us-east-2:266458841044:function:ACS-VideoObjectTracking
- arn:aws:lambda:us-west-2:081040173940:function:ACS-VideoObjectTracking
- arn:aws:lambda:eu-west-1:568282634449:function:ACS-VideoObjectTracking
- arn:aws:lambda:ap-northeast-1:477331159723:function:ACS-VideoObjectTracking
- arn:aws:lambda:ap-southeast-2:454466003867:function:ACS-VideoObjectTracking
- arn:aws:lambda:ap-south-1:565803892007:function:ACS-VideoObjectTracking
- arn:aws:lambda:eu-central-1:203001061592:function:ACS-VideoObjectTracking
- arn:aws:lambda:ap-northeast-2:845288260483:function:ACS-VideoObjectTracking
- arn:aws:lambda:eu-west-2:487402164563:function:ACS-VideoObjectTracking
- arn:aws:lambda:ap-southeast-1:377565633583:function:ACS-VideoObjectTracking
- arn:aws:lambda:ca-central-1:918755190332:function:ACS-VideoObjectTracking

**3D Point Cloud Object Detection** - Use this task type when you want workers to classify objects in a 3D point cloud by drawing 3D cuboids around objects. For example, you can use this task type to ask workers to identify different types of objects in a point cloud, such as cars, bikes, and pedestrians.

- arn:aws:lambda:us-east-1:432418664414:function:ACS-3DPointCloudObjectDetection
- arn:aws:lambda:us-east-2:266458841044:function:ACS-3DPointCloudObjectDetection
- arn:aws:lambda:us-west-2:081040173940:function:ACS-3DPointCloudObjectDetection
- arn:aws:lambda:eu-west-1:568282634449:function:ACS-3DPointCloudObjectDetection
- arn:aws:lambda:ap-northeast-1:477331159723:function:ACS-3DPointCloudObjectDetection
- arn:aws:lambda:ap-southeast-2:454466003867:function:ACS-3DPointCloudObjectDetection
- arn:aws:lambda:ap-south-1:565803892007:function:ACS-3DPointCloudObjectDetection
- arn:aws:lambda:eu-central-1:203001061592:function:ACS-3DPointCloudObjectDetection
- arn:aws:lambda:ap-northeast-2:845288260483:function:ACS-3DPointCloudObjectDetection
- arn:aws:lambda:eu-west-2:487402164563:function:ACS-3DPointCloudObjectDetection
- arn:aws:lambda:ap-southeast-1:377565633583:function:ACS-3DPointCloudObjectDetection
- arn:aws:lambda:ca-central-1:918755190332:function:ACS-3DPointCloudObjectDetection

**3D Point Cloud Object Tracking** - Use this task type when you want workers to draw 3D cuboids around objects that appear in a sequence of 3D point cloud frames. For example, you can use this task type to ask workers to track the movement of vehicles across multiple point cloud frames.

- arn:aws:lambda:us-east-1:432418664414:function:ACS-3DPointCloudObjectTracking
- arn:aws:lambda:us-east-2:266458841044:function:ACS-3DPointCloudObjectTracking

- arn:aws:lambda:us-west-2:081040173940:function:ACS-3DPointCloudObjectTracking
- arn:aws:lambda:eu-west-1:568282634449:function:ACS-3DPointCloudObjectTracking
- arn:aws:lambda:ap-northeast-1:477331159723:function:ACS-3DPointCloudObjectTracking
- arn:aws:lambda:ap-southeast-2:454466003867:function:ACS-3DPointCloudObjectTracking
- arn:aws:lambda:ap-south-1:565803892007:function:ACS-3DPointCloudObjectTracking
- arn:aws:lambda:eu-central-1:203001061592:function:ACS-3DPointCloudObjectTracking
- arn:aws:lambda:ap-northeast-2:845288260483:function:ACS-3DPointCloudObjectTracking
- arn:aws:lambda:eu-west-2:487402164563:function:ACS-3DPointCloudObjectTracking
- arn:aws:lambda:ap-southeast-1:377565633583:function:ACS-3DPointCloudObjectTracking
- arn:aws:lambda:ca-central-1:918755190332:function:ACS-3DPointCloudObjectTracking

**3D Point Cloud Semantic Segmentation** - Use this task type when you want workers to create a point-level semantic segmentation masks by painting objects in a 3D point cloud using different colors where each color is assigned to one of the classes you specify.

- arn:aws:lambda:us-east-1:432418664414:function:ACS-3DPointCloudSemanticSegmentation
- arn:aws:lambda:us-east-2:266458841044:function:ACS-3DPointCloudSemanticSegmentation
- arn:aws:lambda:us-west-2:081040173940:function:ACS-3DPointCloudSemanticSegmentation
- arn:aws:lambda:eu-west-1:568282634449:function:ACS-3DPointCloudSemanticSegmentation
- arn:aws:lambda:ap-northeast-1:477331159723:function:ACS-3DPointCloudSemanticSegmentation
- arn:aws:lambda:ap-southeast-2:454466003867:function:ACS-3DPointCloudSemanticSegmentation
- arn:aws:lambda:ap-south-1:565803892007:function:ACS-3DPointCloudSemanticSegmentation
- arn:aws:lambda:eu-central-1:203001061592:function:ACS-3DPointCloudSemanticSegmentation
- arn:aws:lambda:ap-northeast-2:845288260483:function:ACS-3DPointCloudSemanticSegmentation
- arn:aws:lambda:eu-west-2:487402164563:function:ACS-3DPointCloudSemanticSegmentation
- arn:aws:lambda:ap-southeast-1:377565633583:function:ACS-3DPointCloudSemanticSegmentation
- arn:aws:lambda:ca-central-1:918755190332:function:ACS-3DPointCloudSemanticSegmentation

**Use the following ARNs for Label Verification and Adjustment Jobs**

Use label verification and adjustment jobs to review and adjust labels. To learn more, see [Verify and Adjust Labels](#).

**Semantic Segmentation Adjustment** - Treats each pixel in an image as a multi-class classification and treats pixel adjusted annotations from workers as "votes" for the correct label.

- arn:aws:lambda:us-east-1:432418664414:function:ACS-AdjustmentSemanticSegmentation
- arn:aws:lambda:us-east-2:266458841044:function:ACS-AdjustmentSemanticSegmentation
- arn:aws:lambda:us-west-2:081040173940:function:ACS-AdjustmentSemanticSegmentation
- arn:aws:lambda:eu-west-1:568282634449:function:ACS-AdjustmentSemanticSegmentation
- arn:aws:lambda:ap-northeast-1:477331159723:function:ACS-AdjustmentSemanticSegmentation
- arn:aws:lambda:ap-southeast-2:454466003867:function:ACS-AdjustmentSemanticSegmentation
- arn:aws:lambda:ap-south-1:565803892007:function:ACS-AdjustmentSemanticSegmentation
- arn:aws:lambda:eu-central-1:203001061592:function:ACS-AdjustmentSemanticSegmentation
- arn:aws:lambda:ap-northeast-2:845288260483:function:ACS-AdjustmentSemanticSegmentation
- arn:aws:lambda:eu-west-2:487402164563:function:ACS-AdjustmentSemanticSegmentation
- arn:aws:lambda:ap-southeast-1:377565633583:function:ACS-AdjustmentSemanticSegmentation
- arn:aws:lambda:ca-central-1:918755190332:function:ACS-AdjustmentSemanticSegmentation

**Semantic Segmentation Verification** - Uses a variant of the Expectation Maximization approach to estimate the true class of verification judgment for semantic segmentation labels based on annotations from individual workers.

- arn:aws:lambda:us-east-1:432418664414:function:ACS-VerificationSemanticSegmentation
- arn:aws:lambda:us-east-2:266458841044:function:ACS-VerificationSemanticSegmentation
- arn:aws:lambda:us-west-2:081040173940:function:ACS-VerificationSemanticSegmentation
- arn:aws:lambda:eu-west-1:568282634449:function:ACS-VerificationSemanticSegmentation
- arn:aws:lambda:ap-northeast-1:477331159723:function:ACS-VerificationSemanticSegmentation
- arn:aws:lambda:ap-southeast-2:454466003867:function:ACS-VerificationSemanticSegmentation
- arn:aws:lambda:ap-south-1:565803892007:function:ACS-VerificationSemanticSegmentation
- arn:aws:lambda:eu-central-1:203001061592:function:ACS-VerificationSemanticSegmentation
- arn:aws:lambda:ap-northeast-2:845288260483:function:ACS-VerificationSemanticSegmentation

- arn:aws:lambda:eu-west-2:487402164563:function:ACS-VerificationSemanticSegmentation
- arn:aws:lambda:ap-southeast-1:377565633583:function:ACS-VerificationSemanticSegmentation
- arn:aws:lambda:ca-central-1:918755190332:function:ACS-VerificationSemanticSegmentation

**Bounding Box Adjustment** - Finds the most similar boxes from different workers based on the Jaccard index of the adjusted annotations.

- arn:aws:lambda:us-east-1:432418664414:function:ACS-AdjustmentBoundingBox
- arn:aws:lambda:us-east-2:266458841044:function:ACS-AdjustmentBoundingBox
- arn:aws:lambda:us-west-2:081040173940:function:ACS-AdjustmentBoundingBox
- arn:aws:lambda:eu-west-1:568282634449:function:ACS-AdjustmentBoundingBox
- arn:aws:lambda:ap-northeast-1:477331159723:function:ACS-AdjustmentBoundingBox
- arn:aws:lambda:ap-southeast-2:454466003867:function:ACS-AdjustmentBoundingBox
- arn:aws:lambda:ap-south-1:565803892007:function:ACS-AdjustmentBoundingBox
- arn:aws:lambda:eu-central-1:203001061592:function:ACS-AdjustmentBoundingBox
- arn:aws:lambda:ap-northeast-2:845288260483:function:ACS-AdjustmentBoundingBox
- arn:aws:lambda:eu-west-2:487402164563:function:ACS-AdjustmentBoundingBox
- arn:aws:lambda:ap-southeast-1:377565633583:function:ACS-AdjustmentBoundingBox
- arn:aws:lambda:ca-central-1:918755190332:function:ACS-AdjustmentBoundingBox

**Bounding Box Verification** - Uses a variant of the Expectation Maximization approach to estimate the true class of verification judgement for bounding box labels based on annotations from individual workers.

- arn:aws:lambda:us-east-1:432418664414:function:ACS-VerificationBoundingBox
- arn:aws:lambda:us-east-2:266458841044:function:ACS-VerificationBoundingBox
- arn:aws:lambda:us-west-2:081040173940:function:ACS-VerificationBoundingBox
- arn:aws:lambda:eu-west-1:568282634449:function:ACS-VerificationBoundingBox
- arn:aws:lambda:ap-northeast-1:477331159723:function:ACS-VerificationBoundingBox
- arn:aws:lambda:ap-southeast-2:454466003867:function:ACS-VerificationBoundingBox
- arn:aws:lambda:ap-south-1:565803892007:function:ACS-VerificationBoundingBox
- arn:aws:lambda:eu-central-1:203001061592:function:ACS-VerificationBoundingBox
- arn:aws:lambda:ap-northeast-2:845288260483:function:ACS-VerificationBoundingBox
- arn:aws:lambda:eu-west-2:487402164563:function:ACS-VerificationBoundingBox
- arn:aws:lambda:ap-southeast-1:377565633583:function:ACS-VerificationBoundingBox
- arn:aws:lambda:ca-central-1:918755190332:function:ACS-VerificationBoundingBox

**Video Frame Object Detection Adjustment** - Use this task type when you want workers to adjust bounding boxes that workers have added to video frames to classify and localize objects in a sequence of video frames.

- arn:aws:lambda:us-east-1:432418664414:function:ACS-AdjustmentVideoObjectDetection
- arn:aws:lambda:us-east-2:266458841044:function:ACS-AdjustmentVideoObjectDetection
- arn:aws:lambda:us-west-2:081040173940:function:ACS-AdjustmentVideoObjectDetection
- arn:aws:lambda:eu-west-1:568282634449:function:ACS-AdjustmentVideoObjectDetection
- arn:aws:lambda:ap-northeast-1:477331159723:function:ACS-AdjustmentVideoObjectDetection
- arn:aws:lambda:ap-southeast-2:454466003867:function:ACS-AdjustmentVideoObjectDetection
- arn:aws:lambda:ap-south-1:565803892007:function:ACS-AdjustmentVideoObjectDetection
- arn:aws:lambda:eu-central-1:203001061592:function:ACS-AdjustmentVideoObjectDetection
- arn:aws:lambda:ap-northeast-2:845288260483:function:ACS-AdjustmentVideoObjectDetection
- arn:aws:lambda:eu-west-2:487402164563:function:ACS-AdjustmentVideoObjectDetection
- arn:aws:lambda:ap-southeast-1:377565633583:function:ACS-AdjustmentVideoObjectDetection
- arn:aws:lambda:ca-central-1:918755190332:function:ACS-AdjustmentVideoObjectDetection

**Video Frame Object Tracking Adjustment** - Use this task type when you want workers to adjust bounding boxes that workers have added to video frames to track object movement across a sequence of video frames.

- arn:aws:lambda:us-east-1:432418664414:function:ACS-AdjustmentVideoObjectTracking
- arn:aws:lambda:us-east-2:266458841044:function:ACS-AdjustmentVideoObjectTracking
- arn:aws:lambda:us-west-2:081040173940:function:ACS-AdjustmentVideoObjectTracking
- arn:aws:lambda:eu-west-1:568282634449:function:ACS-AdjustmentVideoObjectTracking
- arn:aws:lambda:ap-northeast-1:477331159723:function:ACS-AdjustmentVideoObjectTracking
- arn:aws:lambda:ap-southeast-2:454466003867:function:ACS-AdjustmentVideoObjectTracking
- arn:aws:lambda:ap-south-1:565803892007:function:ACS-AdjustmentVideoObjectTracking
- arn:aws:lambda:eu-central-1:203001061592:function:ACS-AdjustmentVideoObjectTracking
- arn:aws:lambda:ap-northeast-2:845288260483:function:ACS-AdjustmentVideoObjectTracking
- arn:aws:lambda:eu-west-2:487402164563:function:ACS-AdjustmentVideoObjectTracking

- arn:aws:lambda:ap-southeast-1:377565633583:function:ACS-AdjustmentVideoObjectTracking
- arn:aws:lambda:ca-central-1:918755190332:function:ACS-AdjustmentVideoObjectTracking

**3D Point Cloud Object Detection Adjustment** - Use this task type when you want workers to adjust 3D cuboids around objects in a 3D point cloud.

- arn:aws:lambda:us-east-1:432418664414:function:ACS-Adjustment3DPointCloudObjectDetection
- arn:aws:lambda:us-east-2:266458841044:function:ACS-Adjustment3DPointCloudObjectDetection
- arn:aws:lambda:us-west-2:081040173940:function:ACS-Adjustment3DPointCloudObjectDetection
- arn:aws:lambda:eu-west-1:568282634449:function:ACS-Adjustment3DPointCloudObjectDetection
- arn:aws:lambda:ap-northeast-1:477331159723:function:ACS-Adjustment3DPointCloudObjectDetection
- arn:aws:lambda:ap-southeast-2:454466003867:function:ACS-Adjustment3DPointCloudObjectDetection
- arn:aws:lambda:ap-south-1:565803892007:function:ACS-Adjustment3DPointCloudObjectDetection
- arn:aws:lambda:eu-central-1:203001061592:function:ACS-Adjustment3DPointCloudObjectDetection
- arn:aws:lambda:ap-northeast-2:845288260483:function:ACS-Adjustment3DPointCloudObjectDetection
- arn:aws:lambda:eu-west-2:487402164563:function:ACS-Adjustment3DPointCloudObjectDetection
- arn:aws:lambda:ap-southeast-1:377565633583:function:ACS-Adjustment3DPointCloudObjectDetection
- arn:aws:lambda:ca-central-1:918755190332:function:ACS-Adjustment3DPointCloudObjectDetection

**3D Point Cloud Object Tracking Adjustment** - Use this task type when you want workers to adjust 3D cuboids around objects that appear in a sequence of 3D point cloud frames.

- arn:aws:lambda:us-east-1:432418664414:function:ACS-Adjustment3DPointCloudObjectTracking
- arn:aws:lambda:us-east-2:266458841044:function:ACS-Adjustment3DPointCloudObjectTracking
- arn:aws:lambda:us-west-2:081040173940:function:ACS-Adjustment3DPointCloudObjectTracking
- arn:aws:lambda:eu-west-1:568282634449:function:ACS-Adjustment3DPointCloudObjectTracking
- arn:aws:lambda:ap-northeast-1:477331159723:function:ACS-Adjustment3DPointCloudObjectTracking
- arn:aws:lambda:ap-southeast-2:454466003867:function:ACS-Adjustment3DPointCloudObjectTracking
- arn:aws:lambda:ap-south-1:565803892007:function:ACS-Adjustment3DPointCloudObjectTracking
- arn:aws:lambda:eu-central-1:203001061592:function:ACS-Adjustment3DPointCloudObjectTracking

- arn:aws:lambda:ap-northeast-2:845288260483:function:ACS-Adjustment3DPointCloudObjectTracking
- arn:aws:lambda:eu-west-2:487402164563:function:ACS-Adjustment3DPointCloudObjectTracking
- arn:aws:lambda:ap-southeast-1:377565633583:function:ACS-Adjustment3DPointCloudObjectTracking
- arn:aws:lambda:ca-central-1:918755190332:function:ACS-Adjustment3DPointCloudObjectTracking

**3D Point Cloud Semantic Segmentation Adjustment** - Use this task type when you want workers to adjust a point-level semantic segmentation masks using a paint tool.

- arn:aws:lambda:us-east-1:432418664414:function:ACS-3DPointCloudSemanticSegmentation
- arn:aws:lambda:us-east-1:432418664414:function:ACS-Adjustment3DPointCloudSemanticSegmentation
- arn:aws:lambda:us-east-2:266458841044:function:ACS-Adjustment3DPointCloudSemanticSegmentation
- arn:aws:lambda:us-west-2:081040173940:function:ACS-Adjustment3DPointCloudSemanticSegmentation
- arn:aws:lambda:eu-west-1:568282634449:function:ACS-Adjustment3DPointCloudSemanticSegmentation
- arn:aws:lambda:ap-northeast-1:477331159723:function:ACS-Adjustment3DPointCloudSemanticSegmentation
- arn:aws:lambda:ap-southeast-2:454466003867:function:ACS-Adjustment3DPointCloudSemanticSegmentation
- arn:aws:lambda:ap-south-1:565803892007:function:ACS-Adjustment3DPointCloudSemanticSegmentation
- arn:aws:lambda:eu-central-1:203001061592:function:ACS-Adjustment3DPointCloudSemanticSegmentation
- arn:aws:lambda:ap-northeast-2:845288260483:function:ACS-Adjustment3DPointCloudSemanticSegmentation
- arn:aws:lambda:eu-west-2:487402164563:function:ACS-Adjustment3DPointCloudSemanticSegmentation
- arn:aws:lambda:ap-southeast-1:377565633583:function:ACS-Adjustment3DPointCloudSemanticSegmentation
- arn:aws:lambda:ca-central-1:918755190332:function:ACS-Adjustment3DPointCloudSemanticSegmentation

Type: String

Length Constraints: Maximum length of 2048.

Pattern: arn:aws[a-z\-\]\*:lambda:[a-z0-9\-\]\*:[0-9]{12}:function:.\*

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## AppDetails

Service: Amazon SageMaker Service

Details about an Amazon SageMaker app.

### Contents

#### AppName

The name of the app.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: No

#### AppType

The type of app.

Type: String

Valid Values: JupyterServer | KernelGateway | TensorBoard | RStudioServerPro | RSessionGateway

Required: No

#### CreationTime

The creation time.

Type: Timestamp

Required: No

#### DomainId

The domain ID.

Type: String

Length Constraints: Maximum length of 63.

Required: No

#### SpaceName

The name of the space.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: No

#### Status

The status.

Type: String

Valid Values: Deleted | Deleting | Failed | InService | Pending

Required: No

**UserProfileName**

The user profile name.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9]){0,62}

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# AppImageConfigDetails

Service: Amazon SageMaker Service

The configuration for running a SageMaker image as a KernelGateway app.

## Contents

### AppImageConfigArn

The Amazon Resource Name (ARN) of the AppImageConfig.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-\-]\*:sagemaker:[a-z0-9\-\-]\*:[0-9]{12}:app-image-config/.\*

Required: No

### AppImageConfigName

The name of the AppImageConfig. Must be unique to your account.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: No

### CreationTime

When the AppImageConfig was created.

Type: Timestamp

Required: No

### KernelGatewayImageConfig

The configuration for the file system and kernels in the SageMaker image.

Type: [KernelGatewayImageConfig \(p. 1437\)](#) object

Required: No

### LastModifiedTime

When the AppImageConfig was last modified.

Type: Timestamp

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# AppSpecification

Service: Amazon SageMaker Service

Configuration to run a processing job in a specified container image.

## Contents

### ContainerArguments

The arguments for a container used to run a processing job.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: No

### ContainerEntrypoint

The entrypoint for a container used to run a processing job.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: No

### ImageUri

The container image to be run by the processing job.

Type: String

Length Constraints: Maximum length of 255.

Pattern: .\*

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## ArtifactSource

Service: Amazon SageMaker Service

A structure describing the source of an artifact.

### Contents

#### SourceTypes

A list of source types.

Type: Array of [ArtifactSourceType \(p. 1144\)](#) objects

Required: No

#### SourceUri

The URI of the source.

Type: String

Length Constraints: Maximum length of 2048.

Required: Yes

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ArtifactSourceType

Service: Amazon SageMaker Service

The ID and ID type of an artifact source.

## Contents

### SourceldType

The type of ID.

Type: String

Valid Values: MD5Hash | S3ETag | S3Version | Custom

Required: Yes

### Value

The ID.

Type: String

Length Constraints: Maximum length of 256.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ArtifactSummary

Service: Amazon SageMaker Service

Lists a summary of the properties of an artifact. An artifact represents a URI addressable object or data. Some examples are a dataset and a model.

## Contents

### ArtifactArn

The Amazon Resource Name (ARN) of the artifact.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-zA-Z-]*:sagemaker:[a-zA-Z0-9-]*:[0-9]{12}:artifact/.*`

Required: No

### ArtifactName

The name of the artifact.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[\w+][\w-]*[\w+]{0,119}`

Required: No

### ArtifactType

The type of the artifact.

Type: String

Length Constraints: Maximum length of 256.

Required: No

### CreationTime

When the artifact was created.

Type: Timestamp

Required: No

### LastModifiedTime

When the artifact was last modified.

Type: Timestamp

Required: No

### Source

The source of the artifact.

Type: [ArtifactSource \(p. 1143\)](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# AssociationSummary

Service: Amazon SageMaker Service

Lists a summary of the properties of an association. An association is an entity that links other lineage or experiment entities. An example would be an association between a training job and a model.

## Contents

### AssociationType

The type of the association.

Type: String

Valid Values: ContributedTo | AssociatedWith | DerivedFrom | Produced

Required: No

### CreatedBy

Information about the user who created or modified an experiment, trial, trial component, lineage group, project, or model card.

Type: [UserContext \(p. 1822\)](#) object

Required: No

### CreationTime

When the association was created.

Type: Timestamp

Required: No

### DestinationArn

The Amazon Resource Name (ARN) of the destination.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-\-]\*:sagemaker:[a-z0-9\-\-]\*:[0-9]{12}:(experiment|experiment-trial-component|artifact|action|context)/.\*

Required: No

### DestinationName

The name of the destination.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,119\}

Required: No

### DestinationType

The destination type.

Type: String

Length Constraints: Maximum length of 256.

Required: No

#### **SourceArn**

The ARN of the source.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-\-]\*:sagemaker:[a-z0-9\-\-]\*:[0-9]{12}:(experiment|experiment-trial-component|artifact|action|context)/\*

Required: No

#### **SourceName**

The name of the source.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,119\}

Required: No

#### **SourceType**

The source type.

Type: String

Length Constraints: Maximum length of 256.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# AsyncInferenceClientConfig

Service: Amazon SageMaker Service

Configures the behavior of the client used by SageMaker to interact with the model container during asynchronous inference.

## Contents

### MaxConcurrentInvocationsPerInstance

The maximum number of concurrent requests sent by the SageMaker client to the model container. If no value is provided, SageMaker chooses an optimal value.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 1000.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# AsyncInferenceConfig

Service: Amazon SageMaker Service

Specifies configuration for how an endpoint performs asynchronous inference.

## Contents

### **ClientConfig**

Configures the behavior of the client used by SageMaker to interact with the model container during asynchronous inference.

Type: [AsyncInferenceClientConfig \(p. 1149\)](#) object

Required: No

### **OutputConfig**

Specifies the configuration for asynchronous inference invocation outputs.

Type: [AsyncInferenceOutputConfig \(p. 1152\)](#) object

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# AsyncInferenceNotificationConfig

Service: Amazon SageMaker Service

Specifies the configuration for notifications of inference results for asynchronous inference.

## Contents

### ErrorTopic

Amazon SNS topic to post a notification to when inference fails. If no topic is provided, no notification is sent on failure.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `arn:aws[a-zA-Z-]*:sns:[a-zA-Z0-9-]*:[0-9]{12}:[a-zA-Z0-9_.-]+`

Required: No

### SuccessTopic

Amazon SNS topic to post a notification to when inference completes successfully. If no topic is provided, no notification is sent on success.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `arn:aws[a-zA-Z-]*:sns:[a-zA-Z0-9-]*:[0-9]{12}:[a-zA-Z0-9_.-]+`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# AsyncInferenceOutputConfig

Service: Amazon SageMaker Service

Specifies the configuration for asynchronous inference invocation outputs.

## Contents

### KmsKeyId

The AWS Key Management Service (AWS KMS) key that SageMaker uses to encrypt the asynchronous inference output in Amazon S3.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: .\*

Required: No

### NotificationConfig

Specifies the configuration for notifications of inference results for asynchronous inference.

Type: [AsyncInferenceNotificationConfig \(p. 1151\)](#) object

Required: No

### S3OutputPath

The Amazon S3 location to upload inference responses to.

Type: String

Length Constraints: Maximum length of 512.

Pattern: ^(https|s3)://([^\/]\*)/?(.\*)\$

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# AthenaDatasetDefinition

Service: Amazon SageMaker Service

Configuration for Athena Dataset Definition input.

## Contents

### Catalog

The name of the data catalog used in Athena query execution.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: [\u0020-\uD7FF\uE000-\uFFFF\uD800\uDC00-\uDBFF\uDFFF\t]\*

Required: Yes

### Database

The name of the database used in the Athena query execution.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: .\*

Required: Yes

### KmsKeyId

The AWS Key Management Service (AWS KMS) key that Amazon SageMaker uses to encrypt data generated from an Athena query execution.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: .\*

Required: No

### OutputCompression

The compression used for Athena query results.

Type: String

Valid Values: GZIP | SNAPPY | ZLIB

Required: No

### OutputFormat

The data storage format for Athena query results.

Type: String

Valid Values: PARQUET | ORC | AVRO | JSON | TEXTFILE

Required: Yes

### **OutputS3Uri**

The location in Amazon S3 where Athena query results are stored.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: ^(https|s3)://([^\/]\*)/?(.\*)\$

Required: Yes

### **QueryString**

The SQL query statements, to be executed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 4096.

Pattern: [\s\S]+

Required: Yes

### **WorkGroup**

The name of the workgroup in which the Athena query is being started.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: [a-zA-Z0-9.\_-]+

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# AutoMLCandidate

Service: Amazon SageMaker Service

Information about a candidate produced by an AutoML training job, including its status, steps, and other properties.

## Contents

### CandidateName

The name of the candidate.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Required: Yes

### CandidateProperties

The properties of an AutoML candidate job.

Type: [CandidateProperties \(p. 1191\)](#) object

Required: No

### CandidateStatus

The candidate's status.

Type: String

Valid Values: Completed | InProgress | Failed | Stopped | Stopping

Required: Yes

### CandidateSteps

Information about the candidate's steps.

Type: Array of [AutoMLCandidateStep \(p. 1158\)](#) objects

Required: Yes

### CreationTime

The creation time.

Type: Timestamp

Required: Yes

### EndTime

The end time.

Type: Timestamp

Required: No

### FailureReason

The failure reason.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

#### **FinalAutoMLJobObjectiveMetric**

The best candidate result from an AutoML training job.

Type: [FinalAutoMLJobObjectiveMetric \(p. 1342\)](#) object

Required: No

#### **InferenceContainers**

Information about the inference container definitions.

Type: Array of [AutoMLContainerDefinition \(p. 1161\)](#) objects

Array Members: Maximum number of 5 items.

Required: No

#### **LastModifiedTime**

The last modified time.

Type: Timestamp

Required: Yes

#### **ObjectiveStatus**

The objective's status.

Type: String

Valid Values: Succeeded | Pending | Failed

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# AutoMLCandidateGenerationConfig

Service: Amazon SageMaker Service

Stores the config information for how a candidate is generated (optional).

## Contents

### FeatureSpecificationS3Uri

A URL to the Amazon S3 data source containing selected features from the input data source to run an Autopilot job. You can input FeatureAttributeNames (optional) in JSON format as shown below:

```
{ "FeatureAttributeNames": ["col1", "col2", ...] }.
```

You can also specify the data type of the feature (optional) in the format shown below:

```
{ "FeatureDataTypes": {"col1": "numeric", "col2": "categorical" ... } }
```

**Note**

These column keys may not include the target column.

In ensembling mode, Autopilot will only support the following data types: numeric, categorical, text and datetime. In HPO mode, Autopilot can support numeric, categorical, text, datetime and sequence.

If only FeatureDataTypes is provided, the column keys (col1, col2,..) should be a subset of the column names in the input data.

If both FeatureDataTypes and FeatureAttributeNames are provided, then the column keys should be a subset of the column names provided in FeatureAttributeNames.

The key name FeatureAttributeNames is fixed. The values listed in ["col1", "col2", ...] is case sensitive and should be a list of strings containing unique values that are a subset of the column names in the input data. The list of columns provided must not include the target column.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: ^(https|s3)://([^\?]+)\?(\.\*\$)

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# AutoMLCandidateStep

Service: Amazon SageMaker Service

Information about the steps for a candidate and what step it is working on.

## Contents

### CandidateStepArn

The ARN for the candidate's step.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:\.*/.*`

Required: Yes

### CandidateStepName

The name for the candidate's step.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Required: Yes

### CandidateStepType

Whether the candidate is at the transform, training, or processing step.

Type: String

Valid Values: `AWS::SageMaker::TrainingJob` | `AWS::SageMaker::TransformJob` | `AWS::SageMaker::ProcessingJob`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## AutoMLChannel

Service: Amazon SageMaker Service

A channel is a named input source that training algorithms can consume. The validation dataset size is limited to less than 2 GB. The training dataset size must be less than 100 GB. For more information, see [Channel \(p. 1199\)](#).

### Note

A validation dataset must contain the same headers as the training dataset.

## Contents

### ChannelType

The channel type (optional) is an enum string. The default value is `training`. Channels for training and validation must share the same `ContentType` and `TargetAttributeName`. For information on specifying training and validation channel types, see [How to specify training and validation datasets](#).

Type: String

Valid Values: `training` | `validation`

Required: No

### CompressionType

You can use `Gzip` or `None`. The default value is `None`.

Type: String

Valid Values: `None` | `Gzip`

Required: No

### ContentType

The content type of the data from the input source. You can use `text/csv;header=present` or `x-application/vnd.amazon+parquet`. The default value is `text/csv;header=present`.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `.*`

Required: No

### DataSource

The data source for an AutoML channel.

Type: [AutoMLDataSource \(p. 1163\)](#) object

Required: Yes

### TargetAttributeName

The name of the target variable in supervised learning, usually represented by 'y'.

Type: String

Length Constraints: Minimum length of 1.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# AutoMLContainerDefinition

Service: Amazon SageMaker Service

A list of container definitions that describe the different containers that make up an AutoML candidate. For more information, see [ContainerDefinition \(p. 1225\)](#).

## Contents

### Environment

The environment variables to set in the container. For more information, see [ContainerDefinition \(p. 1225\)](#).

Type: String to string map

Map Entries: Maximum number of 16 items.

Key Length Constraints: Maximum length of 1024.

Key Pattern: [a-zA-Z\_][a-zA-Z0-9\_]\*

Value Length Constraints: Maximum length of 1024.

Value Pattern: [\S\s]\*

Required: No

### Image

The Amazon Elastic Container Registry (Amazon ECR) path of the container. For more information, see [ContainerDefinition \(p. 1225\)](#).

Type: String

Length Constraints: Maximum length of 255.

Pattern: [\S]+

Required: Yes

### ModelDataUrl

The location of the model artifacts. For more information, see [ContainerDefinition \(p. 1225\)](#).

Type: String

Length Constraints: Maximum length of 1024.

Pattern: ^(https|s3)://(([^\/]+)/\*)(.\*\$)

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)

- [AWS SDK for Ruby V3](#)

# AutoMLDataSource

Service: Amazon SageMaker Service

The data source for the Autopilot job.

## Contents

### S3DataSource

The Amazon S3 location of the input data.

Type: [AutoMLS3DataSource \(p. 1176\)](#) object

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# AutoMLDataSplitConfig

Service: Amazon SageMaker Service

This structure specifies how to split the data into train and validation datasets. The validation and training datasets must contain the same headers. The validation dataset must be less than 2 GB in size.

## Contents

### ValidationFraction

The validation fraction (optional) is a float that specifies the portion of the training dataset to be used for validation. The default value is 0.2, and values must be greater than 0 and less than 1. We recommend setting this value to be less than 0.5.

Type: Float

Valid Range: Minimum value of 0. Maximum value of 1.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# AutoMLJobArtifacts

Service: Amazon SageMaker Service

The artifacts that are generated during an AutoML job.

## Contents

### CandidateDefinitionNotebookLocation

The URL of the notebook location.

Type: String

Length Constraints: Minimum length of 1.

Required: No

### DataExplorationNotebookLocation

The URL of the notebook location.

Type: String

Length Constraints: Minimum length of 1.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# AutoMLJobCompletionCriteria

Service: Amazon SageMaker Service

How long a job is allowed to run, or how many candidates a job is allowed to generate.

## Contents

### MaxAutoMLJobRuntimeInSeconds

The maximum runtime, in seconds, an AutoML job has to complete.

If an AutoML job exceeds the maximum runtime, the job is stopped automatically and its processing is ended gracefully. The AutoML job identifies the best model whose training was completed and marks it as the best-performing model. Any unfinished steps of the job, such as automatic one-click Autopilot model deployment, will not be completed.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

### MaxCandidates

The maximum number of times a training job is allowed to run.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

### MaxRuntimePerTrainingJobInSeconds

The maximum time, in seconds, that each training job executed inside hyperparameter tuning is allowed to run as part of a hyperparameter tuning job. For more information, see the [StoppingCondition \(p. 1742\)](#) used by the [CreateHyperParameterTuningJob \(p. 106\)](#) action.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# AutoMLJobConfig

Service: Amazon SageMaker Service

A collection of settings used for an AutoML job.

## Contents

### CandidateGenerationConfig

The configuration for generating a candidate for an AutoML job (optional).

Type: [AutoMLCandidateGenerationConfig \(p. 1157\)](#) object

Required: No

### CompletionCriteria

How long an AutoML job is allowed to run, or how many candidates a job is allowed to generate.

Type: [AutoMLJobCompletionCriteria \(p. 1166\)](#) object

Required: No

### DataSplitConfig

The configuration for splitting the input training dataset.

Type: AutoMLDataSplitConfig

Type: [AutoMLDataSplitConfig \(p. 1164\)](#) object

Required: No

### Mode

The method that Autopilot uses to train the data. You can either specify the mode manually or let Autopilot choose for you based on the dataset size by selecting AUTO. In AUTO mode, Autopilot chooses ENSEMBLING for datasets smaller than 100 MB, and HYPERPARAMETER\_TUNING for larger ones.

The ENSEMBLING mode uses a multi-stack ensemble model to predict classification and regression tasks directly from your dataset. This machine learning mode combines several base models to produce an optimal predictive model. It then uses a stacking ensemble method to combine predictions from contributing members. A multi-stack ensemble model can provide better performance over a single model by combining the predictive capabilities of multiple models. See [Autopilot algorithm support](#) for a list of algorithms supported by ENSEMBLING mode.

The HYPERPARAMETER\_TUNING (HPO) mode uses the best hyperparameters to train the best version of a model. HPO will automatically select an algorithm for the type of problem you want to solve. Then HPO finds the best hyperparameters according to your objective metric. See [Autopilot algorithm support](#) for a list of algorithms supported by HYPERPARAMETER\_TUNING mode.

Type: String

Valid Values: AUTO | ENSEMBLING | HYPERPARAMETER\_TUNING

Required: No

### SecurityConfig

The security configuration for traffic encryption or Amazon VPC settings.

Type: [AutoMLSecurityConfig \(p. 1177\)](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# AutoMLJobObjective

Service: Amazon SageMaker Service

Specifies a metric to minimize or maximize as the objective of a job.

## Contents

### MetricName

The name of the objective metric used to measure the predictive quality of a machine learning system. This metric is optimized during training to provide the best estimate for model parameter values from data.

Here are the options:

- **MSE:** The mean squared error (MSE) is the average of the squared differences between the predicted and actual values. It is used for regression. MSE values are always positive: the better a model is at predicting the actual values, the smaller the MSE value is. When the data contains outliers, they tend to dominate the MSE, which might cause subpar prediction performance.
- **Accuracy:** The ratio of the number of correctly classified items to the total number of (correctly and incorrectly) classified items. It is used for binary and multiclass classification. It measures how close the predicted class values are to the actual values. Accuracy values vary between zero and one: one indicates perfect accuracy and zero indicates perfect inaccuracy.
- **F1:** The F1 score is the harmonic mean of the precision and recall. It is used for binary classification into classes traditionally referred to as positive and negative. Predictions are said to be true when they match their actual (correct) class and false when they do not. Precision is the ratio of the true positive predictions to all positive predictions (including the false positives) in a data set and measures the quality of the prediction when it predicts the positive class. Recall (or sensitivity) is the ratio of the true positive predictions to all actual positive instances and measures how completely a model predicts the actual class members in a data set. The standard F1 score weighs precision and recall equally. But which metric is paramount typically depends on specific aspects of a problem. F1 scores vary between zero and one: one indicates the best possible performance and zero the worst.
- **AUC:** The area under the curve (AUC) metric is used to compare and evaluate binary classification by algorithms such as logistic regression that return probabilities. A threshold is needed to map the probabilities into classifications. The relevant curve is the receiver operating characteristic curve that plots the true positive rate (TPR) of predictions (or recall) against the false positive rate (FPR) as a function of the threshold value, above which a prediction is considered positive. Increasing the threshold results in fewer false positives but more false negatives. AUC is the area under this receiver operating characteristic curve and so provides an aggregated measure of the model performance across all possible classification thresholds. The AUC score can also be interpreted as the probability that a randomly selected positive data point is more likely to be predicted positive than a randomly selected negative example. AUC scores vary between zero and one: a score of one indicates perfect accuracy and a score of one half indicates that the prediction is not better than a random classifier. Values under one half predict less accurately than a random predictor. But such consistently bad predictors can simply be inverted to obtain better than random predictors.
- **F1macro:** The F1macro score applies F1 scoring to multiclass classification. In this context, you have multiple classes to predict. You just calculate the precision and recall for each class as you did for the positive class in binary classification. Then, use these values to calculate the F1 score for each class and average them to obtain the F1macro score. F1macro scores vary between zero and one: one indicates the best possible performance and zero the worst.

If you do not specify a metric explicitly, the default behavior is to automatically use:

- **MSE:** for regression.
- **F1:** for binary classification

- Accuracy: for multiclass classification.

Type: String

Valid Values: Accuracy | MSE | F1 | F1macro | AUC

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# AutoMLJobStepMetadata

Service: Amazon SageMaker Service

Metadata for an AutoML job step.

## Contents

### Arn

The Amazon Resource Name (ARN) of the AutoML job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `arn:aws[a-z\-\-]*:sagemaker:[a-z0-9\-\-]*:[0-9]{12}:automl-job/.*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# AutoMLJobSummary

Service: Amazon SageMaker Service

Provides a summary about an AutoML job.

## Contents

### AutoMLJobArn

The ARN of the AutoML job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `arn:aws[a-zA-Z-]*:sagemaker:[a-zA-Z0-9-]*:[0-9]{12}:automl-job/.*`

Required: Yes

### AutoMLJobName

The name of the AutoML job you are requesting.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])\{0,31\}`

Required: Yes

### AutoMLJobSecondaryStatus

The secondary status of the AutoML job.

Type: String

Valid Values: Starting | AnalyzingData | FeatureEngineering | ModelTuning | MaxCandidatesReached | Failed | Stopped | MaxAutoMLJobRuntimeReached | Stopping | CandidateDefinitionsGenerated | GeneratingExplainabilityReport | Completed | ExplainabilityError | DeployingModel | ModelDeploymentError | GeneratingModelInsightsReport | ModelInsightsError

Required: Yes

### AutoMLJobStatus

The status of the AutoML job.

Type: String

Valid Values: Completed | InProgress | Failed | Stopped | Stopping

Required: Yes

### CreationTime

When the AutoML job was created.

Type: Timestamp

Required: Yes

### **EndTime**

The end time of an AutoML job.

Type: Timestamp

Required: No

### **FailureReason**

The failure reason of an AutoML job.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

### **LastModifiedTime**

When the AutoML job was last modified.

Type: Timestamp

Required: Yes

### **PartialFailureReasons**

The list of reasons for partial failures within an AutoML job.

Type: Array of [AutoMLPartialFailureReason \(p. 1175\)](#) objects

Array Members: Minimum number of 1 item. Maximum number of 5 items.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# AutoMLOutputDataConfig

Service: Amazon SageMaker Service

The output data configuration.

## Contents

### KmsKeyId

The Key Management Service (KMS) encryption key ID.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `.*`

Required: No

### S3OutputPath

The Amazon S3 output path. Must be 128 characters or less.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3)://([^\/]*)/?(.*)$`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# AutoMLPartialFailureReason

Service: Amazon SageMaker Service

The reason for a partial failure of an AutoML job.

## Contents

### PartialFailureMessage

The message containing the reason for a partial failure of an AutoML job.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## AutoMLS3DataSource

Service: Amazon SageMaker Service

The Amazon S3 data source.

### Contents

#### S3DataType

The data type.

A ManifestFile should have the format shown below:

```
[ {"prefix": "s3://DOC-EXAMPLE-BUCKET/DOC-EXAMPLE-FOLDER/DOC-EXAMPLE-PREFIX/"},  
  "DOC-EXAMPLE-RELATIVE-PATH/DOC-EXAMPLE-FOLDER/DATA-1",  
  "DOC-EXAMPLE-RELATIVE-PATH/DOC-EXAMPLE-FOLDER/DATA-2",  
  ... "DOC-EXAMPLE-RELATIVE-PATH/DOC-EXAMPLE-FOLDER/DATA-N" ]
```

An S3Prefix should have the following format:

s3://DOC-EXAMPLE-BUCKET/DOC-EXAMPLE-FOLDER-OR-FILE

Type: String

Valid Values: ManifestFile | S3Prefix

Required: Yes

#### S3Uri

The URL to the Amazon S3 data source.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: ^(https|s3)://([^\/]\*)/?(.\*)\$

Required: Yes

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# AutoMLSecurityConfig

Service: Amazon SageMaker Service

Security options.

## Contents

### EnableInterContainerTrafficEncryption

Whether to use traffic encryption between the container layers.

Type: Boolean

Required: No

### VolumeKmsKeyId

The key used to encrypt stored data.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: .\*

Required: No

### VpcConfig

The VPC configuration.

Type: [VpcConfig \(p. 1829\)](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# AutoRollbackConfig

Service: Amazon SageMaker Service

Automatic rollback configuration for handling endpoint deployment failures and recovery.

## Contents

### Alarms

List of CloudWatch alarms in your account that are configured to monitor metrics on an endpoint. If any alarms are tripped during a deployment, SageMaker rolls back the deployment.

Type: Array of [Alarm \(p. 1116\)](#) objects

Array Members: Minimum number of 1 item. Maximum number of 10 items.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# BatchDataCaptureConfig

Service: Amazon SageMaker Service

Configuration to control how SageMaker captures inference data for batch transform jobs.

## Contents

### DestinationS3Uri

The Amazon S3 location being used to capture the data.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: ^(https|s3)://([^\/]\*)/?(.\*)\$

Required: Yes

### GenerateInferenceId

Flag that indicates whether to append inference id to the output.

Type: Boolean

Required: No

### KmsKeyId

The Amazon Resource Name (ARN) of a AWS Key Management Service key that SageMaker uses to encrypt data on the storage volume attached to the ML compute instance that hosts the batch transform job.

The KmsKeyId can be any of the following formats:

- Key ID: 1234abcd-12ab-34cd-56ef-1234567890ab
- Key ARN: arn:aws:kms:us-west-2:111122223333:key/1234abcd-12ab-34cd-56ef-1234567890ab
- Alias name: alias/ExampleAlias
- Alias name ARN: arn:aws:kms:us-west-2:111122223333:alias/ExampleAlias

Type: String

Length Constraints: Maximum length of 2048.

Pattern: .\*

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# BatchDescribeModelPackageError

Service: Amazon SageMaker Service

The error code and error description associated with the resource.

## Contents

### **ErrorCode**

Type: String

Required: Yes

### **ErrorResponse**

Type: String

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# BatchDescribeModelPackageSummary

Service: Amazon SageMaker Service

Provides summary information about the model package.

## Contents

### **CreationTime**

The creation time of the mortgage package summary.

Type: Timestamp

Required: Yes

### **InferenceSpecification**

Defines how to perform inference generation after a training job is run.

Type: [InferenceSpecification \(p. 1423\)](#) object

Required: Yes

### **ModelApprovalStatus**

The approval status of the model.

Type: String

Valid Values: Approved | Rejected | PendingManualApproval

Required: No

### **ModelPackageArn**

The Amazon Resource Name (ARN) of the model package.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:model-package/.*`

Required: Yes

### **ModelPackageDescription**

The description of the model package.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `[\p{L}\p{M}\p{Z}\p{S}\p{N}\p{P}]^*`

Required: No

### **ModelPackageGroupName**

The group name for the model package

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

#### **ModelPackageStatus**

The status of the mortgage package.

Type: String

Valid Values: Pending | InProgress | Completed | Failed | Deleting

Required: Yes

#### **ModelPackageVersion**

The version number of a versioned model.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# BatchTransformInput

Service: Amazon SageMaker Service

Input object for the batch transform job.

## Contents

### **DataCapturedDestinationS3Uri**

The Amazon S3 location being used to capture the data.

Type: String

Length Constraints: Maximum length of 512.

Pattern: `^(https|s3)://([^\:])/?(.*)$`

Required: Yes

### **DatasetFormat**

The dataset format for your batch transform job.

Type: [MonitoringDatasetFormat \(p. 1553\)](#) object

Required: Yes

### **EndTimeOffset**

If specified, monitoring jobs subtract this time from the end time. For information about using offsets for scheduling monitoring jobs, see [Schedule Model Quality Monitoring Jobs](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 15.

Pattern: `^.?P.*`

Required: No

### **FeaturesAttribute**

The attributes of the input data that are the input features.

Type: String

Required: No

### **InferenceAttribute**

The attribute of the input data that represents the ground truth label.

Type: String

Required: No

### **LocalPath**

Path to the filesystem where the batch transform data is available to the container.

Type: String

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: Yes

#### **ProbabilityAttribute**

In a classification problem, the attribute that represents the class probability.

Type: String

Required: No

#### **ProbabilityThresholdAttribute**

The threshold for the class probability to be evaluated as a positive result.

Type: Double

Required: No

#### **S3DataDistributionType**

Whether input data distributed in Amazon S3 is fully replicated or sharded by an S3 key. Defaults to FullyReplicated

Type: String

Valid Values: FullyReplicated | ShardedByS3Key

Required: No

#### **S3InputMode**

Whether the Pipe or File is used as the input mode for transferring data for the monitoring job. Pipe mode is recommended for large datasets. File mode is useful for small files that fit in memory. Defaults to File.

Type: String

Valid Values: Pipe | File

Required: No

#### **StartTimeOffset**

If specified, monitoring jobs subtract this time from the start time. For information about using offsets for scheduling monitoring jobs, see [Schedule Model Quality Monitoring Jobs](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 15.

Pattern: ^.?P.\*

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)

- [AWS SDK for Ruby V3](#)

## Bias

Service: Amazon SageMaker Service

Contains bias metrics for a model.

## Contents

### **PostTrainingReport**

The post-training bias report for a model.

Type: [MetricsSource \(p. 1470\)](#) object

Required: No

### **PreTrainingReport**

The pre-training bias report for a model.

Type: [MetricsSource \(p. 1470\)](#) object

Required: No

### **Report**

The bias report for a model

Type: [MetricsSource \(p. 1470\)](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# BlueGreenUpdatePolicy

Service: Amazon SageMaker Service

Update policy for a blue/green deployment. If this update policy is specified, SageMaker creates a new fleet during the deployment while maintaining the old fleet. SageMaker flips traffic to the new fleet according to the specified traffic routing configuration. Only one update policy should be used in the deployment configuration. If no update policy is specified, SageMaker uses a blue/green deployment strategy with all at once traffic shifting by default.

## Contents

### MaximumExecutionTimeoutInSeconds

Maximum execution timeout for the deployment. Note that the timeout value should be larger than the total waiting time specified in TerminationWaitInSeconds and WaitIntervalInSeconds.

Type: Integer

Valid Range: Minimum value of 600. Maximum value of 14400.

Required: No

### TerminationWaitInSeconds

Additional waiting time in seconds after the completion of an endpoint deployment before terminating the old endpoint fleet. Default is 0.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 3600.

Required: No

### TrafficRoutingConfiguration

Defines the traffic routing strategy to shift traffic from the old fleet to the new fleet during an endpoint deployment.

Type: [TrafficRoutingConfig \(p. 1756\)](#) object

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## CacheHitResult

Service: Amazon SageMaker Service

Details on the cache hit of a pipeline execution step.

### Contents

#### SourcePipelineExecutionArn

The Amazon Resource Name (ARN) of the pipeline execution.

Type: String

Length Constraints: Maximum length of 256.

Pattern: ^arn:aws[a-z\-\]\*:sagemaker:[a-z0-9\-\\*:[0-9]{12}:pipeline\/\*\execution\/\*\$

Required: No

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# CallbackStepMetadata

Service: Amazon SageMaker Service

Metadata about a callback step.

## Contents

### CallbackToken

The pipeline generated token from the Amazon SQS queue.

Type: String

Length Constraints: Fixed length of 10.

Pattern: ^[a-zA-Z0-9]+\$

Required: No

### OutputParameters

A list of the output parameters of the callback step.

Type: Array of [OutputParameter \(p. 1603\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

### SqsQueueUrl

The URL of the Amazon Simple Queue Service (Amazon SQS) queue used by the callback step.

Type: String

Length Constraints: Maximum length of 256.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# CandidateArtifactLocations

Service: Amazon SageMaker Service

The location of artifacts for an AutoML candidate job.

## Contents

### Explainability

The Amazon S3 prefix to the explainability artifacts generated for the AutoML candidate.

Type: String

Length Constraints: Minimum length of 1.

Required: Yes

### ModelInsights

The Amazon S3 prefix to the model insight artifacts generated for the AutoML candidate.

Type: String

Length Constraints: Minimum length of 1.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# CandidateProperties

Service: Amazon SageMaker Service

The properties of an AutoML candidate job.

## Contents

### CandidateArtifactLocations

The Amazon S3 prefix to the artifacts generated for an AutoML candidate.

Type: [CandidateArtifactLocations \(p. 1190\)](#) object

Required: No

### CandidateMetrics

Information about the candidate metrics for an AutoML job.

Type: Array of [MetricDatum \(p. 1468\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 40 items.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# CanvasAppSettings

Service: Amazon SageMaker Service

The SageMaker Canvas app settings.

## Contents

### TimeSeriesForecastingSettings

Time series forecast settings for the Canvas app.

Type: [TimeSeriesForecastingSettings \(p. 1754\)](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## CapacitySize

Service: Amazon SageMaker Service

Specifies the endpoint capacity to activate for production.

### Contents

#### Type

Specifies the endpoint capacity type.

- INSTANCE\_COUNT: The endpoint activates based on the number of instances.
- CAPACITY\_PERCENT: The endpoint activates based on the specified percentage of capacity.

Type: String

Valid Values: INSTANCE\_COUNT | CAPACITY\_PERCENT

Required: Yes

#### Value

Defines the capacity size, either as a number of instances or a capacity percentage.

Type: Integer

Valid Range: Minimum value of 1.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# CaptureContentTypeHeader

Service: Amazon SageMaker Service

Configuration specifying how to treat different headers. If no headers are specified SageMaker will by default base64 encode when capturing the data.

## Contents

### **CsvContentTypes**

The list of all content type headers that SageMaker will treat as CSV and capture accordingly.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 10 items.

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*\\/[a-zA-Z0-9](-*[a-zA-Z0-9.])*`

Required: No

### **JsonContentTypes**

The list of all content type headers that SageMaker will treat as JSON and capture accordingly.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 10 items.

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])*\\/[a-zA-Z0-9](-*[a-zA-Z0-9.])*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# CaptureOption

Service: Amazon SageMaker Service

Specifies data Model Monitor will capture.

## Contents

### CaptureMode

Specify the boundary of data to capture.

Type: String

Valid Values: Input | Output

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# CategoricalParameter

Service: Amazon SageMaker Service

Environment parameters you want to benchmark your load test against.

## Contents

### Name

The Name of the environment variable.

Type: String

Length Constraints: Maximum length of 64.

Required: Yes

### Value

The list of values you can pass.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 3 items.

Length Constraints: Maximum length of 128.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# CategoricalParameterRange

Service: Amazon SageMaker Service

A list of categorical hyperparameters to tune.

## Contents

### Name

The name of the categorical hyperparameter to tune.

Type: String

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: Yes

### Values

A list of the categories for the hyperparameter.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 30 items.

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# CategoricalParameterRangeSpecification

Service: Amazon SageMaker Service

Defines the possible values for a categorical hyperparameter.

## Contents

### Values

The allowed categories for the hyperparameter.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 30 items.

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# Channel

Service: Amazon SageMaker Service

A channel is a named input source that training algorithms can consume.

## Contents

### ChannelName

The name of the channel.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: [A-Za-z0-9\.\-\_]+

Required: Yes

### CompressionType

If training data is compressed, the compression type. The default value is None. CompressionType is used only in Pipe input mode. In File mode, leave this field unset or set it to None.

Type: String

Valid Values: None | Gzip

Required: No

### ContentType

The MIME type of the data.

Type: String

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: No

### DataSource

The location of the channel data.

Type: [DataSource \(p. 1248\)](#) object

Required: Yes

### InputMode

(Optional) The input mode to use for the data channel in a training job. If you don't set a value for InputMode, SageMaker uses the value set for TrainingInputMode. Use this parameter to override the TrainingInputMode setting in a [AlgorithmSpecification \(p. 1117\)](#) request when you have a channel that needs a different input mode from the training job's general setting. To download the data from Amazon Simple Storage Service (Amazon S3) to the provisioned ML storage volume, and mount the directory to a Docker volume, use File input mode. To stream data directly from Amazon S3 to the container, choose Pipe input mode.

To use a model for incremental training, choose File input mode.

Type: String

Valid Values: Pipe | File | FastFile

Required: No

#### **RecordWrapperType**

Specify RecordIO as the value when input data is in raw format but the training algorithm requires the RecordIO format. In this case, SageMaker wraps each individual S3 object in a RecordIO record. If the input data is already in RecordIO format, you don't need to set this attribute. For more information, see [Create a Dataset Using RecordIO](#).

In File mode, leave this field unset or set it to None.

Type: String

Valid Values: None | RecordIO

Required: No

#### **ShuffleConfig**

A configuration for a shuffle option for input data in a channel. If you use S3Prefix for S3DataType, this shuffles the results of the S3 key prefix matches. If you use ManifestFile, the order of the S3 object references in the ManifestFile is shuffled. If you use AugmentedManifestFile, the order of the JSON lines in the AugmentedManifestFile is shuffled. The shuffling order is determined using the Seed value.

For Pipe input mode, shuffling is done at the start of every epoch. With large datasets this ensures that the order of the training data is different for each epoch, it helps reduce bias and possible overfitting. In a multi-node training job when ShuffleConfig is combined with S3DataDistributionType of ShardedByS3Key, the data is shuffled across nodes so that the content sent to a particular node on the first epoch might be sent to a different node on the second epoch.

Type: [ShuffleConfig \(p. 1735\)](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ChannelSpecification

Service: Amazon SageMaker Service

Defines a named input source, called a channel, to be used by an algorithm.

## Contents

### Description

A brief description of the channel.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: [\p{L}\p{M}\p{Z}\p{S}\p{N}\p{P}]\*

Required: No

### IsRequired

Indicates whether the channel is required by the algorithm.

Type: Boolean

Required: No

### Name

The name of the channel.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: [A-Za-z0-9\.\-\\_]+

Required: Yes

### SupportedCompressionTypes

The allowed compression types, if data compression is used.

Type: Array of strings

Valid Values: None | Gzip

Required: No

### SupportedContentTypes

The supported MIME types for the data.

Type: Array of strings

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: Yes

### SupportedInputModes

The allowed input mode, either FILE or PIPE.

In FILE mode, Amazon SageMaker copies the data from the input source onto the local Amazon Elastic Block Store (Amazon EBS) volumes before starting your training algorithm. This is the most commonly used input mode.

In PIPE mode, Amazon SageMaker streams input data from the source directly to your algorithm without using the EBS volume.

Type: Array of strings

Array Members: Minimum number of 1 item.

Valid Values: Pipe | File | FastFile

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# CheckpointConfig

Service: Amazon SageMaker Service

Contains information about the output location for managed spot training checkpoint data.

## Contents

### LocalPath

(Optional) The local directory where checkpoints are written. The default directory is /opt/ml/checkpoints/.

Type: String

Length Constraints: Maximum length of 4096.

Pattern: .\*

Required: No

### S3Uri

Identifies the S3 path where you want SageMaker to store checkpoints. For example, s3://bucket-name/key-name-prefix.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: ^(https|s3)://([^\?]+)?(.\*)\$

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ClarifyCheckStepMetadata

Service: Amazon SageMaker Service

The container for the metadata for the ClarifyCheck step. For more information, see the topic on [ClarifyCheck step](#) in the *Amazon SageMaker Developer Guide*.

## Contents

### **BaselineUsedForDriftCheckConstraints**

The Amazon S3 URI of baseline constraints file to be used for the drift check.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

### **CalculatedBaselineConstraints**

The Amazon S3 URI of the newly calculated baseline constraints file.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

### **CheckJobArn**

The Amazon Resource Name (ARN) of the check processing job that was run by this step's execution.

Type: String

Length Constraints: Maximum length of 256.

Required: No

### **CheckType**

The type of the Clarify Check step

Type: String

Length Constraints: Maximum length of 256.

Required: No

### **ModelPackageGroupName**

The model package group name.

Type: String

Length Constraints: Maximum length of 256.

Required: No

### **RegisterNewBaseline**

This flag indicates if a newly calculated baseline can be accessed through step properties `BaselineUsedForDriftCheckConstraints` and `BaselineUsedForDriftCheckStatistics`. If it is set to `False`, the previous baseline of the configured check type must also be available. These can be accessed through the `BaselineUsedForDriftCheckConstraints` property.

Type: Boolean

Required: No

**SkipCheck**

This flag indicates if the drift check against the previous baseline will be skipped or not. If it is set to False, the previous baseline of the configured check type must be available.

Type: Boolean

Required: No

**ViolationReport**

The Amazon S3 URI of the violation report if violations are detected.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ClarifyExplainerConfig

Service: Amazon SageMaker Service

The configuration parameters for the SageMaker Clarify explainer.

## Contents

### EnableExplanations

A JMESPath boolean expression used to filter which records to explain. Explanations are activated by default. See [EnableExplanations](#) for additional information.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: .\*

Required: No

### InferenceConfig

The inference configuration parameter for the model container.

Type: [ClarifyInferenceConfig \(p. 1207\)](#) object

Required: No

### ShapConfig

The configuration for SHAP analysis.

Type: [ClarifyShapConfig \(p. 1213\)](#) object

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ClarifyInferenceConfig

Service: Amazon SageMaker Service

The inference configuration parameter for the model container.

## Contents

### ContentTemplate

A template string used to format a JSON record into an acceptable model container input. For example, a ContentTemplate string '{"myfeatures":\$features}' will format a list of features [1,2,3] into the record string '{"myfeatures": [1,2,3]}'. Required only when the model container input is in JSON Lines format.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: .\*

Required: No

### FeatureHeaders

The names of the features. If provided, these are included in the endpoint response payload to help readability of the InvokeEndpoint output. See the [Response](#) section under **Invoke the endpoint** in the Developer Guide for more information.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 256 items.

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: .\*

Required: No

### FeaturesAttribute

Provides the JMESPath expression to extract the features from a model container input in JSON Lines format. For example, if FeaturesAttribute is the JMESPath expression 'myfeatures', it extracts a list of features [1,2,3] from request data '{"myfeatures": [1,2,3]}'.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: .\*

Required: No

### FeatureTypes

A list of data types of the features (optional). Applicable only to NLP explainability. If provided, FeatureTypes must have at least one 'text' string (for example, ['text']). If FeatureTypes is not provided, the explainer infers the feature types based on the baseline data. The feature types are included in the endpoint response payload. For additional information see the [response](#) section under **Invoke the endpoint** in the Developer Guide for more information.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 256 items.

Valid Values: numerical | categorical | text

Required: No

#### **LabelAttribute**

A JMESPath expression used to locate the list of label headers in the model container output.

**Example:** If the model container output of a batch request is '{"labels": ["cat", "dog", "fish"], "probability": [0.6, 0.3, 0.1]}', then set LabelAttribute to 'labels' to extract the list of label headers ["cat", "dog", "fish"]

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: .\*

Required: No

#### **LabelHeaders**

For multiclass classification problems, the label headers are the names of the classes. Otherwise, the label header is the name of the predicted label. These are used to help readability for the output of the InvokeEndpoint API. See the [response](#) section under **Invoke the endpoint** in the Developer Guide for more information. If there are no label headers in the model container output, provide them manually using this parameter.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 16 items.

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: .\*

Required: No

#### **LabelIndex**

A zero-based index used to extract a label header or list of label headers from model container output in CSV format.

**Example for a multiclass model:** If the model container output consists of label headers followed by probabilities: "[\\"cat\\", \\"dog\\", \\"fish\\"]", "[0.1, 0.6, 0.3]", set LabelIndex to 0 to select the label headers ['cat', 'dog', 'fish'].

Type: Integer

Valid Range: Minimum value of 0.

Required: No

#### **MaxPayloadInMB**

The maximum payload size (MB) allowed of a request from the explainer to the model container. Defaults to 6 MB.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 25.

Required: No

#### MaxRecordCount

The maximum number of records in a request that the model container can process when querying the model container for the predictions of a [synthetic dataset](#). A record is a unit of input data that inference can be made on, for example, a single line in CSV data. If MaxRecordCount is 1, the model container expects one record per request. A value of 2 or greater means that the model expects batch requests, which can reduce overhead and speed up the inferencing process. If this parameter is not provided, the explainer will tune the record count per request according to the model container's capacity at runtime.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

#### ProbabilityAttribute

A JMESPath expression used to extract the probability (or score) from the model container output if the model container is in JSON Lines format.

**Example:** If the model container output of a single request is

'{"predicted\_label":1,"probability":0.6}', then set ProbabilityAttribute to 'probability'.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: .\*

Required: No

#### ProbabilityIndex

A zero-based index used to extract a probability value (score) or list from model container output in CSV format. If this value is not provided, the entire model container output will be treated as a probability value (score) or list.

**Example for a single class model:** If the model container output consists of a string-formatted prediction label followed by its probability: '1,0.6', set ProbabilityIndex to 1 to select the probability value 0.6.

**Example for a multiclass model:** If the model container output consists of a string-formatted prediction label followed by its probability: '"[\\"cat\\",\\"dog\\",\\"fish\\"]","[0.1,0.6,0.3]"', set ProbabilityIndex to 1 to select the probability values [0.1,0.6,0.3].

Type: Integer

Valid Range: Minimum value of 0.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)

- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ClarifyShapBaselineConfig

Service: Amazon SageMaker Service

The configuration for the [SHAP baseline](#) (also called the background or reference dataset) of the Kernel SHAP algorithm.

## Note

- The number of records in the baseline data determines the size of the synthetic dataset, which has an impact on latency of explainability requests. For more information, see the [Synthetic data of Configure and create an endpoint](#).
- ShapBaseline and ShapBaselineUri are mutually exclusive parameters. One or the either is required to configure a SHAP baseline.

## Contents

### MimeType

The MIME type of the baseline data. Choose from 'text/csv' or 'application/jsonlines'. Defaults to 'text/csv'.

Type: String

Length Constraints: Maximum length of 255.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\*\\/[a-zA-Z0-9](-\*[a-zA-Z0-9+.])\*

Required: No

### ShapBaseline

The inline SHAP baseline data in string format. ShapBaseline can have one or multiple records to be used as the baseline dataset. The format of the SHAP baseline file should be the same format as the training dataset. For example, if the training dataset is in CSV format and each record contains four features, and all features are numerical, then the format of the baseline data should also share these characteristics. For natural language processing (NLP) of text columns, the baseline value should be the value used to replace the unit of text specified by the Granularity of the TextConfig parameter. The size limit for ShapBaseline is 4 KB. Use the ShapBaselineUri parameter if you want to provide more than 4 KB of baseline data.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 4096.

Pattern: [\\s\\S]+

Required: No

### ShapBaselineUri

The uniform resource identifier (URI) of the S3 bucket where the SHAP baseline file is stored. The format of the SHAP baseline file should be the same format as the format of the training dataset. For example, if the training dataset is in CSV format, and each record in the training dataset has four features, and all features are numerical, then the baseline file should also have this same format. Each record should contain only the features. If you are using a virtual private cloud (VPC), the ShapBaselineUri should be accessible to the VPC. For more information about setting up endpoints with Amazon Virtual Private Cloud, see [Give SageMaker access to Resources in your Amazon Virtual Private Cloud](#).

Type: String

Length Constraints: Maximum length of 1024.

Pattern: ^(https|s3)://([^\/]+)?(.\*)\$

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ClarifyShapConfig

Service: Amazon SageMaker Service

The configuration for SHAP analysis using SageMaker Clarify Explainer.

## Contents

### NumberOfSamples

The number of samples to be used for analysis by the Kernal SHAP algorithm.

#### Note

The number of samples determines the size of the synthetic dataset, which has an impact on latency of explainability requests. For more information, see the [Synthetic data of Configure and create an endpoint](#).

Type: Integer

Valid Range: Minimum value of 1.

Required: No

### Seed

The starting value used to initialize the random number generator in the explainer. Provide a value for this parameter to obtain a deterministic SHAP result.

Type: Integer

Required: No

### ShapBaselineConfig

The configuration for the SHAP baseline of the Kernal SHAP algorithm.

Type: [ClarifyShapBaselineConfig \(p. 1211\)](#) object

Required: Yes

### TextConfig

A parameter that indicates if text features are treated as text and explanations are provided for individual units of text. Required for natural language processing (NLP) explainability only.

Type: [ClarifyTextConfig \(p. 1215\)](#) object

Required: No

### UseLogit

A Boolean toggle to indicate if you want to use the logit function (true) or log-odds units (false) for model predictions. Defaults to false.

Type: Boolean

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)

- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ClarifyTextConfig

Service: Amazon SageMaker Service

A parameter used to configure the SageMaker Clarify explainer to treat text features as text so that explanations are provided for individual units of text. Required only for natural language processing (NLP) explainability.

## Contents

### Granularity

The unit of granularity for the analysis of text features. For example, if the unit is 'token', then each token (like a word in English) of the text is treated as a feature. SHAP values are computed for each unit/feature.

Type: String

Valid Values: token | sentence | paragraph

Required: Yes

### Language

Specifies the language of the text features in [ISO 639-1](#) or [ISO 639-3](#) code of a supported language.

#### Note

For a mix of multiple languages, use code 'xx'.

Type: String

Valid Values: af | sq | ar | hy | eu | bn | bg | ca | zh | hr | cs | da | nl | en | et | fi | fr | de | el | gu | he | hi | hu | is | id | ga | it | kn | ky | lv | lt | lb | mk | ml | mr | ne | nb | fa | pl | pt | ro | ru | sa | sr | tn | si | sk | sl | es | sv | tl | ta | tt | te | tr | uk | ur | yo | lij | xx

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# CodeRepository

Service: Amazon SageMaker Service

A Git repository that SageMaker automatically displays to users for cloning in the JupyterServer application.

## Contents

### RepositoryUrl

The URL of the Git repository.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: ^https://([.\_-\_a-zA-Z0-9]+/?){3,1016}\$

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# CodeRepositorySummary

Service: Amazon SageMaker Service

Specifies summary information about a Git repository.

## Contents

### CodeRepositoryArn

The Amazon Resource Name (ARN) of the Git repository.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `arn:aws[a-z\-\-]*:sagemaker:[a-z0-9\-\-]*:[0-9]{12}:code-repository/.*`

Required: Yes

### CodeRepositoryName

The name of the Git repository.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])\{0,62\}$`

Required: Yes

### CreationTime

The date and time that the Git repository was created.

Type: Timestamp

Required: Yes

### GitConfig

Configuration details for the Git repository, including the URL where it is located and the ARN of the AWS Secrets Manager secret that contains the credentials used to access the repository.

Type: [GitConfig \(p. 1347\)](#) object

Required: No

### LastModifiedTime

The date and time that the Git repository was last modified.

Type: Timestamp

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)

- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# CognitoConfig

Service: Amazon SageMaker Service

Use this parameter to configure your Amazon Cognito workforce. A single Cognito workforce is created using and corresponds to a single [Amazon Cognito user pool](#).

## Contents

### ClientId

The client ID for your Amazon Cognito user pool.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: [ -~]+

Required: Yes

### UserPool

A [user pool](#) is a user directory in Amazon Cognito. With a user pool, your users can sign in to your web or mobile app through Amazon Cognito. Your users can also sign in through social identity providers like Google, Facebook, Amazon, or Apple, and through SAML identity providers.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 55.

Pattern: [\w-]+\_[\0-9a-zA-Z]+

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# CognitoMemberDefinition

Service: Amazon SageMaker Service

Identifies a Amazon Cognito user group. A user group can be used in one or more work teams.

## Contents

### **ClientId**

An identifier for an application client. You must create the app client ID using Amazon Cognito.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: [-~]+

Required: Yes

### **UserGroup**

An identifier for a user group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: [\p{L}\p{M}\p{S}\p{N}\p{P}]+

Required: Yes

### **UserPool**

An identifier for a user pool. The user pool must be in the same region as the service that you are calling.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 55.

Pattern: [\w-]+\_[\d--zA-Z]+

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# CollectionConfiguration

Service: Amazon SageMaker Service

Configuration information for the Amazon SageMaker Debugger output tensor collections.

## Contents

### CollectionName

The name of the tensor collection. The name must be unique relative to other rule configuration names.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: .\*

Required: No

### CollectionParameters

Parameter values for the tensor collection. The allowed parameters are "name", "include\_regex", "reduction\_config", "save\_config", "tensor\_names", and "save\_histogram".

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 20 items.

Key Length Constraints: Minimum length of 1. Maximum length of 256.

Key Pattern: .\*

Value Length Constraints: Maximum length of 256.

Value Pattern: .\*

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# CompilationJobSummary

Service: Amazon SageMaker Service

A summary of a model compilation job.

## Contents

### CompilationEndTime

The time when the model compilation job completed.

Type: Timestamp

Required: No

### CompilationJobArn

The Amazon Resource Name (ARN) of the model compilation job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-zA-Z-]*:sagemaker:[a-zA-Z0-9-]*:[0-9]{12}:compilation-job/.*`

Required: Yes

### CompilationJobName

The name of the model compilation job that you want a summary for.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])\{0,62\}$`

Required: Yes

### CompilationJobStatus

The status of the model compilation job.

Type: String

Valid Values: INPROGRESS | COMPLETED | FAILED | STARTING | STOPPING | STOPPED

Required: Yes

### CompilationStartTime

The time when the model compilation job started.

Type: Timestamp

Required: No

### CompilationTargetDevice

The type of device that the model will run on after the compilation job has completed.

Type: String

Valid Values: lambda | ml\_m4 | ml\_m5 | ml\_c4 | ml\_c5 | ml\_p2 | ml\_p3 | ml\_g4dn | ml\_inf1 | ml\_eia2 | jetson\_tx1 | jetson\_tx2 | jetson\_nano | jetson\_xavier

| rasp3b | imx8qm | deeplens | rk3399 | rk3288 | aisage | sbe\_c | qcs605  
| qcs603 | sitara\_am57x | amba\_cv2 | amba\_cv22 | amba\_cv25 | x86\_win32 |  
x86\_win64 | coreml | jacinto\_tda4vm | imx8mplus

Required: No

#### **CompilationTargetPlatformAccelerator**

The type of accelerator that the model will run on after the compilation job has completed.

Type: String

Valid Values: INTEL\_GRAPHICS | MALI | NVIDIA | NNA

Required: No

#### **CompilationTargetPlatformArch**

The type of architecture that the model will run on after the compilation job has completed.

Type: String

Valid Values: X86\_64 | X86 | ARM64 | ARM\_EABI | ARM\_EABIHF

Required: No

#### **CompilationTargetPlatformOs**

The type of OS that the model will run on after the compilation job has completed.

Type: String

Valid Values: ANDROID | LINUX

Required: No

#### **CreationTime**

The time when the model compilation job was created.

Type: Timestamp

Required: Yes

#### **LastModifiedTime**

The time when the model compilation job was last modified.

Type: Timestamp

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ConditionStepMetadata

Service: Amazon SageMaker Service

Metadata for a Condition step.

## Contents

### Outcome

The outcome of the Condition step evaluation.

Type: String

Valid Values: True | False

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ContainerDefinition

Service: Amazon SageMaker Service

Describes the container, as part of model definition.

## Contents

### ContainerHostname

This parameter is ignored for models that contain only a PrimaryContainer.

When a ContainerDefinition is part of an inference pipeline, the value of the parameter uniquely identifies the container for the purposes of logging and metrics. For information, see [Use Logs and Metrics to Monitor an Inference Pipeline](#). If you don't specify a value for this parameter for a ContainerDefinition that is part of an inference pipeline, a unique name is automatically assigned based on the position of the ContainerDefinition in the pipeline. If you specify a value for the ContainerHostName for any ContainerDefinition that is part of an inference pipeline, you must specify a value for the ContainerHostName parameter of every ContainerDefinition in that pipeline.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9]){0,62}

Required: No

### Environment

The environment variables to set in the Docker container. Each key and value in the Environment string to string map can have length of up to 1024. We support up to 16 entries in the map.

Type: String to string map

Map Entries: Maximum number of 16 items.

Key Length Constraints: Maximum length of 1024.

Key Pattern: [a-zA-Z\_][a-zA-Z0-9\_]\*

Value Length Constraints: Maximum length of 1024.

Value Pattern: [\S\s]\*

Required: No

### Image

The path where inference code is stored. This can be either in Amazon EC2 Container Registry or in a Docker registry that is accessible from the same VPC that you configure for your endpoint. If you are using your own custom algorithm instead of an algorithm provided by SageMaker, the inference code must meet SageMaker requirements. SageMaker supports both `registry/repository[:tag]` and `registry/repository[@digest]` image path formats. For more information, see [Using Your Own Algorithms with Amazon SageMaker](#)

Type: String

Length Constraints: Maximum length of 255.

Pattern: [\S]+

Required: No

#### **ImageConfig**

Specifies whether the model container is in Amazon ECR or a private Docker registry accessible from your Amazon Virtual Private Cloud (VPC). For information about storing containers in a private Docker registry, see [Use a Private Docker Registry for Real-Time Inference Containers](#)

Type: [ImageConfig \(p. 1410\)](#) object

Required: No

#### **InferenceSpecificationName**

The inference specification name in the model package version.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: No

#### **Mode**

Whether the container hosts a single model or multiple models.

Type: String

Valid Values: SingleModel | MultiModel

Required: No

#### **ModelDataUrl**

The S3 path where the model artifacts, which result from model training, are stored. This path must point to a single gzip compressed tar archive (.tar.gz suffix). The S3 path is required for SageMaker built-in algorithms, but not if you use your own algorithms. For more information on built-in algorithms, see [Common Parameters](#).

##### **Note**

The model artifacts must be in an S3 bucket that is in the same region as the model or endpoint you are creating.

If you provide a value for this parameter, SageMaker uses AWS Security Token Service to download model artifacts from the S3 path you provide. AWS STS is activated in your IAM user account by default. If you previously deactivated AWS STS for a region, you need to reactivate AWS STS for that region. For more information, see [Activating and Deactivating AWS STS in an AWS Region](#) in the [AWS Identity and Access Management User Guide](#).

##### **Important**

If you use a built-in algorithm to create a model, SageMaker requires that you provide a S3 path to the model artifacts in ModelDataUrl.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: ^(https|s3)://([^\/]+)?(.\*)\$

Required: No

#### **ModelPackageName**

The name or Amazon Resource Name (ARN) of the model package to use to create the model.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 176.

Pattern: (arn:aws[a-z\-\-]\*:sagemaker:[a-zA-Z0-9\-\-]\*:[0-9]{12}:[a-zA-Z\-\-]\*\//)?([a-zA-Z0-9]([a-zA-Z0-9-])\{0,62\})(?<!-)(\//[0-9]\{1,5\})?\$/

Required: No

#### **MultiModelConfig**

Specifies additional configuration for multi-model endpoints.

Type: [MultiModelConfig \(p. 1577\)](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## ContextSource

Service: Amazon SageMaker Service

A structure describing the source of a context.

### Contents

#### SouceId

The ID of the source.

Type: String

Length Constraints: Maximum length of 256.

Required: No

#### SourceType

The type of the source.

Type: String

Length Constraints: Maximum length of 256.

Required: No

#### SourceUri

The URI of the source.

Type: String

Length Constraints: Maximum length of 2048.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ContextSummary

Service: Amazon SageMaker Service

Lists a summary of the properties of a context. A context provides a logical grouping of other entities.

## Contents

### ContextArn

The Amazon Resource Name (ARN) of the context.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-zA-Z-]*:sagemaker:[a-zA-Z0-9-]*:[0-9]{12}:context/.*`

Required: No

### ContextName

The name of the context.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[-a-zA-Z0-9](-*[a-zA-Z0-9])\{0,119\}`

Required: No

### ContextType

The type of the context.

Type: String

Length Constraints: Maximum length of 256.

Required: No

### CreationTime

When the context was created.

Type: Timestamp

Required: No

### LastModifiedTime

When the context was last modified.

Type: Timestamp

Required: No

### Source

The source of the context.

Type: [ContextSource \(p. 1228\)](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ContinuousParameterRange

Service: Amazon SageMaker Service

A list of continuous hyperparameters to tune.

## Contents

### .MaxValue

The maximum value for the hyperparameter. The tuning job uses floating-point values between `MinValue` value and this value for tuning.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `.*`

Required: Yes

### .MinValue

The minimum value for the hyperparameter. The tuning job uses floating-point values between this value and `MaxValue` for tuning.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `.*`

Required: Yes

### Name

The name of the continuous hyperparameter to tune.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `.*`

Required: Yes

### ScalingType

The scale that hyperparameter tuning uses to search the hyperparameter range. For information about choosing a hyperparameter scale, see [Hyperparameter Scaling](#). One of the following values:

Auto

SageMaker hyperparameter tuning chooses the best scale for the hyperparameter.

Linear

Hyperparameter tuning searches the values in the hyperparameter range by using a linear scale.

Logarithmic

Hyperparameter tuning searches the values in the hyperparameter range by using a logarithmic scale.

Logarithmic scaling works only for ranges that have only values greater than 0.

### ReverseLogarithmic

Hyperparameter tuning searches the values in the hyperparameter range by using a reverse logarithmic scale.

Reverse logarithmic scaling works only for ranges that are entirely within the range  $0 \leq x < 1.0$ .

Type: String

Valid Values: Auto | Linear | Logarithmic | ReverseLogarithmic

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ContinuousParameterRangeSpecification

Service: Amazon SageMaker Service

Defines the possible values for a continuous hyperparameter.

## Contents

### MaxValue

The maximum floating-point value allowed.

Type: String

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: Yes

### MinValue

The minimum floating-point value allowed.

Type: String

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# CustomImage

Service: Amazon SageMaker Service

A custom SageMaker image. For more information, see [Bring your own SageMaker image](#).

## Contents

### AppImageConfigName

The name of the AppImageConfig.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9]){0,62}

Required: Yes

### ImageName

The name of the CustomImage. Must be unique to your account.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9]([-.]?[a-zA-Z0-9]){0,62}\$

Required: Yes

### ImageVersionNumber

The version number of the CustomImage.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DataCaptureConfig

Service: Amazon SageMaker Service

Configuration to control how SageMaker captures inference data.

## Contents

### CaptureContentTypeHeader

Configuration specifying how to treat different headers. If no headers are specified SageMaker will by default base64 encode when capturing the data.

Type: [CaptureContentTypeHeader \(p. 1194\)](#) object

Required: No

### CaptureOptions

Specifies data Model Monitor will capture. You can configure whether to collect only input, only output, or both

Type: Array of [CaptureOption \(p. 1195\)](#) objects

Array Members: Minimum number of 1 item. Maximum number of 2 items.

Required: Yes

### DestinationS3Uri

The Amazon S3 location used to capture the data.

Type: String

Length Constraints: Maximum length of 512.

Pattern: ^(https|s3)://([^\/])/?(.\*\$)

Required: Yes

### EnableCapture

Whether data capture should be enabled or disabled (defaults to enabled).

Type: Boolean

Required: No

### InitialSamplingPercentage

The percentage of requests SageMaker will capture. A lower value is recommended for Endpoints with high traffic.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

Required: Yes

### KmsKeyId

The Amazon Resource Name (ARN) of a AWS Key Management Service key that SageMaker uses to encrypt the captured data at rest using Amazon S3 server-side encryption.

The KmsKeyId can be any of the following formats:

- Key ID: 1234abcd-12ab-34cd-56ef-1234567890ab
- Key ARN: arn:aws:kms:us-west-2:111122223333:key/1234abcd-12ab-34cd-56ef-1234567890ab
- Alias name: alias/ExampleAlias
- Alias name ARN: arn:aws:kms:us-west-2:111122223333:alias/ExampleAlias

Type: String

Length Constraints: Maximum length of 2048.

Pattern: .\*

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DataCaptureConfigSummary

Service: Amazon SageMaker Service

The currently active data capture configuration used by your Endpoint.

## Contents

### CaptureStatus

Whether data capture is currently functional.

Type: String

Valid Values: Started | Stopped

Required: Yes

### CurrentSamplingPercentage

The percentage of requests being captured by your Endpoint.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

Required: Yes

### DestinationS3Uri

The Amazon S3 location being used to capture the data.

Type: String

Length Constraints: Maximum length of 512.

Pattern: ^(https|s3)://([^\/])/?(.\*\$)

Required: Yes

### EnableCapture

Whether data capture is enabled or disabled.

Type: Boolean

Required: Yes

### KmsKeyId

The KMS key being used to encrypt the data in Amazon S3.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: .\*

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DataCatalogConfig

Service: Amazon SageMaker Service

The meta data of the Glue table which serves as data catalog for the OfflineStore.

## Contents

### Catalog

The name of the Glue table catalog.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: [\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]\*

Required: Yes

### Database

The name of the Glue table database.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: [\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]\*

Required: Yes

### TableName

The name of the Glue table.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: [\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\t]\*

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DataProcessing

Service: Amazon SageMaker Service

The data structure used to specify the data to be used for inference in a batch transform job and to associate the data that is relevant to the prediction results in the output. The input filter provided allows you to exclude input data that is not needed for inference in a batch transform job. The output filter provided allows you to include input data relevant to interpreting the predictions in the output from the job. For more information, see [Associate Prediction Results with their Corresponding Input Records](#).

## Contents

### **InputFilter**

A [JSONPath](#) expression used to select a portion of the input data to pass to the algorithm. Use the `InputFilter` parameter to exclude fields, such as an ID column, from the input. If you want SageMaker to pass the entire input dataset to the algorithm, accept the default value `$`.

Examples: `"$"`, `"$[1:]"`, `"$.features"`

Type: String

Length Constraints: Minimum length of 0. Maximum length of 63.

Required: No

### **JoinSource**

Specifies the source of the data to join with the transformed data. The valid values are `None` and `Input`. The default value is `None`, which specifies not to join the input with the transformed data. If you want the batch transform job to join the original input data with the transformed data, set `JoinSource` to `Input`. You can specify `OutputFilter` as an additional filter to select a portion of the joined dataset and store it in the output file.

For JSON or JSONLines objects, such as a JSON array, SageMaker adds the transformed data to the input JSON object in an attribute called `SageMakerOutput`. The joined result for JSON must be a key-value pair object. If the input is not a key-value pair object, SageMaker creates a new JSON file. In the new JSON file, and the input data is stored under the `SageMakerInput` key and the results are stored in `SageMakerOutput`.

For CSV data, SageMaker takes each row as a JSON array and joins the transformed data with the input by appending each transformed row to the end of the input. The joined data has the original input data followed by the transformed data and the output is a CSV file.

For information on how joining is applied, see [Workflow for Associating Inferences with Input Records](#).

Type: String

Valid Values: `Input` | `None`

Required: No

### **OutputFilter**

A [JSONPath](#) expression used to select a portion of the joined dataset to save in the output file for a batch transform job. If you want SageMaker to store the entire input dataset in the output file, leave the default value, `$`. If you specify indexes that aren't within the dimension size of the joined dataset, you get an error.

Examples: `"$"`, `"$[0,5:]"`, `"$['id', 'SageMakerOutput']"`

Type: String

Length Constraints: Minimum length of 0. Maximum length of 63.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DataQualityAppSpecification

Service: Amazon SageMaker Service

Information about the container that a data quality monitoring job runs.

## Contents

### ContainerArguments

The arguments to send to the container that the monitoring job runs.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 50 items.

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: No

### ContainerEntrypoint

The entrypoint for a container used to run a monitoring job.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: No

### Environment

Sets the environment variables in the container that the monitoring job runs.

Type: String to string map

Map Entries: Maximum number of 50 items.

Key Length Constraints: Maximum length of 256.

Key Pattern: [a-zA-Z\_][a-zA-Z0-9\_]\*

Value Length Constraints: Maximum length of 256.

Value Pattern: [\S\s]\*

Required: No

### ImageUri

The container image that the data quality monitoring job runs.

Type: String

Length Constraints: Maximum length of 255.

Pattern: .\*

Required: Yes

**PostAnalyticsProcessorSourceUri**

An Amazon S3 URI to a script that is called after analysis has been performed. Applicable only for the built-in (first party) containers.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3)://([^\/]*)/?(.*)$`

Required: No

**RecordPreprocessorSourceUri**

An Amazon S3 URI to a script that is called per row prior to running analysis. It can base64 decode the payload and convert it into a flattened json so that the built-in container can use the converted data. Applicable only for the built-in (first party) containers.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3)://([^\/]*)/?(.*)$`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DataQualityBaselineConfig

Service: Amazon SageMaker Service

Configuration for monitoring constraints and monitoring statistics. These baseline resources are compared against the results of the current job from the series of jobs scheduled to collect data periodically.

## Contents

### BaseliningJobName

The name of the job that performs baselining for the data quality monitoring job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9]){0,62}

Required: No

### ConstraintsResource

The constraints resource for a monitoring job.

Type: [MonitoringConstraintsResource \(p. 1551\)](#) object

Required: No

### StatisticsResource

The statistics resource for a monitoring job.

Type: [MonitoringStatisticsResource \(p. 1575\)](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DataQualityJobInput

Service: Amazon SageMaker Service

The input for the data quality monitoring job. Currently endpoints are supported for input.

## Contents

### BatchTransformInput

Input object for the batch transform job.

Type: [BatchTransformInput \(p. 1183\)](#) object

Required: No

### EndpointInput

Input object for the endpoint

Type: [EndpointInput \(p. 1302\)](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DatasetDefinition

Service: Amazon SageMaker Service

Configuration for Dataset Definition inputs. The Dataset Definition input must specify exactly one of either AthenaDatasetDefinition or RedshiftDatasetDefinition types.

## Contents

### AthenaDatasetDefinition

Configuration for Athena Dataset Definition input.

Type: [AthenaDatasetDefinition \(p. 1153\)](#) object

Required: No

### DataDistributionType

Whether the generated dataset is FullyReplicated or ShardedByS3Key (default).

Type: String

Valid Values: FullyReplicated | ShardedByS3Key

Required: No

### InputMode

Whether to use File or Pipe input mode. In File (default) mode, Amazon SageMaker copies the data from the input source onto the local Amazon Elastic Block Store (Amazon EBS) volumes before starting your training algorithm. This is the most commonly used input mode. In Pipe mode, Amazon SageMaker streams input data from the source directly to your algorithm without using the EBS volume.

Type: String

Valid Values: Pipe | File

Required: No

### LocalPath

The local path where you want Amazon SageMaker to download the Dataset Definition inputs to run a processing job. LocalPath is an absolute path to the input data. This is a required parameter when AppManaged is False (default).

Type: String

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: No

### RedshiftDatasetDefinition

Configuration for Redshift Dataset Definition input.

Type: [RedshiftDatasetDefinition \(p. 1695\)](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## DataSource

Service: Amazon SageMaker Service

Describes the location of the channel data.

### Contents

#### FileSystemDataSource

The file system that is associated with a channel.

Type: [FileSystemDataSource \(p. 1337\)](#) object

Required: No

#### S3DataSource

The S3 location of the data source that is associated with a channel.

Type: [S3DataSource \(p. 1715\)](#) object

Required: No

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DebugHookConfig

Service: Amazon SageMaker Service

Configuration information for the Amazon SageMaker Debugger hook parameters, metric and tensor collections, and storage paths. To learn more about how to configure the DebugHookConfig parameter, see [Use the SageMaker and Debugger Configuration API Operations to Create, Update, and Debug Your Training Job](#).

## Contents

### CollectionConfigurations

Configuration information for Amazon SageMaker Debugger tensor collections. To learn more about how to configure the CollectionConfiguration parameter, see [Use the SageMaker and Debugger Configuration API Operations to Create, Update, and Debug Your Training Job](#).

Type: Array of [CollectionConfiguration \(p. 1221\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 20 items.

Required: No

### HookParameters

Configuration information for the Amazon SageMaker Debugger hook parameters.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 20 items.

Key Length Constraints: Minimum length of 1. Maximum length of 256.

Key Pattern: . \*

Value Length Constraints: Maximum length of 256.

Value Pattern: . \*

Required: No

### LocalPath

Path to local storage location for metrics and tensors. Defaults to /opt/ml/output/tensors/.

Type: String

Length Constraints: Maximum length of 4096.

Pattern: . \*

Required: No

### S3OutputPath

Path to Amazon S3 storage location for metrics and tensors.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: ^([https](https://) | [s3](s3://))://([^\/]\*)/?(.\*)\$

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DebugRuleConfiguration

Service: Amazon SageMaker Service

Configuration information for SageMaker Debugger rules for debugging. To learn more about how to configure the DebugRuleConfiguration parameter, see [Use the SageMaker and Debugger Configuration API Operations to Create, Update, and Debug Your Training Job.](#)

## Contents

### InstanceType

The instance type to deploy a custom rule for debugging a training job.

Type: String

Valid Values: ml.t3.medium | ml.t3.large | ml.t3.xlarge | ml.t3.2xlarge | ml.m4.xlarge | ml.m4.2xlarge | ml.m4.4xlarge | ml.m4.10xlarge | ml.m4.16xlarge | ml.c4.xlarge | ml.c4.2xlarge | ml.c4.4xlarge | ml.c4.8xlarge | ml.p2.xlarge | ml.p2.8xlarge | ml.p2.16xlarge | ml.p3.2xlarge | ml.p3.8xlarge | ml.p3.16xlarge | ml.c5.xlarge | ml.c5.2xlarge | ml.c5.4xlarge | ml.c5.9xlarge | ml.c5.18xlarge | ml.m5.large | ml.m5.xlarge | ml.m5.2xlarge | ml.m5.4xlarge | ml.m5.12xlarge | ml.m5.24xlarge | ml.r5.large | ml.r5.xlarge | ml.r5.2xlarge | ml.r5.4xlarge | ml.r5.8xlarge | ml.r5.12xlarge | ml.r5.16xlarge | ml.r5.24xlarge | ml.g4dn.xlarge | ml.g4dn.2xlarge | ml.g4dn.4xlarge | ml.g4dn.8xlarge | ml.g4dn.12xlarge | ml.g4dn.16xlarge

Required: No

### LocalPath

Path to local storage location for output of rules. Defaults to /opt/ml/processing/output/rule/.

Type: String

Length Constraints: Maximum length of 4096.

Pattern: .\*

Required: No

### RuleConfigurationName

The name of the rule configuration. It must be unique relative to other rule configuration names.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: .\*

Required: Yes

### RuleEvaluatorImage

The Amazon Elastic Container (ECR) Image for the managed rule evaluation.

Type: String

Length Constraints: Maximum length of 255.

Pattern: .\*

Required: Yes

#### RuleParameters

Runtime configuration for rule container.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 100 items.

Key Length Constraints: Minimum length of 1. Maximum length of 256.

Key Pattern: .\*

Value Length Constraints: Maximum length of 256.

Value Pattern: .\*

Required: No

#### S3OutputPath

Path to Amazon S3 storage location for rules.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: ^(https|s3)://([^\/]\*)/?(.\*)\$

Required: No

#### VolumeSizeInGB

The size, in GB, of the ML storage volume attached to the processing instance.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DebugRuleEvaluationStatus

Service: Amazon SageMaker Service

Information about the status of the rule evaluation.

## Contents

### LastModifiedTime

Timestamp when the rule evaluation status was last modified.

Type: Timestamp

Required: No

### RuleConfigurationName

The name of the rule configuration.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: .\*

Required: No

### RuleEvaluationJobArn

The Amazon Resource Name (ARN) of the rule evaluation job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-\-]\*:sagemaker:[a-z0-9\-\-]\*:[0-9]{12}:processing-job/.\*

Required: No

### RuleEvaluationStatus

Status of the rule evaluation.

Type: String

Valid Values: InProgress | NoIssuesFound | IssuesFound | Error | Stopping | Stopped

Required: No

### StatusDetails

Details from the rule evaluation.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: .\*

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DefaultSpaceSettings

Service: Amazon SageMaker Service

A collection of settings that apply to spaces created in the Domain.

## Contents

### ExecutionRole

The execution role for the space.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: ^arn:aws[a-zA-Z-]\*:iam::\d{12}:role/[a-zA-Z0-9+=,.@/\_-]+\$

Required: No

### JupyterServerAppSettings

The JupyterServer app settings.

Type: [JupyterServerAppSettings \(p. 1435\)](#) object

Required: No

### KernelGatewayAppSettings

The KernelGateway app settings.

Type: [KernelGatewayAppSettings \(p. 1436\)](#) object

Required: No

### SecurityGroups

The security groups for the Amazon Virtual Private Cloud that the space uses for communication.

Type: Array of strings

Array Members: Maximum number of 5 items.

Length Constraints: Maximum length of 32.

Pattern: [-0-9a-zA-Z]+

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DeployedImage

Service: Amazon SageMaker Service

Gets the Amazon EC2 Container Registry path of the docker image of the model that is hosted in this [ProductionVariant \(p. 1651\)](#).

If you used the `registry/repository[:tag]` form to specify the image path of the primary container when you created the model hosted in this `ProductionVariant`, the path resolves to a path of the form `registry/repository[@digest]`. A digest is a hash value that identifies a specific version of an image. For information about Amazon ECR paths, see [Pulling an Image](#) in the *Amazon ECR User Guide*.

## Contents

### ResolutionTime

The date and time when the image path for the model resolved to the `ResolvedImage`

Type: `Timestamp`

Required: No

### ResolvedImage

The specific digest path of the image hosted in this `ProductionVariant`.

Type: `String`

Length Constraints: Maximum length of 255.

Pattern: `[\S]+`

Required: No

### SpecifiedImage

The image path you specified when you created the model.

Type: `String`

Length Constraints: Maximum length of 255.

Pattern: `[\S]+`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DeploymentConfig

Service: Amazon SageMaker Service

The deployment configuration for an endpoint, which contains the desired deployment strategy and rollback configurations.

## Contents

### **AutoRollbackConfiguration**

Automatic rollback configuration for handling endpoint deployment failures and recovery.

Type: [AutoRollbackConfig \(p. 1178\)](#) object

Required: No

### **BlueGreenUpdatePolicy**

Update policy for a blue/green deployment. If this update policy is specified, SageMaker creates a new fleet during the deployment while maintaining the old fleet. SageMaker flips traffic to the new fleet according to the specified traffic routing configuration. Only one update policy should be used in the deployment configuration. If no update policy is specified, SageMaker uses a blue/green deployment strategy with all at once traffic shifting by default.

Type: [BlueGreenUpdatePolicy \(p. 1187\)](#) object

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DeploymentStage

Service: Amazon SageMaker Service

Contains information about a stage in an edge deployment plan.

## Contents

### DeploymentConfig

Configuration of the deployment details.

Type: [EdgeDeploymentConfig \(p. 1281\)](#) object

Required: No

### DeviceSelectionConfig

Configuration of the devices in the stage.

Type: [DeviceSelectionConfig \(p. 1266\)](#) object

Required: Yes

### StageName

The name of the stage.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DeploymentStageStatusSummary

Service: Amazon SageMaker Service

Contains information summarizing the deployment stage results.

## Contents

### DeploymentConfig

Configuration of the deployment details.

Type: [EdgeDeploymentConfig \(p. 1281\)](#) object

Required: Yes

### DeploymentStatus

General status of the current state.

Type: [EdgeDeploymentStatus \(p. 1285\)](#) object

Required: Yes

### DeviceSelectionConfig

Configuration of the devices in the stage.

Type: [DeviceSelectionConfig \(p. 1266\)](#) object

Required: Yes

### StageName

The name of the stage.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DesiredWeightAndCapacity

Service: Amazon SageMaker Service

Specifies weight and capacity values for a production variant.

## Contents

### DesiredInstanceCount

The variant's capacity.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

### DesiredWeight

The variant's weight.

Type: Float

Valid Range: Minimum value of 0.

Required: No

### VariantName

The name of the variant to update.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## Device

Service: Amazon SageMaker Service

Information of a particular device.

## Contents

### Description

Description of the device.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 40.

Pattern: [\S\s]+

Required: No

### DeviceName

The name of the device.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

### IoTThingName

AWS Internet of Things (IoT) object name.

Type: String

Length Constraints: Maximum length of 128.

Pattern: [a-zA-Z0-9:\_-]+

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DeviceDeploymentSummary

Service: Amazon SageMaker Service

Contains information summarizing device details and deployment status.

## Contents

### DeployedStageName

The name of the deployed stage.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: No

### DeploymentStartTime

The time when the deployment on the device started.

Type: Timestamp

Required: No

### Description

The description of the device.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 40.

Pattern: [\S\s]+

Required: No

### DeviceArn

The ARN of the device.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: ^arn:aws[a-zA-Z-]\*:[a-zA-Z-]\*:[a-zA-Z-]\*:\d{12}:[a-zA-Z-]\*?/[a-zA-Z\_0-9+=,.@/-/\_]+\\$

Required: Yes

### DeviceDeploymentStatus

The deployment status of the device.

Type: String

Valid Values: READYTODEPLOY | INPROGRESS | DEPLOYED | FAILED | STOPPING | STOPPED

Required: No

**DeviceDeploymentStatusMessage**

The detailed error message for the deployment status result.

Type: String

Required: No

**DeviceFleetName**

The name of the fleet to which the device belongs to.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: No

**DeviceName**

The name of the device.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

**EdgeDeploymentPlanArn**

The ARN of the edge deployment plan.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: ^arn:aws[a-zA-Z]\*:sagemaker:[a-zA-Z]\*:\d{12}:edge-deployment/?[a-zA-Z\_0-9+=,.@/-/\_]+\$

Required: Yes

**EdgeDeploymentPlanName**

The name of the edge deployment plan.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

**StageName**

The name of the stage in the edge deployment plan.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DeviceFleetSummary

Service: Amazon SageMaker Service

Summary of the device fleet.

## Contents

### **CreationTime**

Timestamp of when the device fleet was created.

Type: Timestamp

Required: No

### **DeviceFleetArn**

Amazon Resource Name (ARN) of the device fleet.

Type: String

Pattern: ^arn:aws[a-zA-Z-]\*:iam::\d{12}:device-fleet/[a-zA-Z0-9+=,.@\\-\_]+\$

Required: Yes

### **DeviceFleetName**

Name of the device fleet.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

### **LastModifiedTime**

Timestamp of when the device fleet was last updated.

Type: Timestamp

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DeviceSelectionConfig

Service: Amazon SageMaker Service

Contains information about the configurations of selected devices.

## Contents

### DeviceNameContains

A filter to select devices with names containing this name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: No

### DeviceNames

List of devices chosen to deploy.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: No

### DeviceSubsetType

Type of device subsets to deploy to the current stage.

Type: String

Valid Values: PERCENTAGE | SELECTION | NAMECONTAINS

Required: Yes

### Percentage

Percentage of devices in the fleet to deploy to the current stage.

Type: Integer

Valid Range: Maximum value of 100.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# DeviceStats

Service: Amazon SageMaker Service

Status of devices.

## Contents

### ConnectedDeviceCount

The number of devices connected with a heartbeat.

Type: Long

Required: Yes

### RegisteredDeviceCount

The number of registered devices.

Type: Long

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DeviceSummary

Service: Amazon SageMaker Service

Summary of the device.

## Contents

### AgentVersion

Edge Manager agent version.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 30.

Pattern: [a-zA-Z0-9\ \\_\.\ ]+

Required: No

### Description

A description of the device.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 40.

Pattern: [\S\s]+

Required: No

### DeviceArn

Amazon Resource Name (ARN) of the device.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: ^arn:aws[a-zA-Z-]\*:[a-zA-Z-]\*:[a-zA-Z-]\*:\d{12}:[a-zA-Z-]\*/?[a-zA-Z\_0-9+=,.@\\-/\_]+\$

Required: Yes

### DeviceFleetName

The name of the fleet the device belongs to.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: No

### DeviceName

The unique identifier of the device.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

**IoTThingName**

The AWS Internet of Things (IoT) object thing name associated with the device..

Type: String

Length Constraints: Maximum length of 128.

Pattern: [a-zA-Z0-9:\_-]+

Required: No

**LatestHeartbeat**

The last heartbeat received from the device.

Type: Timestamp

Required: No

**Models**

Models on the device.

Type: Array of [EdgeModelSummary \(p. 1290\)](#) objects

Required: No

**RegistrationTime**

The timestamp of the last registration or de-reregistration.

Type: Timestamp

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## DomainDetails

Service: Amazon SageMaker Service

The domain's details.

### Contents

#### **CreationTime**

The creation time.

Type: Timestamp

Required: No

#### **DomainArn**

The domain's Amazon Resource Name (ARN).

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-zA-Z-]*:sagemaker:[a-zA-Z0-9-]*:[0-9]{12}:domain/.*`

Required: No

#### **DomainId**

The domain ID.

Type: String

Length Constraints: Maximum length of 63.

Required: No

#### **DomainName**

The domain name.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[\w\-\.\_]{1,62}[\w\-\.\_]{0,1}`

Required: No

#### **LastModifiedTime**

The last modified time.

Type: Timestamp

Required: No

#### **Status**

The status.

Type: String

Valid Values: Deleting | Failed | InService | Pending | Updating | Update\_Failed | Delete\_Failed

Required: No

**Url**

The domain's URL.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DomainSettings

Service: Amazon SageMaker Service

A collection of settings that apply to the SageMaker Domain. These settings are specified through the CreateDomain API call.

## Contents

### ExecutionRoleIdentityConfig

The configuration for attaching a SageMaker user profile name to the execution role as a `sts:SourceIdentity` key.

Type: String

Valid Values: `USER_PROFILE_NAME` | `DISABLED`

Required: No

### RStudioServerProDomainSettings

A collection of settings that configure the RStudioServerPro Domain-level app.

Type: [RStudioServerProDomainSettings \(p. 1713\)](#) object

Required: No

### SecurityGroupIds

The security groups for the Amazon Virtual Private Cloud that the Domain uses for communication between Domain-level apps and user apps.

Type: Array of strings

Array Members: Maximum number of 3 items.

Length Constraints: Maximum length of 32.

Pattern: `[-0-9a-zA-Z]+`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DomainSettingsForUpdate

Service: Amazon SageMaker Service

A collection of Domain configuration settings to update.

## Contents

### ExecutionRoleIdentityConfig

The configuration for attaching a SageMaker user profile name to the execution role as a [sts:SourceIdentity key](#). This configuration can only be modified if there are no apps in the InService or Pending state.

Type: String

Valid Values: USER\_PROFILE\_NAME | DISABLED

Required: No

### RStudioServerProDomainSettingsForUpdate

A collection of RStudioServerPro Domain-level app settings to update.

Type: [RStudioServerProDomainSettingsForUpdate \(p. 1714\)](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DriftCheckBaselines

Service: Amazon SageMaker Service

Represents the drift check baselines that can be used when the model monitor is set using the model package.

## Contents

### Bias

Represents the drift check bias baselines that can be used when the model monitor is set using the model package.

Type: [DriftCheckBias \(p. 1276\)](#) object

Required: No

### Explainability

Represents the drift check explainability baselines that can be used when the model monitor is set using the model package.

Type: [DriftCheckExplainability \(p. 1277\)](#) object

Required: No

### ModelDataQuality

Represents the drift check model data quality baselines that can be used when the model monitor is set using the model package.

Type: [DriftCheckModelDataQuality \(p. 1278\)](#) object

Required: No

### ModelQuality

Represents the drift check model quality baselines that can be used when the model monitor is set using the model package.

Type: [DriftCheckModelQuality \(p. 1279\)](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DriftCheckBias

Service: Amazon SageMaker Service

Represents the drift check bias baselines that can be used when the model monitor is set using the model package.

## Contents

### ConfigFile

The bias config file for a model.

Type: [FileSource \(p. 1335\)](#) object

Required: No

### PostTrainingConstraints

The post-training constraints.

Type: [MetricsSource \(p. 1470\)](#) object

Required: No

### PreTrainingConstraints

The pre-training constraints.

Type: [MetricsSource \(p. 1470\)](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DriftCheckExplainability

Service: Amazon SageMaker Service

Represents the drift check explainability baselines that can be used when the model monitor is set using the model package.

## Contents

### ConfigFile

The explainability config file for the model.

Type: [FileSource \(p. 1335\)](#) object

Required: No

### Constraints

The drift check explainability constraints.

Type: [MetricsSource \(p. 1470\)](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DriftCheckModelDataQuality

Service: Amazon SageMaker Service

Represents the drift check data quality baselines that can be used when the model monitor is set using the model package.

## Contents

### Constraints

The drift check model data quality constraints.

Type: [MetricsSource \(p. 1470\)](#) object

Required: No

### Statistics

The drift check model data quality statistics.

Type: [MetricsSource \(p. 1470\)](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DriftCheckModelQuality

Service: Amazon SageMaker Service

Represents the drift check model quality baselines that can be used when the model monitor is set using the model package.

## Contents

### Constraints

The drift check model quality constraints.

Type: [MetricsSource \(p. 1470\)](#) object

Required: No

### Statistics

The drift check model quality statistics.

Type: [MetricsSource \(p. 1470\)](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# Edge

Service: Amazon SageMaker Service

A directed edge connecting two lineage entities.

## Contents

### AssociationType

The type of the Association(Edge) between the source and destination. For example ContributedTo, Produced, or DerivedFrom.

Type: String

Valid Values: ContributedTo | AssociatedWith | DerivedFrom | Produced

Required: No

### DestinationArn

The Amazon Resource Name (ARN) of the destination lineage entity of the directed edge.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-\-]\*:sagemaker:[a-z0-9\-\-]\*:[0-9]{12}:(experiment|experiment-trial-component|artifact|action|context)/.\*

Required: No

### SourceArn

The Amazon Resource Name (ARN) of the source lineage entity of the directed edge.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-\-]\*:sagemaker:[a-z0-9\-\-]\*:[0-9]{12}:(experiment|experiment-trial-component|artifact|action|context)/.\*

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# EdgeDeploymentConfig

Service: Amazon SageMaker Service

Contains information about the configuration of a deployment.

## Contents

### FailureHandlingPolicy

Toggle that determines whether to rollback to previous configuration if the current deployment fails. By default this is turned on. You may turn this off if you want to investigate the errors yourself.

Type: String

Valid Values: ROLLBACK\_ON\_FAILURE | DO\_NOTHING

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# EdgeDeploymentModelConfig

Service: Amazon SageMaker Service

Contains information about the configuration of a model in a deployment.

## Contents

### EdgePackagingJobName

The edge packaging job associated with this deployment.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

### ModelHandle

The name the device application uses to reference this model.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# EdgeDeploymentPlanSummary

Service: Amazon SageMaker Service

Contains information summarizing an edge deployment plan.

## Contents

### **CreationTime**

The time when the edge deployment plan was created.

Type: Timestamp

Required: No

### **DeviceFleetName**

The name of the device fleet used for the deployment.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

### **EdgeDeploymentFailed**

The number of edge devices that failed the deployment.

Type: Integer

Required: Yes

### **EdgeDeploymentPending**

The number of edge devices yet to pick up the deployment, or in progress.

Type: Integer

Required: Yes

### **EdgeDeploymentPlanArn**

The ARN of the edge deployment plan.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: ^arn:aws[a-zA-Z-]\*:sagemaker:[a-zA-Z-]\*:\d{12}:edge-deployment/?[a-zA-Z\_0-9+=,.@\\-\_/.]+\$

Required: Yes

### **EdgeDeploymentPlanName**

The name of the edge deployment plan.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

**EdgeDeploymentSuccess**

The number of edge devices with the successful deployment.

Type: Integer

Required: Yes

**LastModifiedTime**

The time when the edge deployment plan was last updated.

Type: Timestamp

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# EdgeDeploymentStatus

Service: Amazon SageMaker Service

Contains information summarizing the deployment stage results.

## Contents

### **EdgeDeploymentFailedInStage**

The number of edge devices that failed the deployment in current stage.

Type: Integer

Required: Yes

### **EdgeDeploymentPendingInStage**

The number of edge devices yet to pick up the deployment in current stage, or in progress.

Type: Integer

Required: Yes

### **EdgeDeploymentStageStartTime**

The time when the deployment API started.

Type: Timestamp

Required: No

### **EdgeDeploymentStatusMessage**

A detailed message about deployment status in current stage.

Type: String

Required: No

### **EdgeDeploymentSuccessInStage**

The number of edge devices with the successful deployment in the current stage.

Type: Integer

Required: Yes

### **StageStatus**

The general status of the current stage.

Type: String

Valid Values: CREATING | READYTODEPLOY | STARTING | INPROGRESS | DEPLOYED | FAILED | STOPPING | STOPPED

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)

- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# EdgeModel

Service: Amazon SageMaker Service

The model on the edge device.

## Contents

### LatestInference

The timestamp of the last inference that was made.

Type: Timestamp

Required: No

### LatestSampleTime

The timestamp of the last data sample taken.

Type: Timestamp

Required: No

### ModelName

The name of the model.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

### ModelVersion

The model version.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 30.

Pattern: [a-zA-Z0-9\ \\_\.\ ]+

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## EdgeModelStat

Service: Amazon SageMaker Service

Status of edge devices with this model.

### Contents

#### ActiveDeviceCount

The number of devices that have this model version, a heart beat, and are currently running.

Type: Long

Required: Yes

#### ConnectedDeviceCount

The number of devices that have this model version and have a heart beat.

Type: Long

Required: Yes

#### ModelName

The name of the model.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

#### ModelVersion

The model version.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 30.

Pattern: [a-zA-Z0-9\\ \\\_.]+

Required: Yes

#### OfflineDeviceCount

The number of devices that have this model version and do not have a heart beat.

Type: Long

Required: Yes

#### SamplingDeviceCount

The number of devices with this model version and are producing sample data.

Type: Long

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# EdgeModelSummary

Service: Amazon SageMaker Service

Summary of model on edge device.

## Contents

### ModelName

The name of the model.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

### ModelVersion

The version model.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 30.

Pattern: [a-zA-Z0-9\\ \\.]<sup>+</sup>

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# EdgeOutputConfig

Service: Amazon SageMaker Service

The output configuration.

## Contents

### KmsKeyId

The AWS Key Management Service (AWS KMS) key that Amazon SageMaker uses to encrypt data on the storage volume after compilation job. If you don't provide a KMS key ID, Amazon SageMaker uses the default KMS key for Amazon S3 for your role's account.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: .\*

Required: No

### PresetDeploymentConfig

The configuration used to create deployment artifacts. Specify configuration options with a JSON string. The available configuration options for each type are:

- ComponentName (optional) - Name of the Greengrass V2 component. If not specified, the default name generated consists of "SagemakerEdgeManager" and the name of your SageMaker Edge Manager packaging job.
- ComponentDescription (optional) - Description of the component.
- ComponentVersion (optional) - The version of the component.

#### Note

AWS IoT Greengrass uses semantic versions for components. Semantic versions follow a *major.minor.patch* number system. For example, version 1.0.0 represents the first major release for a component. For more information, see the [semantic version specification](#).

- PlatformOS (optional) - The name of the operating system for the platform. Supported platforms include Windows and Linux.
- PlatformArchitecture (optional) - The processor architecture for the platform.

Supported architectures Windows include: Windows32\_x86, Windows64\_x64.

Supported architectures for Linux include: Linux x86\_64, Linux ARMV8.

Type: String

Required: No

### PresetDeploymentType

The deployment type SageMaker Edge Manager will create. Currently only supports AWS IoT Greengrass Version 2 components.

Type: String

Valid Values: GreengrassV2Component

Required: No

### S3OutputLocation

The Amazon Simple Storage (S3) bucket URI.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: ^(https|s3)://([^\/]\*)/?(.\*)\$

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# EdgePackagingJobSummary

Service: Amazon SageMaker Service

Summary of edge packaging job.

## Contents

### CompilationJobName

The name of the SageMaker Neo compilation job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: No

### CreationTime

The timestamp of when the job was created.

Type: Timestamp

Required: No

### EdgePackagingJobArn

The Amazon Resource Name (ARN) of the edge packaging job.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: ^arn:aws[a-zA-Z-]\*:sagemaker:[a-zA-Z-]\*:\d{12}:edge-packaging-job/?[a-zA-Z\_0-9+=,.@\\-\_]+\$

Required: Yes

### EdgePackagingJobName

The name of the edge packaging job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

### EdgePackagingJobStatus

The status of the edge packaging job.

Type: String

Valid Values: STARTING | INPROGRESS | COMPLETED | FAILED | STOPPING | STOPPED

Required: Yes

### LastModifiedTime

The timestamp of when the edge packaging job was last updated.

Type: Timestamp

Required: No

**ModelName**

The name of the model.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: No

**ModelVersion**

The version of the model.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 30.

Pattern: [a-zA-Z0-9\ \\_\.\ ]+

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# EdgePresetDeploymentOutput

Service: Amazon SageMaker Service

The output of a SageMaker Edge Manager deployable resource.

## Contents

### Artifact

The Amazon Resource Name (ARN) of the generated deployable resource.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Required: No

### Status

The status of the deployable resource.

Type: String

Valid Values: COMPLETED | FAILED

Required: No

### StatusMessage

Returns a message describing the status of the deployed resource.

Type: String

Required: No

### Type

The deployment type created by SageMaker Edge Manager. Currently only supports AWS IoT Greengrass Version 2 components.

Type: String

Valid Values: GreengrassV2Component

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## EMRStepMetadata

Service: Amazon SageMaker Service

The configurations and outcomes of an Amazon EMR step execution.

### Contents

#### **ClusterId**

The identifier of the EMR cluster.

Type: String

Length Constraints: Maximum length of 256.

Required: No

#### **LogFilePath**

The path to the log file where the cluster step's failure root cause is recorded.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

#### **StepId**

The identifier of the EMR cluster step.

Type: String

Length Constraints: Maximum length of 256.

Required: No

#### **StepName**

The name of the EMR cluster step.

Type: String

Length Constraints: Maximum length of 256.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# Endpoint

Service: Amazon SageMaker Service

A hosted endpoint for real-time inference.

## Contents

### **CreationTime**

The time that the endpoint was created.

Type: Timestamp

Required: Yes

### **DataCaptureConfig**

The currently active data capture configuration used by your Endpoint.

Type: [DataCaptureConfigSummary \(p. 1237\)](#) object

Required: No

### **EndpointArn**

The Amazon Resource Name (ARN) of the endpoint.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[a-zA-Z-]*:sagemaker:[a-zA-Z0-9-]*:[0-9]{12}:endpoint/.*`

Required: Yes

### **EndpointConfigName**

The endpoint configuration associated with the endpoint.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[-a-zA-Z0-9][a-zA-Z0-9-]{0,62}`

Required: Yes

### **EndpointName**

The name of the endpoint.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[-a-zA-Z0-9][a-zA-Z0-9-]{0,62}`

Required: Yes

### **EndpointStatus**

The status of the endpoint.

Type: String

Valid Values: OutOfService | Creating | Updating | SystemUpdating | RollingBack | InService | Deleting | Failed

Required: Yes

**FailureReason**

If the endpoint failed, the reason it failed.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

**LastModifiedTime**

The last time the endpoint was modified.

Type: Timestamp

Required: Yes

**MonitoringSchedules**

A list of monitoring schedules for the endpoint. For information about model monitoring, see [Amazon SageMaker Model Monitor](#).

Type: Array of [MonitoringSchedule \(p. 1569\)](#) objects

Required: No

**ProductionVariants**

A list of the production variants hosted on the endpoint. Each production variant is a model.

Type: Array of [ProductionVariantSummary \(p. 1658\)](#) objects

Array Members: Minimum number of 1 item.

Required: No

**ShadowProductionVariants**

A list of the shadow variants hosted on the endpoint. Each shadow variant is a model in shadow mode with production traffic replicated from the production variant.

Type: Array of [ProductionVariantSummary \(p. 1658\)](#) objects

Array Members: Minimum number of 1 item.

Required: No

**Tags**

A list of the tags associated with the endpoint. For more information, see [Tagging AWS resources](#) in the [AWS General Reference Guide](#).

Type: Array of [Tag \(p. 1749\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# EndpointConfigSummary

Service: Amazon SageMaker Service

Provides summary information for an endpoint configuration.

## Contents

### **CreationTime**

A timestamp that shows when the endpoint configuration was created.

Type: Timestamp

Required: Yes

### **EndpointConfigArn**

The Amazon Resource Name (ARN) of the endpoint configuration.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[a-zA-Z-]*:sagemaker:[a-zA-Z0-9-]*:[0-9]{12}:endpoint-config/.*`

Required: Yes

### **EndpointConfigName**

The name of the endpoint configuration.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[\w\-\.\_]{0,62}`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## EndpointInfo

Service: Amazon SageMaker Service

Details about a customer endpoint that was compared in an Inference Recommender job.

### Contents

#### EndpointName

The name of a customer's endpoint.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: Yes

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# EndpointInput

Service: Amazon SageMaker Service

Input object for the endpoint

## Contents

### EndpointName

An endpoint in customer's account which has enabled DataCaptureConfig enabled.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: Yes

### EndTimeOffset

If specified, monitoring jobs subtract this time from the end time. For information about using offsets for scheduling monitoring jobs, see [Schedule Model Quality Monitoring Jobs](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 15.

Pattern: ^ . ?P . \*

Required: No

### FeaturesAttribute

The attributes of the input data that are the input features.

Type: String

Required: No

### InferenceAttribute

The attribute of the input data that represents the ground truth label.

Type: String

Required: No

### LocalPath

Path to the filesystem where the endpoint data is available to the container.

Type: String

Length Constraints: Maximum length of 256.

Pattern: . \*

Required: Yes

### ProbabilityAttribute

In a classification problem, the attribute that represents the class probability.

Type: String

Required: No

**ProbabilityThresholdAttribute**

The threshold for the class probability to be evaluated as a positive result.

Type: Double

Required: No

**S3DataDistributionType**

Whether input data distributed in Amazon S3 is fully replicated or sharded by an S3 key. Defaults to FullyReplicated

Type: String

Valid Values: FullyReplicated | ShardedByS3Key

Required: No

**S3InputMode**

Whether the Pipe or File is used as the input mode for transferring data for the monitoring job. Pipe mode is recommended for large datasets. File mode is useful for small files that fit in memory. Defaults to File.

Type: String

Valid Values: Pipe | File

Required: No

**StartTimeOffset**

If specified, monitoring jobs subtract this time from the start time. For information about using offsets for scheduling monitoring jobs, see [Schedule Model Quality Monitoring Jobs](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 15.

Pattern: ^ .?P . \*

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# EndpointInputConfiguration

Service: Amazon SageMaker Service

The endpoint configuration for the load test.

## Contents

### EnvironmentParameterRanges

The parameter you want to benchmark against.

Type: [EnvironmentParameterRanges \(p. 1314\)](#) object

Required: No

### InferenceSpecificationName

The inference specification name in the model package version.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: No

### InstanceType

The instance types to use for the load test.

Type: String

Valid Values: ml.t2.medium | ml.t2.large | ml.t2.xlarge | ml.t2.2xlarge | ml.m4.xlarge | ml.m4.2xlarge | ml.m4.4xlarge | ml.m4.10xlarge | ml.m4.16xlarge | ml.m5.large | ml.m5.xlarge | ml.m5.2xlarge | ml.m5.4xlarge | ml.m5.12xlarge | ml.m5.24xlarge | ml.m5d.large | ml.m5d.xlarge | ml.m5d.2xlarge | ml.m5d.4xlarge | ml.m5d.12xlarge | ml.m5d.24xlarge | ml.c4.large | ml.c4.xlarge | ml.c4.2xlarge | ml.c4.4xlarge | ml.c4.8xlarge | ml.p2.xlarge | ml.p2.8xlarge | ml.p2.16xlarge | ml.p3.2xlarge | ml.p3.8xlarge | ml.p3.16xlarge | ml.c5.large | ml.c5.xlarge | ml.c5.2xlarge | ml.c5.4xlarge | ml.c5.9xlarge | ml.c5.18xlarge | ml.c5d.large | ml.c5d.xlarge | ml.c5d.2xlarge | ml.c5d.4xlarge | ml.c5d.9xlarge | ml.c5d.18xlarge | ml.g4dn.xlarge | ml.g4dn.2xlarge | ml.g4dn.4xlarge | ml.g4dn.8xlarge | ml.g4dn.12xlarge | ml.g4dn.16xlarge | ml.r5.large | ml.r5.xlarge | ml.r5.2xlarge | ml.r5.4xlarge | ml.r5.12xlarge | ml.r5.24xlarge | ml.r5d.large | ml.r5d.xlarge | ml.r5d.2xlarge | ml.r5d.4xlarge | ml.r5d.12xlarge | ml.r5d.24xlarge | ml.inf1.xlarge | ml.inf1.2xlarge | ml.inf1.6xlarge | ml.inf1.24xlarge | ml.c6i.large | ml.c6i.xlarge | ml.c6i.2xlarge | ml.c6i.4xlarge | ml.c6i.8xlarge | ml.c6i.12xlarge | ml.c6i.16xlarge | ml.c6i.24xlarge | ml.c6i.32xlarge | ml.g5.xlarge | ml.g5.2xlarge | ml.g5.4xlarge | ml.g5.8xlarge | ml.g5.12xlarge | ml.g5.16xlarge | ml.g5.24xlarge | ml.g5.48xlarge | ml.p4d.24xlarge | ml.c7g.large | ml.c7g.xlarge | ml.c7g.2xlarge | ml.c7g.4xlarge | ml.c7g.8xlarge | ml.c7g.12xlarge | ml.c7g.16xlarge | ml.m6g.large | ml.m6g.xlarge | ml.m6g.2xlarge | ml.m6g.4xlarge | ml.m6g.8xlarge | ml.m6g.12xlarge | ml.m6g.16xlarge | ml.m6gd.large | ml.m6gd.xlarge | ml.m6gd.2xlarge | ml.m6gd.4xlarge | ml.m6gd.8xlarge | ml.m6gd.12xlarge | ml.m6gd.16xlarge | ml.c6g.large | ml.c6g.xlarge

```
| ml.c6g.2xlarge | ml.c6g.4xlarge | ml.c6g.8xlarge | ml.c6g.12xlarge  
| ml.c6g.16xlarge | ml.c6gd.large | ml.c6gd.xlarge | ml.c6gd.2xlarge |  
ml.c6gd.4xlarge | ml.c6gd.8xlarge | ml.c6gd.12xlarge | ml.c6gd.16xlarge  
| ml.c6gn.large | ml.c6gn.xlarge | ml.c6gn.2xlarge | ml.c6gn.4xlarge  
| ml.c6gn.8xlarge | ml.c6gn.12xlarge | ml.c6gn.16xlarge | ml.r6g.large  
| ml.r6g.xlarge | ml.r6g.2xlarge | ml.r6g.4xlarge | ml.r6g.8xlarge |  
ml.r6g.12xlarge | ml.r6g.16xlarge | ml.r6gd.large | ml.r6gd.xlarge |  
ml.r6gd.2xlarge | ml.r6gd.4xlarge | ml.r6gd.8xlarge | ml.r6gd.12xlarge |  
ml.r6gd.16xlarge
```

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# EndpointMetadata

Service: Amazon SageMaker Service

The metadata of the endpoint.

## Contents

### EndpointConfigName

The name of the endpoint configuration.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: No

### EndpointName

The name of the endpoint.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: Yes

### EndpointStatus

The status of the endpoint. For possible values of the status of an endpoint, see [EndpointSummary:EndpointStatus \(p. 1311\)](#).

Type: String

Valid Values: OutOfService | Creating | Updating | SystemUpdating | RollingBack | InService | Deleting | Failed

Required: No

### FailureReason

If the status of the endpoint is Failed, or the status is InService but update operation fails, this provides the reason why it failed.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# EndpointOutputConfiguration

Service: Amazon SageMaker Service

The endpoint configuration made by Inference Recommender during a recommendation job.

## Contents

### EndpointName

The name of the endpoint made during a recommendation job.

Type: String

Required: Yes

### InitialInstanceCount

The number of instances recommended to launch initially.

Type: Integer

Required: Yes

### InstanceType

The instance type recommended by Amazon SageMaker Inference Recommender.

Type: String

Valid Values: ml.t2.medium | ml.t2.large | ml.t2.xlarge | ml.t2.2xlarge | ml.m4.xlarge | ml.m4.2xlarge | ml.m4.4xlarge | ml.m4.10xlarge | ml.m4.16xlarge | ml.m5.large | ml.m5.xlarge | ml.m5.2xlarge | ml.m5.4xlarge | ml.m5.12xlarge | ml.m5.24xlarge | ml.m5d.large | ml.m5d.xlarge | ml.m5d.2xlarge | ml.m5d.4xlarge | ml.m5d.12xlarge | ml.m5d.24xlarge | ml.c4.large | ml.c4.xlarge | ml.c4.2xlarge | ml.c4.4xlarge | ml.c4.8xlarge | ml.p2.xlarge | ml.p2.8xlarge | ml.p2.16xlarge | ml.p3.2xlarge | ml.p3.8xlarge | ml.p3.16xlarge | ml.c5.large | ml.c5.xlarge | ml.c5.2xlarge | ml.c5.4xlarge | ml.c5.9xlarge | ml.c5.18xlarge | ml.c5d.large | ml.c5d.xlarge | ml.c5d.2xlarge | ml.c5d.4xlarge | ml.c5d.9xlarge | ml.c5d.18xlarge | ml.g4dn.xlarge | ml.g4dn.2xlarge | ml.g4dn.4xlarge | ml.g4dn.8xlarge | ml.g4dn.12xlarge | ml.g4dn.16xlarge | ml.r5.large | ml.r5.xlarge | ml.r5.2xlarge | ml.r5.4xlarge | ml.r5.12xlarge | ml.r5.24xlarge | ml.r5d.large | ml.r5d.xlarge | ml.r5d.2xlarge | ml.r5d.4xlarge | ml.r5d.12xlarge | ml.r5d.24xlarge | ml.inf1.xlarge | ml.inf1.2xlarge | ml.inf1.6xlarge | ml.inf1.24xlarge | ml.c6i.large | ml.c6i.xlarge | ml.c6i.2xlarge | ml.c6i.4xlarge | ml.c6i.8xlarge | ml.c6i.12xlarge | ml.c6i.16xlarge | ml.c6i.24xlarge | ml.c6i.32xlarge | ml.g5.xlarge | ml.g5.2xlarge | ml.g5.4xlarge | ml.g5.8xlarge | ml.g5.12xlarge | ml.g5.16xlarge | ml.g5.24xlarge | ml.g5.48xlarge | ml.p4d.24xlarge | ml.c7g.large | ml.c7g.xlarge | ml.c7g.2xlarge | ml.c7g.4xlarge | ml.c7g.8xlarge | ml.c7g.12xlarge | ml.c7g.16xlarge | ml.m6g.large | ml.m6g.xlarge | ml.m6g.2xlarge | ml.m6g.4xlarge | ml.m6g.8xlarge | ml.m6g.12xlarge | ml.m6g.16xlarge | ml.m6gd.large | ml.m6gd.xlarge | ml.m6gd.2xlarge | ml.m6gd.4xlarge | ml.m6gd.8xlarge | ml.m6gd.12xlarge | ml.m6gd.16xlarge | ml.c6g.large | ml.c6g.xlarge | ml.c6g.2xlarge | ml.c6g.4xlarge | ml.c6g.8xlarge | ml.c6g.12xlarge | ml.c6g.16xlarge | ml.c6gd.large | ml.c6gd.xlarge | ml.c6gd.2xlarge | ml.c6gd.4xlarge | ml.c6gd.8xlarge | ml.c6gd.12xlarge | ml.c6gd.16xlarge | ml.c6gn.large | ml.c6gn.xlarge | ml.c6gn.2xlarge | ml.c6gn.4xlarge

| ml.c6gn.8xlarge | ml.c6gn.12xlarge | ml.c6gn.16xlarge | ml.r6g.large  
| ml.r6g.xlarge | ml.r6g.2xlarge | ml.r6g.4xlarge | ml.r6g.8xlarge |  
ml.r6g.12xlarge | ml.r6g.16xlarge | ml.r6gd.large | ml.r6gd.xlarge |  
ml.r6gd.2xlarge | ml.r6gd.4xlarge | ml.r6gd.8xlarge | ml.r6gd.12xlarge |  
ml.r6gd.16xlarge

Required: Yes

**VariantName**

The name of the production variant (deployed model) made during a recommendation job.

Type: String

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# EndpointPerformance

Service: Amazon SageMaker Service

The performance results from running an Inference Recommender job on an existing endpoint.

## Contents

### EndpointInfo

Details about a customer endpoint that was compared in an Inference Recommender job.

Type: [EndpointInfo \(p. 1301\)](#) object

Required: Yes

### Metrics

The metrics for an existing endpoint.

Type: [InferenceMetrics \(p. 1418\)](#) object

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# EndpointSummary

Service: Amazon SageMaker Service

Provides summary information for an endpoint.

## Contents

### **CreationTime**

A timestamp that shows when the endpoint was created.

Type: Timestamp

Required: Yes

### **EndpointArn**

The Amazon Resource Name (ARN) of the endpoint.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[a-zA-Z-]*:sagemaker:[a-zA-Z0-9-]*:[0-9]{12}:endpoint/.*`

Required: Yes

### **EndpointName**

The name of the endpoint.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[-a-zA-Z0-9]+(-*[a-zA-Z0-9]+){0,62}`

Required: Yes

### **EndpointStatus**

The status of the endpoint.

- `OutOfService`: Endpoint is not available to take incoming requests.
- `Creating`: [CreateEndpoint \(p. 81\)](#) is executing.
- `Updating`: [UpdateEndpoint \(p. 924\)](#) or [UpdateEndpointWeightsAndCapacities \(p. 928\)](#) is executing.
- `SystemUpdating`: Endpoint is undergoing maintenance and cannot be updated or deleted or re-scaled until it has completed. This maintenance operation does not change any customer-specified values such as VPC config, KMS encryption, model, instance type, or instance count.
- `RollingBack`: Endpoint fails to scale up or down or change its variant weight and is in the process of rolling back to its previous configuration. Once the rollback completes, endpoint returns to an `InService` status. This transitional status only applies to an endpoint that has autoscaling enabled and is undergoing variant weight or capacity changes as part of an [UpdateEndpointWeightsAndCapacities \(p. 928\)](#) call or when the [UpdateEndpointWeightsAndCapacities \(p. 928\)](#) operation is called explicitly.
- `InService`: Endpoint is available to process incoming requests.
- `Deleting`: [DeleteEndpoint \(p. 263\)](#) is executing.

- Failed: Endpoint could not be created, updated, or re-scaled. Use [DescribeEndpoint:FailureReason \(p. 396\)](#) for information about the failure. [DeleteEndpoint \(p. 263\)](#) is the only operation that can be performed on a failed endpoint.

To get a list of endpoints with a specified status, use the [ListEndpoints>StatusEquals \(p. 645\)](#) filter.

Type: String

Valid Values: OutOfService | Creating | Updating | SystemUpdating | RollingBack | InService | Deleting | Failed

Required: Yes

**LastModifiedTime**

A timestamp that shows when the endpoint was last modified.

Type: Timestamp

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# EnvironmentParameter

Service: Amazon SageMaker Service

A list of environment parameters suggested by the Amazon SageMaker Inference Recommender.

## Contents

### Key

The environment key suggested by the Amazon SageMaker Inference Recommender.

Type: String

Required: Yes

### Value

The value suggested by the Amazon SageMaker Inference Recommender.

Type: String

Required: Yes

### ValueType

The value type suggested by the Amazon SageMaker Inference Recommender.

Type: String

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# EnvironmentParameterRanges

Service: Amazon SageMaker Service

Specifies the range of environment parameters

## Contents

### CategoricalParameterRanges

Specified a list of parameters for each category.

Type: Array of [CategoricalParameter \(p. 1196\)](#) objects

Array Members: Minimum number of 1 item. Maximum number of 5 items.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# Experiment

Service: Amazon SageMaker Service

The properties of an experiment as returned by the [Search \(p. 826\)](#) API.

## Contents

### **CreatedBy**

Who created the experiment.

Type: [UserContext \(p. 1822\)](#) object

Required: No

### **CreationTime**

When the experiment was created.

Type: Timestamp

Required: No

### **Description**

The description of the experiment.

Type: String

Length Constraints: Maximum length of 3072.

Pattern: .\*

Required: No

### **DisplayName**

The name of the experiment as displayed. If DisplayName isn't specified, ExperimentName is displayed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,119\}

Required: No

### **ExperimentArn**

The Amazon Resource Name (ARN) of the experiment.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-zA-Z-]\*:sagemaker:[a-zA-Z0-9-]\*:[0-9]\{12\}:experiment/.\*

Required: No

### **ExperimentName**

The name of the experiment.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,119\}

Required: No

**LastModifiedBy**

Information about the user who created or modified an experiment, trial, trial component, lineage group, project, or model card.

Type: [UserContext \(p. 1822\)](#) object

Required: No

**LastModifiedTime**

When the experiment was last modified.

Type: Timestamp

Required: No

**Source**

The source of the experiment.

Type: [ExperimentSource \(p. 1319\)](#) object

Required: No

**Tags**

The list of tags that are associated with the experiment. You can use [Search \(p. 826\)](#) API to search on the tags.

Type: Array of [Tag \(p. 1749\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ExperimentConfig

Service: Amazon SageMaker Service

Associates a SageMaker job as a trial component with an experiment and trial. Specified when you call the following APIs:

- [CreateProcessingJob \(p. 193\)](#)
- [CreateTrainingJob \(p. 207\)](#)
- [CreateTransformJob \(p. 216\)](#)

## Contents

### ExperimentName

The name of an existing experiment to associate the trial component with.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])\{0,119\}`

Required: No

### RunName

The name of the experiment run to associate the trial component with.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])\{0,119\}`

Required: No

### TrialComponentDisplayName

The display name for the trial component. If this key isn't specified, the display name is the trial component name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])\{0,119\}`

Required: No

### TrialName

The name of an existing trial to associate the trial component with. If not specified, a new trial is created.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])\{0,119\}`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ExperimentSource

Service: Amazon SageMaker Service

The source of the experiment.

## Contents

### SourceArn

The Amazon Resource Name (ARN) of the source.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:\.*`

Required: Yes

### SourceType

The source type.

Type: String

Length Constraints: Maximum length of 128.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ExperimentSummary

Service: Amazon SageMaker Service

A summary of the properties of an experiment. To get the complete set of properties, call the [DescribeExperiment \(p. 402\)](#) API and provide the ExperimentName.

## Contents

### **CreationTime**

When the experiment was created.

Type: Timestamp

Required: No

### **DisplayName**

The name of the experiment as displayed. If DisplayName isn't specified, ExperimentName is displayed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,119\}

Required: No

### **ExperimentArn**

The Amazon Resource Name (ARN) of the experiment.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-zA-Z-]\*:sagemaker:[a-zA-Z0-9-]\*:[0-9]\{12\}:experiment/.\*

Required: No

### **ExperimentName**

The name of the experiment.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,119\}

Required: No

### **ExperimentSource**

The source of the experiment.

Type: [ExperimentSource \(p. 1319\)](#) object

Required: No

### **LastModifiedTime**

When the experiment was last modified.

Type: Timestamp

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# Explainability

Service: Amazon SageMaker Service

Contains explainability metrics for a model.

## Contents

### Report

The explainability report for a model.

Type: [MetricsSource \(p. 1470\)](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ExplainerConfig

Service: Amazon SageMaker Service

A parameter to activate explainers.

## Contents

### ClarifyExplainerConfig

A member of `ExplainerConfig` that contains configuration parameters for the SageMaker Clarify explainer.

Type: [ClarifyExplainerConfig \(p. 1206\)](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## FailStepMetadata

Service: Amazon SageMaker Service

The container for the metadata for Fail step.

### Contents

#### ErrorMessage

A message that you define and then is processed and rendered by the Fail step when the error occurs.

Type: String

Length Constraints: Maximum length of 3072.

Required: No

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# FeatureDefinition

Service: Amazon SageMaker Service

A list of features. You must include FeatureName and FeatureType. Valid feature FeatureTypes are Integral, Fractional and String.

## Contents

### FeatureName

The name of a feature. The type must be a string. FeatureName cannot be any of the following: `is_deleted`, `write_time`, `api_invocation_time`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^[a-zA-Z0-9]([-_]*[a-zA-Z0-9])\{0,63\}`

Required: No

### FeatureType

The value type of a feature. Valid values are Integral, Fractional, or String.

Type: String

Valid Values: Integral | Fractional | String

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# FeatureGroup

Service: Amazon SageMaker Service

Amazon SageMaker Feature Store stores features in a collection called Feature Group. A Feature Group can be visualized as a table which has rows, with a unique identifier for each row where each column in the table is a feature. In principle, a Feature Group is composed of features and values per features.

## Contents

### **CreationTime**

The time a FeatureGroup was created.

Type: Timestamp

Required: No

### **Description**

A free form description of a FeatureGroup.

Type: String

Length Constraints: Maximum length of 128.

Required: No

### **EventTimeFeatureName**

The name of the feature that stores the EventTime of a Record in a FeatureGroup.

A EventTime is point in time when a new event occurs that corresponds to the creation or update of a Record in FeatureGroup. All Records in the FeatureGroup must have a corresponding EventTime.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: ^[a-zA-Z0-9]([-\_]\*[a-zA-Z0-9])\{0,63\}

Required: No

### **FailureReason**

The reason that the FeatureGroup failed to be replicated in the OfflineStore. This is failure may be due to a failure to create a FeatureGroup in or delete a FeatureGroup from the OfflineStore.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

### **FeatureDefinitions**

A list of Features. Each Feature must include a FeatureName and a FeatureType.

Valid FeatureTypes are Integral, Fractional and String.

FeatureNames cannot be any of the following: `is_deleted`, `write_time`, `api_invocation_time`.

You can create up to 2,500 FeatureDefinitions per FeatureGroup.

Type: Array of [FeatureDefinition \(p. 1325\)](#) objects

Array Members: Minimum number of 1 item. Maximum number of 2500 items.

Required: No

#### **FeatureGroupArn**

The Amazon Resource Name (ARN) of a FeatureGroup.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-zA-Z-]*:sagemaker:[a-zA-Z0-9-]*:[0-9]{12}:feature-group/.*`

Required: No

#### **FeatureGroupName**

The name of the FeatureGroup.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^[\w\-\_]{1,64}`

Required: No

#### **FeatureGroupStatus**

A FeatureGroup status.

Type: String

Valid Values: Creating | Created | CreateFailed | Deleting | DeleteFailed

Required: No

#### **LastModifiedTime**

A timestamp indicating the last time you updated the feature group.

Type: Timestamp

Required: No

#### **LastUpdateStatus**

A value that indicates whether the feature group was updated successfully.

Type: [LastUpdateStatus \(p. 1461\)](#) object

Required: No

#### **OfflineStoreConfig**

The configuration of an OfflineStore.

Provide an OfflineStoreConfig in a request to CreateFeatureGroup to create an OfflineStore.

To encrypt an OfflineStore using at rest data encryption, specify AWS Key Management Service (KMS) key ID, or KMSKeyId, in S3StorageConfig.

Type: [OfflineStoreConfig \(p. 1588\)](#) object

Required: No

#### **OfflineStoreStatus**

The status of OfflineStore.

Type: [OfflineStoreStatus \(p. 1589\)](#) object

Required: No

#### **OnlineStoreConfig**

Use this to specify the AWS Key Management Service (KMS) Key ID, or KMSKeyId, for at rest data encryption. You can turn OnlineStore on or off by specifying the EnableOnlineStore flag at General Assembly; the default value is False.

Type: [OnlineStoreConfig \(p. 1595\)](#) object

Required: No

#### **RecordIdentifierFeatureName**

The name of the Feature whose value uniquely identifies a Record defined in the FeatureGroup FeatureDefinitions.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: ^[a-zA-Z0-9]([-\_]\*[a-zA-Z0-9])\{0,63\}

Required: No

#### **RoleArn**

The Amazon Resource Name (ARN) of the IAM execution role used to create the feature group.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: ^arn:aws[a-zA-Z-]\*:iam::\d{12}:role/[a-zA-Z0-9+=,.@/-/\_]+\\${0,63}

Required: No

#### **Tags**

Tags used to define a FeatureGroup.

Type: Array of [Tag \(p. 1749\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# FeatureGroupSummary

Service: Amazon SageMaker Service

The name, Arn, CreationTime, FeatureGroup values, LastUpdatedTime and EnableOnlineStorage status of a FeatureGroup.

## Contents

### **CreationTime**

A timestamp indicating the time of creation time of the FeatureGroup.

Type: Timestamp

Required: Yes

### **FeatureGroupArn**

Unique identifier for the FeatureGroup.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-zA-Z-]*:sagemaker:[a-zA-Z0-9-]*:[0-9]{12}:feature-group/.*`

Required: Yes

### **FeatureGroupName**

The name of FeatureGroup.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^[\w\-\.\_]{1,64}`

Required: Yes

### **FeatureGroupStatus**

The status of a FeatureGroup. The status can be any of the following: Creating, Created, CreateFail, Deleting or DetailFail.

Type: String

Valid Values: Creating | Created | CreateFailed | Deleting | DeleteFailed

Required: No

### **OfflineStoreStatus**

Notifies you if replicating data into the OfflineStore has failed. Returns either: Active or Blocked.

Type: [OfflineStoreStatus \(p. 1589\)](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## FeatureMetadata

Service: Amazon SageMaker Service

The metadata for a feature. It can either be metadata that you specify, or metadata that is updated automatically.

## Contents

### **CreationTime**

A timestamp indicating when the feature was created.

Type: Timestamp

Required: No

### **Description**

An optional description that you specify to better describe the feature.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 255.

Pattern: .\*

Required: No

### **FeatureGroupArn**

The Amazon Resource Number (ARN) of the feature group.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-\-]\*:sagemaker:[a-z0-9\-\-]\*:[0-9]{12}:feature-group/.\*

Required: No

### **FeatureGroupName**

The name of the feature group containing the feature.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9]){0,63}

Required: No

### **FeatureName**

The name of feature.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: ^[a-zA-Z0-9]([-\_]\*[a-zA-Z0-9]){0,63}

Required: No

### **FeatureType**

The data type of the feature.

Type: String

Valid Values: Integral | Fractional | String

Required: No

### **LastModifiedTime**

A timestamp indicating when the feature was last modified.

Type: Timestamp

Required: No

### **Parameters**

Optional key-value pairs that you specify to better describe the feature.

Type: Array of [FeatureParameter \(p. 1334\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 25 items.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## FeatureParameter

Service: Amazon SageMaker Service

A key-value pair that you specify to describe the feature.

### Contents

#### Key

A key that must contain a value to describe the feature.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: ^([\p{L}\p{Z}\p{N}\_.:/-+]\*\$)

Required: No

#### Value

The value that belongs to a key.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: ^([\p{L}\p{Z}\p{N}\_.:/-+]\*\$)

Required: No

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## FileSource

Service: Amazon SageMaker Service

Contains details regarding the file source.

### Contents

#### ContentDigest

The digest of the file source.

Type: String

Length Constraints: Maximum length of 72.

Pattern: ^[Ss][Hh][Aa]256:[0-9a-fA-F]{64}\$

Required: No

#### ContentType

The type of content stored in the file source.

Type: String

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: No

#### S3Uri

The Amazon S3 URI for the file source.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: ^(https|s3)://([^\/]+)?(.\*)\$

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# FileSystemConfig

Service: Amazon SageMaker Service

The Amazon Elastic File System (EFS) storage configuration for a SageMaker image.

## Contents

### DefaultGid

The default POSIX group ID (GID). If not specified, defaults to 100.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 65535.

Required: No

### DefaultUid

The default POSIX user ID (UID). If not specified, defaults to 1000.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 65535.

Required: No

### MountPath

The path within the image to mount the user's EFS home directory. The directory should be empty. If not specified, defaults to `/home/sagemaker-user`.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^\\/.*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# FileSystemDataSource

Service: Amazon SageMaker Service

Specifies a file system data source for a channel.

## Contents

### DirectoryPath

The full path to the directory to associate with the channel.

Type: String

Length Constraints: Maximum length of 4096.

Pattern: .\*

Required: Yes

### FileSystemAccessMode

The access mode of the mount of the directory associated with the channel. A directory can be mounted either in `ro` (read-only) or `rw` (read-write) mode.

Type: String

Valid Values: `rw` | `ro`

Required: Yes

### FileSystemId

The file system id.

Type: String

Length Constraints: Minimum length of 11.

Pattern: .\*

Required: Yes

### FileSystemType

The file system type.

Type: String

Valid Values: `EFS` | `FSxLustre`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



## Filter

Service: Amazon SageMaker Service

A conditional statement for a search expression that includes a resource property, a Boolean operator, and a value. Resources that match the statement are returned in the results from the [Search \(p. 826\)](#) API.

If you specify a Value, but not an Operator, Amazon SageMaker uses the equals operator.

In search, there are several property types:

Metrics

To define a metric filter, enter a value using the form "Metrics.<name>", where <name> is a metric name. For example, the following filter searches for training jobs with an "accuracy" metric greater than "0.9":

```
{  
  "Name": "Metrics.accuracy",  
  "Operator": "GreaterThanOrEqualTo",  
  "Value": "0.9"  
}
```

HyperParameters

To define a hyperparameter filter, enter a value with the form "HyperParameters.<name>". Decimal hyperparameter values are treated as a decimal in a comparison if the specified Value is also a decimal value. If the specified Value is an integer, the decimal hyperparameter values are treated as integers. For example, the following filter is satisfied by training jobs with a "learning\_rate" hyperparameter that is less than "0.5":

```
{  
  "Name": "HyperParameters.learning_rate",  
  "Operator": "LessThan",  
  "Value": "0.5"  
}
```

Tags

To define a tag filter, enter a value with the form Tags.<key>.

## Contents

### Name

A resource property name. For example, TrainingJobName. For valid property names, see [SearchRecord \(p. 1723\)](#). You must specify a valid property for the resource.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: .+

Required: Yes

### Operator

A Boolean binary operator that is used to evaluate the filter. The operator field contains one of the following values:

Equals

The value of Name equals Value.

NotEquals

The value of Name doesn't equal Value.

Exists

The Name property exists.

NotExists

The Name property does not exist.

Greater Than

The value of Name is greater than Value. Not supported for text properties.

Greater Than Or Equal To

The value of Name is greater than or equal to Value. Not supported for text properties.

Less Than

The value of Name is less than Value. Not supported for text properties.

Less Than Or Equal To

The value of Name is less than or equal to Value. Not supported for text properties.

In

The value of Name is one of the comma delimited strings in Value. Only supported for text properties.

Contains

The value of Name contains the string Value. Only supported for text properties.

A SearchExpression can include the Contains operator multiple times when the value of Name is one of the following:

- Experiment.DisplayName
- Experiment.ExperimentName
- Experiment.Tags
- Trial.DisplayName
- Trial.TrialName
- Trial.Tags
- TrialComponent.DisplayName
- TrialComponent.TrialComponentName
- TrialComponent.Tags
- TrialComponent.InputArtifacts
- TrialComponent.OutputArtifacts

A SearchExpression can include only one Contains operator for all other values of Name. In these cases, if you include multiple Contains operators in the SearchExpression, the result is the following error message: "'CONTAINS' operator usage limit of 1 exceeded."

Type: String

Valid Values: Equals | NotEquals | GreaterThan | GreaterThanOrEqualTo | LessThan | LessThanOrEqualTo | Contains | Exists | NotExists | In

Required: No

#### Value

A value used with Name and Operator to determine which resources satisfy the filter's condition. For numerical properties, Value must be an integer or floating-point decimal. For timestamp properties, Value must be an ISO 8601 date-time string of the following format: YYYY-mm-dd'T'HH:MM:SS.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: .+

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# FinalAutoMLJobObjectiveMetric

Service: Amazon SageMaker Service

The best candidate result from an AutoML training job.

## Contents

### MetricName

The name of the metric with the best result. For a description of the possible objective metrics, see [AutoMLJobObjective:MetricName \(p. 1169\)](#).

Type: String

Valid Values: Accuracy | MSE | F1 | F1macro | AUC

Required: Yes

### Type

The type of metric with the best result.

Type: String

Valid Values: Maximize | Minimize

Required: No

### Value

The value of the metric with the best result.

Type: Float

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# FinalHyperParameterTuningJobObjectiveMetric

Service: Amazon SageMaker Service

Shows the final value for the objective metric for a training job that was launched by a hyperparameter tuning job. You define the objective metric in the HyperParameterTuningJobObjective parameter of [HyperParameterTuningJobConfig \(p. 1394\)](#).

## Contents

### MetricName

The name of the objective metric.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: .+

Required: Yes

### Type

Whether to minimize or maximize the objective metric. Valid values are Minimize and Maximize.

Type: String

Valid Values: Maximize | Minimize

Required: No

### Value

The value of the objective metric.

Type: Float

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# FlowDefinitionOutputConfig

Service: Amazon SageMaker Service

Contains information about where human output will be stored.

## Contents

### KmsKeyId

The Amazon Key Management Service (KMS) key ID for server-side encryption.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: .\*

Required: No

### S3OutputPath

The Amazon S3 path where the object containing human output will be made available.

To learn more about the format of Amazon A2I output data, see [Amazon A2I Output Data](#).

Type: String

Length Constraints: Maximum length of 1024.

Pattern: ^(https|s3)://([^\/]\*)/?(.\*)\$

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# FlowDefinitionSummary

Service: Amazon SageMaker Service

Contains summary information about the flow definition.

## Contents

### **CreationTime**

The timestamp when SageMaker created the flow definition.

Type: Timestamp

Required: Yes

### **FailureReason**

The reason why the flow definition creation failed. A failure reason is returned only when the flow definition status is Failed.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

### **FlowDefinitionArn**

The Amazon Resource Name (ARN) of the flow definition.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:flow-definition/.*`

Required: Yes

### **FlowDefinitionName**

The name of the flow definition.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])\{0,62\}`

Required: Yes

### **FlowDefinitionStatus**

The status of the flow definition. Valid values:

Type: String

Valid Values: Initializing | Active | Failed | Deleting

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## GitConfig

Service: Amazon SageMaker Service

Specifies configuration details for a Git repository in your AWS account.

### Contents

#### Branch

The default branch for the Git repository.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: [^ ~^:?:\*\[\]+]

Required: No

#### RepositoryUrl

The URL where the Git repository is located.

Type: String

Pattern: ^https://([^\/]+)/(.\*\$)

Required: Yes

#### SecretArn

The Amazon Resource Name (ARN) of the AWS Secrets Manager secret that contains the credentials used to access the git repository. The secret must have a staging label of AWSCURRENT and must be in the following format:

{"username": *UserName*, "password": *Password*}

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: arn:aws[a-z\-]\*:secretsmanager:[a-z0-9\-]\*:[0-9]{12}:secret:.\*

Required: No

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# GitConfigForUpdate

Service: Amazon SageMaker Service

Specifies configuration details for a Git repository when the repository is updated.

## Contents

### SecretArn

The Amazon Resource Name (ARN) of the AWS Secrets Manager secret that contains the credentials used to access the git repository. The secret must have a staging label of AWSCURRENT and must be in the following format:

```
{"username": UserName, "password": Password}
```

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: arn:aws[a-z\-\-]\*:secretsmanager:[a-z0-9\-\-]\*:[0-9]{12}:secret:.\*

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# HubContentDependency

Service: Amazon SageMaker Service

Any dependencies related to hub content, such as scripts, model artifacts, datasets, or notebooks.

## Contents

### DependencyCopyPath

The hub content dependency copy path.

Type: String

Length Constraints: Maximum length of 1023.

Pattern: .\*

Required: No

### DependencyOriginPath

The hub content dependency origin path.

Type: String

Length Constraints: Maximum length of 1023.

Pattern: .\*

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# HubContentInfo

Service: Amazon SageMaker Service

Information about hub content.

## Contents

### **CreationTime**

The date and time that the hub content was created.

Type: Timestamp

Required: Yes

### **DocumentSchemaVersion**

The version of the hub content document schema.

Type: String

Length Constraints: Minimum length of 5. Maximum length of 14.

Pattern: ^\d{1,4}.\d{1,4}.\d{1,4}\\$

Required: Yes

### **HubContentArn**

The Amazon Resource Name (ARN) of the hub content.

Type: String

Length Constraints: Maximum length of 255.

Pattern: .\*

Required: Yes

### **HubContentDescription**

A description of the hub content.

Type: String

Length Constraints: Maximum length of 1023.

Pattern: .\*

Required: No

### **HubContentDisplayName**

The display name of the hub content.

Type: String

Length Constraints: Maximum length of 255.

Pattern: .\*

Required: No

### **HubContentName**

The name of the hub content.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: Yes

### **HubContentSearchKeywords**

The searchable keywords for the hub content.

Type: Array of strings

Array Members: Maximum number of 50 items.

Length Constraints: Maximum length of 255.

Pattern: ^[^A-Z]\*\$

Required: No

### **HubContentStatus**

The status of the hub content.

Type: String

Valid Values: Available | Importing | Deleting | ImportFailed | DeleteFailed

Required: Yes

### **HubContentType**

The type of hub content.

Type: String

Valid Values: Model | Notebook

Required: Yes

### **HubContentVersion**

The version of the hub content.

Type: String

Length Constraints: Minimum length of 5. Maximum length of 14.

Pattern: ^\d{1,4}.\d{1,4}.\d{1,4}\\$

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)

- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# HubInfo

Service: Amazon SageMaker Service

Information about a hub.

## Contents

### **CreationTime**

The date and time that the hub was created.

Type: Timestamp

Required: Yes

### **HubArn**

The Amazon Resource Name (ARN) of the hub.

Type: String

Length Constraints: Maximum length of 255.

Pattern: .\*

Required: Yes

### **HubDescription**

A description of the hub.

Type: String

Length Constraints: Maximum length of 1023.

Pattern: .\*

Required: No

### **HubDisplayName**

The display name of the hub.

Type: String

Length Constraints: Maximum length of 255.

Pattern: .\*

Required: No

### **HubName**

The name of the hub.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: Yes

### **HubSearchKeywords**

The searchable keywords for the hub.

Type: Array of strings

Array Members: Maximum number of 50 items.

Length Constraints: Maximum length of 255.

Pattern: ^[^\u00c0-\u00ff]\*\$

Required: No

### **HubStatus**

The status of the hub.

Type: String

Valid Values: InService | Creating | Updating | Deleting | CreateFailed | UpdateFailed | DeleteFailed

Required: Yes

### **LastModifiedTime**

The date and time that the hub was last modified.

Type: Timestamp

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# HubS3StorageConfig

Service: Amazon SageMaker Service

The Amazon S3 storage configuration of a hub.

## Contents

### S3OutputPath

The Amazon S3 output path for the hub.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: ^(https|s3)://([^\/]\*)/?(.\*)\$

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# HumanLoopActivationConditionsConfig

Service: Amazon SageMaker Service

Defines under what conditions SageMaker creates a human loop. Used within [CreateFlowDefinition \(p. 98\)](#). See [HumanLoopActivationConditionsConfig \(p. 1356\)](#) for the required format of activation conditions.

## Contents

### HumanLoopActivationConditions

JSON expressing use-case specific conditions declaratively. If any condition is matched, atomic tasks are created against the configured work team. The set of conditions is different for Rekognition and Textract. For more information about how to structure the JSON, see [JSON Schema for Human Loop Activation Conditions in Amazon Augmented AI](#) in the *Amazon SageMaker Developer Guide*.

Type: String

Length Constraints: Maximum length of 10240.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# HumanLoopActivationConfig

Service: Amazon SageMaker Service

Provides information about how and under what conditions SageMaker creates a human loop. If HumanLoopActivationConfig is not given, then all requests go to humans.

## Contents

### HumanLoopActivationConditionsConfig

Container structure for defining under what conditions SageMaker creates a human loop.

Type: [HumanLoopActivationConditionsConfig \(p. 1356\)](#) object

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# HumanLoopConfig

Service: Amazon SageMaker Service

Describes the work to be performed by human workers.

## Contents

### HumanTaskUiArn

The Amazon Resource Name (ARN) of the human task user interface.

You can use standard HTML and Crowd HTML Elements to create a custom worker task template. You use this template to create a human task UI.

To learn how to create a custom HTML template, see [Create Custom Worker Task Template](#).

To learn how to create a human task UI, which is a worker task template that can be used in a flow definition, see [Create and Delete a Worker Task Templates](#).

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:human-task-ui/.*`

Required: Yes

### PublicWorkforceTaskPrice

Defines the amount of money paid to an Amazon Mechanical Turk worker for each task performed.

Use one of the following prices for bounding box tasks. Prices are in US dollars and should be based on the complexity of the task; the longer it takes in your initial testing, the more you should offer.

- 0.036
- 0.048
- 0.060
- 0.072
- 0.120
- 0.240
- 0.360
- 0.480
- 0.600
- 0.720
- 0.840
- 0.960
- 1.080
- 1.200

Use one of the following prices for image classification, text classification, and custom tasks. Prices are in US dollars.

- 0.012
- 0.024
- 0.036
- 0.048

- 0.060
- 0.072
- 0.120
- 0.240
- 0.360
- 0.480
- 0.600
- 0.720
- 0.840
- 0.960
- 1.080
- 1.200

Use one of the following prices for semantic segmentation tasks. Prices are in US dollars.

- 0.840
- 0.960
- 1.080
- 1.200

Use one of the following prices for Textract AnalyzeDocument Important Form Key Amazon Augmented AI review tasks. Prices are in US dollars.

- 2.400
- 2.280
- 2.160
- 2.040
- 1.920
- 1.800
- 1.680
- 1.560
- 1.440
- 1.320
- 1.200
- 1.080
- 0.960
- 0.840
- 0.720
- 0.600
- 0.480
- 0.360
- 0.240
- 0.120
- 0.072
- 0.060
- 0.048
- 0.036
- 0.024
- 0.012

Use one of the following prices for Rekognition DetectModerationLabels Amazon Augmented AI review tasks. Prices are in US dollars.

- 1.200
- 1.080
- 0.960
- 0.840
- 0.720
- 0.600
- 0.480
- 0.360
- 0.240
- 0.120
- 0.072
- 0.060
- 0.048
- 0.036
- 0.024
- 0.012

Use one of the following prices for Amazon Augmented AI custom human review tasks. Prices are in US dollars.

- 1.200
- 1.080
- 0.960
- 0.840
- 0.720
- 0.600
- 0.480
- 0.360
- 0.240
- 0.120
- 0.072
- 0.060
- 0.048
- 0.036
- 0.024
- 0.012

Type: [PublicWorkforceTaskPrice \(p. 1676\)](#) object

Required: No

#### **TaskAvailabilityLifetimeInSeconds**

The length of time that a task remains available for review by human workers.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 864000.

Required: No

### TaskCount

The number of distinct workers who will perform the same task on each object. For example, if TaskCount is set to 3 for an image classification labeling job, three workers will classify each input image. Increasing TaskCount can improve label accuracy.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 3.

Required: Yes

### TaskDescription

A description for the human worker task.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: .+

Required: Yes

### TaskKeywords

Keywords used to describe the task so that workers can discover the task.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 5 items.

Length Constraints: Minimum length of 1. Maximum length of 30.

Pattern: ^[A-Za-z0-9]+( [A-Za-z0-9]+)\*\$

Required: No

### TaskTimeLimitInSeconds

The amount of time that a worker has to complete a task. The default value is 3,600 seconds (1 hour).

Type: Integer

Valid Range: Minimum value of 30. Maximum value of 28800.

Required: No

### TaskTitle

A title for the human worker task.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: ^[\t\n\x20-\uD7FF\uE000-\uFFFF]\*\$

Required: Yes

### WorkteamArn

Amazon Resource Name (ARN) of a team of workers. To learn more about the types of workforces and work teams you can create and use with Amazon A2I, see [Create and Manage Workforces](#).

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-\]*:sagemaker:[a-z0-9\-\]*:[0-9]{12}:workteam/.*`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# HumanLoopRequestSource

Service: Amazon SageMaker Service

Container for configuring the source of human task requests.

## Contents

### AwsManagedHumanLoopRequestSource

Specifies whether Amazon Rekognition or Amazon Textract are used as the integration source. The default field settings and JSON parsing rules are different based on the integration source. Valid values:

Type: String

Valid Values: AWS/Rekognition/DetectModerationLabels/Image/V3 | AWS/Textract/AnalyzeDocument/Forms/V1

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# HumanTaskConfig

Service: Amazon SageMaker Service

Information required for human workers to complete a labeling task.

## Contents

### AnnotationConsolidationConfig

Configures how labels are consolidated across human workers.

Type: [AnnotationConsolidationConfig \(p. 1126\)](#) object

Required: Yes

### MaxConcurrentTaskCount

Defines the maximum number of data objects that can be labeled by human workers at the same time. Also referred to as batch size. Each object may have more than one worker at one time. The default value is 1000 objects. To increase the maximum value to 5000 objects, contact AWS Support.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 5000.

Required: No

### NumberOfHumanWorkersPerDataObject

The number of human workers that will label an object.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 9.

Required: Yes

### PreHumanTaskLambdaArn

The Amazon Resource Name (ARN) of a Lambda function that is run before a data object is sent to a human worker. Use this function to provide input to a custom labeling job.

For [built-in task types](#), use one of the following Amazon SageMaker Ground Truth Lambda function ARNs for PreHumanTaskLambdaArn. For custom labeling workflows, see [Pre-annotation Lambda](#).

**Bounding box** - Finds the most similar boxes from different workers based on the Jaccard index of the boxes.

- arn:aws:lambda:us-east-1:432418664414:function:PRE-BoundingBox
- arn:aws:lambda:us-east-2:266458841044:function:PRE-BoundingBox
- arn:aws:lambda:us-west-2:081040173940:function:PRE-BoundingBox
- arn:aws:lambda:ca-central-1:918755190332:function:PRE-BoundingBox
- arn:aws:lambda:eu-west-1:568282634449:function:PRE-BoundingBox
- arn:aws:lambda:eu-west-2:487402164563:function:PRE-BoundingBox
- arn:aws:lambda:eu-central-1:203001061592:function:PRE-BoundingBox
- arn:aws:lambda:ap-northeast-1:477331159723:function:PRE-BoundingBox
- arn:aws:lambda:ap-northeast-2:845288260483:function:PRE-BoundingBox
- arn:aws:lambda:ap-south-1:565803892007:function:PRE-BoundingBox

- arn:aws:lambda:ap-southeast-1:377565633583:function:PRE-BoundingBox
- arn:aws:lambda:ap-southeast-2:454466003867:function:PRE-BoundingBox

**Image classification** - Uses a variant of the Expectation Maximization approach to estimate the true class of an image based on annotations from individual workers.

- arn:aws:lambda:us-east-1:432418664414:function:PRE-ImageMultiClass
- arn:aws:lambda:us-east-2:266458841044:function:PRE-ImageMultiClass
- arn:aws:lambda:us-west-2:081040173940:function:PRE-ImageMultiClass
- arn:aws:lambda:ca-central-1:918755190332:function:PRE-ImageMultiClass
- arn:aws:lambda:eu-west-1:568282634449:function:PRE-ImageMultiClass
- arn:aws:lambda:eu-west-2:487402164563:function:PRE-ImageMultiClass
- arn:aws:lambda:eu-central-1:203001061592:function:PRE-ImageMultiClass
- arn:aws:lambda:ap-northeast-1:477331159723:function:PRE-ImageMultiClass
- arn:aws:lambda:ap-northeast-2:845288260483:function:PRE-ImageMultiClass
- arn:aws:lambda:ap-south-1:565803892007:function:PRE-ImageMultiClass
- arn:aws:lambda:ap-southeast-1:377565633583:function:PRE-ImageMultiClass
- arn:aws:lambda:ap-southeast-2:454466003867:function:PRE-ImageMultiClass

**Multi-label image classification** - Uses a variant of the Expectation Maximization approach to estimate the true classes of an image based on annotations from individual workers.

- arn:aws:lambda:us-east-1:432418664414:function:PRE-ImageMultiClassMultiLabel
- arn:aws:lambda:us-east-2:266458841044:function:PRE-ImageMultiClassMultiLabel
- arn:aws:lambda:us-west-2:081040173940:function:PRE-ImageMultiClassMultiLabel
- arn:aws:lambda:ca-central-1:918755190332:function:PRE-ImageMultiClassMultiLabel
- arn:aws:lambda:eu-west-1:568282634449:function:PRE-ImageMultiClassMultiLabel
- arn:aws:lambda:eu-west-2:487402164563:function:PRE-ImageMultiClassMultiLabel
- arn:aws:lambda:eu-central-1:203001061592:function:PRE-ImageMultiClassMultiLabel
- arn:aws:lambda:ap-northeast-1:477331159723:function:PRE-ImageMultiClassMultiLabel
- arn:aws:lambda:ap-northeast-2:845288260483:function:PRE-ImageMultiClassMultiLabel
- arn:aws:lambda:ap-south-1:565803892007:function:PRE-ImageMultiClassMultiLabel
- arn:aws:lambda:ap-southeast-1:377565633583:function:PRE-ImageMultiClassMultiLabel
- arn:aws:lambda:ap-southeast-2:454466003867:function:PRE-ImageMultiClassMultiLabel

**Semantic segmentation** - Treats each pixel in an image as a multi-class classification and treats pixel annotations from workers as "votes" for the correct label.

- arn:aws:lambda:us-east-1:432418664414:function:PRE-SemanticSegmentation
- arn:aws:lambda:us-east-2:266458841044:function:PRE-SemanticSegmentation
- arn:aws:lambda:us-west-2:081040173940:function:PRE-SemanticSegmentation

- arn:aws:lambda:ca-central-1:918755190332:function:PRE-SemanticSegmentation
- arn:aws:lambda:eu-west-1:568282634449:function:PRE-SemanticSegmentation
- arn:aws:lambda:eu-west-2:487402164563:function:PRE-SemanticSegmentation
- arn:aws:lambda:eu-central-1:203001061592:function:PRE-SemanticSegmentation
- arn:aws:lambda:ap-northeast-1:477331159723:function:PRE-SemanticSegmentation
- arn:aws:lambda:ap-northeast-2:845288260483:function:PRE-SemanticSegmentation
- arn:aws:lambda:ap-south-1:565803892007:function:PRE-SemanticSegmentation
- arn:aws:lambda:ap-southeast-1:377565633583:function:PRE-SemanticSegmentation
- arn:aws:lambda:ap-southeast-2:454466003867:function:PRE-SemanticSegmentation

**Text classification** - Uses a variant of the Expectation Maximization approach to estimate the true class of text based on annotations from individual workers.

- arn:aws:lambda:us-east-1:432418664414:function:PRE-TextMultiClass
- arn:aws:lambda:us-east-2:266458841044:function:PRE-TextMultiClass
- arn:aws:lambda:us-west-2:081040173940:function:PRE-TextMultiClass
- arn:aws:lambda:ca-central-1:918755190332:function:PRE-TextMultiClass
- arn:aws:lambda:eu-west-1:568282634449:function:PRE-TextMultiClass
- arn:aws:lambda:eu-west-2:487402164563:function:PRE-TextMultiClass
- arn:aws:lambda:eu-central-1:203001061592:function:PRE-TextMultiClass
- arn:aws:lambda:ap-northeast-1:477331159723:function:PRE-TextMultiClass
- arn:aws:lambda:ap-northeast-2:845288260483:function:PRE-TextMultiClass
- arn:aws:lambda:ap-south-1:565803892007:function:PRE-TextMultiClass
- arn:aws:lambda:ap-southeast-1:377565633583:function:PRE-TextMultiClass
- arn:aws:lambda:ap-southeast-2:454466003867:function:PRE-TextMultiClass

**Multi-label text classification** - Uses a variant of the Expectation Maximization approach to estimate the true classes of text based on annotations from individual workers.

- arn:aws:lambda:us-east-1:432418664414:function:PRE-TextMultiClassMultiLabel
- arn:aws:lambda:us-east-2:266458841044:function:PRE-TextMultiClassMultiLabel
- arn:aws:lambda:us-west-2:081040173940:function:PRE-TextMultiClassMultiLabel
- arn:aws:lambda:ca-central-1:918755190332:function:PRE-TextMultiClassMultiLabel
- arn:aws:lambda:eu-west-1:568282634449:function:PRE-TextMultiClassMultiLabel
- arn:aws:lambda:eu-west-2:487402164563:function:PRE-TextMultiClassMultiLabel
- arn:aws:lambda:eu-central-1:203001061592:function:PRE-TextMultiClassMultiLabel
- arn:aws:lambda:ap-northeast-1:477331159723:function:PRE-TextMultiClassMultiLabel
- arn:aws:lambda:ap-northeast-2:845288260483:function:PRE-TextMultiClassMultiLabel

- arn:aws:lambda:ap-south-1:565803892007:function:PRE-TextMultiClassMultiLabel
- arn:aws:lambda:ap-southeast-1:377565633583:function:PRE-TextMultiClassMultiLabel
- arn:aws:lambda:ap-southeast-2:454466003867:function:PRE-TextMultiClassMultiLabel

**Named entity recognition** - Groups similar selections and calculates aggregate boundaries, resolving to most-assigned label.

- arn:aws:lambda:us-east-1:432418664414:function:PRE-NamedEntityRecognition
- arn:aws:lambda:us-east-2:266458841044:function:PRE-NamedEntityRecognition
- arn:aws:lambda:us-west-2:081040173940:function:PRE-NamedEntityRecognition
- arn:aws:lambda:ca-central-1:918755190332:function:PRE-NamedEntityRecognition
- arn:aws:lambda:eu-west-1:568282634449:function:PRE-NamedEntityRecognition
- arn:aws:lambda:eu-west-2:487402164563:function:PRE-NamedEntityRecognition
- arn:aws:lambda:eu-central-1:203001061592:function:PRE-NamedEntityRecognition
- arn:aws:lambda:ap-northeast-1:477331159723:function:PRE-NamedEntityRecognition
- arn:aws:lambda:ap-northeast-2:845288260483:function:PRE-NamedEntityRecognition
- arn:aws:lambda:ap-south-1:565803892007:function:PRE-NamedEntityRecognition
- arn:aws:lambda:ap-southeast-1:377565633583:function:PRE-NamedEntityRecognition
- arn:aws:lambda:ap-southeast-2:454466003867:function:PRE-NamedEntityRecognition

**Video Classification** - Use this task type when you need workers to classify videos using predefined labels that you specify. Workers are shown videos and are asked to choose one label for each video.

- arn:aws:lambda:us-east-1:432418664414:function:PRE-VideoMultiClass
- arn:aws:lambda:us-east-2:266458841044:function:PRE-VideoMultiClass
- arn:aws:lambda:us-west-2:081040173940:function:PRE-VideoMultiClass
- arn:aws:lambda:eu-west-1:568282634449:function:PRE-VideoMultiClass
- arn:aws:lambda:ap-northeast-1:477331159723:function:PRE-VideoMultiClass
- arn:aws:lambda:ap-southeast-2:454466003867:function:PRE-VideoMultiClass
- arn:aws:lambda:ap-south-1:565803892007:function:PRE-VideoMultiClass
- arn:aws:lambda:eu-central-1:203001061592:function:PRE-VideoMultiClass
- arn:aws:lambda:ap-northeast-2:845288260483:function:PRE-VideoMultiClass
- arn:aws:lambda:eu-west-2:487402164563:function:PRE-VideoMultiClass
- arn:aws:lambda:ap-southeast-1:377565633583:function:PRE-VideoMultiClass
- arn:aws:lambda:ca-central-1:918755190332:function:PRE-VideoMultiClass

**Video Frame Object Detection** - Use this task type to have workers identify and locate objects in a sequence of video frames (images extracted from a video) using bounding boxes. For example, you can use this task to ask workers to identify and localize various objects in a series of video frames, such as cars, bikes, and pedestrians.

- arn:aws:lambda:us-east-1:432418664414:function:PRE-VideoObjectDetection
- arn:aws:lambda:us-east-2:266458841044:function:PRE-VideoObjectDetection
- arn:aws:lambda:us-west-2:081040173940:function:PRE-VideoObjectDetection

- arn:aws:lambda:eu-west-1:568282634449:function:PRE-VideoObjectDetection
- arn:aws:lambda:ap-northeast-1:477331159723:function:PRE-VideoObjectDetection
- arn:aws:lambda:ap-southeast-2:454466003867:function:PRE-VideoObjectDetection
- arn:aws:lambda:ap-south-1:565803892007:function:PRE-VideoObjectDetection
- arn:aws:lambda:eu-central-1:203001061592:function:PRE-VideoObjectDetection
- arn:aws:lambda:ap-northeast-2:845288260483:function:PRE-VideoObjectDetection
- arn:aws:lambda:eu-west-2:487402164563:function:PRE-VideoObjectDetection
- arn:aws:lambda:ap-southeast-1:377565633583:function:PRE-VideoObjectDetection
- arn:aws:lambda:ca-central-1:918755190332:function:PRE-VideoObjectDetection

**Video Frame Object Tracking** - Use this task type to have workers track the movement of objects in a sequence of video frames (images extracted from a video) using bounding boxes. For example, you can use this task to ask workers to track the movement of objects, such as cars, bikes, and pedestrians.

- arn:aws:lambda:us-east-1:432418664414:function:PRE-VideoObjectTracking
- arn:aws:lambda:us-east-2:266458841044:function:PRE-VideoObjectTracking
- arn:aws:lambda:us-west-2:081040173940:function:PRE-VideoObjectTracking
- arn:aws:lambda:eu-west-1:568282634449:function:PRE-VideoObjectTracking
- arn:aws:lambda:ap-northeast-1:477331159723:function:PRE-VideoObjectTracking
- arn:aws:lambda:ap-southeast-2:454466003867:function:PRE-VideoObjectTracking
- arn:aws:lambda:ap-south-1:565803892007:function:PRE-VideoObjectTracking
- arn:aws:lambda:eu-central-1:203001061592:function:PRE-VideoObjectTracking
- arn:aws:lambda:ap-northeast-2:845288260483:function:PRE-VideoObjectTracking
- arn:aws:lambda:eu-west-2:487402164563:function:PRE-VideoObjectTracking
- arn:aws:lambda:ap-southeast-1:377565633583:function:PRE-VideoObjectTracking
- arn:aws:lambda:ca-central-1:918755190332:function:PRE-VideoObjectTracking

### 3D Point Cloud Modalities

Use the following pre-annotation lambdas for 3D point cloud labeling modality tasks. See [3D Point Cloud Task types](#) to learn more.

**3D Point Cloud Object Detection** - Use this task type when you want workers to classify objects in a 3D point cloud by drawing 3D cuboids around objects. For example, you can use this task type to ask workers to identify different types of objects in a point cloud, such as cars, bikes, and pedestrians.

- arn:aws:lambda:us-east-1:432418664414:function:PRE-3DPointCloudObjectDetection
- arn:aws:lambda:us-east-2:266458841044:function:PRE-3DPointCloudObjectDetection
- arn:aws:lambda:us-west-2:081040173940:function:PRE-3DPointCloudObjectDetection
- arn:aws:lambda:eu-west-1:568282634449:function:PRE-3DPointCloudObjectDetection

- arn:aws:lambda:ap-northeast-1:477331159723:function:PRE-3DPointCloudObjectDetection
- arn:aws:lambda:ap-southeast-2:454466003867:function:PRE-3DPointCloudObjectDetection
- arn:aws:lambda:ap-south-1:565803892007:function:PRE-3DPointCloudObjectDetection
- arn:aws:lambda:eu-central-1:203001061592:function:PRE-3DPointCloudObjectDetection
- arn:aws:lambda:ap-northeast-2:845288260483:function:PRE-3DPointCloudObjectDetection
- arn:aws:lambda:eu-west-2:487402164563:function:PRE-3DPointCloudObjectDetection
- arn:aws:lambda:ap-southeast-1:377565633583:function:PRE-3DPointCloudObjectDetection
- arn:aws:lambda:ca-central-1:918755190332:function:PRE-3DPointCloudObjectDetection

**3D Point Cloud Object Tracking** - Use this task type when you want workers to draw 3D cuboids around objects that appear in a sequence of 3D point cloud frames. For example, you can use this task type to ask workers to track the movement of vehicles across multiple point cloud frames.

- arn:aws:lambda:us-east-1:432418664414:function:PRE-3DPointCloudObjectTracking
- arn:aws:lambda:us-east-2:266458841044:function:PRE-3DPointCloudObjectTracking
- arn:aws:lambda:us-west-2:081040173940:function:PRE-3DPointCloudObjectTracking
- arn:aws:lambda:eu-west-1:568282634449:function:PRE-3DPointCloudObjectTracking
- arn:aws:lambda:ap-northeast-1:477331159723:function:PRE-3DPointCloudObjectTracking
- arn:aws:lambda:ap-southeast-2:454466003867:function:PRE-3DPointCloudObjectTracking
- arn:aws:lambda:ap-south-1:565803892007:function:PRE-3DPointCloudObjectTracking
- arn:aws:lambda:eu-central-1:203001061592:function:PRE-3DPointCloudObjectTracking
- arn:aws:lambda:ap-northeast-2:845288260483:function:PRE-3DPointCloudObjectTracking
- arn:aws:lambda:eu-west-2:487402164563:function:PRE-3DPointCloudObjectTracking
- arn:aws:lambda:ap-southeast-1:377565633583:function:PRE-3DPointCloudObjectTracking
- arn:aws:lambda:ca-central-1:918755190332:function:PRE-3DPointCloudObjectTracking

**3D Point Cloud Semantic Segmentation** - Use this task type when you want workers to create a point-level semantic segmentation masks by painting objects in a 3D point cloud using different colors where each color is assigned to one of the classes you specify.

- arn:aws:lambda:us-east-1:432418664414:function:PRE-3DPointCloudSemanticSegmentation
- arn:aws:lambda:us-east-2:266458841044:function:PRE-3DPointCloudSemanticSegmentation

- arn:aws:lambda:us-west-2:081040173940:function:PRE-3DPointCloudSemanticSegmentation
- arn:aws:lambda:eu-west-1:568282634449:function:PRE-3DPointCloudSemanticSegmentation
- arn:aws:lambda:ap-northeast-1:477331159723:function:PRE-3DPointCloudSemanticSegmentation
- arn:aws:lambda:ap-southeast-2:454466003867:function:PRE-3DPointCloudSemanticSegmentation
- arn:aws:lambda:ap-south-1:565803892007:function:PRE-3DPointCloudSemanticSegmentation
- arn:aws:lambda:eu-central-1:203001061592:function:PRE-3DPointCloudSemanticSegmentation
- arn:aws:lambda:ap-northeast-2:845288260483:function:PRE-3DPointCloudSemanticSegmentation
- arn:aws:lambda:eu-west-2:487402164563:function:PRE-3DPointCloudSemanticSegmentation
- arn:aws:lambda:ap-southeast-1:377565633583:function:PRE-3DPointCloudSemanticSegmentation
- arn:aws:lambda:ca-central-1:918755190332:function:PRE-3DPointCloudSemanticSegmentation

#### Use the following ARNs for Label Verification and Adjustment Jobs

Use label verification and adjustment jobs to review and adjust labels. To learn more, see [Verify and Adjust Labels](#).

**Bounding box verification** - Uses a variant of the Expectation Maximization approach to estimate the true class of verification judgement for bounding box labels based on annotations from individual workers.

- arn:aws:lambda:us-east-1:432418664414:function:PRE-VerificationBoundingBox
- arn:aws:lambda:us-east-2:266458841044:function:PRE-VerificationBoundingBox
- arn:aws:lambda:us-west-2:081040173940:function:PRE-VerificationBoundingBox
- arn:aws:lambda:eu-west-1:568282634449:function:PRE-VerificationBoundingBox
- arn:aws:lambda:ap-northeast-1:477331159723:function:PRE-VerificationBoundingBox
- arn:aws:lambda:ap-southeast-2:454466003867:function:PRE-VerificationBoundingBox
- arn:aws:lambda:ap-south-1:565803892007:function:PRE-VerificationBoundingBox
- arn:aws:lambda:eu-central-1:203001061592:function:PRE-VerificationBoundingBox
- arn:aws:lambda:ap-northeast-2:845288260483:function:PRE-VerificationBoundingBox
- arn:aws:lambda:eu-west-2:487402164563:function:PRE-VerificationBoundingBox
- arn:aws:lambda:ap-southeast-1:377565633583:function:PRE-VerificationBoundingBox
- arn:aws:lambda:ca-central-1:918755190332:function:PRE-VerificationBoundingBox

**Bounding box adjustment** - Finds the most similar boxes from different workers based on the Jaccard index of the adjusted annotations.

- arn:aws:lambda:us-east-1:432418664414:function:PRE-AdjustmentBoundingBox
- arn:aws:lambda:us-east-2:266458841044:function:PRE-AdjustmentBoundingBox
- arn:aws:lambda:us-west-2:081040173940:function:PRE-AdjustmentBoundingBox
- arn:aws:lambda:ca-central-1:918755190332:function:PRE-AdjustmentBoundingBox
- arn:aws:lambda:eu-west-1:568282634449:function:PRE-AdjustmentBoundingBox
- arn:aws:lambda:eu-west-2:487402164563:function:PRE-AdjustmentBoundingBox
- arn:aws:lambda:eu-central-1:203001061592:function:PRE-AdjustmentBoundingBox
- arn:aws:lambda:ap-northeast-1:477331159723:function:PRE-AdjustmentBoundingBox
- arn:aws:lambda:ap-northeast-2:845288260483:function:PRE-AdjustmentBoundingBox
- arn:aws:lambda:ap-south-1:565803892007:function:PRE-AdjustmentBoundingBox
- arn:aws:lambda:ap-southeast-1:377565633583:function:PRE-AdjustmentBoundingBox
- arn:aws:lambda:ap-southeast-2:454466003867:function:PRE-AdjustmentBoundingBox

**Semantic segmentation verification** - Uses a variant of the Expectation Maximization approach to estimate the true class of verification judgment for semantic segmentation labels based on annotations from individual workers.

- arn:aws:lambda:us-east-1:432418664414:function:PRE-VerificationSemanticSegmentation
- arn:aws:lambda:us-east-2:266458841044:function:PRE-VerificationSemanticSegmentation
- arn:aws:lambda:us-west-2:081040173940:function:PRE-VerificationSemanticSegmentation
- arn:aws:lambda:ca-central-1:918755190332:function:PRE-VerificationSemanticSegmentation
- arn:aws:lambda:eu-west-1:568282634449:function:PRE-VerificationSemanticSegmentation
- arn:aws:lambda:eu-west-2:487402164563:function:PRE-VerificationSemanticSegmentation
- arn:aws:lambda:eu-central-1:203001061592:function:PRE-VerificationSemanticSegmentation
- arn:aws:lambda:ap-northeast-1:477331159723:function:PRE-VerificationSemanticSegmentation
- arn:aws:lambda:ap-northeast-2:845288260483:function:PRE-VerificationSemanticSegmentation
- arn:aws:lambda:ap-south-1:565803892007:function:PRE-VerificationSemanticSegmentation
- arn:aws:lambda:ap-southeast-1:377565633583:function:PRE-VerificationSemanticSegmentation
- arn:aws:lambda:ap-southeast-2:454466003867:function:PRE-VerificationSemanticSegmentation

**Semantic segmentation adjustment** - Treats each pixel in an image as a multi-class classification and treats pixel adjusted annotations from workers as "votes" for the correct label.

- arn:aws:lambda:us-east-1:432418664414:function:PRE-AdjustmentSemanticSegmentation

- arn:aws:lambda:us-east-2:266458841044:function:PRE-AdjustmentSemanticSegmentation
- arn:aws:lambda:us-west-2:081040173940:function:PRE-AdjustmentSemanticSegmentation
- arn:aws:lambda:ca-central-1:918755190332:function:PRE-AdjustmentSemanticSegmentation
- arn:aws:lambda:eu-west-1:568282634449:function:PRE-AdjustmentSemanticSegmentation
- arn:aws:lambda:eu-west-2:487402164563:function:PRE-AdjustmentSemanticSegmentation
- arn:aws:lambda:eu-central-1:203001061592:function:PRE-AdjustmentSemanticSegmentation
- arn:aws:lambda:ap-northeast-1:477331159723:function:PRE-AdjustmentSemanticSegmentation
- arn:aws:lambda:ap-northeast-2:845288260483:function:PRE-AdjustmentSemanticSegmentation
- arn:aws:lambda:ap-south-1:565803892007:function:PRE-AdjustmentSemanticSegmentation
- arn:aws:lambda:ap-southeast-1:377565633583:function:PRE-AdjustmentSemanticSegmentation
- arn:aws:lambda:ap-southeast-2:454466003867:function:PRE-AdjustmentSemanticSegmentation

**Video Frame Object Detection Adjustment** - Use this task type when you want workers to adjust bounding boxes that workers have added to video frames to classify and localize objects in a sequence of video frames.

- arn:aws:lambda:us-east-1:432418664414:function:PRE-AdjustmentVideoObjectDetection
- arn:aws:lambda:us-east-2:266458841044:function:PRE-AdjustmentVideoObjectDetection
- arn:aws:lambda:us-west-2:081040173940:function:PRE-AdjustmentVideoObjectDetection
- arn:aws:lambda:eu-west-1:568282634449:function:PRE-AdjustmentVideoObjectDetection
- arn:aws:lambda:ap-northeast-1:477331159723:function:PRE-AdjustmentVideoObjectDetection
- arn:aws:lambda:ap-southeast-2:454466003867:function:PRE-AdjustmentVideoObjectDetection
- arn:aws:lambda:ap-south-1:565803892007:function:PRE-AdjustmentVideoObjectDetection
- arn:aws:lambda:eu-central-1:203001061592:function:PRE-AdjustmentVideoObjectDetection
- arn:aws:lambda:ap-northeast-2:845288260483:function:PRE-AdjustmentVideoObjectDetection
- arn:aws:lambda:eu-west-2:487402164563:function:PRE-AdjustmentVideoObjectDetection
- arn:aws:lambda:ap-southeast-1:377565633583:function:PRE-AdjustmentVideoObjectDetection
- arn:aws:lambda:ca-central-1:918755190332:function:PRE-AdjustmentVideoObjectDetection

**Video Frame Object Tracking Adjustment** - Use this task type when you want workers to adjust bounding boxes that workers have added to video frames to track object movement across a sequence of video frames.

- arn:aws:lambda:us-east-1:432418664414:function:PRE-AdjustmentVideoObjectTracking
- arn:aws:lambda:us-east-2:266458841044:function:PRE-AdjustmentVideoObjectTracking
- arn:aws:lambda:us-west-2:081040173940:function:PRE-AdjustmentVideoObjectTracking
- arn:aws:lambda:eu-west-1:568282634449:function:PRE-AdjustmentVideoObjectTracking
- arn:aws:lambda:ap-northeast-1:477331159723:function:PRE-AdjustmentVideoObjectTracking
- arn:aws:lambda:ap-southeast-2:454466003867:function:PRE-AdjustmentVideoObjectTracking
- arn:aws:lambda:ap-south-1:565803892007:function:PRE-AdjustmentVideoObjectTracking
- arn:aws:lambda:eu-central-1:203001061592:function:PRE-AdjustmentVideoObjectTracking
- arn:aws:lambda:ap-northeast-2:845288260483:function:PRE-AdjustmentVideoObjectTracking
- arn:aws:lambda:eu-west-2:487402164563:function:PRE-AdjustmentVideoObjectTracking
- arn:aws:lambda:ap-southeast-1:377565633583:function:PRE-AdjustmentVideoObjectTracking
- arn:aws:lambda:ca-central-1:918755190332:function:PRE-AdjustmentVideoObjectTracking

**3D point cloud object detection adjustment** - Adjust 3D cuboids in a point cloud frame.

- arn:aws:lambda:us-east-1:432418664414:function:PRE-Adjustment3DPointCloudObjectDetection
- arn:aws:lambda:us-east-2:266458841044:function:PRE-Adjustment3DPointCloudObjectDetection
- arn:aws:lambda:us-west-2:081040173940:function:PRE-Adjustment3DPointCloudObjectDetection
- arn:aws:lambda:eu-west-1:568282634449:function:PRE-Adjustment3DPointCloudObjectDetection
- arn:aws:lambda:ap-northeast-1:477331159723:function:PRE-Adjustment3DPointCloudObjectDetection
- arn:aws:lambda:ap-southeast-2:454466003867:function:PRE-Adjustment3DPointCloudObjectDetection
- arn:aws:lambda:ap-south-1:565803892007:function:PRE-Adjustment3DPointCloudObjectDetection
- arn:aws:lambda:eu-central-1:203001061592:function:PRE-Adjustment3DPointCloudObjectDetection
- arn:aws:lambda:ap-northeast-2:845288260483:function:PRE-Adjustment3DPointCloudObjectDetection
- arn:aws:lambda:eu-west-2:487402164563:function:PRE-Adjustment3DPointCloudObjectDetection
- arn:aws:lambda:ap-southeast-1:377565633583:function:PRE-Adjustment3DPointCloudObjectDetection

- arn:aws:lambda:ca-central-1:918755190332:function:PRE-Adjustment3DPointCloudObjectDetection

**3D point cloud object tracking adjustment** - Adjust 3D cuboids across a sequence of point cloud frames.

- arn:aws:lambda:us-east-1:432418664414:function:PRE-Adjustment3DPointCloudObjectTracking
- arn:aws:lambda:us-east-2:266458841044:function:PRE-Adjustment3DPointCloudObjectTracking
- arn:aws:lambda:us-west-2:081040173940:function:PRE-Adjustment3DPointCloudObjectTracking
- arn:aws:lambda:eu-west-1:568282634449:function:PRE-Adjustment3DPointCloudObjectTracking
- arn:aws:lambda:ap-northeast-1:477331159723:function:PRE-Adjustment3DPointCloudObjectTracking
- arn:aws:lambda:ap-southeast-2:454466003867:function:PRE-Adjustment3DPointCloudObjectTracking
- arn:aws:lambda:ap-south-1:565803892007:function:PRE-Adjustment3DPointCloudObjectTracking
- arn:aws:lambda:eu-central-1:203001061592:function:PRE-Adjustment3DPointCloudObjectTracking
- arn:aws:lambda:ap-northeast-2:845288260483:function:PRE-Adjustment3DPointCloudObjectTracking
- arn:aws:lambda:eu-west-2:487402164563:function:PRE-Adjustment3DPointCloudObjectTracking
- arn:aws:lambda:ap-southeast-1:377565633583:function:PRE-Adjustment3DPointCloudObjectTracking
- arn:aws:lambda:ca-central-1:918755190332:function:PRE-Adjustment3DPointCloudObjectTracking

**3D point cloud semantic segmentation adjustment** - Adjust semantic segmentation masks in a 3D point cloud.

- arn:aws:lambda:us-east-1:432418664414:function:PRE-Adjustment3DPointCloudSemanticSegmentation
- arn:aws:lambda:us-east-2:266458841044:function:PRE-Adjustment3DPointCloudSemanticSegmentation
- arn:aws:lambda:us-west-2:081040173940:function:PRE-Adjustment3DPointCloudSemanticSegmentation
- arn:aws:lambda:eu-west-1:568282634449:function:PRE-Adjustment3DPointCloudSemanticSegmentation
- arn:aws:lambda:ap-northeast-1:477331159723:function:PRE-Adjustment3DPointCloudSemanticSegmentation
- arn:aws:lambda:ap-southeast-2:454466003867:function:PRE-Adjustment3DPointCloudSemanticSegmentation
- arn:aws:lambda:ap-south-1:565803892007:function:PRE-Adjustment3DPointCloudSemanticSegmentation
- arn:aws:lambda:eu-central-1:203001061592:function:PRE-Adjustment3DPointCloudSemanticSegmentation
- arn:aws:lambda:ap-northeast-2:845288260483:function:PRE-Adjustment3DPointCloudSemanticSegmentation

- `arn:aws:lambda:eu-west-2:487402164563:function:PRE-Adjustment3DPointCloudSemanticSegmentation`
- `arn:aws:lambda:ap-southeast-1:377565633583:function:PRE-Adjustment3DPointCloudSemanticSegmentation`
- `arn:aws:lambda:ca-central-1:918755190332:function:PRE-Adjustment3DPointCloudSemanticSegmentation`

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `arn:aws:[a-z\-\-]*:lambda:[a-z0-9\-\-]*:[0-9]{12}:function:.*`

Required: Yes

#### **PublicWorkforceTaskPrice**

The price that you pay for each task performed by an Amazon Mechanical Turk worker.

Type: [PublicWorkforceTaskPrice \(p. 1676\)](#) object

Required: No

#### **TaskAvailabilityLifetimeInSeconds**

The length of time that a task remains available for labeling by human workers. The default and maximum values for this parameter depend on the type of workforce you use.

- If you choose the Amazon Mechanical Turk workforce, the maximum is 12 hours (43,200 seconds). The default is 6 hours (21,600 seconds).
- If you choose a private or vendor workforce, the default value is 30 days (2592,000 seconds) for non-AL mode. For most users, the maximum is also 30 days.

Type: Integer

Valid Range: Minimum value of 60.

Required: No

#### **TaskDescription**

A description of the task for your human workers.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `.+`

Required: Yes

#### **TaskKeywords**

Keywords used to describe the task so that workers on Amazon Mechanical Turk can discover the task.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 5 items.

Length Constraints: Minimum length of 1. Maximum length of 30.

Pattern: `^ [A-Za-z0-9]+( [A-Za-z0-9]+)*$`

Required: No

#### **TaskTimeLimitInSeconds**

The amount of time that a worker has to complete a task.

If you create a custom labeling job, the maximum value for this parameter is 8 hours (28,800 seconds).

If you create a labeling job using a [built-in task type](#) the maximum for this parameter depends on the task type you use:

- For [image](#) and [text](#) labeling jobs, the maximum is 8 hours (28,800 seconds).
- For [3D point cloud](#) and [video frame](#) labeling jobs, the maximum is 30 days (2952,000 seconds) for non-AL mode. For most users, the maximum is also 30 days.

Type: Integer

Valid Range: Minimum value of 30.

Required: Yes

#### **TaskTitle**

A title for the task for your human workers.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: ^[\t\n\x20-\uD7FF\uE000-\uFFFF]\*\$

Required: Yes

#### **UiConfig**

Information about the user interface that workers use to complete the labeling task.

Type: [UiConfig \(p. 1817\)](#) object

Required: Yes

#### **WorkteamArn**

The Amazon Resource Name (ARN) of the work team assigned to complete the tasks.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-\-]\*:sagemaker:[a-z0-9\-\-]\*:[0-9]{12}:workteam/\.\*

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# HumanTaskUiSummary

Service: Amazon SageMaker Service

Container for human task user interface information.

## Contents

### **CreationTime**

A timestamp when SageMaker created the human task user interface.

Type: Timestamp

Required: Yes

### **HumanTaskUiArn**

The Amazon Resource Name (ARN) of the human task user interface.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:human-task-ui/.*`

Required: Yes

### **HumanTaskUiName**

The name of the human task user interface.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-z0-9](-*[a-z0-9])*`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# HyperbandStrategyConfig

Service: Amazon SageMaker Service

The configuration for Hyperband, a multi-fidelity based hyperparameter tuning strategy. Hyperband uses the final and intermediate results of a training job to dynamically allocate resources to utilized hyperparameter configurations while automatically stopping under-performing configurations. This parameter should be provided only if Hyperband is selected as the StrategyConfig under the HyperParameterTuningJobConfig API.

## Contents

### MaxResource

The maximum number of resources (such as epochs) that can be used by a training job launched by a hyperparameter tuning job. Once a job reaches the MaxResource value, it is stopped. If a value for MaxResource is not provided, and Hyperband is selected as the hyperparameter tuning strategy, HyperbandTrainingJob attempts to infer MaxResource from the following keys (if present) in [StaticsHyperParameters](#):

- epochs
- numepochs
- n-epochs
- n\_epochs
- num\_epochs

If HyperbandStrategyConfig is unable to infer a value for MaxResource, it generates a validation error. The maximum value is 20,000 epochs. All metrics that correspond to an objective metric are used to derive [early stopping decisions](#). For [distributive](#) training jobs, ensure that duplicate metrics are not printed in the logs across the individual nodes in a training job. If multiple nodes are publishing duplicate or incorrect metrics, training jobs may make an incorrect stopping decision and stop the job prematurely.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

### MinResource

The minimum number of resources (such as epochs) that can be used by a training job launched by a hyperparameter tuning job. If the value for MinResource has not been reached, the training job will not be stopped by Hyperband.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)

- [AWS SDK for Ruby V3](#)

# HyperParameterAlgorithmSpecification

Service: Amazon SageMaker Service

Specifies which training algorithm to use for training jobs that a hyperparameter tuning job launches and the metrics to monitor.

## Contents

### AlgorithmName

The name of the resource algorithm to use for the hyperparameter tuning job. If you specify a value for this parameter, do not specify a value for `TrainingImage`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 170.

Pattern: (`arn:aws[a-z\[-]*:sagemaker:[a-z0-9\[-]*:[0-9]{12}:[a-z\[-]*\//)?([a-zA-Z0-9]([a-zA-Z0-9-])\{0,62\})(?<!-)`)\$

Required: No

### MetricDefinitions

An array of [MetricDefinition \(p. 1469\)](#) objects that specify the metrics that the algorithm emits.

Type: Array of [MetricDefinition \(p. 1469\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 40 items.

Required: No

### TrainingImage

The registry path of the Docker image that contains the training algorithm. For information about Docker registry paths for built-in algorithms, see [Algorithms Provided by Amazon SageMaker: Common Parameters](#). SageMaker supports both `registry/repository[:tag]` and `registry/repository[@digest]` image path formats. For more information, see [Using Your Own Algorithms with Amazon SageMaker](#).

Type: String

Length Constraints: Maximum length of 255.

Pattern: .\*

Required: No

### TrainingInputMode

The training input mode that the algorithm supports. For more information about input modes, see [Algorithms](#).

#### Pipe mode

If an algorithm supports Pipe mode, Amazon SageMaker streams data directly from Amazon S3 to the container.

#### File mode

If an algorithm supports File mode, SageMaker downloads the training data from S3 to the provisioned ML storage volume, and mounts the directory to the Docker volume for the training container.

You must provision the ML storage volume with sufficient capacity to accommodate the data downloaded from S3. In addition to the training data, the ML storage volume also stores the output model. The algorithm container uses the ML storage volume to also store intermediate information, if any.

For distributed algorithms, training data is distributed uniformly. Your training duration is predictable if the input data objects sizes are approximately the same. SageMaker does not split the files any further for model training. If the object sizes are skewed, training won't be optimal as the data distribution is also skewed when one host in a training cluster is overloaded, thus becoming a bottleneck in training.

#### FastFile mode

If an algorithm supports FastFile mode, SageMaker streams data directly from S3 to the container with no code changes, and provides file system access to the data. Users can author their training script to interact with these files as if they were stored on disk.

FastFile mode works best when the data is read sequentially. Augmented manifest files aren't supported. The startup time is lower when there are fewer files in the S3 bucket provided.

Type: String

Valid Values: Pipe | File | FastFile

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# HyperParameterSpecification

Service: Amazon SageMaker Service

Defines a hyperparameter to be used by an algorithm.

## Contents

### DefaultValue

The default value for this hyperparameter. If a default value is specified, a hyperparameter cannot be required.

Type: String

Length Constraints: Maximum length of 2500.

Pattern: .\*

Required: No

### Description

A brief description of the hyperparameter.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: [\p{L}\p{M}\p{Z}\p{S}\p{N}\p{P}]\*

Required: No

### IsRequired

Indicates whether this hyperparameter is required.

Type: Boolean

Required: No

### IsTunable

Indicates whether this hyperparameter is tunable in a hyperparameter tuning job.

Type: Boolean

Required: No

### Name

The name of this hyperparameter. The name must be unique.

Type: String

Length Constraints: Maximum length of 256.

Pattern: [\p{L}\p{M}\p{Z}\p{S}\p{N}\p{P}]\*

Required: Yes

### Range

The allowed range for this hyperparameter.

Type: [ParameterRange \(p. 1606\)](#) object

Required: No

**Type**

The type of this hyperparameter. The valid types are Integer, Continuous, Categorical, and FreeText.

Type: String

Valid Values: Integer | Continuous | Categorical | FreeText

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# HyperParameterTrainingJobDefinition

Service: Amazon SageMaker Service

Defines the training jobs launched by a hyperparameter tuning job.

## Contents

### AlgorithmSpecification

The [HyperParameterAlgorithmSpecification \(p. 1381\)](#) object that specifies the resource algorithm to use for the training jobs that the tuning job launches.

Type: [HyperParameterAlgorithmSpecification \(p. 1381\)](#) object

Required: Yes

### CheckpointConfig

Contains information about the output location for managed spot training checkpoint data.

Type: [CheckpointConfig \(p. 1203\)](#) object

Required: No

### DefinitionName

The job definition name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,63\}

Required: No

### EnableInterContainerTrafficEncryption

To encrypt all communications between ML compute instances in distributed training, choose True. Encryption provides greater security for distributed training, but training might take longer. How long it takes depends on the amount of communication between compute instances, especially if you use a deep learning algorithm in distributed training.

Type: Boolean

Required: No

### EnableManagedSpotTraining

A Boolean indicating whether managed spot training is enabled (True) or not (False).

Type: Boolean

Required: No

### EnableNetworkIsolation

Isolates the training container. No inbound or outbound network calls can be made, except for calls between peers within a training cluster for distributed training. If network isolation is used for training jobs that are configured to use a VPC, SageMaker downloads and uploads customer data and model artifacts through the specified VPC, but the training container does not have network access.

Type: Boolean

Required: No

#### **HyperParameterRanges**

Specifies ranges of integer, continuous, and categorical hyperparameters that a hyperparameter tuning job searches. The hyperparameter tuning job launches training jobs with hyperparameter values within these ranges to find the combination of values that result in the training job with the best performance as measured by the objective metric of the hyperparameter tuning job.

##### **Note**

The maximum number of items specified for `Array Members` refers to the maximum number of hyperparameters for each range and also the maximum for the hyperparameter tuning job itself. That is, the sum of the number of hyperparameters for all the ranges can't exceed the maximum number specified.

Type: [ParameterRanges \(p. 1607\)](#) object

Required: No

#### **HyperParameterTuningResourceConfig**

The configuration for the hyperparameter tuning resources, including the compute instances and storage volumes, used for training jobs launched by the tuning job. By default, storage volumes hold model artifacts and incremental states. Choose `File` for `TrainingInputMode` in the `AlgorithmSpecification` parameter to additionally store training data in the storage volume (optional).

Type: [HyperParameterTuningResourceConfig \(p. 1405\)](#) object

Required: No

#### **InputDataConfig**

An array of [Channel \(p. 1199\)](#) objects that specify the input for the training jobs that the tuning job launches.

Type: Array of [Channel \(p. 1199\)](#) objects

Array Members: Minimum number of 1 item. Maximum number of 20 items.

Required: No

#### **OutputDataConfig**

Specifies the path to the Amazon S3 bucket where you store model artifacts from the training jobs that the tuning job launches.

Type: [OutputDataConfig \(p. 1601\)](#) object

Required: Yes

#### **ResourceConfig**

The resources, including the compute instances and storage volumes, to use for the training jobs that the tuning job launches.

Storage volumes store model artifacts and incremental states. Training algorithms might also use storage volumes for scratch space. If you want SageMaker to use the storage volume to store the training data, choose `File` as the `TrainingInputMode` in the algorithm specification. For distributed training algorithms, specify an instance count greater than 1.

##### **Note**

If you want to use hyperparameter optimization with instance type flexibility, use `HyperParameterTuningResourceConfig` instead.

Type: [ResourceConfig \(p. 1702\)](#) object

Required: No

#### **RetryStrategy**

The number of times to retry the job when the job fails due to an `InternalServerError`.

Type: [RetryStrategy \(p. 1710\)](#) object

Required: No

#### **RoleArn**

The Amazon Resource Name (ARN) of the IAM role associated with the training jobs that the tuning job launches.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: ^arn:aws[a-zA-Z-]\*:iam::\d{12}:role/?[a-zA-Z\_0-9+=,.@\\-\_]+\$

Required: Yes

#### **StaticHyperParameters**

Specifies the values of hyperparameters that do not change for the tuning job.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 100 items.

Key Length Constraints: Maximum length of 256.

Key Pattern: .\*

Value Length Constraints: Maximum length of 2500.

Value Pattern: .\*

Required: No

#### **StoppingCondition**

Specifies a limit to how long a model hyperparameter training job can run. It also specifies how long a managed spot training job has to complete. When the job reaches the time limit, SageMaker ends the training job. Use this API to cap model training costs.

Type: [StoppingCondition \(p. 1742\)](#) object

Required: Yes

#### **TuningObjective**

Defines the objective metric for a hyperparameter tuning job. Hyperparameter tuning uses the value of this metric to evaluate the training jobs it launches, and returns the training job that results in either the highest or lowest value for this metric, depending on the value you specify for the `Type` parameter.

Type: [HyperParameterTuningJobObjective \(p. 1396\)](#) object

Required: No

### VpcConfig

The [VpcConfig \(p. 1829\)](#) object that specifies the VPC that you want the training jobs that this hyperparameter tuning job launches to connect to. Control access to and from your training container by configuring the VPC. For more information, see [Protect Training Jobs by Using an Amazon Virtual Private Cloud](#).

Type: [VpcConfig \(p. 1829\)](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# HyperParameterTrainingJobSummary

Service: Amazon SageMaker Service

The container for the summary information about a training job.

## Contents

### **CreationTime**

The date and time that the training job was created.

Type: Timestamp

Required: Yes

### **FailureReason**

The reason that the training job failed.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

### **FinalHyperParameterTuningJobObjectiveMetric**

The [FinalHyperParameterTuningJobObjectiveMetric \(p. 1343\)](#) object that specifies the value of the objective metric of the tuning job that launched this training job.

Type: [FinalHyperParameterTuningJobObjectiveMetric \(p. 1343\)](#) object

Required: No

### **ObjectiveStatus**

The status of the objective metric for the training job:

- **Succeeded:** The final objective metric for the training job was evaluated by the hyperparameter tuning job and used in the hyperparameter tuning process.
- **Pending:** The training job is in progress and evaluation of its final objective metric is pending.
- **Failed:** The final objective metric for the training job was not evaluated, and was not used in the hyperparameter tuning process. This typically occurs when the training job failed or did not emit an objective metric.

Type: String

Valid Values: Succeeded | Pending | Failed

Required: No

### **TrainingEndTime**

Specifies the time when the training job ends on training instances. You are billed for the time interval between the value of `TrainingStartTime` and this time. For successful jobs and stopped jobs, this is the time after model artifacts are uploaded. For failed jobs, this is the time when SageMaker detects a job failure.

Type: Timestamp

Required: No

### **TrainingJobArn**

The Amazon Resource Name (ARN) of the training job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-\-]*:sagemaker:[a-z0-9\-\-]*:[0-9]{12}:training-job/.*`

Required: Yes

### **TrainingJobDefinitionName**

The training job definition name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^ [a-zA-Z0-9] ( - * [a-zA-Z0-9] ) {0,63}`

Required: No

### **TrainingJobName**

The name of the training job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^ [a-zA-Z0-9] ( - * [a-zA-Z0-9] ) {0,62}`

Required: Yes

### **TrainingJobStatus**

The status of the training job.

Type: String

Valid Values: InProgress | Completed | Failed | Stopping | Stopped

Required: Yes

### **TrainingStartTime**

The date and time that the training job started.

Type: Timestamp

Required: No

### **TunedHyperParameters**

A list of the hyperparameters for which you specified ranges to search.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 100 items.

Key Length Constraints: Maximum length of 256.

Key Pattern: `.*`

Value Length Constraints: Maximum length of 2500.

Value Pattern: .\*

Required: Yes

**TuningJobName**

The HyperParameter tuning job that launched the training job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9]){0,31}

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# HyperParameterTuningInstanceConfig

Service: Amazon SageMaker Service

The configuration for hyperparameter tuning resources for use in training jobs launched by the tuning job. These resources include compute instances and storage volumes. Specify one or more compute instance configurations and allocation strategies to select resources (optional).

## Contents

### InstanceCount

The number of instances of the type specified by InstanceType. Choose an instance count larger than 1 for distributed training algorithms. See [SageMaker distributed training jobs](#) for more information.

Type: Integer

Valid Range: Minimum value of 0.

Required: Yes

### InstanceType

The instance type used for processing of hyperparameter optimization jobs. Choose from general purpose (no GPUs) instance types: ml.m5.xlarge, ml.m5.2xlarge, and ml.m5.4xlarge or compute optimized (no GPUs) instance types: ml.c5.xlarge and ml.c5.2xlarge. For more information about instance types, see [instance type descriptions](#).

Type: String

Valid Values: ml.m4.xlarge | ml.m4.2xlarge | ml.m4.4xlarge | ml.m4.10xlarge | ml.m4.16xlarge | ml.g4dn.xlarge | ml.g4dn.2xlarge | ml.g4dn.4xlarge | ml.g4dn.8xlarge | ml.g4dn.12xlarge | ml.g4dn.16xlarge | ml.m5.large | ml.m5.xlarge | ml.m5.2xlarge | ml.m5.4xlarge | ml.m5.12xlarge | ml.m5.24xlarge | ml.c4.xlarge | ml.c4.2xlarge | ml.c4.4xlarge | ml.c4.8xlarge | ml.p2.xlarge | ml.p2.8xlarge | ml.p2.16xlarge | ml.p3.2xlarge | ml.p3.8xlarge | ml.p3.16xlarge | ml.p3dn.24xlarge | ml.p4d.24xlarge | ml.c5.xlarge | ml.c5.2xlarge | ml.c5.4xlarge | ml.c5.9xlarge | ml.c5.18xlarge | ml.c5n.xlarge | ml.c5n.2xlarge | ml.c5n.4xlarge | ml.c5n.9xlarge | ml.c5n.18xlarge | ml.g5.xlarge | ml.g5.2xlarge | ml.g5.4xlarge | ml.g5.8xlarge | ml.g5.16xlarge | ml.g5.12xlarge | ml.g5.24xlarge | ml.g5.48xlarge | ml.trn1.2xlarge | ml.trn1.32xlarge

Required: Yes

### VolumeSizeInGB

The volume size in GB of the data to be processed for hyperparameter optimization (optional).

Type: Integer

Valid Range: Minimum value of 1.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# HyperParameterTuningJobConfig

Service: Amazon SageMaker Service

Configures a hyperparameter tuning job.

## Contents

### HyperParameterTuningJobObjective

The [HyperParameterTuningJobObjective \(p. 1396\)](#) object that specifies the objective metric for this tuning job.

Type: [HyperParameterTuningJobObjective \(p. 1396\)](#) object

Required: No

### ParameterRanges

The [ParameterRanges \(p. 1607\)](#) object that specifies the ranges of hyperparameters that this tuning job searches.

Type: [ParameterRanges \(p. 1607\)](#) object

Required: No

### ResourceLimits

The [ResourceLimits \(p. 1706\)](#) object that specifies the maximum number of training jobs and parallel training jobs for this tuning job.

Type: [ResourceLimits \(p. 1706\)](#) object

Required: Yes

### Strategy

Specifies how hyperparameter tuning chooses the combinations of hyperparameter values to use for the training job it launches. For information about search strategies, see [How Hyperparameter Tuning Works](#).

Type: String

Valid Values: Bayesian | Random | Hyperband | Grid

Required: Yes

### StrategyConfig

The configuration for the Hyperband optimization strategy. This parameter should be provided only if Hyperband is selected as the strategy for HyperParameterTuningJobConfig.

Type: [HyperParameterTuningJobStrategyConfig \(p. 1400\)](#) object

Required: No

### TrainingJobEarlyStoppingType

Specifies whether to use early stopping for training jobs launched by the hyperparameter tuning job. Because the Hyperband strategy has its own advanced internal early stopping mechanism, TrainingJobEarlyStoppingType must be OFF to use Hyperband. This parameter can take on one of the following values (the default value is OFF):

OFF

Training jobs launched by the hyperparameter tuning job do not use early stopping.

## AUTO

SageMaker stops training jobs launched by the hyperparameter tuning job when they are unlikely to perform better than previously completed training jobs. For more information, see [Stop Training Jobs Early](#).

Type: String

Valid Values: Off | Auto

Required: No

## TuningJobCompletionCriteria

The tuning job's completion criteria.

Type: [TuningJobCompletionCriteria \(p. 1815\)](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# HyperParameterTuningJobObjective

Service: Amazon SageMaker Service

Defines the objective metric for a hyperparameter tuning job. Hyperparameter tuning uses the value of this metric to evaluate the training jobs it launches, and returns the training job that results in either the highest or lowest value for this metric, depending on the value you specify for the Type parameter.

## Contents

### MetricName

The name of the metric to use for the objective metric.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: .+

Required: Yes

### Type

Whether to minimize or maximize the objective metric.

Type: String

Valid Values: Maximize | Minimize

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# HyperParameterTuningJobSearchEntity

Service: Amazon SageMaker Service

An entity returned by the [SearchRecord](#) API containing the properties of a hyperparameter tuning job.

## Contents

### BestTrainingJob

The container for the summary information about a training job.

Type: [HyperParameterTrainingJobSummary \(p. 1389\)](#) object

Required: No

### CreationTime

The time that a hyperparameter tuning job was created.

Type: Timestamp

Required: No

### FailureReason

The error that was created when a hyperparameter tuning job failed.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

### HyperParameterTuningEndTime

The time that a hyperparameter tuning job ended.

Type: Timestamp

Required: No

### HyperParameterTuningJobArn

The Amazon Resource Name (ARN) of a hyperparameter tuning job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-\]*:sagemaker:[a-z0-9\-\]*:[0-9]{12}:hyper-parameter-tuning-job/.*`

Required: No

### HyperParameterTuningJobConfig

Configures a hyperparameter tuning job.

Type: [HyperParameterTuningJobConfig \(p. 1394\)](#) object

Required: No

### HyperParameterTuningJobName

The name of a hyperparameter tuning job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,31\}

Required: No

#### **HyperParameterTuningJobStatus**

The status of a hyperparameter tuning job.

Type: String

Valid Values: Completed | InProgress | Failed | Stopped | Stopping

Required: No

#### **LastModifiedTime**

The time that a hyperparameter tuning job was last modified.

Type: Timestamp

Required: No

#### **ObjectiveStatusCounters**

Specifies the number of training jobs that this hyperparameter tuning job launched, categorized by the status of their objective metric. The objective metric status shows whether the final objective metric for the training job has been evaluated by the tuning job and used in the hyperparameter tuning process.

Type: [ObjectiveStatusCounters \(p. 1587\)](#) object

Required: No

#### **OverallBestTrainingJob**

The container for the summary information about a training job.

Type: [HyperParameterTrainingJobSummary \(p. 1389\)](#) object

Required: No

#### **Tags**

The tags associated with a hyperparameter tuning job. For more information see [Tagging AWS resources](#).

Type: Array of [Tag \(p. 1749\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

#### **TrainingJobDefinition**

Defines the training jobs launched by a hyperparameter tuning job.

Type: [HyperParameterTrainingJobDefinition \(p. 1385\)](#) object

Required: No

#### **TrainingJobDefinitions**

The job definitions included in a hyperparameter tuning job.

Type: Array of [HyperParameterTrainingJobDefinition \(p. 1385\)](#) objects

Array Members: Minimum number of 1 item. Maximum number of 10 items.

Required: No

#### **TrainingJobStatusCounters**

The numbers of training jobs launched by a hyperparameter tuning job, categorized by status.

Type: [TrainingJobStatusCounters \(p. 1768\)](#) object

Required: No

#### **WarmStartConfig**

Specifies the configuration for a hyperparameter tuning job that uses one or more previous hyperparameter tuning jobs as a starting point. The results of previous tuning jobs are used to inform which combinations of hyperparameters to search over in the new tuning job.

All training jobs launched by the new hyperparameter tuning job are evaluated by using the objective metric, and the training job that performs the best is compared to the best training jobs from the parent tuning jobs. From these, the training job that performs the best as measured by the objective metric is returned as the overall best training job.

##### **Note**

All training jobs launched by parent hyperparameter tuning jobs and the new hyperparameter tuning jobs count against the limit of training jobs for the tuning job.

Type: [HyperParameterTuningJobWarmStartConfig \(p. 1403\)](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# HyperParameterTuningJobStrategyConfig

Service: Amazon SageMaker Service

The configuration for a training job launched by a hyperparameter tuning job. Choose Bayesian for Bayesian optimization, and Random for random search optimization. For more advanced use cases, use Hyperband, which evaluates objective metrics for training jobs after every epoch. For more information about strategies, see [How Hyperparameter Tuning Works](#).

## Contents

### HyperbandStrategyConfig

The configuration for the object that specifies the Hyperband strategy. This parameter is only supported for the Hyperband selection for Strategy within the HyperParameterTuningJobConfig API.

Type: [HyperbandStrategyConfig \(p. 1379\)](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# HyperParameterTuningJobSummary

Service: Amazon SageMaker Service

Provides summary information about a hyperparameter tuning job.

## Contents

### **CreationTime**

The date and time that the tuning job was created.

Type: Timestamp

Required: Yes

### **HyperParameterTuningEndTime**

The date and time that the tuning job ended.

Type: Timestamp

Required: No

### **HyperParameterTuningJobArn**

The Amazon Resource Name (ARN) of the tuning job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-\]*:sagemaker:[a-z0-9\-\]*:[0-9]{12}:hyper-parameter-tuning-job/.*`

Required: Yes

### **HyperParameterTuningJobName**

The name of the tuning job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: `^ [a-zA-Z0-9] (-*[a-zA-Z0-9]) {0,31}`

Required: Yes

### **HyperParameterTuningJobStatus**

The status of the tuning job.

Type: String

Valid Values: Completed | InProgress | Failed | Stopped | Stopping

Required: Yes

### **LastModifiedTime**

The date and time that the tuning job was modified.

Type: Timestamp

Required: No

#### **ObjectiveStatusCounters**

The [ObjectiveStatusCounters \(p. 1587\)](#) object that specifies the numbers of training jobs, categorized by objective metric status, that this tuning job launched.

Type: [ObjectiveStatusCounters \(p. 1587\)](#) object

Required: Yes

#### **ResourceLimits**

The [ResourceLimits \(p. 1706\)](#) object that specifies the maximum number of training jobs and parallel training jobs allowed for this tuning job.

Type: [ResourceLimits \(p. 1706\)](#) object

Required: No

#### **Strategy**

Specifies the search strategy hyperparameter tuning uses to choose which hyperparameters to evaluate at each iteration.

Type: String

Valid Values: Bayesian | Random | Hyperband | Grid

Required: Yes

#### **TrainingJobStatusCounters**

The [TrainingJobStatusCounters \(p. 1768\)](#) object that specifies the numbers of training jobs, categorized by status, that this tuning job launched.

Type: [TrainingJobStatusCounters \(p. 1768\)](#) object

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# HyperParameterTuningJobWarmStartConfig

Service: Amazon SageMaker Service

Specifies the configuration for a hyperparameter tuning job that uses one or more previous hyperparameter tuning jobs as a starting point. The results of previous tuning jobs are used to inform which combinations of hyperparameters to search over in the new tuning job.

All training jobs launched by the new hyperparameter tuning job are evaluated by using the objective metric, and the training job that performs the best is compared to the best training jobs from the parent tuning jobs. From these, the training job that performs the best as measured by the objective metric is returned as the overall best training job.

## Note

All training jobs launched by parent hyperparameter tuning jobs and the new hyperparameter tuning jobs count against the limit of training jobs for the tuning job.

## Contents

### ParentHyperParameterTuningJobs

An array of hyperparameter tuning jobs that are used as the starting point for the new hyperparameter tuning job. For more information about warm starting a hyperparameter tuning job, see [Using a Previous Hyperparameter Tuning Job as a Starting Point](#).

Hyperparameter tuning jobs created before October 1, 2018 cannot be used as parent jobs for warm start tuning jobs.

Type: Array of [ParentHyperParameterTuningJob \(p. 1609\)](#) objects

Array Members: Minimum number of 1 item. Maximum number of 5 items.

Required: Yes

### WarmStartType

Specifies one of the following:

#### IDENTICAL\_DATA\_AND\_ALGORITHM

The new hyperparameter tuning job uses the same input data and training image as the parent tuning jobs. You can change the hyperparameter ranges to search and the maximum number of training jobs that the hyperparameter tuning job launches. You cannot use a new version of the training algorithm, unless the changes in the new version do not affect the algorithm itself. For example, changes that improve logging or adding support for a different data format are allowed. You can also change hyperparameters from tunable to static, and from static to tunable, but the total number of static plus tunable hyperparameters must remain the same as it is in all parent jobs. The objective metric for the new tuning job must be the same as for all parent jobs.

#### TRANSFER\_LEARNING

The new hyperparameter tuning job can include input data, hyperparameter ranges, maximum number of concurrent training jobs, and maximum number of training jobs that are different than those of its parent hyperparameter tuning jobs. The training image can also be a different version from the version used in the parent hyperparameter tuning job. You can also change hyperparameters from tunable to static, and from static to tunable, but the total number of static plus tunable hyperparameters must remain the same as it is in all parent jobs. The objective metric for the new tuning job must be the same as for all parent jobs.

Type: String

Valid Values: IdenticalDataAndAlgorithm | TransferLearning

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# HyperParameterTuningResourceConfig

Service: Amazon SageMaker Service

The configuration of resources, including compute instances and storage volumes for use in training jobs launched by hyperparameter tuning jobs. HyperParameterTuningResourceConfig is similar to ResourceConfig, but has the additional InstanceConfigs and AllocationStrategy fields to allow for flexible instance management. Specify one or more instance types, count, and the allocation strategy for instance selection.

## Note

HyperParameterTuningResourceConfig supports the capabilities of ResourceConfig with the exception of KeepAlivePeriodInSeconds. Hyperparameter tuning jobs use warm pools by default, which reuse clusters between training jobs.

## Contents

### AllocationStrategy

The strategy that determines the order of preference for resources specified in InstanceConfigs used in hyperparameter optimization.

Type: String

Valid Values: Prioritized

Required: No

### InstanceConfigs

A list containing the configuration(s) for one or more resources for processing hyperparameter jobs. These resources include compute instances and storage volumes to use in model training jobs launched by hyperparameter tuning jobs. The AllocationStrategy controls the order in which multiple configurations provided in InstanceConfigs are used.

## Note

If you only want to use a single instance configuration inside the HyperParameterTuningResourceConfig API, do not provide a value for InstanceConfigs. Instead, use InstanceType, VolumeSizeInGB and InstanceCount. If you use InstanceConfigs, do not provide values for InstanceType, VolumeSizeInGB or InstanceCount.

Type: Array of [HyperParameterTuningInstanceConfig \(p. 1392\)](#) objects

Array Members: Minimum number of 1 item. Maximum number of 6 items.

Required: No

### InstanceCount

The number of compute instances of type InstanceType to use. For [distributed training](#), select a value greater than 1.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

### InstanceType

The instance type used to run hyperparameter optimization tuning jobs. See [descriptions of instance types](#) for more information.

Type: String

Valid Values: ml.m4.xlarge | ml.m4.2xlarge | ml.m4.4xlarge | ml.m4.10xlarge | ml.m4.16xlarge | ml.g4dn.xlarge | ml.g4dn.2xlarge | ml.g4dn.4xlarge | ml.g4dn.8xlarge | ml.g4dn.12xlarge | ml.g4dn.16xlarge | ml.m5.large | ml.m5.xlarge | ml.m5.2xlarge | ml.m5.4xlarge | ml.m5.12xlarge | ml.m5.24xlarge | ml.c4.xlarge | ml.c4.2xlarge | ml.c4.4xlarge | ml.c4.8xlarge | ml.p2.xlarge | ml.p2.8xlarge | ml.p2.16xlarge | ml.p3.2xlarge | ml.p3.8xlarge | ml.p3.16xlarge | ml.p3dn.24xlarge | ml.p4d.24xlarge | ml.c5.xlarge | ml.c5.2xlarge | ml.c5.4xlarge | ml.c5.9xlarge | ml.c5.18xlarge | ml.c5n.xlarge | ml.c5n.2xlarge | ml.c5n.4xlarge | ml.c5n.9xlarge | ml.c5n.18xlarge | ml.g5.xlarge | ml.g5.2xlarge | ml.g5.4xlarge | ml.g5.8xlarge | ml.g5.16xlarge | ml.g5.12xlarge | ml.g5.24xlarge | ml.g5.48xlarge | ml.trn1.2xlarge | ml.trn1.32xlarge

Required: No

#### VolumeKmsKeyId

A key used by AWS Key Management Service to encrypt data on the storage volume attached to the compute instances used to run the training job. You can use either of the following formats to specify a key.

KMS Key ID:

"1234abcd-12ab-34cd-56ef-1234567890ab"

Amazon Resource Name (ARN) of a KMS key:

"arn:aws:kms:us-west-2:111122223333:key/1234abcd-12ab-34cd-56ef-1234567890ab"

Some instances use local storage, which use a [hardware module to encrypt](#) storage volumes. If you choose one of these instance types, you cannot request a VolumeKmsKeyId. For a list of instance types that use local storage, see [instance store volumes](#). For more information about AWS Key Management Service, see [KMS encryption](#) for more information.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: .\*

Required: No

#### VolumeSizeInGB

The volume size in GB for the storage volume to be used in processing hyperparameter optimization jobs (optional). These volumes store model artifacts, incremental states and optionally, scratch space for training algorithms. Do not provide a value for this parameter if a value for InstanceConfigs is also specified.

Some instance types have a fixed total local storage size. If you select one of these instances for training, VolumeSizeInGB cannot be greater than this total size. For a list of instance types with local instance storage and their sizes, see [instance store volumes](#).

#### Note

SageMaker supports only the [General Purpose SSD \(gp2\)](#) storage volume type.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## Image

Service: Amazon SageMaker Service

A SageMaker image. A SageMaker image represents a set of container images that are derived from a common base container image. Each of these container images is represented by a SageMaker ImageVersion.

## Contents

### **CreationTime**

When the image was created.

Type: Timestamp

Required: Yes

### **Description**

The description of the image.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: .\*

Required: No

### **DisplayName**

The name of the image as displayed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: ^\S(.\*\S)?\$

Required: No

### **FailureReason**

When a create, update, or delete operation fails, the reason for the failure.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

### **ImageArn**

The Amazon Resource Name (ARN) of the image.

Type: String

Length Constraints: Maximum length of 256.

Pattern: ^arn:aws(-[\w]+)\*:sagemaker:.[0-9]{12}:image/[a-zA-Z0-9]([-.]?[a-zA-Z0-9])\*\$

Required: Yes

### **ImageName**

The name of the image.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9]([-. ]?[a-zA-Z0-9])\{0,62\}\$

Required: Yes

### **ImageStatus**

The status of the image.

Type: String

Valid Values: CREATING | CREATED | CREATE FAILED | UPDATING | UPDATE FAILED | DELETING | DELETE FAILED

Required: Yes

### **LastModifiedTime**

When the image was last modified.

Type: Timestamp

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## ImageConfig

Service: Amazon SageMaker Service

Specifies whether the model container is in Amazon ECR or a private Docker registry accessible from your Amazon Virtual Private Cloud (VPC).

## Contents

### RepositoryAccessMode

Set this to one of the following values:

- Platform - The model image is hosted in Amazon ECR.
- Vpc - The model image is hosted in a private Docker registry in your VPC.

Type: String

Valid Values: Platform | Vpc

Required: Yes

### RepositoryAuthConfig

(Optional) Specifies an authentication configuration for the private docker registry where your model image is hosted. Specify a value for this property only if you specified Vpc as the value for the RepositoryAccessMode field, and the private Docker registry where the model image is hosted requires authentication.

Type: [RepositoryAuthConfig \(p. 1700\)](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ImageVersion

Service: Amazon SageMaker Service

A version of a SageMaker Image. A version represents an existing container image.

## Contents

### **CreationTime**

When the version was created.

Type: Timestamp

Required: Yes

### **FailureReason**

When a create or delete operation fails, the reason for the failure.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

### **ImageArn**

The Amazon Resource Name (ARN) of the image the version is based on.

Type: String

Length Constraints: Maximum length of 256.

Pattern: ^arn:aws(-[\w]+)\*:sagemaker:.[0-9]{12}:image/[a-z0-9]([-.]?[a-z0-9])\*\$

Required: Yes

### **ImageVersionArn**

The ARN of the version.

Type: String

Length Constraints: Maximum length of 256.

Pattern: ^arn:aws(-[\w]+)\*:sagemaker:.[0-9]{12}:image-version/[a-z0-9]([-.]?[a-z0-9])\*[/0-9]+\$

Required: Yes

### **ImageVersionStatus**

The status of the version.

Type: String

Valid Values: CREATING | CREATED | CREATE FAILED | DELETING | DELETE FAILED

Required: Yes

### **LastModifiedTime**

When the version was last modified.

Type: Timestamp

Required: Yes

#### **Version**

The version number.

Type: Integer

Valid Range: Minimum value of 0.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# InferenceExecutionConfig

Service: Amazon SageMaker Service

Specifies details about how containers in a multi-container endpoint are run.

## Contents

### Mode

How containers in a multi-container are run. The following values are valid.

- SERIAL - Containers run as a serial pipeline.
- DIRECT - Only the individual container that you specify is run.

Type: String

Valid Values: Serial | Direct

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# InferenceExperimentDataStorageConfig

Service: Amazon SageMaker Service

The Amazon S3 location and configuration for storing inference request and response data.

## Contents

### ContentType

Configuration specifying how to treat different headers. If no headers are specified SageMaker will by default base64 encode when capturing the data.

Type: [CaptureContentTypeHeader \(p. 1194\)](#) object

Required: No

### Destination

The Amazon S3 bucket where the inference request and response data is stored.

Type: String

Length Constraints: Maximum length of 512.

Pattern: ^(https|s3)://([^\:])/?(.\*)\$

Required: Yes

### KmsKey

The AWS Key Management Service key that Amazon SageMaker uses to encrypt captured data at rest using Amazon S3 server-side encryption.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: .\*

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## InferenceExperimentSchedule

Service: Amazon SageMaker Service

The start and end times of an inference experiment.

The maximum duration that you can set for an inference experiment is 30 days.

### Contents

#### EndTime

The timestamp at which the inference experiment ended or will end.

Type: Timestamp

Required: No

#### StartTime

The timestamp at which the inference experiment started or will start.

Type: Timestamp

Required: No

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# InferenceExperimentSummary

Service: Amazon SageMaker Service

Lists a summary of properties of an inference experiment.

## Contents

### CompletionTime

The timestamp at which the inference experiment was completed.

Type: Timestamp

Required: No

### CreationTime

The timestamp at which the inference experiment was created.

Type: Timestamp

Required: Yes

### Description

The description of the inference experiment.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: .\*

Required: No

### LastModifiedTime

The timestamp when you last modified the inference experiment.

Type: Timestamp

Required: Yes

### Name

The name of the inference experiment.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,119\}

Required: Yes

### RoleArn

The ARN of the IAM role that Amazon SageMaker can assume to access model artifacts and container images, and manage Amazon SageMaker Inference endpoints for model deployment.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: ^arn:aws[a-zA-Z-]\*:iam::\d{12}:role/?[a-zA-Z\_0-9+=,.@\\-\_/]+\$

Required: No

#### Schedule

The duration for which the inference experiment ran or will run.

The maximum duration that you can set for an inference experiment is 30 days.

Type: [InferenceExperimentSchedule \(p. 1415\)](#) object

Required: No

#### Status

The status of the inference experiment.

Type: String

Valid Values: Creating | Created | Updating | Running | Starting | Stopping | Completed | Cancelled

Required: Yes

#### StatusReason

The error message for the inference experiment status result.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: .\*

Required: No

#### Type

The type of the inference experiment.

Type: String

Valid Values: ShadowMode

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## InferenceMetrics

Service: Amazon SageMaker Service

The metrics for an existing endpoint compared in an Inference Recommender job.

### Contents

#### MaxInvocations

The expected maximum number of requests per minute for the instance.

Type: Integer

Required: Yes

#### ModelLatency

The expected model latency at maximum invocations per minute for the instance.

Type: Integer

Required: Yes

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# InferenceRecommendation

Service: Amazon SageMaker Service

A list of recommendations made by Amazon SageMaker Inference Recommender.

## Contents

### EndpointConfiguration

Defines the endpoint configuration parameters.

Type: [EndpointOutputConfiguration \(p. 1308\)](#) object

Required: Yes

### Metrics

The metrics used to decide what recommendation to make.

Type: [RecommendationMetrics \(p. 1694\)](#) object

Required: Yes

### ModelConfiguration

Defines the model configuration.

Type: [ModelConfiguration \(p. 1490\)](#) object

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# InferenceRecommendationsJob

Service: Amazon SageMaker Service

A structure that contains a list of recommendation jobs.

## Contents

### **CompletionTime**

A timestamp that shows when the job completed.

Type: Timestamp

Required: No

### **CreationTime**

A timestamp that shows when the job was created.

Type: Timestamp

Required: Yes

### **FailureReason**

If the job fails, provides information why the job failed.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

### **JobArn**

The Amazon Resource Name (ARN) of the recommendation job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws:[a-z\-\-]*:sagemaker:[a-z0-9\-\-]*:[0-9]{12}:inference-recommendations-job/.*`

Required: Yes

### **JobDescription**

The job description.

Type: String

Length Constraints: Maximum length of 128.

Required: Yes

### **JobName**

The name of the job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9]){\0,63}

Required: Yes

#### JobType

The recommendation job type.

Type: String

Valid Values: Default | Advanced

Required: Yes

#### LastModifiedTime

A timestamp that shows when the job was last modified.

Type: Timestamp

Required: Yes

#### RoleArn

The Amazon Resource Name (ARN) of an IAM role that enables Amazon SageMaker to perform tasks on your behalf.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: ^arn:aws[a-zA-Z-]\*:iam::\d{12}:role/?[a-zA-Z\_0-9+=,.@\\-\_/.]+\$

Required: Yes

#### Status

The status of the job.

Type: String

Valid Values: PENDING | IN\_PROGRESS | COMPLETED | FAILED | STOPPING | STOPPED

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# InferenceRecommendationsJobStep

Service: Amazon SageMaker Service

A returned array object for the Steps response field in the [ListInferenceRecommendationsJobSteps](#) API command.

## Contents

### **InferenceBenchmark**

The details for a specific benchmark.

Type: [RecommendationJobInferenceBenchmark](#) (p. 1687) object

Required: No

### **JobName**

The name of the Inference Recommender job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,63\}

Required: Yes

### **Status**

The current status of the benchmark.

Type: String

Valid Values: PENDING | IN\_PROGRESS | COMPLETED | FAILED | STOPPING | STOPPED

Required: Yes

### **StepType**

The type of the subtask.

BENCHMARK: Evaluate the performance of your model on different instance types.

Type: String

Valid Values: BENCHMARK

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# InferenceSpecification

Service: Amazon SageMaker Service

Defines how to perform inference generation after a training job is run.

## Contents

### Containers

The Amazon ECR registry path of the Docker image that contains the inference code.

Type: Array of [ModelPackageContainerDefinition \(p. 1519\)](#) objects

Array Members: Minimum number of 1 item. Maximum number of 15 items.

Required: Yes

### SupportedContentTypes

The supported MIME types for the input data.

Type: Array of strings

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: Yes

### SupportedRealtimeInferenceInstanceTypes

A list of the instance types that are used to generate inferences in real-time.

This parameter is required for unversioned models, and optional for versioned models.

Type: Array of strings

Valid Values: ml.t2.medium | ml.t2.large | ml.t2.xlarge | ml.t2.2xlarge | ml.m4.xlarge | ml.m4.2xlarge | ml.m4.4xlarge | ml.m4.10xlarge | ml.m4.16xlarge | ml.m5.large | ml.m5.xlarge | ml.m5.2xlarge | ml.m5.4xlarge | ml.m5.12xlarge | ml.m5.24xlarge | ml.m5d.large | ml.m5d.xlarge | ml.m5d.2xlarge | ml.m5d.4xlarge | ml.m5d.12xlarge | ml.m5d.24xlarge | ml.c4.large | ml.c4.xlarge | ml.c4.2xlarge | ml.c4.4xlarge | ml.c4.8xlarge | ml.p2.xlarge | ml.p2.8xlarge | ml.p2.16xlarge | ml.p3.2xlarge | ml.p3.8xlarge | ml.p3.16xlarge | ml.c5.large | ml.c5.xlarge | ml.c5.2xlarge | ml.c5.4xlarge | ml.c5.9xlarge | ml.c5.18xlarge | ml.c5d.large | ml.c5d.xlarge | ml.c5d.2xlarge | ml.c5d.4xlarge | ml.c5d.9xlarge | ml.c5d.18xlarge | ml.g4dn.xlarge | ml.g4dn.2xlarge | ml.g4dn.4xlarge | ml.g4dn.8xlarge | ml.g4dn.12xlarge | ml.g4dn.16xlarge | ml.r5.large | ml.r5.xlarge | ml.r5.2xlarge | ml.r5.4xlarge | ml.r5.12xlarge | ml.r5.24xlarge | ml.r5d.large | ml.r5d.xlarge | ml.r5d.2xlarge | ml.r5d.4xlarge | ml.r5d.12xlarge | ml.r5d.24xlarge | ml.inf1.xlarge | ml.inf1.2xlarge | ml.inf1.6xlarge | ml.inf1.24xlarge | ml.c6i.large | ml.c6i.xlarge | ml.c6i.2xlarge | ml.c6i.4xlarge | ml.c6i.8xlarge | ml.c6i.12xlarge | ml.c6i.16xlarge | ml.c6i.24xlarge | ml.c6i.32xlarge | ml.g5.xlarge | ml.g5.2xlarge | ml.g5.4xlarge | ml.g5.8xlarge | ml.g5.12xlarge | ml.g5.16xlarge | ml.g5.24xlarge | ml.g5.48xlarge | ml.p4d.24xlarge | ml.c7g.large | ml.c7g.xlarge | ml.c7g.2xlarge | ml.c7g.4xlarge | ml.c7g.8xlarge | ml.c7g.12xlarge | ml.c7g.16xlarge | ml.m6g.large | ml.m6g.xlarge | ml.m6g.2xlarge | ml.m6g.4xlarge |

```
ml.m6g.8xlarge | ml.m6g.12xlarge | ml.m6g.16xlarge | ml.m6gd.large |  
ml.m6gd.xlarge | ml.m6gd.2xlarge | ml.m6gd.4xlarge | ml.m6gd.8xlarge  
| ml.m6gd.12xlarge | ml.m6gd.16xlarge | ml.c6g.large | ml.c6g.xlarge  
| ml.c6g.2xlarge | ml.c6g.4xlarge | ml.c6g.8xlarge | ml.c6g.12xlarge  
| ml.c6g.16xlarge | ml.c6gd.large | ml.c6gd.xlarge | ml.c6gd.2xlarge |  
ml.c6gd.4xlarge | ml.c6gd.8xlarge | ml.c6gd.12xlarge | ml.c6gd.16xlarge  
| ml.c6gn.large | ml.c6gn.xlarge | ml.c6gn.2xlarge | ml.c6gn.4xlarge  
| ml.c6gn.8xlarge | ml.c6gn.12xlarge | ml.c6gn.16xlarge | ml.r6g.large  
| ml.r6g.xlarge | ml.r6g.2xlarge | ml.r6g.4xlarge | ml.r6g.8xlarge |  
ml.r6g.12xlarge | ml.r6g.16xlarge | ml.r6gd.large | ml.r6gd.xlarge |  
ml.r6gd.2xlarge | ml.r6gd.4xlarge | ml.r6gd.8xlarge | ml.r6gd.12xlarge |  
ml.r6gd.16xlarge
```

Required: No

#### **SupportedResponseMIMETypes**

The supported MIME types for the output data.

Type: Array of strings

Length Constraints: Maximum length of 1024.

Pattern: ^[-\w]+\.\+\$

Required: Yes

#### **SupportedTransformInstanceTypes**

A list of the instance types on which a transformation job can be run or on which an endpoint can be deployed.

This parameter is required for unversioned models, and optional for versioned models.

Type: Array of strings

Array Members: Minimum number of 1 item.

Valid Values: ml.m4.xlarge | ml.m4.2xlarge | ml.m4.4xlarge | ml.m4.10xlarge  
| ml.m4.16xlarge | ml.c4.xlarge | ml.c4.2xlarge | ml.c4.4xlarge  
| ml.c4.8xlarge | ml.p2.xlarge | ml.p2.8xlarge | ml.p2.16xlarge  
| ml.p3.2xlarge | ml.p3.8xlarge | ml.p3.16xlarge | ml.c5.xlarge |  
ml.c5.2xlarge | ml.c5.4xlarge | ml.c5.9xlarge | ml.c5.18xlarge | ml.m5.large  
| ml.m5.xlarge | ml.m5.2xlarge | ml.m5.4xlarge | ml.m5.12xlarge |  
ml.m5.24xlarge | ml.g4dn.xlarge | ml.g4dn.2xlarge | ml.g4dn.4xlarge |  
ml.g4dn.8xlarge | ml.g4dn.12xlarge | ml.g4dn.16xlarge

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# InputConfig

Service: Amazon SageMaker Service

Contains information about the location of input model artifacts, the name and shape of the expected data inputs, and the framework in which the model was trained.

## Contents

### DataInputConfig

Specifies the name and shape of the expected data inputs for your trained model with a JSON dictionary form. The data inputs are [InputConfig:Framework \(p. 1427\)](#) specific.

- **TensorFlow:** You must specify the name and shape (NHWC format) of the expected data inputs using a dictionary format for your trained model. The dictionary formats required for the console and CLI are different.
  - Examples for one input:
    - If using the console, `{"input": [1,1024,1024,3]}`
    - If using the CLI, `{\"input\": [1,1024,1024,3]}`
  - Examples for two inputs:
    - If using the console, `{"data1": [1,28,28,1], "data2": [1,28,28,1]}`
    - If using the CLI, `{\"data1\": [1,28,28,1], \"data2\": [1,28,28,1]}`
- **KERAS:** You must specify the name and shape (NCHW format) of expected data inputs using a dictionary format for your trained model. Note that while Keras model artifacts should be uploaded in NHWC (channel-last) format, DataInputConfig should be specified in NCHW (channel-first) format. The dictionary formats required for the console and CLI are different.
  - Examples for one input:
    - If using the console, `{"input_1": [1,3,224,224]}`
    - If using the CLI, `{\"input_1\": [1,3,224,224]}`
  - Examples for two inputs:
    - If using the console, `{"input_1": [1,3,224,224], "input_2": [1,3,224,224]}`
    - If using the CLI, `{\"input_1\": [1,3,224,224], \"input_2\": [1,3,224,224]}`
- **MXNET/ONNX/DARKNET:** You must specify the name and shape (NCHW format) of the expected data inputs in order using a dictionary format for your trained model. The dictionary formats required for the console and CLI are different.
  - Examples for one input:
    - If using the console, `{"data": [1,3,1024,1024]}`
    - If using the CLI, `{\"data\": [1,3,1024,1024]}`
  - Examples for two inputs:
    - If using the console, `{"var1": [1,1,28,28], "var2": [1,1,28,28]}`
    - If using the CLI, `{\"var1\": [1,1,28,28], \"var2\": [1,1,28,28]}`
- **PyTorch:** You can either specify the name and shape (NCHW format) of expected data inputs in order using a dictionary format for your trained model or you can specify the shape only using a list format. The dictionary formats required for the console and CLI are different. The list formats for the console and CLI are the same.
  - Examples for one input in dictionary format:
    - If using the console, `{"input0": [1,3,224,224]}`
    - If using the CLI, `{\"input0\": [1,3,224,224]}`
  - Example for one input in list format: `[[1,3,224,224]]`
  - Examples for two inputs in dictionary format:

- If using the console, `{"input0": [1, 3, 224, 224], "input1": [1, 3, 224, 224]}`
- If using the CLI, `{\"input0\":[1,3,224,224], \"input1\":[1,3,224,224]}`
- Example for two inputs in list format: `[[1, 3, 224, 224], [1, 3, 224, 224]]`
- XGBOOST: input data name and shape are not needed.

DataInputConfig supports the following parameters for CoreML

[OutputConfig:TargetDevice \(p. 1598\)](#) (ML Model format):

- `shape`: Input shape, for example `{"input_1": {"shape": [1, 224, 224, 3]}}`. In addition to static input shapes, CoreML converter supports Flexible input shapes:
  - Range Dimension. You can use the Range Dimension feature if you know the input shape will be within some specific interval in that dimension, for example: `{"input_1": {"shape": ["1..10", 224, 224, 3]}}`
  - Enumerated shapes. Sometimes, the models are trained to work only on a select set of inputs. You can enumerate all supported input shapes, for example: `{"input_1": {"shape": [[1, 224, 224, 3], [1, 160, 160, 3]]}}`
- `default_shape`: Default input shape. You can set a default shape during conversion for both Range Dimension and Enumerated Shapes. For example `{"input_1": {"shape": ["1..10", 224, 224, 3], "default_shape": [1, 224, 224, 3]}}`
- `type`: Input type. Allowed values: Image and Tensor. By default, the converter generates an ML Model with inputs of type Tensor (MultiArray). User can set input type to be Image. Image input type requires additional input parameters such as bias and scale.
- `bias`: If the input type is an Image, you need to provide the bias vector.
- `scale`: If the input type is an Image, you need to provide a scale factor.

CoreML ClassifierConfig parameters can be specified using

[OutputConfig:CompilerOptions \(p. 1597\)](#). CoreML converter supports Tensorflow and PyTorch models. CoreML conversion examples:

- Tensor type input:
  - `"DataInputConfig": {"input_1": {"shape": [[1, 224, 224, 3], [1, 160, 160, 3]], "default_shape": [1, 224, 224, 3]}}`
- Tensor type input without input name (PyTorch):
  - `"DataInputConfig": [{"shape": [[1, 3, 224, 224], [1, 3, 160, 160]], "default_shape": [1, 3, 224, 224]}]`
- Image type input:
  - `"DataInputConfig": {"input_1": {"shape": [[1, 224, 224, 3], [1, 160, 160, 3]], "default_shape": [1, 224, 224, 3], "type": "Image", "bias": [-1, -1, -1], "scale": 0.007843137255}}`
  - `"CompilerOptions": {"class_labels": "imagenet_labels_1000.txt"}`
- Image type input without input name (PyTorch):
  - `"DataInputConfig": [{"shape": [[1, 3, 224, 224], [1, 3, 160, 160]], "default_shape": [1, 3, 224, 224], "type": "Image", "bias": [-1, -1, -1], "scale": 0.007843137255}]`
  - `"CompilerOptions": {"class_labels": "imagenet_labels_1000.txt"}`

Depending on the model format, DataInputConfig requires the following parameters for ml\_eia2 [OutputConfig:TargetDevice](#).

- For TensorFlow models saved in the SavedModel format, specify the input names from `signature_def_key` and the input model shapes for DataInputConfig. Specify the `signature_def_key` in [OutputConfig:CompilerOptions](#) if the model does not use TensorFlow's default signature def key. For example:
  - `"DataInputConfig": {"inputs": [1, 224, 224, 3]}`

- "CompilerOptions": {"signature\_def\_key": "serving\_custom"}
- For TensorFlow models saved as a frozen graph, specify the input tensor names and shapes in DataInputConfig and the output tensor names for output\_names in [OutputConfig:CompilerOptions](#). For example:
  - "DataInputConfig": {"input\_tensor:0": [1, 224, 224, 3]}
  - "CompilerOptions": {"output\_names": ["output\_tensor:0"]}}

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: [\S\s]+

Required: Yes

#### Framework

Identifies the framework in which the model was trained. For example: TENSORFLOW.

Type: String

Valid Values: TENSORFLOW | KERAS | MXNET | ONNX | PYTORCH | XGBOOST | TFLITE | DARKNET | SKLEARN

Required: Yes

#### FrameworkVersion

Specifies the framework version to use. This API field is only supported for the MXNet, PyTorch, TensorFlow and TensorFlow Lite frameworks.

For information about framework versions supported for cloud targets and edge devices, see [Cloud Supported Instance Types and Frameworks](#) and [Edge Supported Frameworks](#).

Type: String

Length Constraints: Minimum length of 3. Maximum length of 10.

Pattern: [0-9]\.[A-Za-z0-9\.]+

Required: No

#### S3Uri

The S3 path where the model artifacts, which result from model training, are stored. This path must point to a single gzip compressed tar archive (.tar.gz suffix).

Type: String

Length Constraints: Maximum length of 1024.

Pattern: ^(https|s3)://([^\/]\*)/?(.\*)\$

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## InstanceGroup

Service: Amazon SageMaker Service

Defines an instance group for heterogeneous cluster training. When requesting a training job using the [CreateTrainingJob](#) API, you can configure multiple instance groups .

## Contents

### InstanceCount

Specifies the number of instances of the instance group.

Type: Integer

Valid Range: Minimum value of 0.

Required: Yes

### InstanceGroupName

Specifies the name of the instance group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: .+

Required: Yes

### InstanceType

Specifies the instance type of the instance group.

Type: String

Valid Values: ml.m4.xlarge | ml.m4.2xlarge | ml.m4.4xlarge | ml.m4.10xlarge | ml.m4.16xlarge | ml.g4dn.xlarge | ml.g4dn.2xlarge | ml.g4dn.4xlarge | ml.g4dn.8xlarge | ml.g4dn.12xlarge | ml.g4dn.16xlarge | ml.m5.large | ml.m5.xlarge | ml.m5.2xlarge | ml.m5.4xlarge | ml.m5.12xlarge | ml.m5.24xlarge | ml.c4.xlarge | ml.c4.2xlarge | ml.c4.4xlarge | ml.c4.8xlarge | ml.p2.xlarge | ml.p2.8xlarge | ml.p2.16xlarge | ml.p3.2xlarge | ml.p3.8xlarge | ml.p3.16xlarge | ml.p3dn.24xlarge | ml.p4d.24xlarge | ml.c5.xlarge | ml.c5.2xlarge | ml.c5.4xlarge | ml.c5.9xlarge | ml.c5.18xlarge | ml.c5n.xlarge | ml.c5n.2xlarge | ml.c5n.4xlarge | ml.c5n.9xlarge | ml.c5n.18xlarge | ml.g5.xlarge | ml.g5.2xlarge | ml.g5.4xlarge | ml.g5.8xlarge | ml.g5.16xlarge | ml.g5.12xlarge | ml.g5.24xlarge | ml.g5.48xlarge | ml.trn1.2xlarge | ml.trn1.32xlarge

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# InstanceMetadataServiceConfiguration

Service: Amazon SageMaker Service

Information on the IMDS configuration of the notebook instance

## Contents

### MinimumInstanceMetadataServiceVersion

Indicates the minimum IMDS version that the notebook instance supports. When passed as part of CreateNotebookInstance, if no value is selected, then it defaults to IMDSv1. This means that both IMDSv1 and IMDSv2 are supported. If passed as part of UpdateNotebookInstance, there is no default.

Type: String

Length Constraints: Maximum length of 1.

Pattern: 1 | 2

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# IntegerParameterRange

Service: Amazon SageMaker Service

For a hyperparameter of the integer type, specifies the range that a hyperparameter tuning job searches.

## Contents

### .MaxValue

The maximum value of the hyperparameter to search.

Type: String

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: Yes

### .MinValue

The minimum value of the hyperparameter to search.

Type: String

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: Yes

### Name

The name of the hyperparameter to search.

Type: String

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: Yes

### ScalingType

The scale that hyperparameter tuning uses to search the hyperparameter range. For information about choosing a hyperparameter scale, see [Hyperparameter Scaling](#). One of the following values:

Auto

SageMaker hyperparameter tuning chooses the best scale for the hyperparameter.

Linear

Hyperparameter tuning searches the values in the hyperparameter range by using a linear scale.

Logarithmic

Hyperparameter tuning searches the values in the hyperparameter range by using a logarithmic scale.

Logarithmic scaling works only for ranges that have only values greater than 0.

Type: String

Valid Values: Auto | Linear | Logarithmic | ReverseLogarithmic

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# IntegerParameterRangeSpecification

Service: Amazon SageMaker Service

Defines the possible values for an integer hyperparameter.

## Contents

### MaxValue

The maximum integer value allowed.

Type: String

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: Yes

### MinValue

The minimum integer value allowed.

Type: String

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# JupyterServerAppSettings

Service: Amazon SageMaker Service

The JupyterServer app settings.

## Contents

### CodeRepositories

A list of Git repositories that SageMaker automatically displays to users for cloning in the JupyterServer application.

Type: Array of [CodeRepository \(p. 1216\)](#) objects

Array Members: Maximum number of 10 items.

Required: No

### DefaultResourceSpec

The default instance type and the Amazon Resource Name (ARN) of the default SageMaker image used by the JupyterServer app. If you use the `LifecycleConfigArns` parameter, then this parameter is also required.

Type: [ResourceSpec \(p. 1707\)](#) object

Required: No

### LifecycleConfigArns

The Amazon Resource Name (ARN) of the Lifecycle Configurations attached to the JupyterServerApp. If you use this parameter, the `DefaultResourceSpec` parameter is also required.

#### Note

To remove a Lifecycle Config, you must set `LifecycleConfigArns` to an empty list.

Type: Array of strings

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:studio-lifecycle-config/.*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# KernelGatewayAppSettings

Service: Amazon SageMaker Service

The KernelGateway app settings.

## Contents

### CustomImages

A list of custom SageMaker images that are configured to run as a KernelGateway app.

Type: Array of [CustomImage \(p. 1234\)](#) objects

Array Members: Maximum number of 200 items.

Required: No

### DefaultResourceSpec

The default instance type and the Amazon Resource Name (ARN) of the default SageMaker image used by the KernelGateway app.

#### Note

The Amazon SageMaker Studio UI does not use the default instance type value set here. The default instance type set here is used when Apps are created using the AWS Command Line Interface or AWS CloudFormation and the instance type parameter value is not passed.

Type: [ResourceSpec \(p. 1707\)](#) object

Required: No

### LifecycleConfigArns

The Amazon Resource Name (ARN) of the Lifecycle Configurations attached to the user profile or domain.

#### Note

To remove a Lifecycle Config, you must set `LifecycleConfigArns` to an empty list.

Type: Array of strings

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-\]*:sagemaker:[a-z0-9\-\]*:[0-9]{12}:studio-lifecycle-config/.*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# KernelGatewayImageConfig

Service: Amazon SageMaker Service

The configuration for the file system and kernels in a SageMaker image running as a KernelGateway app.

## Contents

### FileSystemConfig

The Amazon Elastic File System (EFS) storage configuration for a SageMaker image.

Type: [FileSystemConfig \(p. 1336\)](#) object

Required: No

### KernelSpecs

The specification of the Jupyter kernels in the image.

Type: Array of [KernelSpec \(p. 1438\)](#) objects

Array Members: Fixed number of 1 item.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## KernelSpec

Service: Amazon SageMaker Service

The specification of a Jupyter kernel.

### Contents

#### DisplayName

The display name of the kernel.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

#### Name

The name of the Jupyter kernel in the image. This value is case sensitive.

Type: String

Length Constraints: Maximum length of 1024.

Required: Yes

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# LabelCounters

Service: Amazon SageMaker Service

Provides a breakdown of the number of objects labeled.

## Contents

### **FailedNonRetryableError**

The total number of objects that could not be labeled due to an error.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

### **HumanLabeled**

The total number of objects labeled by a human worker.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

### **MachineLabeled**

The total number of objects labeled by automated data labeling.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

### **TotalLabeled**

The total number of objects labeled.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

### **Unlabeled**

The total number of objects not yet labeled.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)

- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# LabelCountersForWorkteam

Service: Amazon SageMaker Service

Provides counts for human-labeled tasks in the labeling job.

## Contents

### **HumanLabeled**

The total number of data objects labeled by a human worker.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

### **PendingHuman**

The total number of data objects that need to be labeled by a human worker.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

### **Total**

The total number of tasks in the labeling job.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# LabelingJobAlgorithmsConfig

Service: Amazon SageMaker Service

Provides configuration information for auto-labeling of your data objects. A `LabelingJobAlgorithmsConfig` object must be supplied in order to use auto-labeling.

## Contents

### InitialActiveLearningModelArn

At the end of an auto-label job Ground Truth sends the Amazon Resource Name (ARN) of the final model used for auto-labeling. You can use this model as the starting point for subsequent similar jobs by providing the ARN of the model here.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws:[a-z\-\-]*:sagemaker:[a-z0-9\-\-]*:[0-9]{12}:model/.*`

Required: No

### LabelingJobAlgorithmSpecificationArn

Specifies the Amazon Resource Name (ARN) of the algorithm used for auto-labeling. You must select one of the following ARNs:

- *Image classification*

`arn:aws:sagemaker:region:027400017018:labeling-job-algorithm-specification/image-classification`

- *Text classification*

`arn:aws:sagemaker:region:027400017018:labeling-job-algorithm-specification/text-classification`

- *Object detection*

`arn:aws:sagemaker:region:027400017018:labeling-job-algorithm-specification/object-detection`

- *Semantic Segmentation*

`arn:aws:sagemaker:region:027400017018:labeling-job-algorithm-specification/semantic-segmentation`

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `arn:.*`

Required: Yes

### LabelingJobResourceConfig

Provides configuration information for a labeling job.

Type: [LabelingJobResourceConfig \(p. 1452\)](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# LabelingJobDataAttributes

Service: Amazon SageMaker Service

Attributes of the data specified by the customer. Use these to describe the data to be labeled.

## Contents

### ContentClassifiers

Declares that your content is free of personally identifiable information or adult content. SageMaker may restrict the Amazon Mechanical Turk workers that can view your task based on this information.

Type: Array of strings

Array Members: Maximum number of 256 items.

Valid Values: FreeOfPersonallyIdentifiableInformation | FreeOfAdultContent

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# LabelingJobDataSource

Service: Amazon SageMaker Service

Provides information about the location of input data.

You must specify at least one of the following: [S3DataSource](#) or [SnsDataSource](#).

Use [SnsDataSource](#) to specify an SNS input topic for a streaming labeling job. If you do not specify an SNS input topic ARN, Ground Truth will create a one-time labeling job.

Use [S3DataSource](#) to specify an input manifest file for both streaming and one-time labeling jobs. Adding an [S3DataSource](#) is optional if you use [SnsDataSource](#) to create a streaming labeling job.

## Contents

### **S3DataSource**

The Amazon S3 location of the input data objects.

Type: [LabelingJobS3DataSource \(p. 1454\)](#) object

Required: No

### **SnsDataSource**

An Amazon SNS data source used for streaming labeling jobs. To learn more, see [Send Data to a Streaming Labeling Job](#).

Type: [LabelingJobSnsDataSource \(p. 1455\)](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# LabelingJobForWorkteamSummary

Service: Amazon SageMaker Service

Provides summary information for a work team.

## Contents

### **CreationTime**

The date and time that the labeling job was created.

Type: Timestamp

Required: Yes

### **JobReferenceCode**

A unique identifier for a labeling job. You can use this to refer to a specific labeling job.

Type: String

Length Constraints: Minimum length of 1.

Pattern: .+

Required: Yes

### **LabelCounters**

Provides information about the progress of a labeling job.

Type: [LabelCountersForWorkteam \(p. 1441\)](#) object

Required: No

### **LabelingJobName**

The name of the labeling job that the work team is assigned to.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: No

### **NumberOfHumanWorkersPerDataObject**

The configured number of workers per data object.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 9.

Required: No

### **WorkRequesterAccountId**

The AWS account ID of the account used to start the labeling job.

Type: String

Pattern: ^\d+\\$

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# LabelingJobInputConfig

Service: Amazon SageMaker Service

Input configuration information for a labeling job.

## Contents

### DataAttributes

Attributes of the data specified by the customer.

Type: [LabelingJobDataAttributes \(p. 1444\)](#) object

Required: No

### DataSource

The location of the input data.

Type: [LabelingJobDataSource \(p. 1445\)](#) object

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# LabelingJobOutput

Service: Amazon SageMaker Service

Specifies the location of the output produced by the labeling job.

## Contents

### FinalActiveLearningModelArn

The Amazon Resource Name (ARN) for the most recent SageMaker model trained as part of automated data labeling.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[a-z\-\-]*:sagemaker:[a-z0-9\-\-]*:[0-9]{12}:model/.*`

Required: No

### OutputDatasetS3Uri

The Amazon S3 bucket location of the manifest file for labeled data.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3)://([^\/\]+)?(.*$)`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# LabelingJobOutputConfig

Service: Amazon SageMaker Service

Output configuration information for a labeling job.

## Contents

### KmsKeyId

The AWS Key Management Service ID of the key used to encrypt the output data, if any.

If you provide your own KMS key ID, you must add the required permissions to your KMS key described in [Encrypt Output Data and Storage Volume with AWS KMS](#).

If you don't provide a KMS key ID, Amazon SageMaker uses the default AWS KMS key for Amazon S3 for your role's account to encrypt your output data.

If you use a bucket policy with an s3:PutObject permission that only allows objects with server-side encryption, set the condition key of s3:x-amz-server-side-encryption to "aws:kms". For more information, see [KMS-Managed Encryption Keys](#) in the *Amazon Simple Storage Service Developer Guide*.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: .\*

Required: No

### S3OutputPath

The Amazon S3 location to write output data.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: ^(https|s3)://([^\?]+)\?(\.\*\$)

Required: Yes

### SnsTopicArn

An Amazon Simple Notification Service (Amazon SNS) output topic ARN. Provide a SnsTopicArn if you want to do real time chaining to another streaming job and receive an Amazon SNS notifications each time a data object is submitted by a worker.

If you provide an SnsTopicArn in OutputConfig, when workers complete labeling tasks, Ground Truth will send labeling task output data to the SNS output topic you specify here.

To learn more, see [Receive Output Data from a Streaming Labeling Job](#).

Type: String

Length Constraints: Maximum length of 2048.

Pattern: arn:aws[a-zA-Z-]\*:sns:[a-zA-Z0-9-]\*:[0-9]{12}:[a-zA-Z0-9\_.-]+

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# LabelingJobResourceConfig

Service: Amazon SageMaker Service

Configure encryption on the storage volume attached to the ML compute instance used to run automated data labeling model training and inference.

## Contents

### VolumeKmsKeyId

The AWS Key Management Service (AWS KMS) key that Amazon SageMaker uses to encrypt data on the storage volume attached to the ML compute instance(s) that run the training and inference jobs used for automated data labeling.

You can only specify a VolumeKmsKeyId when you create a labeling job with automated data labeling enabled using the API operation [CreateLabelingJob](#). You cannot specify an AWS KMS key to encrypt the storage volume used for automated data labeling model training and inference when you create a labeling job using the console. To learn more, see [Output Data and Storage Volume Encryption](#).

The VolumeKmsKeyId can be any of the following formats:

- KMS Key ID

"1234abcd-12ab-34cd-56ef-1234567890ab"

- Amazon Resource Name (ARN) of a KMS Key

"arn:aws:kms:us-west-2:111122223333:key/1234abcd-12ab-34cd-56ef-1234567890ab"

Type: String

Length Constraints: Maximum length of 2048.

Pattern: .\*

Required: No

### VpcConfig

Specifies a VPC that your training jobs and hosted models have access to. Control access to and from your training and model containers by configuring the VPC. For more information, see [Protect Endpoints by Using an Amazon Virtual Private Cloud](#) and [Protect Training Jobs by Using an Amazon Virtual Private Cloud](#).

Type: [VpcConfig \(p. 1829\)](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# LabelingJobS3DataSource

Service: Amazon SageMaker Service

The Amazon S3 location of the input data objects.

## Contents

### ManifestS3Uri

The Amazon S3 location of the manifest file that describes the input data objects.

The input manifest file referenced in `ManifestS3Uri` must contain one of the following keys: `source-ref` or `source`. The value of the keys are interpreted as follows:

- `source-ref`: The source of the object is the Amazon S3 object specified in the value. Use this value when the object is a binary object, such as an image.
- `source`: The source of the object is the value. Use this value when the object is a text value.

If you are a new user of Ground Truth, it is recommended you review [Use an Input Manifest File](#) in the Amazon SageMaker Developer Guide to learn how to create an input manifest file.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3)://([^\/]*)/?(.*)$`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# LabelingJobSnsDataSource

Service: Amazon SageMaker Service

An Amazon SNS data source used for streaming labeling jobs.

## Contents

### SnsTopicArn

The Amazon SNS input topic Amazon Resource Name (ARN). Specify the ARN of the input topic you will use to send new data objects to a streaming labeling job.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `arn:aws[a-zA-Z-]*:sns:[a-zA-Z0-9-]*:[0-9]{12}:[a-zA-Z0-9_.-]+`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# LabelingJobStoppingConditions

Service: Amazon SageMaker Service

A set of conditions for stopping a labeling job. If any of the conditions are met, the job is automatically stopped. You can use these conditions to control the cost of data labeling.

## Note

Labeling jobs fail after 30 days with an appropriate client error message.

## Contents

### MaxHumanLabeledObjectCount

The maximum number of objects that can be labeled by human workers.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

### MaxPercentageOfInputDatasetLabeled

The maximum number of input data objects that should be labeled.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# LabelingJobSummary

Service: Amazon SageMaker Service

Provides summary information about a labeling job.

## Contents

### AnnotationConsolidationLambdaArn

The Amazon Resource Name (ARN) of the Lambda function used to consolidate the annotations from individual workers into a label for a data object. For more information, see [Annotation Consolidation](#).

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `arn:aws[a-z\-]*:lambda:[a-z0-9\-]*:[0-9]{12}:function:.*`

Required: No

### CreationTime

The date and time that the job was created (timestamp).

Type: Timestamp

Required: Yes

### FailureReason

If the LabelingJobStatus field is Failed, this field contains a description of the error.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

### InputConfig

Input configuration for the labeling job.

Type: [LabelingJobInputConfig \(p. 1448\)](#) object

Required: No

### LabelCounters

Counts showing the progress of the labeling job.

Type: [LabelCounters \(p. 1439\)](#) object

Required: Yes

### LabelingJobArn

The Amazon Resource Name (ARN) assigned to the labeling job when it was created.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:labeling-job/.*`

Required: Yes

**LabelingJobName**

The name of the labeling job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: Yes

**LabelingJobOutput**

The location of the output produced by the labeling job.

Type: [LabelingJobOutput \(p. 1449\)](#) object

Required: No

**LabelingJobStatus**

The current status of the labeling job.

Type: String

Valid Values: Initializing | InProgress | Completed | Failed | Stopping | Stopped

Required: Yes

**LastModifiedTime**

The date and time that the job was last modified (timestamp).

Type: Timestamp

Required: Yes

**PreHumanTaskLambdaArn**

The Amazon Resource Name (ARN) of a Lambda function. The function is run before each data object is sent to a worker.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: arn:aws[a-zA-Z-]\*:lambda:[a-zA-Z0-9-]\*:[0-9]\{12\}:function:.\*

Required: Yes

**WorkteamArn**

The Amazon Resource Name (ARN) of the work team assigned to the job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-zA-Z-]\*:sagemaker:[a-zA-Z0-9-]\*:[0-9]\{12\}:workteam/.\*

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# LambdaStepMetadata

Service: Amazon SageMaker Service

Metadata for a Lambda step.

## Contents

### Arn

The Amazon Resource Name (ARN) of the Lambda function that was run by this step execution.

Type: String

Length Constraints: Maximum length of 256.

Required: No

### OutputParameters

A list of the output parameters of the Lambda step.

Type: Array of [OutputParameter \(p. 1603\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# LastUpdateStatus

Service: Amazon SageMaker Service

A value that indicates whether the update was successful.

## Contents

### FailureReason

If the update wasn't successful, indicates the reason why it failed.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

### Status

A value that indicates whether the update was made successful.

Type: String

Valid Values: Successful | Failed | InProgress

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# LineageGroupSummary

Service: Amazon SageMaker Service

Lists a summary of the properties of a lineage group. A lineage group provides a group of shareable lineage entity resources.

## Contents

### **CreationTime**

The creation time of the lineage group summary.

Type: Timestamp

Required: No

### **DisplayName**

The display name of the lineage group summary.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9]){0,119}

Required: No

### **LastModifiedTime**

The last modified time of the lineage group summary.

Type: Timestamp

Required: No

### **LineageGroupArn**

The Amazon Resource Name (ARN) of the lineage group resource.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-zA-Z-]\*:sagemaker:[a-zA-Z0-9-]\*:[0-9]{12}:lineage-group/.\*

Required: No

### **LineageGroupName**

The name or Amazon Resource Name (ARN) of the lineage group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9]){0,119}

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# MemberDefinition

Service: Amazon SageMaker Service

Defines an Amazon Cognito or your own OIDC IdP user group that is part of a work team.

## Contents

### CognitoMemberDefinition

The Amazon Cognito user group that is part of the work team.

Type: [CognitoMemberDefinition \(p. 1220\)](#) object

Required: No

### OidcMemberDefinition

A list user groups that exist in your OIDC Identity Provider (IdP). One to ten groups can be used to create a single private work team. When you add a user group to the list of Groups, you can add that user group to one or more private work teams. If you add a user group to a private work team, all workers in that user group are added to the work team.

Type: [OidcMemberDefinition \(p. 1594\)](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# MetadataProperties

Service: Amazon SageMaker Service

Metadata properties of the tracking entity, trial, or trial component.

## Contents

### CommitId

The commit ID.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: .\*

Required: No

### GeneratedBy

The entity this entity was generated by.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: .\*

Required: No

### ProjectId

The project ID.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: .\*

Required: No

### Repository

The repository.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: .\*

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## MetricData

Service: Amazon SageMaker Service

The name, value, and date and time of a metric that was emitted to Amazon CloudWatch.

## Contents

### MetricName

The name of the metric.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: .+

Required: No

### Timestamp

The date and time that the algorithm emitted the metric.

Type: Timestamp

Required: No

### Value

The value of the metric.

Type: Float

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## MetricDatum

Service: Amazon SageMaker Service

Information about the metric for a candidate produced by an AutoML job.

### Contents

#### MetricName

The name of the metric.

Type: String

Valid Values: Accuracy | MSE | F1 | F1macro | AUC

Required: No

#### Set

The dataset split from which the AutoML job produced the metric.

Type: String

Valid Values: Train | Validation | Test

Required: No

#### StandardMetricName

The name of the standard metric.

##### Note

For definitions of the standard metrics, see [Autopilot candidate metrics](#).

Type: String

Valid Values: Accuracy | MSE | F1 | F1macro | AUC | RMSE | MAE | R2 |  
BalancedAccuracy | Precision | PrecisionMacro | Recall | RecallMacro |  
LogLoss | InferenceLatency

Required: No

#### Value

The value of the metric.

Type: Float

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## MetricDefinition

Service: Amazon SageMaker Service

Specifies a metric that the training algorithm writes to `stderr` or `stdout`. SageMaker hyperparameter tuning captures all defined metrics. You specify one metric that a hyperparameter tuning job uses as its objective metric to choose the best training job.

## Contents

### Name

The name of the metric.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: .+

Required: Yes

### Regex

A regular expression that searches the output of a training job and gets the value of the metric. For more information about using regular expressions to define metrics, see [Defining Objective Metrics](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 500.

Pattern: .+

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## MetricsSource

Service: Amazon SageMaker Service

Details about the metrics source.

### Contents

#### ContentDigest

The hash key used for the metrics source.

Type: String

Length Constraints: Maximum length of 72.

Pattern: ^[Ss][Hh][Aa]256:[0-9a-fA-F]{64}\$

Required: No

#### ContentType

The metric source content type.

Type: String

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: Yes

#### S3Uri

The S3 URI for the metrics source.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: ^(https|s3)://([^\/]+)?(.\*)\$

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# Model

Service: Amazon SageMaker Service

The properties of a model as returned by the [Search \(p. 826\)](#) API.

## Contents

### Containers

The containers in the inference pipeline.

Type: Array of [ContainerDefinition \(p. 1225\)](#) objects

Array Members: Maximum number of 15 items.

Required: No

### CreationTime

A timestamp that indicates when the model was created.

Type: Timestamp

Required: No

### EnableNetworkIsolation

Isolates the model container. No inbound or outbound network calls can be made to or from the model container.

Type: Boolean

Required: No

### ExecutionRoleArn

The Amazon Resource Name (ARN) of the IAM role that you specified for the model.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: ^arn:aws[a-z\-\]\*:iam::\d{12}:role/?[a-zA-Z\_0-9+=,.@\-\/\_]+\$

Required: No

### InferenceExecutionConfig

Specifies details about how containers in a multi-container endpoint are run.

Type: [InferenceExecutionConfig \(p. 1413\)](#) object

Required: No

### ModelArn

The Amazon Resource Name (ARN) of the model.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: arn:aws[a-z\-\]\*:sagemaker:[a-z0-9\-\-]\*:[0-9]{12}:model/.\*

Required: No

**ModelName**

The name of the model.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\*

Required: No

**PrimaryContainer**

Describes the container, as part of model definition.

Type: [ContainerDefinition \(p. 1225\)](#) object

Required: No

**Tags**

A list of key-value pairs associated with the model. For more information, see [Tagging AWS resources](#) in the *AWS General Reference Guide*.

Type: Array of [Tag \(p. 1749\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

**VpcConfig**

Specifies a VPC that your training jobs and hosted models have access to. Control access to and from your training and model containers by configuring the VPC. For more information, see [Protect Endpoints by Using an Amazon Virtual Private Cloud](#) and [Protect Training Jobs by Using an Amazon Virtual Private Cloud](#).

Type: [VpcConfig \(p. 1829\)](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelArtifacts

Service: Amazon SageMaker Service

Provides information about the location that is configured for storing model artifacts.

Model artifacts are the output that results from training a model, and typically consist of trained parameters, a model definition that describes how to compute inferences, and other metadata.

## Contents

### S3ModelArtifacts

The path of the S3 object that contains the model artifacts. For example, s3://bucket-name/keynameprefix/model.tar.gz.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: ^(https|s3)://([^\/]\*)/?(.\*)\$

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelBiasAppSpecification

Service: Amazon SageMaker Service

Docker container image configuration object for the model bias job.

## Contents

### ConfigUri

JSON formatted S3 file that defines bias parameters. For more information on this JSON configuration file, see [Configure bias parameters](#).

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3)://([^\/]*)/?(.*)$`

Required: Yes

### Environment

Sets the environment variables in the Docker container.

Type: String to string map

Map Entries: Maximum number of 50 items.

Key Length Constraints: Maximum length of 256.

Key Pattern: `[a-zA-Z_][a-zA-Z0-9_]*`

Value Length Constraints: Maximum length of 256.

Value Pattern: `[\S\s]*`

Required: No

### ImageUri

The container image to be run by the model bias job.

Type: String

Length Constraints: Maximum length of 255.

Pattern: `.*`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelBiasBaselineConfig

Service: Amazon SageMaker Service

The configuration for a baseline model bias job.

## Contents

### BaseliningJobName

The name of the baseline model bias job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: No

### ConstraintsResource

The constraints resource for a monitoring job.

Type: [MonitoringConstraintsResource \(p. 1551\)](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelBiasJobInput

Service: Amazon SageMaker Service

Inputs for the model bias job.

## Contents

### BatchTransformInput

Input object for the batch transform job.

Type: [BatchTransformInput \(p. 1183\)](#) object

Required: No

### EndpointInput

Input object for the endpoint

Type: [EndpointInput \(p. 1302\)](#) object

Required: No

### GroundTruthS3Input

Location of ground truth labels to use in model bias job.

Type: [MonitoringGroundTruthS3Input \(p. 1556\)](#) object

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelCard

Service: Amazon SageMaker Service

An Amazon SageMaker Model Card.

## Contents

### Content

The content of the model card. Content uses the [model card JSON schema](#) and provided as a string.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 100000.

Pattern: .\*

Required: No

### CreatedBy

Information about the user who created or modified an experiment, trial, trial component, lineage group, project, or model card.

Type: [UserContext \(p. 1822\)](#) object

Required: No

### CreationTime

The date and time that the model card was created.

Type: Timestamp

Required: No

### LastModifiedBy

Information about the user who created or modified an experiment, trial, trial component, lineage group, project, or model card.

Type: [UserContext \(p. 1822\)](#) object

Required: No

### LastModifiedTime

The date and time that the model card was last modified.

Type: Timestamp

Required: No

### ModelCardArn

The Amazon Resource Name (ARN) of the model card.

Type: String

Length Constraints: Maximum length of 256.

Pattern: ^arn:aws[a-z\-\]\*:sagemaker:[a-zA-Z0-9\-\\_]{9,16}:[0-9]{12}:model-card/[a-zA-Z0-9\-\\_]{0,62}\$

Required: No

**ModelCardName**

The unique name of the model card.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: No

**ModelCardStatus**

The approval status of the model card within your organization. Different organizations might have different criteria for model card review and approval.

- Draft: The model card is a work in progress.
- PendingReview: The model card is pending review.
- Approved: The model card is approved.
- Archived: The model card is archived. No more updates should be made to the model card, but it can still be exported.

Type: String

Valid Values: Draft | PendingReview | Approved | Archived

Required: No

**ModelCardVersion**

The version of the model card.

Type: Integer

Required: No

**ModelId**

The unique name (ID) of the model.

Type: String

Required: No

**RiskRating**

The risk rating of the model. Different organizations might have different criteria for model card risk ratings. For more information, see [Risk ratings](#).

Type: String

Required: No

**SecurityConfig**

The security configuration used to protect model card data.

Type: [ModelCardSecurityConfig \(p. 1484\)](#) object

Required: No

**Tags**

Key-value pairs used to manage metadata for the model card.

Type: Array of [Tag \(p. 1749\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelCardExportArtifacts

Service: Amazon SageMaker Service

The artifacts of the model card export job.

## Contents

### S3ExportArtifacts

The Amazon S3 URI of the exported model artifacts.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: ^(https|s3)://([^\/]\*)/?(.\*)\$

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelCardExportJobSummary

Service: Amazon SageMaker Service

The summary of the Amazon SageMaker Model Card export job.

## Contents

### **CreatedAt**

The date and time that the model card export job was created.

Type: Timestamp

Required: Yes

### **LastModifiedAt**

The date and time that the model card export job was last modified..

Type: Timestamp

Required: Yes

### **ModelCardExportJobArn**

The Amazon Resource Name (ARN) of the model card export job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: ^arn:aws[a-zA-Z]\*:sagemaker:[a-zA-Z0-9\-\\_]{9,16}:[0-9]{12}:model-card/[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}/export-job/[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

### **ModelCardExportJobName**

The name of the model card export job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

### **ModelCardName**

The name of the model card that the export job exports.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

### **ModelCardVersion**

The version of the model card that the export job exports.

Type: Integer

Required: Yes

**Status**

The completion status of the model card export job.

Type: String

Valid Values: InProgress | Completed | Failed

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelCardExportOutputConfig

Service: Amazon SageMaker Service

Configure the export output details for an Amazon SageMaker Model Card.

## Contents

### S3OutputPath

The Amazon S3 output path to export your model card PDF.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: ^(https|s3)://([^\/]\*)/?(.\*)\$

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelCardSecurityConfig

Service: Amazon SageMaker Service

Configure the security settings to protect model card data.

## Contents

### KmsKeyId

A Key Management Service [key ID](#) to use for encrypting a model card.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: .\*

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelCardSummary

Service: Amazon SageMaker Service

A summary of the model card.

## Contents

### **CreationTime**

The date and time that the model card was created.

Type: Timestamp

Required: Yes

### **LastModifiedTime**

The date and time that the model card was last modified.

Type: Timestamp

Required: No

### **ModelCardArn**

The Amazon Resource Name (ARN) of the model card.

Type: String

Length Constraints: Maximum length of 256.

Pattern: ^arn:aws[a-zA-Z-]\*:sagemaker:[a-zA-Z0-9-]{9,16}:[0-9]{12}:model-card/[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

### **ModelCardName**

The name of the model card.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

### **ModelCardStatus**

The approval status of the model card within your organization. Different organizations might have different criteria for model card review and approval.

- **Draft:** The model card is a work in progress.
- **PendingReview:** The model card is pending review.
- **Approved:** The model card is approved.
- **Archived:** The model card is archived. No more updates should be made to the model card, but it can still be exported.

Type: String

Valid Values: Draft | PendingReview | Approved | Archived

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelCardVersionSummary

Service: Amazon SageMaker Service

A summary of a specific version of the model card.

## Contents

### **CreationTime**

The date and time that the model card version was created.

Type: Timestamp

Required: Yes

### **LastModifiedTime**

The time date and time that the model card version was last modified.

Type: Timestamp

Required: No

### **ModelCardArn**

The Amazon Resource Name (ARN) of the model card.

Type: String

Length Constraints: Maximum length of 256.

Pattern: ^arn:aws[a-zA-Z-]\*:sagemaker:[a-zA-Z0-9-]{9,16}:[0-9]{12}:model-card/[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

### **ModelCardName**

The name of the model card.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

### **ModelCardStatus**

The approval status of the model card version within your organization. Different organizations might have different criteria for model card review and approval.

- **Draft:** The model card is a work in progress.
- **PendingReview:** The model card is pending review.
- **Approved:** The model card is approved.
- **Archived:** The model card is archived. No more updates should be made to the model card, but it can still be exported.

Type: String

Valid Values: Draft | PendingReview | Approved | Archived

Required: Yes

**ModelCardVersion**

A version of the model card.

Type: Integer

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelClientConfig

Service: Amazon SageMaker Service

Configures the timeout and maximum number of retries for processing a transform job invocation.

## Contents

### InvocationsMaxRetries

The maximum number of retries when invocation requests are failing. The default value is 3.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 3.

Required: No

### InvocationsTimeoutInSeconds

The timeout value in seconds for an invocation request. The default value is 600.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 3600.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelConfiguration

Service: Amazon SageMaker Service

Defines the model configuration. Includes the specification name and environment parameters.

## Contents

### EnvironmentParameters

Defines the environment parameters that includes key, value types, and values.

Type: Array of [EnvironmentParameter \(p. 1313\)](#) objects

Array Members: Minimum number of 1 item. Maximum number of 10 items.

Required: No

### InferenceSpecificationName

The inference specification name in the model package version.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelDashboardEndpoint

Service: Amazon SageMaker Service

An endpoint that hosts a model displayed in the Amazon SageMaker Model Dashboard.

## Contents

### **CreationTime**

A timestamp that indicates when the endpoint was created.

Type: Timestamp

Required: Yes

### **EndpointArn**

The Amazon Resource Name (ARN) of the endpoint.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[a-zA-Z-]*:sagemaker:[a-zA-Z0-9-]*:[0-9]{12}:endpoint/.*`

Required: Yes

### **EndpointName**

The endpoint name.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[-a-zA-Z0-9](-*[a-zA-Z0-9])\{0,62\}`

Required: Yes

### **EndpointStatus**

The endpoint status.

Type: String

Valid Values: OutOfService | Creating | Updating | SystemUpdating | RollingBack | InService | Deleting | Failed

Required: Yes

### **LastModifiedTime**

The last time the endpoint was modified.

Type: Timestamp

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelDashboardIndicatorAction

Service: Amazon SageMaker Service

An alert action taken to light up an icon on the Amazon SageMaker Model Dashboard when an alert goes into InAlert status.

## Contents

### Enabled

Indicates whether the alert action is turned on.

Type: Boolean

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelDashboardModel

Service: Amazon SageMaker Service

A model displayed in the Amazon SageMaker Model Dashboard.

## Contents

### Endpoints

The endpoints that host a model.

Type: Array of [ModelDashboardEndpoint \(p. 1491\)](#) objects

Required: No

### LastBatchTransformJob

A batch transform job. For information about SageMaker batch transform, see [Use Batch Transform](#).

Type: [TransformJob \(p. 1778\)](#) object

Required: No

### Model

A model displayed in the Model Dashboard.

Type: [Model \(p. 1471\)](#) object

Required: No

### ModelCard

The model card for a model.

Type: [ModelDashboardModelCard \(p. 1495\)](#) object

Required: No

### MonitoringSchedules

The monitoring schedules for a model.

Type: Array of [ModelDashboardMonitoringSchedule \(p. 1498\)](#) objects

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelDashboardModelCard

Service: Amazon SageMaker Service

The model card for a model displayed in the Amazon SageMaker Model Dashboard.

## Contents

### **CreatedBy**

Information about the user who created or modified an experiment, trial, trial component, lineage group, project, or model card.

Type: [UserContext \(p. 1822\)](#) object

Required: No

### **CreationTime**

A timestamp that indicates when the model card was created.

Type: Timestamp

Required: No

### **LastModifiedBy**

Information about the user who created or modified an experiment, trial, trial component, lineage group, project, or model card.

Type: [UserContext \(p. 1822\)](#) object

Required: No

### **LastModifiedTime**

A timestamp that indicates when the model card was last updated.

Type: Timestamp

Required: No

### **ModelCardArn**

The Amazon Resource Name (ARN) for a model card.

Type: String

Length Constraints: Maximum length of 256.

Pattern: ^arn:aws[a-z\-\]\*:sagemaker:[a-z0-9\-\]{9,16}:[0-9]{12}:model-card/[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: No

### **ModelCardName**

The name of a model card.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: No

#### **ModelCardStatus**

The model card status.

Type: String

Valid Values: Draft | PendingReview | Approved | Archived

Required: No

#### **ModelCardVersion**

The model card version.

Type: Integer

Required: No

#### **ModelId**

For models created in SageMaker, this is the model ARN. For models created outside of SageMaker, this is a user-customized string.

Type: String

Required: No

#### **RiskRating**

A model card's risk rating. Can be low, medium, or high.

Type: String

Required: No

#### **SecurityConfig**

The KMS Key ID (KMSKeyId) for encryption of model card information.

Type: [ModelCardSecurityConfig \(p. 1484\)](#) object

Required: No

#### **Tags**

The tags associated with a model card.

Type: Array of [Tag \(p. 1749\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# ModelDashboardMonitoringSchedule

Service: Amazon SageMaker Service

A monitoring schedule for a model displayed in the Amazon SageMaker Model Dashboard.

## Contents

### **CreationTime**

A timestamp that indicates when the monitoring schedule was created.

Type: Timestamp

Required: No

### **EndpointName**

The endpoint which is monitored.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: No

### **FailureReason**

If a monitoring job failed, provides the reason.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

### **LastModifiedTime**

A timestamp that indicates when the monitoring schedule was last updated.

Type: Timestamp

Required: No

### **LastMonitoringExecutionSummary**

Summary of information about the last monitoring job to run.

Type: [MonitoringExecutionSummary \(p. 1554\)](#) object

Required: No

### **MonitoringAlertSummaries**

A JSON array where each element is a summary for a monitoring alert.

Type: Array of [MonitoringAlertSummary \(p. 1544\)](#) objects

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Required: No

### **MonitoringScheduleArn**

The Amazon Resource Name (ARN) of a monitoring schedule.

Type: String

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: No

#### **MonitoringScheduleConfig**

Configures the monitoring schedule and defines the monitoring job.

Type: [MonitoringScheduleConfig \(p. 1572\)](#) object

Required: No

#### **MonitoringScheduleName**

The name of a monitoring schedule.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: No

#### **MonitoringScheduleStatus**

The status of the monitoring schedule.

Type: String

Valid Values: Pending | Failed | Scheduled | Stopped

Required: No

#### **MonitoringType**

The monitor type of a model monitor.

Type: String

Valid Values: DataQuality | ModelQuality | ModelBias | ModelExplainability

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelDataQuality

Service: Amazon SageMaker Service

Data quality constraints and statistics for a model.

## Contents

### Constraints

Data quality constraints for a model.

Type: [MetricsSource \(p. 1470\)](#) object

Required: No

### Statistics

Data quality statistics for a model.

Type: [MetricsSource \(p. 1470\)](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelDeployConfig

Service: Amazon SageMaker Service

Specifies how to generate the endpoint name for an automatic one-click Autopilot model deployment.

## Contents

### AutoGenerateEndpointName

Set to True to automatically generate an endpoint name for a one-click Autopilot model deployment; set to False otherwise. The default value is False.

#### Note

If you set AutoGenerateEndpointName to True, do not specify the EndpointName; otherwise a 400 error is thrown.

Type: Boolean

Required: No

### EndpointName

Specifies the endpoint name to use for a one-click Autopilot model deployment if the endpoint name is not generated automatically.

#### Note

Specify the EndpointName if and only if you set AutoGenerateEndpointName to False; otherwise a 400 error is thrown.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelDeployResult

Service: Amazon SageMaker Service

Provides information about the endpoint of the model deployment.

## Contents

### EndpointName

The name of the endpoint to which the model has been deployed.

#### Note

If model deployment fails, this field is omitted from the response.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9]){0,62}

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## ModelDigests

Service: Amazon SageMaker Service

Provides information to verify the integrity of stored model artifacts.

### Contents

#### ArtifactDigest

Provides a hash value that uniquely identifies the stored model artifacts.

Type: String

Pattern: ^[\w:]+\$

Required: No

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelExplainabilityAppSpecification

Service: Amazon SageMaker Service

Docker container image configuration object for the model explainability job.

## Contents

### ConfigUri

JSON formatted S3 file that defines explainability parameters. For more information on this JSON configuration file, see [Configure model explainability parameters](#).

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3)://([^\/]*)/?(.*)$`

Required: Yes

### Environment

Sets the environment variables in the Docker container.

Type: String to string map

Map Entries: Maximum number of 50 items.

Key Length Constraints: Maximum length of 256.

Key Pattern: `[a-zA-Z_][a-zA-Z0-9_]*`

Value Length Constraints: Maximum length of 256.

Value Pattern: `[\S\s]*`

Required: No

### ImageUri

The container image to be run by the model explainability job.

Type: String

Length Constraints: Maximum length of 255.

Pattern: `.*`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelExplainabilityBaselineConfig

Service: Amazon SageMaker Service

The configuration for a baseline model explainability job.

## Contents

### BaseliningJobName

The name of the baseline model explainability job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: No

### ConstraintsResource

The constraints resource for a monitoring job.

Type: [MonitoringConstraintsResource \(p. 1551\)](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelExplainabilityJobInput

Service: Amazon SageMaker Service

Inputs for the model explainability job.

## Contents

### BatchTransformInput

Input object for the batch transform job.

Type: [BatchTransformInput \(p. 1183\)](#) object

Required: No

### EndpointInput

Input object for the endpoint

Type: [EndpointInput \(p. 1302\)](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModellInfrastructureConfig

Service: Amazon SageMaker Service

The configuration for the infrastructure that the model will be deployed to.

## Contents

### InfrastructureType

The inference option to which to deploy your model. Possible values are the following:

- **RealTime**: Deploy to real-time inference.

Type: String

Valid Values: RealTimeInference

Required: Yes

### RealTimeInferenceConfig

The infrastructure configuration for deploying the model to real-time inference.

Type: [RealTimeInferenceConfig \(p. 1683\)](#) object

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## ModelInput

Service: Amazon SageMaker Service

Input object for the model.

### Contents

#### DataInputConfig

The input configuration object for the model.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: [\S\s]+

Required: Yes

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelLatencyThreshold

Service: Amazon SageMaker Service

The model latency threshold.

## Contents

### Percentile

The model latency percentile threshold.

Type: String

Length Constraints: Maximum length of 64.

Required: No

### ValueInMilliseconds

The model latency percentile value in milliseconds.

Type: Integer

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelMetadataFilter

Service: Amazon SageMaker Service

Part of the search expression. You can specify the name and value (domain, task, framework, framework version, task, and model).

## Contents

### Name

The name of the of the model to filter by.

Type: String

Valid Values: Domain | Framework | Task | FrameworkVersion

Required: Yes

### Value

The value to filter the model metadata.

Type: String

Length Constraints: Maximum length of 256.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelMetadataSearchExpression

Service: Amazon SageMaker Service

One or more filters that searches for the specified resource or resources in a search. All resource objects that satisfy the expression's condition are included in the search results

## Contents

### Filters

A list of filter objects.

Type: Array of [ModelMetadataFilter \(p. 1510\)](#) objects

Array Members: Minimum number of 1 item. Maximum number of 4 items.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelMetadataSummary

Service: Amazon SageMaker Service

A summary of the model metadata.

## Contents

### Domain

The machine learning domain of the model.

Type: String

Required: Yes

### Framework

The machine learning framework of the model.

Type: String

Required: Yes

### FrameworkVersion

The framework version of the model.

Type: String

Required: Yes

### Model

The name of the model.

Type: String

Required: Yes

### Task

The machine learning task of the model.

Type: String

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelMetrics

Service: Amazon SageMaker Service

Contains metrics captured from a model.

## Contents

### Bias

Metrics that measure bias in a model.

Type: [Bias \(p. 1186\)](#) object

Required: No

### Explainability

Metrics that help explain a model.

Type: [Explainability \(p. 1322\)](#) object

Required: No

### ModelDataQuality

Metrics that measure the quality of the input data for a model.

Type: [ModelDataQuality \(p. 1500\)](#) object

Required: No

### ModelQuality

Metrics that measure the quality of a model.

Type: [ModelQuality \(p. 1532\)](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelPackage

Service: Amazon SageMaker Service

A versioned model that can be deployed for SageMaker inference.

## Contents

### **AdditionalInferenceSpecifications**

An array of additional Inference Specification objects.

Type: Array of [AdditionalInferenceSpecificationDefinition \(p. 1112\)](#) objects

Array Members: Minimum number of 1 item. Maximum number of 15 items.

Required: No

### **ApprovalDescription**

A description provided when the model approval is set.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: .\*

Required: No

### **CertifyForMarketplace**

Whether the model package is to be certified to be listed on AWS Marketplace. For information about listing model packages on AWS Marketplace, see [List Your Algorithm or Model Package on AWS Marketplace](#).

Type: Boolean

Required: No

### **CreatedBy**

Information about the user who created or modified an experiment, trial, trial component, lineage group, or project.

Type: [UserContext \(p. 1822\)](#) object

Required: No

### **CreationTime**

The time that the model package was created.

Type: Timestamp

Required: No

### **CustomerMetadataProperties**

The metadata properties for the model package.

Type: String to string map

Map Entries: Maximum number of 50 items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Key Pattern: ^([\\p{L}\\p{Z}\\p{N}\_.:\\/=?\\-@]\*)\${1,128}

Value Length Constraints: Minimum length of 1. Maximum length of 256.

Value Pattern: ^([\\p{L}\\p{Z}\\p{N}\_.:\\/=?\\-@]\*)\${1,256}

Required: No

#### Domain

The machine learning domain of your model package and its components. Common machine learning domains include computer vision and natural language processing.

Type: String

Required: No

#### DriftCheckBaselines

Represents the drift check baselines that can be used when the model monitor is set using the model package.

Type: [DriftCheckBaselines \(p. 1275\)](#) object

Required: No

#### InferenceSpecification

Defines how to perform inference generation after a training job is run.

Type: [InferenceSpecification \(p. 1423\)](#) object

Required: No

#### LastModifiedBy

Information about the user who created or modified an experiment, trial, trial component, lineage group, or project.

Type: [UserContext \(p. 1822\)](#) object

Required: No

#### LastModifiedTime

The last time the model package was modified.

Type: Timestamp

Required: No

#### MetadataProperties

Metadata properties of the tracking entity, trial, or trial component.

Type: [MetadataProperties \(p. 1465\)](#) object

Required: No

#### ModelApprovalStatus

The approval status of the model. This can be one of the following values.

- APPROVED - The model is approved
- REJECTED - The model is rejected.

- PENDING\_MANUAL\_APPROVAL - The model is waiting for manual approval.

Type: String

Valid Values: Approved | Rejected | PendingManualApproval

Required: No

#### **ModelMetrics**

Metrics for the model.

Type: [ModelMetrics \(p. 1513\)](#) object

Required: No

#### **ModelPackageArn**

The Amazon Resource Name (ARN) of the model package.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: arn:aws[a-z\-\-]\*:sagemaker:[a-z0-9\-\-]\*:[0-9]{12}:model-package/.\*

Required: No

#### **ModelPackageDescription**

The description of the model package.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: [\p{L}\p{M}\p{Z}\p{S}\p{N}\p{P}]\*

Required: No

#### **ModelPackageGroupName**

The model group to which the model belongs.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: No

#### **ModelPackageName**

The name of the model.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: No

#### **ModelPackageStatus**

The status of the model package. This can be one of the following values.

- PENDING - The model package is pending being created.
- IN\_PROGRESS - The model package is in the process of being created.
- COMPLETED - The model package was successfully created.
- FAILED - The model package failed.
- DELETING - The model package is in the process of being deleted.

Type: String

Valid Values: Pending | InProgress | Completed | Failed | Deleting

Required: No

#### **ModelPackageStatusDetails**

Specifies the validation and image scan statuses of the model package.

Type: [ModelPackageStatusDetails \(p. 1526\)](#) object

Required: No

#### **ModelPackageVersion**

The version number of a versioned model.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

#### **SamplePayloadUrl**

The Amazon Simple Storage Service path where the sample payload are stored. This path must point to a single gzip compressed tar archive (.tar.gz suffix).

Type: String

Required: No

#### **SourceAlgorithmSpecification**

A list of algorithms that were used to create a model package.

Type: [SourceAlgorithmSpecification \(p. 1737\)](#) object

Required: No

#### **Tags**

A list of the tags associated with the model package. For more information, see [Tagging AWS resources](#) in the [AWS General Reference Guide](#).

Type: Array of [Tag \(p. 1749\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

#### **Task**

The machine learning task your model package accomplishes. Common machine learning tasks include object detection and image classification.

Type: String

Required: No

#### **ValidationSpecification**

Specifies batch transform jobs that SageMaker runs to validate your model package.

Type: [ModelPackageValidationSpecification \(p. 1531\)](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelPackageContainerDefinition

Service: Amazon SageMaker Service

Describes the Docker container for the model package.

## Contents

### ContainerHostname

The DNS host name for the Docker container.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: No

### Environment

The environment variables to set in the Docker container. Each key and value in the Environment string to string map can have length of up to 1024. We support up to 16 entries in the map.

Type: String to string map

Map Entries: Maximum number of 16 items.

Key Length Constraints: Maximum length of 1024.

Key Pattern: [a-zA-Z\_][a-zA-Z0-9\_]\*

Value Length Constraints: Maximum length of 1024.

Value Pattern: [\S\s]\*

Required: No

### Framework

The machine learning framework of the model package container image.

Type: String

Required: No

### FrameworkVersion

The framework version of the Model Package Container Image.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 10.

Pattern: [0-9]\.[A-Za-z0-9.-]+

Required: No

### Image

The Amazon EC2 Container Registry (Amazon ECR) path where inference code is stored.

If you are using your own custom algorithm instead of an algorithm provided by SageMaker, the inference code must meet SageMaker requirements. SageMaker supports both `registry/`

`repository[:tag]` and `registry/repository[@digest]` image path formats. For more information, see [Using Your Own Algorithms with Amazon SageMaker](#).

Type: String

Length Constraints: Maximum length of 255.

Pattern: `[\S]+`

Required: Yes

#### **ImageDigest**

An MD5 hash of the training algorithm that identifies the Docker image used for training.

Type: String

Length Constraints: Maximum length of 72.

Pattern: `^[Ss][Hh][Aa]256:[0-9a-fA-F]{64}$`

Required: No

#### **ModelDataUrl**

The Amazon S3 path where the model artifacts, which result from model training, are stored. This path must point to a single gzip compressed tar archive (.tar.gz suffix).

##### **Note**

The model artifacts must be in an S3 bucket that is in the same region as the model package.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3)://([^\/]*)/?(.*)$`

Required: No

#### **ModelError**

A structure with Model Input details.

Type: [ModelError \(p. 1508\)](#) object

Required: No

#### **Nearest modelName**

The name of a pre-trained machine learning benchmarked by Amazon SageMaker Inference Recommender model that matches your model. You can find a list of benchmarked models by calling `ListModelMetadata`.

Type: String

Required: No

#### **ProductId**

The AWS Marketplace product ID of the model package.

Type: String

Length Constraints: Maximum length of 256.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\*\$

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelPackageGroup

Service: Amazon SageMaker Service

A group of versioned models in the model registry.

## Contents

### **CreatedBy**

Information about the user who created or modified an experiment, trial, trial component, lineage group, project, or model card.

Type: [UserContext \(p. 1822\)](#) object

Required: No

### **CreationTime**

The time that the model group was created.

Type: Timestamp

Required: No

### **ModelPackageGroupArn**

The Amazon Resource Name (ARN) of the model group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `arn:aws[a-z\-\]*:sagemaker:[a-z0-9\-\]*:[0-9]{12}:model-package-group/.*`

Required: No

### **ModelPackageGroupDescription**

The description for the model group.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `[\\p{L}\\p{M}\\p{Z}\\p{S}\\p{N}\\p{P}]^*`

Required: No

### **ModelPackageGroupName**

The name of the model group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])\{0,62\}$`

Required: No

### **ModelPackageGroupStatus**

The status of the model group. This can be one of the following values.

- PENDING - The model group is pending being created.
- IN\_PROGRESS - The model group is in the process of being created.
- COMPLETED - The model group was successfully created.
- FAILED - The model group failed.
- DELETING - The model group is in the process of being deleted.
- DELETE\_FAILED - SageMaker failed to delete the model group.

Type: String

Valid Values: Pending | InProgress | Completed | Failed | Deleting | DeleteFailed

Required: No

#### Tags

A list of the tags associated with the model group. For more information, see [Tagging AWS resources](#) in the [AWS General Reference Guide](#).

Type: Array of [Tag \(p. 1749\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelPackageGroupSummary

Service: Amazon SageMaker Service

Summary information about a model group.

## Contents

### **CreationTime**

The time that the model group was created.

Type: Timestamp

Required: Yes

### **ModelPackageGroupArn**

The Amazon Resource Name (ARN) of the model group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:model-package-group/.*`

Required: Yes

### **ModelPackageGroupDescription**

A description of the model group.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `[\p{L}\p{M}\p{Z}\p{S}\p{N}\p{P}]^*`

Required: No

### **ModelPackageGroupName**

The name of the model group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])\{0,62\}$`

Required: Yes

### **ModelPackageGroupStatus**

The status of the model group.

Type: String

Valid Values: Pending | InProgress | Completed | Failed | Deleting | DeleteFailed

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelPackageStatusDetails

Service: Amazon SageMaker Service

Specifies the validation and image scan statuses of the model package.

## Contents

### ImageScanStatuses

The status of the scan of the Docker image container for the model package.

Type: Array of [ModelPackageStatusItem \(p. 1527\)](#) objects

Required: No

### ValidationStatuses

The validation status of the model package.

Type: Array of [ModelPackageStatusItem \(p. 1527\)](#) objects

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelPackageStatusItem

Service: Amazon SageMaker Service

Represents the overall status of a model package.

## Contents

### FailureReason

if the overall status is Failed, the reason for the failure.

Type: String

Required: No

### Name

The name of the model package for which the overall status is being reported.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

### Status

The current status.

Type: String

Valid Values: NotStarted | InProgress | Completed | Failed

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelPackageSummary

Service: Amazon SageMaker Service

Provides summary information about a model package.

## Contents

### **CreationTime**

A timestamp that shows when the model package was created.

Type: Timestamp

Required: Yes

### **ModelApprovalStatus**

The approval status of the model. This can be one of the following values.

- APPROVED - The model is approved
- REJECTED - The model is rejected.
- PENDING\_MANUAL\_APPROVAL - The model is waiting for manual approval.

Type: String

Valid Values: Approved | Rejected | PendingManualApproval

Required: No

### **ModelPackageArn**

The Amazon Resource Name (ARN) of the model package.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: arn:aws[a-z\-\-]\*:sagemaker:[a-z0-9\-\-]\*:[0-9]{12}:model-package/.\*

Required: Yes

### **ModelPackageDescription**

A brief description of the model package.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: [\p{L}\p{M}\p{Z}\p{S}\p{N}\p{P}]\*

Required: No

### **ModelPackageGroupName**

If the model package is a versioned model, the model group that the versioned model belongs to.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: No

**ModelPackageName**

The name of the model package.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

**ModelPackageStatus**

The overall status of the model package.

Type: String

Valid Values: Pending | InProgress | Completed | Failed | Deleting

Required: Yes

**ModelPackageVersion**

If the model package is a versioned model, the version of the model.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelPackageValidationProfile

Service: Amazon SageMaker Service

Contains data, such as the inputs and targeted instance types that are used in the process of validating the model package.

The data provided in the validation profile is made available to your buyers on AWS Marketplace.

## Contents

### ProfileName

The name of the profile for the model package.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

### TransformJobDefinition

The TransformJobDefinition object that describes the transform job used for the validation of the model package.

Type: [TransformJobDefinition \(p. 1783\)](#) object

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelPackageValidationSpecification

Service: Amazon SageMaker Service

Specifies batch transform jobs that SageMaker runs to validate your model package.

## Contents

### ValidationProfiles

An array of ModelPackageValidationProfile objects, each of which specifies a batch transform job that SageMaker runs to validate your model package.

Type: Array of [ModelPackageValidationProfile \(p. 1530\)](#) objects

Array Members: Fixed number of 1 item.

Required: Yes

### ValidationRole

The IAM roles to be used for the validation of the model package.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: ^arn:aws[a-z\-\]\*:iam::\d{12}:role/?[a-zA-Z\_0-9+=,.@\-\\_/\]+\$

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelQuality

Service: Amazon SageMaker Service

Model quality statistics and constraints.

## Contents

### Constraints

Model quality constraints.

Type: [MetricsSource \(p. 1470\)](#) object

Required: No

### Statistics

Model quality statistics.

Type: [MetricsSource \(p. 1470\)](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelQualityAppSpecification

Service: Amazon SageMaker Service

Container image configuration object for the monitoring job.

## Contents

### ContainerArguments

An array of arguments for the container used to run the monitoring job.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 50 items.

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: No

### ContainerEntrypoint

Specifies the entrypoint for a container that the monitoring job runs.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: No

### Environment

Sets the environment variables in the container that the monitoring job runs.

Type: String to string map

Map Entries: Maximum number of 50 items.

Key Length Constraints: Maximum length of 256.

Key Pattern: [a-zA-Z\_][a-zA-Z0-9\_]\*

Value Length Constraints: Maximum length of 256.

Value Pattern: [\S\s]\*

Required: No

### ImageUri

The address of the container image that the monitoring job runs.

Type: String

Length Constraints: Maximum length of 255.

Pattern: .\*

Required: Yes

**PostAnalyticsProcessorSourceUri**

An Amazon S3 URI to a script that is called after analysis has been performed. Applicable only for the built-in (first party) containers.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: ^(https|s3)://([^\/]+)?(.\*)\$

Required: No

**ProblemType**

The machine learning problem type of the model that the monitoring job monitors.

Type: String

Valid Values: BinaryClassification | MulticlassClassification | Regression

Required: No

**RecordPreprocessorSourceUri**

An Amazon S3 URI to a script that is called per row prior to running analysis. It can base64 decode the payload and convert it into a flattened json so that the built-in container can use the converted data. Applicable only for the built-in (first party) containers.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: ^(https|s3)://([^\/]+)?(.\*)\$

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelQualityBaselineConfig

Service: Amazon SageMaker Service

Configuration for monitoring constraints and monitoring statistics. These baseline resources are compared against the results of the current job from the series of jobs scheduled to collect data periodically.

## Contents

### BaseliningJobName

The name of the job that performs baselining for the monitoring job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9]){0,62}

Required: No

### ConstraintsResource

The constraints resource for a monitoring job.

Type: [MonitoringConstraintsResource \(p. 1551\)](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelQualityJobInput

Service: Amazon SageMaker Service

The input for the model quality monitoring job. Currently endpoints are supported for input for model quality monitoring jobs.

## Contents

### **BatchTransformInput**

Input object for the batch transform job.

Type: [BatchTransformInput \(p. 1183\)](#) object

Required: No

### **EndpointInput**

Input object for the endpoint

Type: [EndpointInput \(p. 1302\)](#) object

Required: No

### **GroundTruthS3Input**

The ground truth label provided for the model.

Type: [MonitoringGroundTruthS3Input \(p. 1556\)](#) object

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelStepMetadata

Service: Amazon SageMaker Service

Metadata for Model steps.

## Contents

### Arn

The Amazon Resource Name (ARN) of the created model.

Type: String

Length Constraints: Maximum length of 256.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelSummary

Service: Amazon SageMaker Service

Provides summary information about a model.

## Contents

### **CreationTime**

A timestamp that indicates when the model was created.

Type: Timestamp

Required: Yes

### **ModelArn**

The Amazon Resource Name (ARN) of the model.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `arn:aws[a-zA-Z-]*:sagemaker:[a-zA-Z0-9-]*:[0-9]{12}:model/.*`

Required: Yes

### **ModelName**

The name of the model that you want a summary for.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^[\w\-\_]+(\-\w\-\_+)*[\w\-\_]+`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelVariantConfig

Service: Amazon SageMaker Service

Contains information about the deployment options of a model.

## Contents

### InfrastructureConfig

The configuration for the infrastructure that the model will be deployed to.

Type: [ModelInfrastructureConfig \(p. 1507\)](#) object

Required: Yes

### ModelName

The name of the Amazon SageMaker Model entity.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\*

Required: Yes

### VariantName

The name of the variant.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9]([\\-a-zA-Z0-9]\*[a-zA-Z0-9])?

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ModelVariantConfigSummary

Service: Amazon SageMaker Service

Summary of the deployment configuration of a model.

## Contents

### InfrastructureConfig

The configuration of the infrastructure that the model has been deployed to.

Type: [ModelInfrastructureConfig \(p. 1507\)](#) object

Required: Yes

### ModelName

The name of the Amazon SageMaker Model entity.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\*

Required: Yes

### Status

The status of deployment for the model variant on the hosted inference endpoint.

- **Creating** - Amazon SageMaker is preparing the model variant on the hosted inference endpoint.
- **InService** - The model variant is running on the hosted inference endpoint.
- **Updating** - Amazon SageMaker is updating the model variant on the hosted inference endpoint.
- **Deleting** - Amazon SageMaker is deleting the model variant on the hosted inference endpoint.
- **Deleted** - The model variant has been deleted on the hosted inference endpoint. This can only happen after stopping the experiment.

Type: String

Valid Values: Creating | Updating | InService | Deleting | Deleted

Required: Yes

### VariantName

The name of the variant.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9]([\\-a-zA-Z0-9]\*[a-zA-Z0-9])?

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# MonitoringAlertActions

Service: Amazon SageMaker Service

A list of alert actions taken in response to an alert going into InAlert status.

## Contents

### ModelDashboardIndicator

An alert action taken to light up an icon on the Model Dashboard when an alert goes into InAlert status.

Type: [ModelDashboardIndicatorAction \(p. 1493\)](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# MonitoringAlertHistorySummary

Service: Amazon SageMaker Service

Provides summary information of an alert's history.

## Contents

### **AlertStatus**

The current alert status of an alert.

Type: String

Valid Values: InAlert | OK

Required: Yes

### **CreationTime**

A timestamp that indicates when the first alert transition occurred in an alert history. An alert transition can be from status InAlert to OK, or from OK to InAlert.

Type: Timestamp

Required: Yes

### **MonitoringAlertName**

The name of a monitoring alert.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

### **MonitoringScheduleName**

The name of a monitoring schedule.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# MonitoringAlertSummary

Service: Amazon SageMaker Service

Provides summary information about a monitor alert.

## Contents

### **Actions**

A list of alert actions taken in response to an alert going into InAlert status.

Type: [MonitoringAlertActions \(p. 1542\)](#) object

Required: Yes

### **AlertStatus**

The current status of an alert.

Type: String

Valid Values: InAlert | OK

Required: Yes

### **CreationTime**

A timestamp that indicates when a monitor alert was created.

Type: Timestamp

Required: Yes

### **DatapointsToAlert**

Within EvaluationPeriod, how many execution failures will raise an alert.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: Yes

### **EvaluationPeriod**

The number of most recent monitoring executions to consider when evaluating alert status.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: Yes

### **LastModifiedTime**

A timestamp that indicates when a monitor alert was last updated.

Type: Timestamp

Required: Yes

### **MonitoringAlertName**

The name of a monitoring alert.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# MonitoringAppSpecification

Service: Amazon SageMaker Service

Container image configuration object for the monitoring job.

## Contents

### ContainerArguments

An array of arguments for the container used to run the monitoring job.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 50 items.

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: No

### ContainerEntrypoint

Specifies the entrypoint for a container used to run the monitoring job.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: No

### ImageUri

The container image to be run by the monitoring job.

Type: String

Length Constraints: Maximum length of 255.

Pattern: .\*

Required: Yes

### PostAnalyticsProcessorSourceUri

An Amazon S3 URI to a script that is called after analysis has been performed. Applicable only for the built-in (first party) containers.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: ^(https|s3)://([^\/]\*)/?(.\*)\$

Required: No

### RecordPreprocessorSourceUri

An Amazon S3 URI to a script that is called per row prior to running analysis. It can base64 decode the payload and convert it into a flattened json so that the built-in container can use the converted data. Applicable only for the built-in (first party) containers.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: ^(https|s3)://([^\/]\*)/?(.\*)\$

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# MonitoringBaselineConfig

Service: Amazon SageMaker Service

Configuration for monitoring constraints and monitoring statistics. These baseline resources are compared against the results of the current job from the series of jobs scheduled to collect data periodically.

## Contents

### **BaseliningJobName**

The name of the job that performs baselining for the monitoring job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9]){0,62}

Required: No

### **ConstraintsResource**

The baseline constraint file in Amazon S3 that the current monitoring job should validated against.

Type: [MonitoringConstraintsResource \(p. 1551\)](#) object

Required: No

### **StatisticsResource**

The baseline statistics file in Amazon S3 that the current monitoring job should be validated against.

Type: [MonitoringStatisticsResource \(p. 1575\)](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# MonitoringClusterConfig

Service: Amazon SageMaker Service

Configuration for the cluster used to run model monitoring jobs.

## Contents

### InstanceCount

The number of ML compute instances to use in the model monitoring job. For distributed processing jobs, specify a value greater than 1. The default value is 1.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: Yes

### InstanceType

The ML compute instance type for the processing job.

Type: String

Valid Values: ml.t3.medium | ml.t3.large | ml.t3.xlarge | ml.t3.2xlarge | ml.m4.xlarge | ml.m4.2xlarge | ml.m4.4xlarge | ml.m4.10xlarge | ml.m4.16xlarge | ml.c4.xlarge | ml.c4.2xlarge | ml.c4.4xlarge | ml.c4.8xlarge | ml.p2.xlarge | ml.p2.8xlarge | ml.p2.16xlarge | ml.p3.2xlarge | ml.p3.8xlarge | ml.p3.16xlarge | ml.c5.xlarge | ml.c5.2xlarge | ml.c5.4xlarge | ml.c5.9xlarge | ml.c5.18xlarge | ml.m5.large | ml.m5.xlarge | ml.m5.2xlarge | ml.m5.4xlarge | ml.m5.12xlarge | ml.m5.24xlarge | ml.r5.large | ml.r5.xlarge | ml.r5.2xlarge | ml.r5.4xlarge | ml.r5.8xlarge | ml.r5.12xlarge | ml.r5.16xlarge | ml.r5.24xlarge | ml.g4dn.xlarge | ml.g4dn.2xlarge | ml.g4dn.4xlarge | ml.g4dn.8xlarge | ml.g4dn.12xlarge | ml.g4dn.16xlarge

Required: Yes

### VolumeKmsKeyId

The AWS Key Management Service (AWS KMS) key that Amazon SageMaker uses to encrypt data on the storage volume attached to the ML compute instance(s) that run the model monitoring job.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: .\*

Required: No

### VolumeSizeInGB

The size of the ML storage volume, in gigabytes, that you want to provision. You must specify sufficient ML storage for your scenario.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 16384.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# MonitoringConstraintsResource

Service: Amazon SageMaker Service

The constraints resource for a monitoring job.

## Contents

### S3Uri

The Amazon S3 URI for the constraints resource.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: ^(https|s3)://([^\/]\*)/?(.\*)\$

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# MonitoringCsvDatasetFormat

Service: Amazon SageMaker Service

Represents the CSV dataset format used when running a monitoring job.

## Contents

### Header

Indicates if the CSV data has a header.

Type: Boolean

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# MonitoringDatasetFormat

Service: Amazon SageMaker Service

Represents the dataset format used when running a monitoring job.

## Contents

### Csv

The CSV dataset used in the monitoring job.

Type: [MonitoringCsvDatasetFormat \(p. 1552\)](#) object

Required: No

### Json

The JSON dataset used in the monitoring job

Type: [MonitoringJsonDatasetFormat \(p. 1562\)](#) object

Required: No

### Parquet

The Parquet dataset used in the monitoring job

Type: [MonitoringParquetDatasetFormat \(p. 1566\)](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# MonitoringExecutionSummary

Service: Amazon SageMaker Service

Summary of information about the last monitoring job to run.

## Contents

### **CreationTime**

The time at which the monitoring job was created.

Type: Timestamp

Required: Yes

### **EndpointName**

The name of the endpoint used to run the monitoring job.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: No

### **FailureReason**

Contains the reason a monitoring job failed, if it failed.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

### **LastModifiedTime**

A timestamp that indicates the last time the monitoring job was modified.

Type: Timestamp

Required: Yes

### **MonitoringExecutionStatus**

The status of the monitoring job.

Type: String

Valid Values: Pending | Completed | CompletedWithViolations | InProgress | Failed | Stopping | Stopped

Required: Yes

### **MonitoringJobDefinitionName**

The name of the monitoring job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\*\$

Required: No

**MonitoringScheduleName**

The name of the monitoring schedule.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

**MonitoringType**

The type of the monitoring job.

Type: String

Valid Values: DataQuality | ModelQuality | ModelBias | ModelExplainability

Required: No

**ProcessingJobArn**

The Amazon Resource Name (ARN) of the monitoring job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-zA-Z-]\*:sagemaker:[a-zA-Z0-9-]\*:[0-9]\{12\}:processing-job/.\*

Required: No

**ScheduledTime**

The time the monitoring job was scheduled.

Type: Timestamp

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# MonitoringGroundTruthS3Input

Service: Amazon SageMaker Service

The ground truth labels for the dataset used for the monitoring job.

## Contents

### S3Uri

The address of the Amazon S3 location of the ground truth labels.

Type: String

Length Constraints: Maximum length of 512.

Pattern: ^(https|s3)://([^\/]\*)/?(.\*)\$

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# MonitoringInput

Service: Amazon SageMaker Service

The inputs for a monitoring job.

## Contents

### BatchTransformInput

Input object for the batch transform job.

Type: [BatchTransformInput \(p. 1183\)](#) object

Required: No

### EndpointInput

The endpoint for a monitoring job.

Type: [EndpointInput \(p. 1302\)](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# MonitoringJobDefinition

Service: Amazon SageMaker Service

Defines the monitoring job.

## Contents

### BaselineConfig

Baseline configuration used to validate that the data conforms to the specified constraints and statistics

Type: [MonitoringBaselineConfig \(p. 1548\)](#) object

Required: No

### Environment

Sets the environment variables in the Docker container.

Type: String to string map

Map Entries: Maximum number of 50 items.

Key Length Constraints: Maximum length of 256.

Key Pattern: [a-zA-Z\_][a-zA-Z0-9\_]\*

Value Length Constraints: Maximum length of 256.

Value Pattern: [\S\s]\*

Required: No

### MonitoringAppSpecification

Configures the monitoring job to run a specified Docker container image.

Type: [MonitoringAppSpecification \(p. 1546\)](#) object

Required: Yes

### MonitoringInputs

The array of inputs for the monitoring job. Currently we support monitoring an Amazon SageMaker Endpoint.

Type: Array of [MonitoringInput \(p. 1557\)](#) objects

Array Members: Fixed number of 1 item.

Required: Yes

### MonitoringOutputConfig

The array of outputs from the monitoring job to be uploaded to Amazon Simple Storage Service (Amazon S3).

Type: [MonitoringOutputConfig \(p. 1565\)](#) object

Required: Yes

### **MonitoringResources**

Identifies the resources, ML compute instances, and ML storage volumes to deploy for a monitoring job. In distributed processing, you specify more than one instance.

Type: [MonitoringResources \(p. 1567\)](#) object

Required: Yes

### **NetworkConfig**

Specifies networking options for an monitoring job.

Type: [NetworkConfig \(p. 1580\)](#) object

Required: No

### **RoleArn**

The Amazon Resource Name (ARN) of an IAM role that Amazon SageMaker can assume to perform tasks on your behalf.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: ^arn:aws[a-zA-Z-]\*:iam::\d{12}:role/?[a-zA-Z\_0-9+=,.@\\-\_/.]+\$

Required: Yes

### **StoppingCondition**

Specifies a time limit for how long the monitoring job is allowed to run.

Type: [MonitoringStoppingCondition \(p. 1576\)](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# MonitoringJobDefinitionSummary

Service: Amazon SageMaker Service

Summary information about a monitoring job.

## Contents

### **CreationTime**

The time that the monitoring job was created.

Type: Timestamp

Required: Yes

### **EndpointName**

The name of the endpoint that the job monitors.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: Yes

### **MonitoringJobDefinitionArn**

The Amazon Resource Name (ARN) of the monitoring job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: Yes

### **MonitoringJobDefinitionName**

The name of the monitoring job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\*\\$

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# MonitoringJsonDatasetFormat

Service: Amazon SageMaker Service

Represents the JSON dataset format used when running a monitoring job.

## Contents

### Line

Indicates if the file should be read as a json object per line.

Type: Boolean

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# MonitoringNetworkConfig

Service: Amazon SageMaker Service

The networking configuration for the monitoring job.

## Contents

### **EnableInterContainerTrafficEncryption**

Whether to encrypt all communications between the instances used for the monitoring jobs. Choose True to encrypt communications. Encryption provides greater security for distributed jobs, but the processing might take longer.

Type: Boolean

Required: No

### **EnableNetworkIsolation**

Whether to allow inbound and outbound network calls to and from the containers used for the monitoring job.

Type: Boolean

Required: No

### **VpcConfig**

Specifies a VPC that your training jobs and hosted models have access to. Control access to and from your training and model containers by configuring the VPC. For more information, see [Protect Endpoints by Using an Amazon Virtual Private Cloud](#) and [Protect Training Jobs by Using an Amazon Virtual Private Cloud](#).

Type: [VpcConfig \(p. 1829\)](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# MonitoringOutput

Service: Amazon SageMaker Service

The output object for a monitoring job.

## Contents

### S3Output

The Amazon S3 storage location where the results of a monitoring job are saved.

Type: [MonitoringS3Output \(p. 1568\)](#) object

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# MonitoringOutputConfig

Service: Amazon SageMaker Service

The output configuration for monitoring jobs.

## Contents

### KmsKeyId

The AWS Key Management Service (AWS KMS) key that Amazon SageMaker uses to encrypt the model artifacts at rest using Amazon S3 server-side encryption.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: .\*

Required: No

### MonitoringOutputs

Monitoring outputs for monitoring jobs. This is where the output of the periodic monitoring jobs is uploaded.

Type: Array of [MonitoringOutput \(p. 1564\)](#) objects

Array Members: Fixed number of 1 item.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# MonitoringParquetDatasetFormat

Service: Amazon SageMaker Service

Represents the Parquet dataset format used when running a monitoring job.

## Contents

The members of this structure are context-dependent.

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# MonitoringResources

Service: Amazon SageMaker Service

Identifies the resources to deploy for a monitoring job.

## Contents

### ClusterConfig

The configuration for the cluster resources used to run the processing job.

Type: [MonitoringClusterConfig \(p. 1549\)](#) object

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# MonitoringS3Output

Service: Amazon SageMaker Service

Information about where and how you want to store the results of a monitoring job.

## Contents

### LocalPath

The local path to the Amazon S3 storage location where Amazon SageMaker saves the results of a monitoring job. LocalPath is an absolute path for the output data.

Type: String

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: Yes

### S3UploadMode

Whether to upload the results of the monitoring job continuously or after the job completes.

Type: String

Valid Values: Continuous | EndOfJob

Required: No

### S3Uri

A URI that identifies the Amazon S3 storage location where Amazon SageMaker saves the results of a monitoring job.

Type: String

Length Constraints: Maximum length of 512.

Pattern: ^(https|s3)://([^\/]+)?(.\*)\$

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# MonitoringSchedule

Service: Amazon SageMaker Service

A schedule for a model monitoring job. For information about model monitor, see [Amazon SageMaker Model Monitor](#).

## Contents

### **CreationTime**

The time that the monitoring schedule was created.

Type: Timestamp

Required: No

### **EndpointName**

The endpoint that hosts the model being monitored.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: No

### **FailureReason**

If the monitoring schedule failed, the reason it failed.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

### **LastModifiedTime**

The last time the monitoring schedule was changed.

Type: Timestamp

Required: No

### **LastMonitoringExecutionSummary**

Summary of information about the last monitoring job to run.

Type: [MonitoringExecutionSummary \(p. 1554\)](#) object

Required: No

### **MonitoringScheduleArn**

The Amazon Resource Name (ARN) of the monitoring schedule.

Type: String

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: No

#### **MonitoringScheduleConfig**

Configures the monitoring schedule and defines the monitoring job.

Type: [MonitoringScheduleConfig \(p. 1572\)](#) object

Required: No

#### **MonitoringScheduleName**

The name of the monitoring schedule.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: No

#### **MonitoringScheduleStatus**

The status of the monitoring schedule. This can be one of the following values.

- PENDING - The schedule is pending being created.
- FAILED - The schedule failed.
- SCHEDULED - The schedule was successfully created.
- STOPPED - The schedule was stopped.

Type: String

Valid Values: Pending | Failed | Scheduled | Stopped

Required: No

#### **MonitoringType**

The type of the monitoring job definition to schedule.

Type: String

Valid Values: DataQuality | ModelQuality | ModelBias | ModelExplainability

Required: No

#### **Tags**

A list of the tags associated with the monitoring schedule. For more information, see [Tagging AWS resources](#) in the [AWS General Reference Guide](#).

Type: Array of [Tag \(p. 1749\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)

- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# MonitoringScheduleConfig

Service: Amazon SageMaker Service

Configures the monitoring schedule and defines the monitoring job.

## Contents

### **MonitoringJobDefinition**

Defines the monitoring job.

Type: [MonitoringJobDefinition \(p. 1558\)](#) object

Required: No

### **MonitoringJobDefinitionName**

The name of the monitoring job definition to schedule.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\*\$

Required: No

### **MonitoringType**

The type of the monitoring job definition to schedule.

Type: String

Valid Values: DataQuality | ModelQuality | ModelBias | ModelExplainability

Required: No

### **ScheduleConfig**

Configures the monitoring schedule.

Type: [ScheduleConfig \(p. 1720\)](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# MonitoringScheduleSummary

Service: Amazon SageMaker Service

Summarizes the monitoring schedule.

## Contents

### **CreationTime**

The creation time of the monitoring schedule.

Type: Timestamp

Required: Yes

### **EndpointName**

The name of the endpoint using the monitoring schedule.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: No

### **LastModifiedTime**

The last time the monitoring schedule was modified.

Type: Timestamp

Required: Yes

### **MonitoringJobDefinitionName**

The name of the monitoring job definition that the schedule is for.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\*\\$

Required: No

### **MonitoringScheduleArn**

The Amazon Resource Name (ARN) of the monitoring schedule.

Type: String

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: Yes

### **MonitoringScheduleName**

The name of the monitoring schedule.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}\$

Required: Yes

#### **MonitoringScheduleStatus**

The status of the monitoring schedule.

Type: String

Valid Values: Pending | Failed | Scheduled | Stopped

Required: Yes

#### **MonitoringType**

The type of the monitoring job definition that the schedule is for.

Type: String

Valid Values: DataQuality | ModelQuality | ModelBias | ModelExplainability

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# MonitoringStatisticsResource

Service: Amazon SageMaker Service

The statistics resource for a monitoring job.

## Contents

### S3Uri

The Amazon S3 URI for the statistics resource.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: ^(https|s3)://([^\/]\*)/?(.\*)\$

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# MonitoringStoppingCondition

Service: Amazon SageMaker Service

A time limit for how long the monitoring job is allowed to run before stopping.

## Contents

### MaxRuntimeInSeconds

The maximum runtime allowed in seconds.

#### Note

The MaxRuntimeInSeconds cannot exceed the frequency of the job. For data quality and model explainability, this can be up to 3600 seconds for an hourly schedule. For model bias and model quality hourly schedules, this can be up to 1800 seconds.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 86400.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# MultiModelConfig

Service: Amazon SageMaker Service

Specifies additional configuration for hosting multi-model endpoints.

## Contents

### ModelCacheSetting

Whether to cache models for a multi-model endpoint. By default, multi-model endpoints cache models so that a model does not have to be loaded into memory each time it is invoked. Some use cases do not benefit from model caching. For example, if an endpoint hosts a large number of models that are each invoked infrequently, the endpoint might perform better if you disable model caching. To disable model caching, set the value of this parameter to Disabled.

Type: String

Valid Values: Enabled | Disabled

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## NeoVpcConfig

Service: Amazon SageMaker Service

The [VpcConfig \(p. 1829\)](#) configuration object that specifies the VPC that you want the compilation jobs to connect to. For more information on controlling access to your Amazon S3 buckets used for compilation job, see [Give Amazon SageMaker Compilation Jobs Access to Resources in Your Amazon VPC](#).

## Contents

### SecurityGroupIds

The VPC security group IDs. IDs have the form of sg-xxxxxxx. Specify the security groups for the VPC that is specified in the Subnets field.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 5 items.

Length Constraints: Maximum length of 32.

Pattern: [-0-9a-zA-Z]+

Required: Yes

### Subnets

The ID of the subnets in the VPC that you want to connect the compilation job to for accessing the model in Amazon S3.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 16 items.

Length Constraints: Maximum length of 32.

Pattern: [-0-9a-zA-Z]+

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## NestedFilters

Service: Amazon SageMaker Service

A list of nested [Filter \(p. 1339\)](#) objects. A resource must satisfy the conditions of all filters to be included in the results returned from the [Search \(p. 826\)](#) API.

For example, to filter on a training job's InputDataConfig property with a specific channel name and S3Uri prefix, define the following filters:

- '{Name:"InputDataConfig.ChannelName", "Operator":"Equals", "Value":"train"}',
- '{Name:"InputDataConfig.DataSource.S3DataSource.S3Uri", "Operator":"Contains", "Value":"mybucket/catdata"}'

## Contents

### Filters

A list of filters. Each filter acts on a property. Filters must contain at least one Filters value. For example, a NestedFilters call might include a filter on the PropertyName parameter of the InputDataConfig property: InputDataConfig.DataSource.S3DataSource.S3Uri.

Type: Array of [Filter \(p. 1339\)](#) objects

Array Members: Minimum number of 1 item. Maximum number of 20 items.

Required: Yes

### NestedPropertyName

The name of the property to use in the nested filters. The value must match a listed property name, such as InputDataConfig.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: .+

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## NetworkConfig

Service: Amazon SageMaker Service

Networking options for a job, such as network traffic encryption between containers, whether to allow inbound and outbound network calls to and from containers, and the VPC subnets and security groups to use for VPC-enabled jobs.

### Contents

#### **EnableInterContainerTrafficEncryption**

Whether to encrypt all communications between distributed processing jobs. Choose True to encrypt communications. Encryption provides greater security for distributed processing jobs, but the processing might take longer.

Type: Boolean

Required: No

#### **EnableNetworkIsolation**

Whether to allow inbound and outbound network calls to and from the containers used for the processing job.

Type: Boolean

Required: No

#### **VpcConfig**

Specifies a VPC that your training jobs and hosted models have access to. Control access to and from your training and model containers by configuring the VPC. For more information, see [Protect Endpoints by Using an Amazon Virtual Private Cloud](#) and [Protect Training Jobs by Using an Amazon Virtual Private Cloud](#).

Type: [VpcConfig \(p. 1829\)](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# NotebookInstanceLifecycleConfigSummary

Service: Amazon SageMaker Service

Provides a summary of a notebook instance lifecycle configuration.

## Contents

### **CreationTime**

A timestamp that tells when the lifecycle configuration was created.

Type: Timestamp

Required: No

### **LastModifiedTime**

A timestamp that tells when the lifecycle configuration was last modified.

Type: Timestamp

Required: No

### **NotebookInstanceLifecycleConfigArn**

The Amazon Resource Name (ARN) of the lifecycle configuration.

Type: String

Length Constraints: Maximum length of 256.

Required: Yes

### **NotebookInstanceLifecycleConfigName**

The name of the lifecycle configuration.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\*

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# NotebookInstanceLifecycleHook

Service: Amazon SageMaker Service

Contains the notebook instance lifecycle configuration script.

Each lifecycle configuration script has a limit of 16384 characters.

The value of the \$PATH environment variable that is available to both scripts is /sbin:/bin:/usr/sbin:/usr/bin.

View CloudWatch Logs for notebook instance lifecycle configurations in log group /aws/sagemaker/NotebookInstances in log stream [notebook-instance-name]/[LifecycleConfigHook].

Lifecycle configuration scripts cannot run for longer than 5 minutes. If a script runs for longer than 5 minutes, it fails and the notebook instance is not created or started.

For information about notebook instance lifestyle configurations, see [Step 2.1: \(Optional\) Customize a Notebook Instance](#).

## Contents

### Content

A base64-encoded string that contains a shell script for a notebook instance lifecycle configuration.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 16384.

Pattern: [\S\s]+

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# NotebookInstanceSummary

Service: Amazon SageMaker Service

Provides summary information for an SageMaker notebook instance.

## Contents

### AdditionalCodeRepositories

An array of up to three Git repositories associated with the notebook instance. These can be either the names of Git repositories stored as resources in your account, or the URL of Git repositories in [AWS CodeCommit](#) or in any other Git repository. These repositories are cloned at the same level as the default repository of your notebook instance. For more information, see [Associating Git Repositories with SageMaker Notebook Instances](#).

Type: Array of strings

Array Members: Maximum number of 3 items.

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: ^https://([^\n]+)?(.\*\$|^[\w-]+)(-\*[\w-]+)\*

Required: No

### CreationTime

A timestamp that shows when the notebook instance was created.

Type: Timestamp

Required: No

### DefaultCodeRepository

The Git repository associated with the notebook instance as its default code repository. This can be either the name of a Git repository stored as a resource in your account, or the URL of a Git repository in [AWS CodeCommit](#) or in any other Git repository. When you open a notebook instance, it opens in the directory that contains this repository. For more information, see [Associating Git Repositories with SageMaker Notebook Instances](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: ^https://([^\n]+)?(.\*\$|^[\w-]+)(-\*[\w-]+)\*

Required: No

### InstanceType

The type of ML compute instance that the notebook instance is running on.

Type: String

Valid Values: ml.t2.medium | ml.t2.large | ml.t2.xlarge | ml.t2.2xlarge | ml.t3.medium | ml.t3.large | ml.t3.xlarge | ml.t3.2xlarge | ml.m4.xlarge | ml.m4.2xlarge | ml.m4.4xlarge | ml.m4.10xlarge | ml.m4.16xlarge | ml.m5.xlarge | ml.m5.2xlarge | ml.m5.4xlarge | ml.m5.12xlarge | ml.m5.24xlarge | ml.m5d.large | ml.m5d.xlarge | ml.m5d.2xlarge | ml.m5d.4xlarge | ml.m5d.8xlarge | ml.m5d.12xlarge | ml.m5d.16xlarge

```
| ml.m5d.24xlarge | ml.c4.xlarge | ml.c4.2xlarge | ml.c4.4xlarge |  
ml.c4.8xlarge | ml.c5.xlarge | ml.c5.2xlarge | ml.c5.4xlarge | ml.c5.9xlarge  
| ml.c5.18xlarge | ml.c5d.xlarge | ml.c5d.2xlarge | ml.c5d.4xlarge  
| ml.c5d.9xlarge | ml.c5d.18xlarge | ml.p2.xlarge | ml.p2.8xlarge  
| ml.p2.16xlarge | ml.p3.2xlarge | ml.p3.8xlarge | ml.p3.16xlarge |  
ml.p3dn.24xlarge | ml.g4dn.xlarge | ml.g4dn.2xlarge | ml.g4dn.4xlarge  
| ml.g4dn.8xlarge | ml.g4dn.12xlarge | ml.g4dn.16xlarge | ml.r5.large  
| ml.r5.xlarge | ml.r5.2xlarge | ml.r5.4xlarge | ml.r5.8xlarge |  
ml.r5.12xlarge | ml.r5.16xlarge | ml.r5.24xlarge | ml.g5.xlarge |  
ml.g5.2xlarge | ml.g5.4xlarge | ml.g5.8xlarge | ml.g5.16xlarge |  
ml.g5.12xlarge | ml.g5.24xlarge | ml.g5.48xlarge
```

Required: No

#### **LastModifiedTime**

A timestamp that shows when the notebook instance was last modified.

Type: Timestamp

Required: No

#### **NotebookInstanceArn**

The Amazon Resource Name (ARN) of the notebook instance.

Type: String

Length Constraints: Maximum length of 256.

Required: Yes

#### **NotebookInstanceLifecycleConfigName**

The name of a notebook instance lifecycle configuration associated with this notebook instance.

For information about notebook instance lifestyle configurations, see [Step 2.1: \(Optional\) Customize a Notebook Instance](#).

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\*

Required: No

#### **NotebookInstanceName**

The name of the notebook instance that you want a summary for.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\*

Required: Yes

#### **NotebookInstanceStatus**

The status of the notebook instance.

Type: String

Valid Values: Pending | InService | Stopping | Stopped | Failed | Deleting | Updating

Required: No

#### Url

The URL that you use to connect to the Jupyter notebook running in your notebook instance.

Type: String

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# NotificationConfiguration

Service: Amazon SageMaker Service

Configures Amazon SNS notifications of available or expiring work items for work teams.

## Contents

### NotificationTopicArn

The ARN for the Amazon SNS topic to which notifications should be published.

Type: String

Pattern: `arn:aws[a-zA-Z\-\_]*:sns:[a-zA-Z0-9\-\_]*:[0-9]{12}:[a-zA-Z0-9\-\_\.]*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ObjectiveStatusCounters

Service: Amazon SageMaker Service

Specifies the number of training jobs that this hyperparameter tuning job launched, categorized by the status of their objective metric. The objective metric status shows whether the final objective metric for the training job has been evaluated by the tuning job and used in the hyperparameter tuning process.

## Contents

### Failed

The number of training jobs whose final objective metric was not evaluated and used in the hyperparameter tuning process. This typically occurs when the training job failed or did not emit an objective metric.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

### Pending

The number of training jobs that are in progress and pending evaluation of their final objective metric.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

### Succeeded

The number of training jobs whose final objective metric was evaluated by the hyperparameter tuning job and used in the hyperparameter tuning process.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# OfflineStoreConfig

Service: Amazon SageMaker Service

The configuration of an OfflineStore.

Provide an OfflineStoreConfig in a request to CreateFeatureGroup to create an OfflineStore.

To encrypt an OfflineStore using at rest data encryption, specify AWS Key Management Service (KMS) key ID, or KMSKeyId, in S3StorageConfig.

## Contents

### DataCatalogConfig

The meta data of the Glue table that is autogenerated when an OfflineStore is created.

Type: [DataCatalogConfig \(p. 1239\)](#) object

Required: No

### DisableGlueTableCreation

Set to True to disable the automatic creation of an AWS Glue table when configuring an OfflineStore.

Type: Boolean

Required: No

### S3StorageConfig

The Amazon Simple Storage (Amazon S3) location of OfflineStore.

Type: [S3StorageConfig \(p. 1718\)](#) object

Required: Yes

### TableFormat

Format for the offline store table. Supported formats are Glue (Default) and [Apache Iceberg](#).

Type: String

Valid Values: Glue | Iceberg

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## OfflineStoreStatus

Service: Amazon SageMaker Service

The status of OfflineStore.

### Contents

#### BlockedReason

The justification for why the OfflineStoreStatus is Blocked (if applicable).

Type: String

Length Constraints: Maximum length of 1024.

Required: No

#### Status

An OfflineStore status.

Type: String

Valid Values: Active | Blocked | Disabled

Required: Yes

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## OidcConfig

Service: Amazon SageMaker Service

Use this parameter to configure your OIDC Identity Provider (IdP).

### Contents

#### AuthorizationEndpoint

The OIDC IdP authorization endpoint used to configure your private workforce.

Type: String

Length Constraints: Maximum length of 500.

Pattern: `https://\S+`

Required: Yes

#### ClientId

The OIDC IdP client ID used to configure your private workforce.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: `[ -~]+`

Required: Yes

#### ClientSecret

The OIDC IdP client secret used to configure your private workforce.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: `[ -~]+`

Required: Yes

#### Issuer

The OIDC IdP issuer used to configure your private workforce.

Type: String

Length Constraints: Maximum length of 500.

Pattern: `https://\S+`

Required: Yes

#### JwksUri

The OIDC IdP JSON Web Key Set (Jwks) URI used to configure your private workforce.

Type: String

Length Constraints: Maximum length of 500.

Pattern: `https://\S+`

Required: Yes

**LogoutEndpoint**

The OIDC IdP logout endpoint used to configure your private workforce.

Type: String

Length Constraints: Maximum length of 500.

Pattern: `https://\S+`

Required: Yes

**TokenEndpoint**

The OIDC IdP token endpoint used to configure your private workforce.

Type: String

Length Constraints: Maximum length of 500.

Pattern: `https://\S+`

Required: Yes

**UserinfoEndpoint**

The OIDC IdP user information endpoint used to configure your private workforce.

Type: String

Length Constraints: Maximum length of 500.

Pattern: `https://\S+`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# OidcConfigForResponse

Service: Amazon SageMaker Service

Your OIDC IdP workforce configuration.

## Contents

### AuthorizationEndpoint

The OIDC IdP authorization endpoint used to configure your private workforce.

Type: String

Length Constraints: Maximum length of 500.

Pattern: `https://\S+`

Required: No

### ClientId

The OIDC IdP client ID used to configure your private workforce.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: `[ -~]+`

Required: No

### Issuer

The OIDC IdP issuer used to configure your private workforce.

Type: String

Length Constraints: Maximum length of 500.

Pattern: `https://\S+`

Required: No

### JwksUri

The OIDC IdP JSON Web Key Set (Jwks) URI used to configure your private workforce.

Type: String

Length Constraints: Maximum length of 500.

Pattern: `https://\S+`

Required: No

### LogoutEndpoint

The OIDC IdP logout endpoint used to configure your private workforce.

Type: String

Length Constraints: Maximum length of 500.

Pattern: `https://\S+`

Required: No

**TokenEndpoint**

The OIDC IdP token endpoint used to configure your private workforce.

Type: String

Length Constraints: Maximum length of 500.

Pattern: `https://\S+`

Required: No

**UserinfoEndpoint**

The OIDC IdP user information endpoint used to configure your private workforce.

Type: String

Length Constraints: Maximum length of 500.

Pattern: `https://\S+`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## OidcMemberDefinition

Service: Amazon SageMaker Service

A list of user groups that exist in your OIDC Identity Provider (IdP). One to ten groups can be used to create a single private work team. When you add a user group to the list of Groups, you can add that user group to one or more private work teams. If you add a user group to a private work team, all workers in that user group are added to the work team.

## Contents

### Groups

A list of comma seperated strings that identifies user groups in your OIDC IdP. Each user group is made up of a group of private workers.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 10 items.

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: [\p{L}\p{M}\p{S}\p{N}\p{P}]+

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# OnlineStoreConfig

Service: Amazon SageMaker Service

Use this to specify the AWS Key Management Service (KMS) Key ID, or KMSKeyId, for at rest data encryption. You can turn OnlineStore on or off by specifying the EnableOnlineStore flag at General Assembly; the default value is False.

## Contents

### EnableOnlineStore

Turn OnlineStore off by specifying False for the EnableOnlineStore flag. Turn OnlineStore on by specifying True for the EnableOnlineStore flag.

The default value is False.

Type: Boolean

Required: No

### SecurityConfig

Use to specify KMS Key ID (KMSKeyId) for at-rest encryption of your OnlineStore.

Type: [OnlineStoreSecurityConfig \(p. 1596\)](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# OnlineStoreSecurityConfig

Service: Amazon SageMaker Service

The security configuration for OnlineStore.

## Contents

### KmsKeyId

The ID of the AWS Key Management Service (AWS KMS) key that SageMaker Feature Store uses to encrypt the Amazon S3 objects at rest using Amazon S3 server-side encryption.

The caller (either IAM user or IAM role) of CreateFeatureGroup must have below permissions to the OnlineStore KmsKeyId:

- "kms:Encrypt"
- "kms:Decrypt"
- "kms:DescribeKey"
- "kms>CreateGrant"
- "kms:RetireGrant"
- "kms:ReEncryptFrom"
- "kms:ReEncryptTo"
- "kms:GenerateDataKey"
- "kms>ListAliases"
- "kms>ListGrants"
- "kms:RevokeGrant"

The caller (either IAM user or IAM role) to all DataPlane operations (PutRecord, GetRecord, DeleteRecord) must have the following permissions to the KmsKeyId:

- "kms:Decrypt"

Type: String

Length Constraints: Maximum length of 2048.

Pattern: .\*

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# OutputConfig

Service: Amazon SageMaker Service

Contains information about the output location for the compiled model and the target device that the model runs on. TargetDevice and TargetPlatform are mutually exclusive, so you need to choose one between the two to specify your target device or platform. If you cannot find your device you want to use from the TargetDevice list, use TargetPlatform to describe the platform of your edge device and CompilerOptions if there are specific settings that are required or recommended to use for particular TargetPlatform.

## Contents

### CompilerOptions

Specifies additional parameters for compiler options in JSON format. The compiler options are TargetPlatform specific. It is required for NVIDIA accelerators and highly recommended for CPU compilations. For any other cases, it is optional to specify CompilerOptions .

- DTYPES: Specifies the data type for the input. When compiling for ml\_\* (except for ml\_inf) instances using PyTorch framework, provide the data type (dtype) of the model's input. "float32" is used if "DTYPES" is not specified. Options for data type are:
  - float32: Use either "float" or "float32".
  - int64: Use either "int64" or "long".

For example, {"dtype" : "float32"}.

- CPU: Compilation for CPU supports the following compiler options.
  - mcpu: CPU micro-architecture. For example, {'mcpu': 'skylake-avx512'}
  - mattr: CPU flags. For example, {'mattr': ['+neon', '+vfpv4']}
- ARM: Details of ARM CPU compilations.
  - NEON: NEON is an implementation of the Advanced SIMD extension used in ARMv7 processors.

For example, add {'mattr': ['+neon']} to the compiler options if compiling for ARM 32-bit platform with the NEON support.

- NVIDIA: Compilation for NVIDIA GPU supports the following compiler options.
  - gpu\_code: Specifies the targeted architecture.
  - trt-ver: Specifies the TensorRT versions in x.y.z. format.
  - cuda-ver: Specifies the CUDA version in x.y format.

For example, {'gpu-code': 'sm\_72', 'trt-ver': '6.0.1', 'cuda-ver': '10.1'}

- ANDROID: Compilation for the Android OS supports the following compiler options:
  - ANDROID\_PLATFORM: Specifies the Android API levels. Available levels range from 21 to 29. For example, {'ANDROID\_PLATFORM': 28}.
  - mattr: Add {'mattr': ['+neon']} to compiler options if compiling for ARM 32-bit platform with NEON support.
- INFERENTIA: Compilation for target ml\_inf1 uses compiler options passed in as a JSON string. For example, "CompilerOptions": "\"--verbose 1 --num-neuroncores 2 -O2\"".

For information about supported compiler options, see [Neuron Compiler CLI](#).

- CoreML: Compilation for the CoreML [OutputConfig:TargetDevice \(p. 1598\)](#) supports the following compiler options:
  - class\_labels: Specifies the classification labels file name inside input tar.gz file. For example, {"class\_labels": "imagenet\_labels\_1000.txt"}. Labels inside the txt file should be separated by newlines.

- **EIA:** Compilation for the Elastic Inference Accelerator supports the following compiler options:
  - **precision\_mode:** Specifies the precision of compiled artifacts. Supported values are "FP16" and "FP32". Default is "FP32".
  - **signature\_def\_key:** Specifies the signature to use for models in SavedModel format. Defaults is TensorFlow's default signature def key.
  - **output\_names:** Specifies a list of output tensor names for models in FrozenGraph format. Set at most one API field, either: `signature_def_key` or `output_names`.

For example: `{"precision_mode": "FP32", "output_names": ["output:0"]}`

Type: String

Length Constraints: Minimum length of 3. Maximum length of 1024.

Pattern: `.*`

Required: No

#### KmsKeyId

The AWS Key Management Service key (AWS KMS) that Amazon SageMaker uses to encrypt your output models with Amazon S3 server-side encryption after compilation job. If you don't provide a KMS key ID, Amazon SageMaker uses the default KMS key for Amazon S3 for your role's account. For more information, see [KMS-Managed Encryption Keys](#) in the *Amazon Simple Storage Service Developer Guide*.

The KmsKeyId can be any of the following formats:

- Key ID: 1234abcd-12ab-34cd-56ef-1234567890ab
- Key ARN: `arn:aws:kms:us-west-2:111122223333:key/1234abcd-12ab-34cd-56ef-1234567890ab`
- Alias name: alias/ExampleAlias
- Alias name ARN: `arn:aws:kms:us-west-2:111122223333:alias/ExampleAlias`

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `.*`

Required: No

#### S3OutputLocation

Identifies the S3 bucket where you want Amazon SageMaker to store the model artifacts. For example, `s3://bucket-name/key-name-prefix`.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3)://([^\/]*)/?(.*)$`

Required: Yes

#### TargetDevice

Identifies the target device or the machine learning instance that you want to run your model on after the compilation has completed. Alternatively, you can specify OS, architecture, and accelerator using [TargetPlatform \(p. 1750\)](#) fields. It can be used instead of TargetPlatform.

Type: String

Valid Values: lambda | ml\_m4 | ml\_m5 | ml\_c4 | ml\_c5 | ml\_p2 | ml\_p3 | ml\_g4dn | ml\_inf1 | ml\_eia2 | jetson\_tx1 | jetson\_tx2 | jetson\_nano | jetson\_xavier | rasp3b | imx8qm | deeplens | rk3399 | rk3288 | aisage | sbe\_c | qcs605 | qcs603 | sitara\_am57x | amba\_cv2 | amba\_cv22 | amba\_cv25 | x86\_win32 | x86\_win64 | coreml | jacinto\_tda4vm | imx8mplus

Required: No

#### TargetPlatform

Contains information about a target platform that you want your model to run on, such as OS, architecture, and accelerators. It is an alternative of TargetDevice.

The following examples show how to configure the TargetPlatform and CompilerOptions JSON strings for popular target platforms:

- Raspberry Pi 3 Model B+

```
"TargetPlatform": {"Os": "LINUX", "Arch": "ARM_EABIHF"},  
"CompilerOptions": {'mattr': ['+neon']}
```

- Jetson TX2

```
"TargetPlatform": {"Os": "LINUX", "Arch": "ARM64", "Accelerator": "NVIDIA"},  
"CompilerOptions": {'gpu-code': 'sm_62', 'trt-ver': '6.0.1', 'cuda-ver': '10.0'}
```

- EC2 m5.2xlarge instance OS

```
"TargetPlatform": {"Os": "LINUX", "Arch": "X86_64", "Accelerator": "NVIDIA"},
```

```
"CompilerOptions": {'mcpu': 'skylake-avx512'}
```

- RK3399

```
"TargetPlatform": {"Os": "LINUX", "Arch": "ARM64", "Accelerator": "MALI"}
```

- ARMv7 phone (CPU)

```
"TargetPlatform": {"Os": "ANDROID", "Arch": "ARM_EABI"},
```

```
"CompilerOptions": {'ANDROID_PLATFORM': 25, 'mattr': ['+neon']}
```

- ARMv8 phone (CPU)

```
"TargetPlatform": {"Os": "ANDROID", "Arch": "ARM64"},
```

```
"CompilerOptions": {'ANDROID_PLATFORM': 29}
```

Type: [TargetPlatform \(p. 1750\)](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# OutputDataConfig

Service: Amazon SageMaker Service

Provides information about how to store model training results (model artifacts).

## Contents

### KmsKeyId

The AWS Key Management Service (AWS KMS) key that SageMaker uses to encrypt the model artifacts at rest using Amazon S3 server-side encryption. The KmsKeyId can be any of the following formats:

- // KMS Key ID
  - "1234abcd-12ab-34cd-56ef-1234567890ab"
- // Amazon Resource Name (ARN) of a KMS Key
  - "arn:aws:kms:us-west-2:111122223333:key/1234abcd-12ab-34cd-56ef-1234567890ab"
- // KMS Key Alias
  - "alias/ExampleAlias"
- // Amazon Resource Name (ARN) of a KMS Key Alias
  - "arn:aws:kms:us-west-2:111122223333:alias/ExampleAlias"

If you use a KMS key ID or an alias of your KMS key, the SageMaker execution role must include permissions to call kms:Encrypt. If you don't provide a KMS key ID, SageMaker uses the default KMS key for Amazon S3 for your role's account. SageMaker uses server-side encryption with KMS-managed keys for OutputDataConfig. If you use a bucket policy with an s3:PutObject permission that only allows objects with server-side encryption, set the condition key of s3:x-amz-server-side-encryption to "aws:kms". For more information, see [KMS-Managed Encryption Keys](#) in the *Amazon Simple Storage Service Developer Guide*.

The KMS key policy must grant permission to the IAM role that you specify in your CreateTrainingJob, CreateTransformJob, or CreateHyperParameterTuningJob requests. For more information, see [Using Key Policies in AWS KMS](#) in the *AWS Key Management Service Developer Guide*.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: .\*

Required: No

### S3OutputPath

Identifies the S3 path where you want SageMaker to store the model artifacts. For example, s3://bucket-name/key-name-prefix.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: ^(https|s3)://([^\/]+)?(.\*)\$

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# OutputParameter

Service: Amazon SageMaker Service

An output parameter of a pipeline step.

## Contents

### Name

The name of the output parameter.

Type: String

Length Constraints: Maximum length of 256.

Required: Yes

### Value

The value of the output parameter.

Type: String

Length Constraints: Maximum length of 1024.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ParallelismConfiguration

Service: Amazon SageMaker Service

Configuration that controls the parallelism of the pipeline. By default, the parallelism configuration specified applies to all executions of the pipeline unless overridden.

## Contents

### **MaxParallelExecutionSteps**

The max number of steps that can be executed in parallel.

Type: Integer

Valid Range: Minimum value of 1.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## Parameter

Service: Amazon SageMaker Service

Assigns a value to a named Pipeline parameter.

### Contents

#### Name

The name of the parameter to assign a value to. This parameter name must match a named parameter in the pipeline definition.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,255\}\$

Required: Yes

#### Value

The literal value for the parameter.

Type: String

Length Constraints: Maximum length of 1024.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ParameterRange

Service: Amazon SageMaker Service

Defines the possible values for categorical, continuous, and integer hyperparameters to be used by an algorithm.

## Contents

### CategoricalParameterRangeSpecification

A CategoricalParameterRangeSpecification object that defines the possible values for a categorical hyperparameter.

Type: [CategoricalParameterRangeSpecification \(p. 1198\)](#) object

Required: No

### ContinuousParameterRangeSpecification

A ContinuousParameterRangeSpecification object that defines the possible values for a continuous hyperparameter.

Type: [ContinuousParameterRangeSpecification \(p. 1233\)](#) object

Required: No

### IntegerParameterRangeSpecification

A IntegerParameterRangeSpecification object that defines the possible values for an integer hyperparameter.

Type: [IntegerParameterRangeSpecification \(p. 1434\)](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ParameterRanges

Service: Amazon SageMaker Service

Specifies ranges of integer, continuous, and categorical hyperparameters that a hyperparameter tuning job searches. The hyperparameter tuning job launches training jobs with hyperparameter values within these ranges to find the combination of values that result in the training job with the best performance as measured by the objective metric of the hyperparameter tuning job.

## Note

The maximum number of items specified for `Array Members` refers to the maximum number of hyperparameters for each range and also the maximum for the hyperparameter tuning job itself. That is, the sum of the number of hyperparameters for all the ranges can't exceed the maximum number specified.

## Contents

### CategoricalParameterRanges

The array of [CategoricalParameterRange \(p. 1197\)](#) objects that specify ranges of categorical hyperparameters that a hyperparameter tuning job searches.

Type: Array of [CategoricalParameterRange \(p. 1197\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 30 items.

Required: No

### ContinuousParameterRanges

The array of [ContinuousParameterRange \(p. 1231\)](#) objects that specify ranges of continuous hyperparameters that a hyperparameter tuning job searches.

Type: Array of [ContinuousParameterRange \(p. 1231\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 30 items.

Required: No

### IntegerParameterRanges

The array of [IntegerParameterRange \(p. 1432\)](#) objects that specify ranges of integer hyperparameters that a hyperparameter tuning job searches.

Type: Array of [IntegerParameterRange \(p. 1432\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 30 items.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## Parent

Service: Amazon SageMaker Service

The trial that a trial component is associated with and the experiment the trial is part of. A component might not be associated with a trial. A component can be associated with multiple trials.

## Contents

### ExperimentName

The name of the experiment.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,119\}

Required: No

### TrialName

The name of the trial.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,119\}

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ParentHyperParameterTuningJob

Service: Amazon SageMaker Service

A previously completed or stopped hyperparameter tuning job to be used as a starting point for a new hyperparameter tuning job.

## Contents

### HyperParameterTuningJobName

The name of the hyperparameter tuning job to be used as a starting point for a new hyperparameter tuning job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9]){0,31}

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# PendingDeploymentSummary

Service: Amazon SageMaker Service

The summary of an in-progress deployment when an endpoint is creating or updating with a new endpoint configuration.

## Contents

### EndpointConfigName

The name of the endpoint configuration used in the deployment.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: Yes

### ProductionVariants

An array of [PendingProductionVariantSummary \(p. 1612\)](#) objects, one for each model hosted behind this endpoint for the in-progress deployment.

Type: Array of [PendingProductionVariantSummary \(p. 1612\)](#) objects

Array Members: Minimum number of 1 item.

Required: No

### ShadowProductionVariants

An array of [PendingProductionVariantSummary \(p. 1612\)](#) objects, one for each model hosted behind this endpoint in shadow mode with production traffic replicated from the model specified on `ProductionVariants` for the in-progress deployment.

Type: Array of [PendingProductionVariantSummary \(p. 1612\)](#) objects

Array Members: Minimum number of 1 item.

Required: No

### StartTime

The start time of the deployment.

Type: Timestamp

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# PendingProductionVariantSummary

Service: Amazon SageMaker Service

The production variant summary for a deployment when an endpoint is creating or updating with the [CreateEndpoint \(p. 81\)](#) or [UpdateEndpoint \(p. 924\)](#) operations. Describes the VariantStatus , weight and capacity for a production variant associated with an endpoint.

## Contents

### AcceleratorType

The size of the Elastic Inference (EI) instance to use for the production variant. EI instances provide on-demand GPU computing for inference. For more information, see [Using Elastic Inference in Amazon SageMaker](#).

Type: String

Valid Values: ml.eia1.medium | ml.eia1.large | ml.eia1.xlarge | ml.eia2.medium | ml.eia2.large | ml.eia2.xlarge

Required: No

### CurrentInstanceCount

The number of instances associated with the variant.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

### CurrentServerlessConfig

The serverless configuration for the endpoint.

Type: [ProductionVariantServerlessConfig \(p. 1656\)](#) object

Required: No

### CurrentWeight

The weight associated with the variant.

Type: Float

Valid Range: Minimum value of 0.

Required: No

### DeployedImages

An array of DeployedImage objects that specify the Amazon EC2 Container Registry paths of the inference images deployed on instances of this ProductionVariant.

Type: Array of [DeployedImage \(p. 1256\)](#) objects

Required: No

### DesiredInstanceCount

The number of instances requested in this deployment, as specified in the endpoint configuration for the endpoint. The value is taken from the request to the [CreateEndpointConfig \(p. 85\)](#) operation.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

#### DesiredServerlessConfig

The serverless configuration requested for this deployment, as specified in the endpoint configuration for the endpoint.

Type: [ProductionVariantServerlessConfig \(p. 1656\)](#) object

Required: No

#### DesiredWeight

The requested weight for the variant in this deployment, as specified in the endpoint configuration for the endpoint. The value is taken from the request to the [CreateEndpointConfig \(p. 85\)](#) operation.

Type: Float

Valid Range: Minimum value of 0.

Required: No

#### InstanceType

The type of instances associated with the variant.

Type: String

Valid Values: ml.t2.medium | ml.t2.large | ml.t2.xlarge | ml.t2.2xlarge | ml.m4.xlarge | ml.m4.2xlarge | ml.m4.4xlarge | ml.m4.10xlarge | ml.m4.16xlarge | ml.m5.large | ml.m5.xlarge | ml.m5.2xlarge | ml.m5.4xlarge | ml.m5.12xlarge | ml.m5.24xlarge | ml.m5d.large | ml.m5d.xlarge | ml.m5d.2xlarge | ml.m5d.4xlarge | ml.m5d.12xlarge | ml.m5d.24xlarge | ml.c4.large | ml.c4.xlarge | ml.c4.2xlarge | ml.c4.4xlarge | ml.c4.8xlarge | ml.p2.xlarge | ml.p2.8xlarge | ml.p2.16xlarge | ml.p3.2xlarge | ml.p3.8xlarge | ml.p3.16xlarge | ml.c5.large | ml.c5.xlarge | ml.c5.2xlarge | ml.c5.4xlarge | ml.c5.9xlarge | ml.c5.18xlarge | ml.c5d.large | ml.c5d.xlarge | ml.c5d.2xlarge | ml.c5d.4xlarge | ml.c5d.9xlarge | ml.c5d.18xlarge | ml.g4dn.xlarge | ml.g4dn.2xlarge | ml.g4dn.4xlarge | ml.g4dn.8xlarge | ml.g4dn.12xlarge | ml.g4dn.16xlarge | ml.r5.large | ml.r5.xlarge | ml.r5.2xlarge | ml.r5.4xlarge | ml.r5.12xlarge | ml.r5.24xlarge | ml.r5d.large | ml.r5d.xlarge | ml.r5d.2xlarge | ml.r5d.4xlarge | ml.r5d.12xlarge | ml.r5d.24xlarge | ml.inf1.xlarge | ml.inf1.2xlarge | ml.inf1.6xlarge | ml.inf1.24xlarge | ml.c6i.large | ml.c6i.xlarge | ml.c6i.2xlarge | ml.c6i.4xlarge | ml.c6i.8xlarge | ml.c6i.12xlarge | ml.c6i.16xlarge | ml.c6i.24xlarge | ml.c6i.32xlarge | ml.g5.xlarge | ml.g5.2xlarge | ml.g5.4xlarge | ml.g5.8xlarge | ml.g5.12xlarge | ml.g5.16xlarge | ml.g5.24xlarge | ml.g5.48xlarge | ml.p4d.24xlarge | ml.c7g.large | ml.c7g.xlarge | ml.c7g.2xlarge | ml.c7g.4xlarge | ml.c7g.8xlarge | ml.c7g.12xlarge | ml.c7g.16xlarge | ml.m6g.large | ml.m6g.xlarge | ml.m6g.2xlarge | ml.m6g.4xlarge | ml.m6g.8xlarge | ml.m6g.12xlarge | ml.m6g.16xlarge | ml.m6gd.large | ml.m6gd.xlarge | ml.m6gd.2xlarge | ml.m6gd.4xlarge | ml.m6gd.8xlarge | ml.m6gd.12xlarge | ml.m6gd.16xlarge | ml.c6g.large | ml.c6g.xlarge | ml.c6g.2xlarge | ml.c6g.4xlarge | ml.c6g.8xlarge | ml.c6g.12xlarge | ml.c6g.16xlarge | ml.c6gd.large | ml.c6gd.xlarge | ml.c6gd.2xlarge |

```
ml.c6gd.4xlarge | ml.c6gd.8xlarge | ml.c6gd.12xlarge | ml.c6gd.16xlarge
| ml.c6gn.large | ml.c6gn.xlarge | ml.c6gn.2xlarge | ml.c6gn.4xlarge
| ml.c6gn.8xlarge | ml.c6gn.12xlarge | ml.c6gn.16xlarge | ml.r6g.large
| ml.r6g.xlarge | ml.r6g.2xlarge | ml.r6g.4xlarge | ml.r6g.8xlarge |
ml.r6g.12xlarge | ml.r6g.16xlarge | ml.r6gd.large | ml.r6gd.xlarge |
ml.r6gd.2xlarge | ml.r6gd.4xlarge | ml.r6gd.8xlarge | ml.r6gd.12xlarge |
ml.r6gd.16xlarge
```

Required: No

#### VariantName

The name of the variant.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: Yes

#### VariantStatus

The endpoint variant status which describes the current deployment stage status or operational status.

Type: Array of [ProductionVariantStatus \(p. 1657\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 5 items.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## Phase

Service: Amazon SageMaker Service

Defines the traffic pattern.

### Contents

#### DurationInSeconds

Specifies how long traffic phase should be.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

#### InitialNumberOfUsers

Specifies how many concurrent users to start with.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

#### SpawnRate

Specified how many new users to spawn in a minute.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# Pipeline

Service: Amazon SageMaker Service

A SageMaker Model Building Pipeline instance.

## Contents

### **CreatedBy**

Information about the user who created or modified an experiment, trial, trial component, lineage group, project, or model card.

Type: [UserContext \(p. 1822\)](#) object

Required: No

### **CreationTime**

The creation time of the pipeline.

Type: Timestamp

Required: No

### **LastModifiedBy**

Information about the user who created or modified an experiment, trial, trial component, lineage group, project, or model card.

Type: [UserContext \(p. 1822\)](#) object

Required: No

### **LastModifiedTime**

The time that the pipeline was last modified.

Type: Timestamp

Required: No

### **LastRunTime**

The time when the pipeline was last run.

Type: Timestamp

Required: No

### **ParallelismConfiguration**

The parallelism configuration applied to the pipeline.

Type: [ParallelismConfiguration \(p. 1604\)](#) object

Required: No

### **PipelineArn**

The Amazon Resource Name (ARN) of the pipeline.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:pipeline/.*`

Required: No

#### **PipelineDescription**

The description of the pipeline.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 3072.

Pattern: `.*`

Required: No

#### **PipelineDisplayName**

The display name of the pipeline.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `^ [a-zA-Z0-9](-*[a-zA-Z0-9]) {0,255}`

Required: No

#### **PipelineName**

The name of the pipeline.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `^ [a-zA-Z0-9](-*[a-zA-Z0-9]) {0,255}`

Required: No

#### **PipelineStatus**

The status of the pipeline.

Type: String

Valid Values: Active

Required: No

#### **RoleArn**

The Amazon Resource Name (ARN) of the role that created the pipeline.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `^ arn:aws[a-zA-Z-]*:iam::\d{12}:role/?[a-zA-Z_0-9+=,.@-_/.]+$`

Required: No

#### **Tags**

A list of tags that apply to the pipeline.

Type: Array of [Tag \(p. 1749\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# PipelineDefinitionS3Location

Service: Amazon SageMaker Service

The location of the pipeline definition stored in Amazon S3.

## Contents

### Bucket

Name of the S3 bucket.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 63.

Pattern: [a-zA-Z0-9][\.\-\a-zA-Z0-9]{1,61}[a-zA-Z0-9]

Required: Yes

### ObjectKey

The object key (or key name) uniquely identifies the object in an S3 bucket.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: .+

Required: Yes

### VersionId

Version Id of the pipeline definition file. If not specified, Amazon SageMaker will retrieve the latest version.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: .+

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# PipelineExecution

Service: Amazon SageMaker Service

An execution of a pipeline.

## Contents

### **CreatedBy**

Information about the user who created or modified an experiment, trial, trial component, lineage group, project, or model card.

Type: [UserContext \(p. 1822\)](#) object

Required: No

### **CreationTime**

The creation time of the pipeline execution.

Type: Timestamp

Required: No

### **FailureReason**

If the execution failed, a message describing why.

Type: String

Length Constraints: Maximum length of 1300.

Pattern: .\*

Required: No

### **LastModifiedBy**

Information about the user who created or modified an experiment, trial, trial component, lineage group, project, or model card.

Type: [UserContext \(p. 1822\)](#) object

Required: No

### **LastModifiedTime**

The time that the pipeline execution was last modified.

Type: Timestamp

Required: No

### **ParallelismConfiguration**

The parallelism configuration applied to the pipeline execution.

Type: [ParallelismConfiguration \(p. 1604\)](#) object

Required: No

### **PipelineArn**

The Amazon Resource Name (ARN) of the pipeline that was executed.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-\-]\*:sagemaker:[a-z0-9\-\-]\*:[0-9]{12}:pipeline/.\*

Required: No

#### **PipelineExecutionArn**

The Amazon Resource Name (ARN) of the pipeline execution.

Type: String

Length Constraints: Maximum length of 256.

Pattern: ^arn:aws[a-z\-\-]\*:sagemaker:[a-z0-9\-\-]\*:[0-9]{12}:pipeline\/.\*\//execution\/.\*\\$

Required: No

#### **PipelineExecutionDescription**

The description of the pipeline execution.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 3072.

Pattern: .\*

Required: No

#### **PipelineExecutionDisplayName**

The display name of the pipeline execution.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 82.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,81\}

Required: No

#### **PipelineExecutionStatus**

The status of the pipeline status.

Type: String

Valid Values: Executing | Stopping | Stopped | Failed | Succeeded

Required: No

#### **PipelineExperimentConfig**

Specifies the names of the experiment and trial created by a pipeline.

Type: [PipelineExperimentConfig \(p. 1630\)](#) object

Required: No

#### **PipelineParameters**

Contains a list of pipeline parameters. This list can be empty.

Type: Array of [Parameter \(p. 1605\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# PipelineExecutionStep

Service: Amazon SageMaker Service

An execution of a step in a pipeline.

## Contents

### AttemptCount

The current attempt of the execution step. For more information, see [Retry Policy for SageMaker Pipelines steps](#).

Type: Integer

Required: No

### CacheHitResult

If this pipeline execution step was cached, details on the cache hit.

Type: [CacheHitResult \(p. 1188\)](#) object

Required: No

### EndTime

The time that the step stopped executing.

Type: Timestamp

Required: No

### FailureReason

The reason why the step failed execution. This is only returned if the step failed its execution.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

### Metadata

Metadata to run the pipeline step.

Type: [PipelineExecutionStepMetadata \(p. 1625\)](#) object

Required: No

### StartTime

The time that the step started executing.

Type: Timestamp

Required: No

### StepDescription

The description of the step.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 3072.

Pattern: .\*

Required: No

**StepDisplayName**

The display name of the step.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 256.

Pattern: .\*

Required: No

**StepName**

The name of the step that is executed.

Type: String

Length Constraints: Maximum length of 64.

Pattern: ^[A-Za-z0-9\-\\_]\*\$

Required: No

**StepStatus**

The status of the step execution.

Type: String

Valid Values: Starting | Executing | Stopping | Stopped | Failed | Succeeded

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# PipelineExecutionStepMetadata

Service: Amazon SageMaker Service

Metadata for a step execution.

## Contents

### AutoMLJob

The Amazon Resource Name (ARN) of the AutoML job that was run by this step.

Type: [AutoMLJobStepMetadata \(p. 1171\)](#) object

Required: No

### Callback

The URL of the Amazon SQS queue used by this step execution, the pipeline generated token, and a list of output parameters.

Type: [CallbackStepMetadata \(p. 1189\)](#) object

Required: No

### ClarifyCheck

Container for the metadata for a Clarify check step. The configurations and outcomes of the check step execution. This includes:

- The type of the check conducted,
- The Amazon S3 URIs of baseline constraints and statistics files to be used for the drift check.
- The Amazon S3 URIs of newly calculated baseline constraints and statistics.
- The model package group name provided.
- The Amazon S3 URI of the violation report if violations detected.
- The Amazon Resource Name (ARN) of check processing job initiated by the step execution.
- The boolean flags indicating if the drift check is skipped.
- If step property BaselineUsedForDriftCheck is set the same as CalculatedBaseline.

Type: [ClarifyCheckStepMetadata \(p. 1204\)](#) object

Required: No

### Condition

The outcome of the condition evaluation that was run by this step execution.

Type: [ConditionStepMetadata \(p. 1224\)](#) object

Required: No

### EMR

The configurations and outcomes of an Amazon EMR step execution.

Type: [EMRStepMetadata \(p. 1296\)](#) object

Required: No

### Fail

The configurations and outcomes of a Fail step execution.

Type: [FailStepMetadata \(p. 1324\)](#) object

Required: No

#### **Lambda**

The Amazon Resource Name (ARN) of the Lambda function that was run by this step execution and a list of output parameters.

Type: [LambdaStepMetadata \(p. 1460\)](#) object

Required: No

#### **Model**

The Amazon Resource Name (ARN) of the model that was created by this step execution.

Type: [ModelStepMetadata \(p. 1537\)](#) object

Required: No

#### **ProcessingJob**

The Amazon Resource Name (ARN) of the processing job that was run by this step execution.

Type: [ProcessingJobStepMetadata \(p. 1641\)](#) object

Required: No

#### **QualityCheck**

The configurations and outcomes of the check step execution. This includes:

- The type of the check conducted.
- The Amazon S3 URIs of baseline constraints and statistics files to be used for the drift check.
- The Amazon S3 URIs of newly calculated baseline constraints and statistics.
- The model package group name provided.
- The Amazon S3 URI of the violation report if violations detected.
- The Amazon Resource Name (ARN) of check processing job initiated by the step execution.
- The Boolean flags indicating if the drift check is skipped.
- If step property BaselineUsedForDriftCheck is set the same as CalculatedBaseline.

Type: [QualityCheckStepMetadata \(p. 1679\)](#) object

Required: No

#### **RegisterModel**

The Amazon Resource Name (ARN) of the model package that the model was registered to by this step execution.

Type: [RegisterModelStepMetadata \(p. 1697\)](#) object

Required: No

#### **TrainingJob**

The Amazon Resource Name (ARN) of the training job that was run by this step execution.

Type: [TrainingJobStepMetadata \(p. 1770\)](#) object

Required: No

#### **TransformJob**

The Amazon Resource Name (ARN) of the transform job that was run by this step execution.

Type: [TransformJobStepMetadata \(p. 1785\)](#) object

Required: No

#### TuningJob

The Amazon Resource Name (ARN) of the tuning job that was run by this step execution.

Type: [TuningJobStepMetaData \(p. 1816\)](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# PipelineExecutionSummary

Service: Amazon SageMaker Service

A pipeline execution summary.

## Contents

### **PipelineExecutionArn**

The Amazon Resource Name (ARN) of the pipeline execution.

Type: String

Length Constraints: Maximum length of 256.

Pattern: ^arn:aws[a-z\-\]\*:sagemaker:[a-z0-9\-\\*:[0-9]{12}:pipeline\/\*\\*/execution\/\*\$

Required: No

### **PipelineExecutionDescription**

The description of the pipeline execution.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 3072.

Pattern: .\*

Required: No

### **PipelineExecutionDisplayName**

The display name of the pipeline execution.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 82.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,81\}

Required: No

### **PipelineExecutionFailureReason**

A message generated by SageMaker Pipelines describing why the pipeline execution failed.

Type: String

Length Constraints: Maximum length of 3072.

Required: No

### **PipelineExecutionStatus**

The status of the pipeline execution.

Type: String

Valid Values: Executing | Stopping | Stopped | Failed | Succeeded

Required: No

### **StartTime**

The start time of the pipeline execution.

Type: Timestamp

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# PipelineExperimentConfig

Service: Amazon SageMaker Service

Specifies the names of the experiment and trial created by a pipeline.

## Contents

### ExperimentName

The name of the experiment.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,119\}

Required: No

### TrialName

The name of the trial.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,119\}

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# PipelineSummary

Service: Amazon SageMaker Service

A summary of a pipeline.

## Contents

### **CreationTime**

The creation time of the pipeline.

Type: Timestamp

Required: No

### **LastExecutionTime**

The last time that a pipeline execution began.

Type: Timestamp

Required: No

### **LastModifiedTime**

The time that the pipeline was last modified.

Type: Timestamp

Required: No

### **PipelineArn**

The Amazon Resource Name (ARN) of the pipeline.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-\-]*:sagemaker:[a-z0-9\-\-]*:[0-9]{12}:pipeline/.*`

Required: No

### **PipelineDescription**

The description of the pipeline.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 3072.

Pattern: `.*`

Required: No

### **PipelineDisplayName**

The display name of the pipeline.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `^ [a-zA-Z0-9] (-*[a-zA-Z0-9]) {0,255}`

Required: No

**PipelineName**

The name of the pipeline.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,255\}

Required: No

**RoleArn**

The Amazon Resource Name (ARN) that the pipeline used to execute.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: ^arn:aws[a-zA-Z-]\*:iam::\d{12}:role/?[a-zA-Z\_0-9+=,.@\\-/\_]+\$

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ProcessingClusterConfig

Service: Amazon SageMaker Service

Configuration for the cluster used to run a processing job.

## Contents

### InstanceCount

The number of ML compute instances to use in the processing job. For distributed processing jobs, specify a value greater than 1. The default value is 1.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 100.

Required: Yes

### InstanceType

The ML compute instance type for the processing job.

Type: String

Valid Values: ml.t3.medium | ml.t3.large | ml.t3.xlarge | ml.t3.2xlarge | ml.m4.xlarge | ml.m4.2xlarge | ml.m4.4xlarge | ml.m4.10xlarge | ml.m4.16xlarge | ml.c4.xlarge | ml.c4.2xlarge | ml.c4.4xlarge | ml.c4.8xlarge | ml.p2.xlarge | ml.p2.8xlarge | ml.p2.16xlarge | ml.p3.2xlarge | ml.p3.8xlarge | ml.p3.16xlarge | ml.c5.xlarge | ml.c5.2xlarge | ml.c5.4xlarge | ml.c5.9xlarge | ml.c5.18xlarge | ml.m5.large | ml.m5.xlarge | ml.m5.2xlarge | ml.m5.4xlarge | ml.m5.12xlarge | ml.m5.24xlarge | ml.r5.large | ml.r5.xlarge | ml.r5.2xlarge | ml.r5.4xlarge | ml.r5.8xlarge | ml.r5.12xlarge | ml.r5.16xlarge | ml.r5.24xlarge | ml.g4dn.xlarge | ml.g4dn.2xlarge | ml.g4dn.4xlarge | ml.g4dn.8xlarge | ml.g4dn.12xlarge | ml.g4dn.16xlarge

Required: Yes

### VolumeKmsKeyId

The AWS Key Management Service (AWS KMS) key that Amazon SageMaker uses to encrypt data on the storage volume attached to the ML compute instance(s) that run the processing job.

#### Note

Certain Nitro-based instances include local storage, dependent on the instance type. Local storage volumes are encrypted using a hardware module on the instance. You can't request a VolumeKmsKeyId when using an instance type with local storage.

For a list of instance types that support local instance storage, see [Instance Store Volumes](#).

For more information about local instance storage encryption, see [SSD Instance Store Volumes](#).

Type: String

Length Constraints: Maximum length of 2048.

Pattern: .\*

Required: No

### VolumeSizeInGB

The size of the ML storage volume in gigabytes that you want to provision. You must specify sufficient ML storage for your scenario.

**Note**

Certain Nitro-based instances include local storage with a fixed total size, dependent on the instance type. When using these instances for processing, Amazon SageMaker mounts the local instance storage instead of Amazon EBS gp2 storage. You can't request a VolumeSizeInGB greater than the total size of the local instance storage.

For a list of instance types that support local instance storage, including the total size per instance type, see [Instance Store Volumes](#).

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 16384.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ProcessingFeatureStoreOutput

Service: Amazon SageMaker Service

Configuration for processing job outputs in Amazon SageMaker Feature Store.

## Contents

### FeatureGroupName

The name of the Amazon SageMaker FeatureGroup to use as the destination for processing job output. Note that your processing script is responsible for putting records into your Feature Store.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,63\}

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ProcessingInput

Service: Amazon SageMaker Service

The inputs for a processing job. The processing input must specify exactly one of either `S3Input` or `DatasetDefinition` types.

## Contents

### **AppManaged**

When `True`, input operations such as data download are managed natively by the processing job application. When `False` (default), input operations are managed by Amazon SageMaker.

Type: Boolean

Required: No

### **DatasetDefinition**

Configuration for a Dataset Definition input.

Type: [DatasetDefinition \(p. 1246\)](#) object

Required: No

### **InputName**

The name for the processing job input.

Type: String

Required: Yes

### **S3Input**

Configuration for downloading input data from Amazon S3 into the processing container.

Type: [ProcessingS3Input \(p. 1647\)](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ProcessingJob

Service: Amazon SageMaker Service

An Amazon SageMaker processing job that is used to analyze data and evaluate models. For more information, see [Process Data and Evaluate Models](#).

## Contents

### **AppSpecification**

Configuration to run a processing job in a specified container image.

Type: [AppSpecification \(p. 1142\)](#) object

Required: No

### **AutoMLJobArn**

The Amazon Resource Name (ARN) of the AutoML job associated with this processing job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `arn:aws[a-z\-\-]*:sagemaker:[a-z0-9\-\-]*:[0-9]{12}:automl-job/.*`

Required: No

### **CreationTime**

The time the processing job was created.

Type: Timestamp

Required: No

### **Environment**

Sets the environment variables in the Docker container.

Type: String to string map

Map Entries: Maximum number of 100 items.

Key Length Constraints: Maximum length of 256.

Key Pattern: `[a-zA-Z_][a-zA-Z0-9_]*`

Value Length Constraints: Maximum length of 256.

Value Pattern: `[\S\s]*`

Required: No

### **ExitMessage**

A string, up to one KB in size, that contains metadata from the processing container when the processing job exits.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `[\S\s]*`

Required: No

### **ExperimentConfig**

Associates a SageMaker job as a trial component with an experiment and trial. Specified when you call the following APIs:

- [CreateProcessingJob \(p. 193\)](#)
- [CreateTrainingJob \(p. 207\)](#)
- [CreateTransformJob \(p. 216\)](#)

Type: [ExperimentConfig \(p. 1317\)](#) object

Required: No

### **FailureReason**

A string, up to one KB in size, that contains the reason a processing job failed, if it failed.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

### **LastModifiedTime**

The time the processing job was last modified.

Type: Timestamp

Required: No

### **MonitoringScheduleArn**

The ARN of a monitoring schedule for an endpoint associated with this processing job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: No

### **NetworkConfig**

Networking options for a job, such as network traffic encryption between containers, whether to allow inbound and outbound network calls to and from containers, and the VPC subnets and security groups to use for VPC-enabled jobs.

Type: [NetworkConfig \(p. 1580\)](#) object

Required: No

### **ProcessingEndTime**

The time that the processing job ended.

Type: Timestamp

Required: No

### **ProcessingInputs**

List of input configurations for the processing job.

Type: Array of [ProcessingInput \(p. 1636\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 10 items.

Required: No

#### **ProcessingJobArn**

The ARN of the processing job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-\-]*:sagemaker:[a-z0-9\-\-]*:[0-9]{12}:processing-job/.*`

Required: No

#### **ProcessingJobName**

The name of the processing job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])\{0,62\}`

Required: No

#### **ProcessingJobStatus**

The status of the processing job.

Type: String

Valid Values: InProgress | Completed | Failed | Stopping | Stopped

Required: No

#### **ProcessingOutputConfig**

Configuration for uploading output from the processing container.

Type: [ProcessingOutputConfig \(p. 1645\)](#) object

Required: No

#### **ProcessingResources**

Identifies the resources, ML compute instances, and ML storage volumes to deploy for a processing job. In distributed training, you specify more than one instance.

Type: [ProcessingResources \(p. 1646\)](#) object

Required: No

#### **ProcessingStartTime**

The time that the processing job started.

Type: Timestamp

Required: No

#### **RoleArn**

The ARN of the role used to create the processing job.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: ^arn:aws[a-z\-\]\*:iam::\d{12}:role/?[a-zA-Z\_0-9+=,.@\\-\_/\]+\$

Required: No

#### StoppingCondition

Configures conditions under which the processing job should be stopped, such as how long the processing job has been running. After the condition is met, the processing job is stopped.

Type: [ProcessingStoppingCondition \(p. 1650\)](#) object

Required: No

#### Tags

An array of key-value pairs. For more information, see [Using Cost Allocation Tags](#) in the *AWS Billing and Cost Management User Guide*.

Type: Array of [Tag \(p. 1749\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

#### TrainingJobArn

The ARN of the training job associated with this processing job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-\]\*:sagemaker:[a-zA-Z0-9\-\-]\*:[0-9]{12}:training-job/.\*

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ProcessingJobStepMetadata

Service: Amazon SageMaker Service

Metadata for a processing job step.

## Contents

### Arn

The Amazon Resource Name (ARN) of the processing job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:processing-job/.*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ProcessingJobSummary

Service: Amazon SageMaker Service

Summary of information about a processing job.

## Contents

### **CreationTime**

The time at which the processing job was created.

Type: Timestamp

Required: Yes

### **ExitMessage**

An optional string, up to one KB in size, that contains metadata from the processing container when the processing job exits.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: [\S\s]\*

Required: No

### **FailureReason**

A string, up to one KB in size, that contains the reason a processing job failed, if it failed.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

### **LastModifiedTime**

A timestamp that indicates the last time the processing job was modified.

Type: Timestamp

Required: No

### **ProcessingEndTime**

The time at which the processing job completed.

Type: Timestamp

Required: No

### **ProcessingJobArn**

The Amazon Resource Name (ARN) of the processing job..

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-]\*:sagemaker:[a-z0-9\-]\*:[0-9]{12}:processing-job/.\*

Required: Yes

**ProcessingJobName**

The name of the processing job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: Yes

**ProcessingJobStatus**

The status of the processing job.

Type: String

Valid Values: InProgress | Completed | Failed | Stopping | Stopped

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ProcessingOutput

Service: Amazon SageMaker Service

Describes the results of a processing job. The processing output must specify exactly one of either `S3Output` or `FeatureStoreOutput` types.

## Contents

### **AppManaged**

When `True`, output operations such as data upload are managed natively by the processing job application. When `False` (default), output operations are managed by Amazon SageMaker.

Type: Boolean

Required: No

### **FeatureStoreOutput**

Configuration for processing job outputs in Amazon SageMaker Feature Store. This processing output type is only supported when `AppManaged` is specified.

Type: [ProcessingFeatureStoreOutput \(p. 1635\)](#) object

Required: No

### **OutputName**

The name for the processing job output.

Type: String

Required: Yes

### **S3Output**

Configuration for processing job outputs in Amazon S3.

Type: [ProcessingS3Output \(p. 1649\)](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ProcessingOutputConfig

Service: Amazon SageMaker Service

Configuration for uploading output from the processing container.

## Contents

### KmsKeyId

The AWS Key Management Service (AWS KMS) key that Amazon SageMaker uses to encrypt the processing job output. KmsKeyId can be an ID of a KMS key, ARN of a KMS key, alias of a KMS key, or alias of a KMS key. The KmsKeyId is applied to all outputs.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: .\*

Required: No

### Outputs

An array of outputs configuring the data to upload from the processing container.

Type: Array of [ProcessingOutput \(p. 1644\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 10 items.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ProcessingResources

Service: Amazon SageMaker Service

Identifies the resources, ML compute instances, and ML storage volumes to deploy for a processing job.  
In distributed training, you specify more than one instance.

## Contents

### ClusterConfig

The configuration for the resources in a cluster used to run the processing job.

Type: [ProcessingClusterConfig \(p. 1633\)](#) object

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ProcessingS3Input

Service: Amazon SageMaker Service

Configuration for downloading input data from Amazon S3 into the processing container.

## Contents

### LocalPath

The local path in your container where you want Amazon SageMaker to write input data to.  
LocalPath is an absolute path to the input data and must begin with /opt/ml/processing/.  
LocalPath is a required parameter when AppManaged is False (default).

Type: String

Length Constraints: Maximum length of 256.

Pattern: . \*

Required: No

### S3CompressionType

Whether to GZIP-decompress the data in Amazon S3 as it is streamed into the processing container.  
Gzip can only be used when Pipe mode is specified as the S3InputMode. In Pipe mode, Amazon SageMaker streams input data from the source directly to your container without using the EBS volume.

Type: String

Valid Values: None | Gzip

Required: No

### S3DataDistributionType

Whether to distribute the data from Amazon S3 to all processing instances with FullyReplicated, or whether the data from Amazon S3 is shared by Amazon S3 key, downloading one shard of data to each processing instance.

Type: String

Valid Values: FullyReplicated | ShardedByS3Key

Required: No

### S3DataType

Whether you use an S3Prefix or a ManifestFile for the data type. If you choose S3Prefix, S3Uri identifies a key name prefix. Amazon SageMaker uses all objects with the specified key name prefix for the processing job. If you choose ManifestFile, S3Uri identifies an object that is a manifest file containing a list of object keys that you want Amazon SageMaker to use for the processing job.

Type: String

Valid Values: ManifestFile | S3Prefix

Required: Yes

### S3InputMode

Whether to use File or Pipe input mode. In File mode, Amazon SageMaker copies the data from the input source onto the local ML storage volume before starting your processing container. This is

the most commonly used input mode. In Pipe mode, Amazon SageMaker streams input data from the source directly to your processing container into named pipes without using the ML storage volume.

Type: String

Valid Values: Pipe | File

Required: No

#### S3Uri

The URI of the Amazon S3 prefix Amazon SageMaker downloads data required to run a processing job.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: ^(https|s3)://([^\/]\*)/?(.\*)\$

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ProcessingS3Output

Service: Amazon SageMaker Service

Configuration for uploading output data to Amazon S3 from the processing container.

## Contents

### LocalPath

The local path of a directory where you want Amazon SageMaker to upload its contents to Amazon S3. LocalPath is an absolute path to a directory containing output files. This directory will be created by the platform and exist when your container's entrypoint is invoked.

Type: String

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: Yes

### S3UploadMode

Whether to upload the results of the processing job continuously or after the job completes.

Type: String

Valid Values: Continuous | EndOfJob

Required: Yes

### S3Uri

A URI that identifies the Amazon S3 bucket where you want Amazon SageMaker to save the results of a processing job.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: ^(https|s3)://([^\/]+)?(.\*)\$

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ProcessingStoppingCondition

Service: Amazon SageMaker Service

Configures conditions under which the processing job should be stopped, such as how long the processing job has been running. After the condition is met, the processing job is stopped.

## Contents

### **MaxRuntimeInSeconds**

Specifies the maximum runtime in seconds.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 604800.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ProductionVariant

Service: Amazon SageMaker Service

Identifies a model that you want to host and the resources chosen to deploy for hosting it. If you are deploying multiple models, tell SageMaker how to distribute traffic among the models by specifying variant weights.

## Contents

### AcceleratorType

The size of the Elastic Inference (EI) instance to use for the production variant. EI instances provide on-demand GPU computing for inference. For more information, see [Using Elastic Inference in Amazon SageMaker](#).

Type: String

Valid Values: `ml.eia1.medium` | `ml.eia1.large` | `ml.eia1.xlarge` | `ml.eia2.medium` | `ml.eia2.large` | `ml.eia2.xlarge`

Required: No

### ContainerStartupHealthCheckTimeoutInSeconds

The timeout value, in seconds, for your inference container to pass health check by SageMaker Hosting. For more information about health check, see [How Your Container Should Respond to Health Check \(Ping\) Requests](#).

Type: Integer

Valid Range: Minimum value of 60. Maximum value of 3600.

Required: No

### CoreDumpConfig

Specifies configuration for a core dump from the model container when the process crashes.

Type: [ProductionVariantCoreDumpConfig \(p. 1654\)](#) object

Required: No

### InitialInstanceCount

Number of instances to launch initially.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

### InitialVariantWeight

Determines initial traffic distribution among all of the models that you specify in the endpoint configuration. The traffic to a production variant is determined by the ratio of the VariantWeight to the sum of all VariantWeight values across all ProductionVariants. If unspecified, it defaults to 1.0.

Type: Float

Valid Range: Minimum value of 0.

Required: No

**InstanceType**

The ML compute instance type.

Type: String

Valid Values: ml.t2.medium | ml.t2.large | ml.t2.xlarge | ml.t2.2xlarge | ml.m4.xlarge | ml.m4.2xlarge | ml.m4.4xlarge | ml.m4.10xlarge | ml.m4.16xlarge | ml.m5.large | ml.m5.xlarge | ml.m5.2xlarge | ml.m5.4xlarge | ml.m5.12xlarge | ml.m5.24xlarge | ml.m5d.large | ml.m5d.xlarge | ml.m5d.2xlarge | ml.m5d.4xlarge | ml.m5d.12xlarge | ml.m5d.24xlarge | ml.c4.large | ml.c4.xlarge | ml.c4.2xlarge | ml.c4.4xlarge | ml.c4.8xlarge | ml.p2.xlarge | ml.p2.8xlarge | ml.p2.16xlarge | ml.p3.2xlarge | ml.p3.8xlarge | ml.p3.16xlarge | ml.c5.large | ml.c5.xlarge | ml.c5.2xlarge | ml.c5.4xlarge | ml.c5.9xlarge | ml.c5.18xlarge | ml.c5d.large | ml.c5d.xlarge | ml.c5d.2xlarge | ml.c5d.4xlarge | ml.c5d.9xlarge | ml.c5d.18xlarge | ml.g4dn.xlarge | ml.g4dn.2xlarge | ml.g4dn.4xlarge | ml.g4dn.8xlarge | ml.g4dn.12xlarge | ml.g4dn.16xlarge | ml.r5.large | ml.r5.xlarge | ml.r5.2xlarge | ml.r5.4xlarge | ml.r5.12xlarge | ml.r5.24xlarge | ml.r5d.large | ml.r5d.xlarge | ml.r5d.2xlarge | ml.r5d.4xlarge | ml.r5d.12xlarge | ml.r5d.24xlarge | ml.inf1.xlarge | ml.inf1.2xlarge | ml.inf1.6xlarge | ml.inf1.24xlarge | ml.c6i.large | ml.c6i.xlarge | ml.c6i.2xlarge | ml.c6i.4xlarge | ml.c6i.8xlarge | ml.c6i.12xlarge | ml.c6i.16xlarge | ml.c6i.24xlarge | ml.c6i.32xlarge | ml.g5.xlarge | ml.g5.2xlarge | ml.g5.4xlarge | ml.g5.8xlarge | ml.g5.12xlarge | ml.g5.16xlarge | ml.g5.24xlarge | ml.g5.48xlarge | ml.p4d.24xlarge | ml.c7g.large | ml.c7g.xlarge | ml.c7g.2xlarge | ml.c7g.4xlarge | ml.c7g.8xlarge | ml.c7g.12xlarge | ml.c7g.16xlarge | ml.m6g.large | ml.m6g.xlarge | ml.m6g.2xlarge | ml.m6g.4xlarge | ml.m6g.8xlarge | ml.m6g.12xlarge | ml.m6g.16xlarge | ml.m6gd.large | ml.m6gd.xlarge | ml.m6gd.2xlarge | ml.m6gd.4xlarge | ml.m6gd.8xlarge | ml.m6gd.12xlarge | ml.m6gd.16xlarge | ml.c6g.large | ml.c6g.xlarge | ml.c6g.2xlarge | ml.c6g.4xlarge | ml.c6g.8xlarge | ml.c6g.12xlarge | ml.c6g.16xlarge | ml.c6gd.large | ml.c6gd.xlarge | ml.c6gd.2xlarge | ml.c6gd.4xlarge | ml.c6gd.8xlarge | ml.c6gd.12xlarge | ml.c6gd.16xlarge | ml.c6gn.large | ml.c6gn.xlarge | ml.c6gn.2xlarge | ml.c6gn.4xlarge | ml.c6gn.8xlarge | ml.c6gn.12xlarge | ml.c6gn.16xlarge | ml.r6g.large | ml.r6g.xlarge | ml.r6g.2xlarge | ml.r6g.4xlarge | ml.r6g.8xlarge | ml.r6g.12xlarge | ml.r6g.16xlarge | ml.r6gd.large | ml.r6gd.xlarge | ml.r6gd.2xlarge | ml.r6gd.4xlarge | ml.r6gd.8xlarge | ml.r6gd.12xlarge | ml.r6gd.16xlarge

Required: No

**ModelDataDownloadTimeoutInSeconds**

The timeout value, in seconds, to download and extract the model that you want to host from Amazon S3 to the individual inference instance associated with this production variant.

Type: Integer

Valid Range: Minimum value of 60. Maximum value of 3600.

Required: No

**ModelName**

The name of the model that you want to host. This is the name that you specified when creating the model.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\*

Required: Yes

#### **ServerlessConfig**

The serverless configuration for an endpoint. Specifies a serverless endpoint configuration instead of an instance-based endpoint configuration.

Type: [ProductionVariantServerlessConfig \(p. 1656\)](#) object

Required: No

#### **VariantName**

The name of the production variant.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: Yes

#### **VolumeSizeInGB**

The size, in GB, of the ML storage volume attached to individual inference instance associated with the production variant. Currently only Amazon EBS gp2 storage volumes are supported.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 512.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ProductionVariantCoreDumpConfig

Service: Amazon SageMaker Service

Specifies configuration for a core dump from the model container when the process crashes.

## Contents

### DestinationS3Uri

The Amazon S3 bucket to send the core dump to.

Type: String

Length Constraints: Maximum length of 512.

Pattern: ^(https|s3)://([^\:])/?(.\*)\$

Required: Yes

### KmsKeyId

The AWS Key Management Service (AWS KMS) key that SageMaker uses to encrypt the core dump data at rest using Amazon S3 server-side encryption. The KmsKeyId can be any of the following formats:

- // KMS Key ID

"1234abcd-12ab-34cd-56ef-1234567890ab"

- // Amazon Resource Name (ARN) of a KMS Key

"arn:aws:kms:us-west-2:111122223333:key/1234abcd-12ab-34cd-56ef-1234567890ab"

- // KMS Key Alias

"alias/ExampleAlias"

- // Amazon Resource Name (ARN) of a KMS Key Alias

"arn:aws:kms:us-west-2:111122223333:alias/ExampleAlias"

If you use a KMS key ID or an alias of your KMS key, the SageMaker execution role must include permissions to call kms:Encrypt. If you don't provide a KMS key ID, SageMaker uses the default KMS key for Amazon S3 for your role's account. SageMaker uses server-side encryption with KMS-managed keys for OutputDataConfig. If you use a bucket policy with an s3:PutObject permission that only allows objects with server-side encryption, set the condition key of s3:x-amz-server-side-encryption to "aws:kms". For more information, see [KMS-Managed Encryption Keys](#) in the *Amazon Simple Storage Service Developer Guide*.

The KMS key policy must grant permission to the IAM role that you specify in your CreateEndpoint and UpdateEndpoint requests. For more information, see [Using Key Policies in AWS KMS](#) in the *AWS Key Management Service Developer Guide*.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: .\*

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ProductionVariantServerlessConfig

Service: Amazon SageMaker Service

Specifies the serverless configuration for an endpoint variant.

## Contents

### MaxConcurrency

The maximum number of concurrent invocations your serverless endpoint can process.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 200.

Required: Yes

### MemorySizeInMB

The memory size of your serverless endpoint. Valid values are in 1 GB increments: 1024 MB, 2048 MB, 3072 MB, 4096 MB, 5120 MB, or 6144 MB.

Type: Integer

Valid Range: Minimum value of 1024. Maximum value of 6144.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ProductionVariantStatus

Service: Amazon SageMaker Service

Describes the status of the production variant.

## Contents

### StartTime

The start time of the current status change.

Type: Timestamp

Required: No

### Status

The endpoint variant status which describes the current deployment stage status or operational status.

- **Creating:** Creating inference resources for the production variant.
- **Deleting:** Terminating inference resources for the production variant.
- **Updating:** Updating capacity for the production variant.
- **ActivatingTraffic:** Turning on traffic for the production variant.
- **Baking:** Waiting period to monitor the CloudWatch alarms in the automatic rollback configuration.

Type: String

Valid Values: Creating | Updating | Deleting | ActivatingTraffic | Baking

Required: Yes

### StatusMessage

A message that describes the status of the production variant.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ProductionVariantSummary

Service: Amazon SageMaker Service

Describes weight and capacities for a production variant associated with an endpoint. If you sent a request to the `UpdateEndpointWeightsAndCapacities` API and the endpoint status is `Updating`, you get different desired and current values.

## Contents

### **CurrentInstanceCount**

The number of instances associated with the variant.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

### **CurrentServerlessConfig**

The serverless configuration for the endpoint.

Type: [ProductionVariantServerlessConfig \(p. 1656\)](#) object

Required: No

### **CurrentWeight**

The weight associated with the variant.

Type: Float

Valid Range: Minimum value of 0.

Required: No

### **DeployedImages**

An array of `DeployedImage` objects that specify the Amazon EC2 Container Registry paths of the inference images deployed on instances of this `ProductionVariant`.

Type: Array of [DeployedImage \(p. 1256\)](#) objects

Required: No

### **DesiredInstanceCount**

The number of instances requested in the `UpdateEndpointWeightsAndCapacities` request.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

### **DesiredServerlessConfig**

The serverless configuration requested for the endpoint update.

Type: [ProductionVariantServerlessConfig \(p. 1656\)](#) object

Required: No

### **DesiredWeight**

The requested weight, as specified in the `UpdateEndpointWeightsAndCapacities` request.

Type: Float

Valid Range: Minimum value of 0.

Required: No

### **VariantName**

The name of the variant.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: Yes

### **VariantStatus**

The endpoint variant status which describes the current deployment stage status or operational status.

Type: Array of [ProductionVariantStatus \(p. 1657\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 5 items.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ProfilerConfig

Service: Amazon SageMaker Service

Configuration information for Amazon SageMaker Debugger system monitoring, framework profiling, and storage paths.

## Contents

### DisableProfiler

Configuration to turn off Amazon SageMaker Debugger's system monitoring and profiling functionality. To turn it off, set to True.

Type: Boolean

Required: No

### ProfilingIntervalInMilliseconds

A time interval for capturing system metrics in milliseconds. Available values are 100, 200, 500, 1000 (1 second), 5000 (5 seconds), and 60000 (1 minute) milliseconds. The default value is 500 milliseconds.

Type: Long

Required: No

### ProfilingParameters

Configuration information for capturing framework metrics. Available key strings for different profiling options are DetailedProfilingConfig, PythonProfilingConfig, and DataLoaderProfilingConfig. The following codes are configuration structures for the ProfilingParameters parameter. To learn more about how to configure the ProfilingParameters parameter, see [Use the SageMaker and Debugger Configuration API Operations to Create, Update, and Debug Your Training Job](#).

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 20 items.

Key Length Constraints: Minimum length of 1. Maximum length of 256.

Key Pattern: .\*

Value Length Constraints: Maximum length of 256.

Value Pattern: .\*

Required: No

### S3OutputPath

Path to Amazon S3 storage location for system and framework metrics.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: ^(https|s3)://([^\/]\*)/?(.\*)\$

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ProfilerConfigForUpdate

Service: Amazon SageMaker Service

Configuration information for updating the Amazon SageMaker Debugger profile parameters, system and framework metrics configurations, and storage paths.

## Contents

### DisableProfiler

To turn off Amazon SageMaker Debugger monitoring and profiling while a training job is in progress, set to True.

Type: Boolean

Required: No

### ProfilingIntervalInMilliseconds

A time interval for capturing system metrics in milliseconds. Available values are 100, 200, 500, 1000 (1 second), 5000 (5 seconds), and 60000 (1 minute) milliseconds. The default value is 500 milliseconds.

Type: Long

Required: No

### ProfilingParameters

Configuration information for capturing framework metrics. Available key strings for different profiling options are DetailedProfilingConfig, PythonProfilingConfig, and DataLoaderProfilingConfig. The following codes are configuration structures for the ProfilingParameters parameter. To learn more about how to configure the ProfilingParameters parameter, see [Use the SageMaker and Debugger Configuration API Operations to Create, Update, and Debug Your Training Job](#).

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 20 items.

Key Length Constraints: Minimum length of 1. Maximum length of 256.

Key Pattern: .\*

Value Length Constraints: Maximum length of 256.

Value Pattern: .\*

Required: No

### S3OutputPath

Path to Amazon S3 storage location for system and framework metrics.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: ^(https|s3)://([^\/]\*)/?(.\*)\$

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ProfilerRuleConfiguration

Service: Amazon SageMaker Service

Configuration information for profiling rules.

## Contents

### InstanceType

The instance type to deploy a custom rule for profiling a training job.

Type: String

Valid Values: ml.t3.medium | ml.t3.large | ml.t3.xlarge | ml.t3.2xlarge | ml.m4.xlarge | ml.m4.2xlarge | ml.m4.4xlarge | ml.m4.10xlarge | ml.m4.16xlarge | ml.c4.xlarge | ml.c4.2xlarge | ml.c4.4xlarge | ml.c4.8xlarge | ml.p2.xlarge | ml.p2.8xlarge | ml.p2.16xlarge | ml.p3.2xlarge | ml.p3.8xlarge | ml.p3.16xlarge | ml.c5.xlarge | ml.c5.2xlarge | ml.c5.4xlarge | ml.c5.9xlarge | ml.c5.18xlarge | ml.m5.large | ml.m5.xlarge | ml.m5.2xlarge | ml.m5.4xlarge | ml.m5.12xlarge | ml.m5.24xlarge | ml.r5.large | ml.r5.xlarge | ml.r5.2xlarge | ml.r5.4xlarge | ml.r5.8xlarge | ml.r5.12xlarge | ml.r5.16xlarge | ml.r5.24xlarge | ml.g4dn.xlarge | ml.g4dn.2xlarge | ml.g4dn.4xlarge | ml.g4dn.8xlarge | ml.g4dn.12xlarge | ml.g4dn.16xlarge

Required: No

### LocalPath

Path to local storage location for output of rules. Defaults to /opt/ml/processing/output/rule/.

Type: String

Length Constraints: Maximum length of 4096.

Pattern: .\*

Required: No

### RuleConfigurationName

The name of the rule configuration. It must be unique relative to other rule configuration names.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: .\*

Required: Yes

### RuleEvaluatorImage

The Amazon Elastic Container Registry Image for the managed rule evaluation.

Type: String

Length Constraints: Maximum length of 255.

Pattern: .\*

Required: Yes

#### RuleParameters

Runtime configuration for rule container.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 100 items.

Key Length Constraints: Minimum length of 1. Maximum length of 256.

Key Pattern: .\*

Value Length Constraints: Maximum length of 256.

Value Pattern: .\*

Required: No

#### S3OutputPath

Path to Amazon S3 storage location for rules.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: ^(https|s3)://([^\?]+)\?(\.\*\$)

Required: No

#### VolumeSizeInGB

The size, in GB, of the ML storage volume attached to the processing instance.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ProfilerRuleEvaluationStatus

Service: Amazon SageMaker Service

Information about the status of the rule evaluation.

## Contents

### LastModifiedTime

Timestamp when the rule evaluation status was last modified.

Type: Timestamp

Required: No

### RuleConfigurationName

The name of the rule configuration.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: .\*

Required: No

### RuleEvaluationJobArn

The Amazon Resource Name (ARN) of the rule evaluation job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-\-]\*:sagemaker:[a-z0-9\-\-]\*:[0-9]{12}:processing-job/.\*

Required: No

### RuleEvaluationStatus

Status of the rule evaluation.

Type: String

Valid Values: InProgress | NoIssuesFound | IssuesFound | Error | Stopping | Stopped

Required: No

### StatusDetails

Details from the rule evaluation.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: .\*

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# Project

Service: Amazon SageMaker Service

The properties of a project as returned by the Search API.

## Contents

### **CreatedBy**

Who created the project.

Type: [UserContext \(p. 1822\)](#) object

Required: No

### **CreationTime**

A timestamp specifying when the project was created.

Type: Timestamp

Required: No

### **LastModifiedBy**

Information about the user who created or modified an experiment, trial, trial component, lineage group, project, or model card.

Type: [UserContext \(p. 1822\)](#) object

Required: No

### **LastModifiedTime**

A timestamp container for when the project was last modified.

Type: Timestamp

Required: No

### **ProjectArn**

The Amazon Resource Name (ARN) of the project.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `arn:aws[a-z\-\]*:sagemaker:[a-z0-9\-\]*:[0-9]{12}:project:.*`

Required: No

### **ProjectDescription**

The description of the project.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `[\p{L}\p{M}\p{Z}\p{S}\p{N}\p{P}]*`

Required: No

**ProjectId**

The ID of the project.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 20.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\*

Required: No

**ProjectName**

The name of the project.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,31\}

Required: No

**ProjectStatus**

The status of the project.

Type: String

Valid Values: Pending | CreateInProgress | CreateCompleted | CreateFailed | DeleteInProgress | DeleteFailed | DeleteCompleted | UpdateInProgress | UpdateCompleted | UpdateFailed

Required: No

**ServiceCatalogProvisionedProductDetails**

Details of a provisioned service catalog product. For information about service catalog, see [What is AWS Service Catalog](#).

Type: [ServiceCatalogProvisionedProductDetails \(p. 1728\)](#) object

Required: No

**ServiceCatalogProvisioningDetails**

Details that you specify to provision a service catalog product. For information about service catalog, see [What is AWS Service Catalog](#).

Type: [ServiceCatalogProvisioningDetails \(p. 1729\)](#) object

Required: No

**Tags**

An array of key-value pairs. You can use tags to categorize your AWS resources in different ways, for example, by purpose, owner, or environment. For more information, see [Tagging AWS Resources](#).

Type: Array of [Tag \(p. 1749\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ProjectSummary

Service: Amazon SageMaker Service

Information about a project.

## Contents

### **CreationTime**

The time that the project was created.

Type: Timestamp

Required: Yes

### **ProjectArn**

The Amazon Resource Name (ARN) of the project.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `arn:aws[a-zA-Z]*:sagemaker:[a-zA-Z0-9-]*:[0-9]{12}:project:.*`

Required: Yes

### **ProjectDescription**

The description of the project.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `[p{L}p{M}p{Z}p{S}p{N}p{P}]*`

Required: No

### **ProjectId**

The ID of the project.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 20.

Pattern: `^[-a-zA-Z0-9](-*[a-zA-Z0-9])*`

Required: Yes

### **ProjectName**

The name of the project.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 32.

Pattern: `^[-a-zA-Z0-9](-*[a-zA-Z0-9])\{0,31\}`

Required: Yes

### ProjectStatus

The status of the project.

Type: String

Valid Values: Pending | CreateInProgress | CreateCompleted | CreateFailed | DeleteInProgress | DeleteFailed | DeleteCompleted | UpdateInProgress | UpdateCompleted | UpdateFailed

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# PropertyNameQuery

Service: Amazon SageMaker Service

Part of the SuggestionQuery type. Specifies a hint for retrieving property names that begin with the specified text.

## Contents

### PropertyNameHint

Text that begins a property's name.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 100.

Pattern: .\*

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# PropertyNameSuggestions

Service: Amazon SageMaker Service

A property name returned from a `GetSearchSuggestions` call that specifies a value in the `PropertyNameQuery` field.

## Contents

### PropertyName

A suggested property name based on what you entered in the search textbox in the Amazon SageMaker console.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: .+

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ProvisioningParameter

Service: Amazon SageMaker Service

A key value pair used when you provision a project as a service catalog product. For information, see [What is AWS Service Catalog](#).

## Contents

### Key

The key that identifies a provisioning parameter.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1000.

Pattern: .\*

Required: No

### Value

The value of the provisioning parameter.

Type: String

Length Constraints: Maximum length of 4096.

Pattern: .\*

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## PublicWorkforceTaskPrice

Service: Amazon SageMaker Service

Defines the amount of money paid to an Amazon Mechanical Turk worker for each task performed.

Use one of the following prices for bounding box tasks. Prices are in US dollars and should be based on the complexity of the task; the longer it takes in your initial testing, the more you should offer.

- 0.036
- 0.048
- 0.060
- 0.072
- 0.120
- 0.240
- 0.360
- 0.480
- 0.600
- 0.720
- 0.840
- 0.960
- 1.080
- 1.200

Use one of the following prices for image classification, text classification, and custom tasks. Prices are in US dollars.

- 0.012
- 0.024
- 0.036
- 0.048
- 0.060
- 0.072
- 0.120
- 0.240
- 0.360
- 0.480
- 0.600
- 0.720
- 0.840
- 0.960
- 1.080
- 1.200

Use one of the following prices for semantic segmentation tasks. Prices are in US dollars.

- 0.840
- 0.960
- 1.080

- 1.200

Use one of the following prices for Textract AnalyzeDocument Important Form Key Amazon Augmented AI review tasks. Prices are in US dollars.

- 2.400
- 2.280
- 2.160
- 2.040
- 1.920
- 1.800
- 1.680
- 1.560
- 1.440
- 1.320
- 1.200
- 1.080
- 0.960
- 0.840
- 0.720
- 0.600
- 0.480
- 0.360
- 0.240
- 0.120
- 0.072
- 0.060
- 0.048
- 0.036
- 0.024
- 0.012

Use one of the following prices for Rekognition DetectModerationLabels Amazon Augmented AI review tasks. Prices are in US dollars.

- 1.200
- 1.080
- 0.960
- 0.840
- 0.720
- 0.600
- 0.480
- 0.360
- 0.240
- 0.120
- 0.072
- 0.060

- 0.048
- 0.036
- 0.024
- 0.012

Use one of the following prices for Amazon Augmented AI custom human review tasks. Prices are in US dollars.

- 1.200
- 1.080
- 0.960
- 0.840
- 0.720
- 0.600
- 0.480
- 0.360
- 0.240
- 0.120
- 0.072
- 0.060
- 0.048
- 0.036
- 0.024
- 0.012

## Contents

### AmountInUsd

Defines the amount of money paid to an Amazon Mechanical Turk worker in United States dollars.

Type: [USD \(p. 1821\)](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# QualityCheckStepMetadata

Service: Amazon SageMaker Service

Container for the metadata for a Quality check step. For more information, see the topic on [QualityCheck step](#) in the *Amazon SageMaker Developer Guide*.

## Contents

### BaselineUsedForDriftCheckConstraints

The Amazon S3 URI of the baseline constraints file used for the drift check.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

### BaselineUsedForDriftCheckStatistics

The Amazon S3 URI of the baseline statistics file used for the drift check.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

### CalculatedBaselineConstraints

The Amazon S3 URI of the newly calculated baseline constraints file.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

### CalculatedBaselineStatistics

The Amazon S3 URI of the newly calculated baseline statistics file.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

### CheckJobArn

The Amazon Resource Name (ARN) of the Quality check processing job that was run by this step execution.

Type: String

Length Constraints: Maximum length of 256.

Required: No

### CheckType

The type of the Quality check step.

Type: String

Length Constraints: Maximum length of 256.

Required: No

#### **ModelPackageGroupName**

The model package group name.

Type: String

Length Constraints: Maximum length of 256.

Required: No

#### **RegisterNewBaseline**

This flag indicates if a newly calculated baseline can be accessed through step properties `BaselineUsedForDriftCheckConstraints` and `BaselineUsedForDriftCheckStatistics`. If it is set to `False`, the previous baseline of the configured check type must also be available. These can be accessed through the `BaselineUsedForDriftCheckConstraints` and `BaselineUsedForDriftCheckStatistics` properties.

Type: Boolean

Required: No

#### **SkipCheck**

This flag indicates if the drift check against the previous baseline will be skipped or not. If it is set to `False`, the previous baseline of the configured check type must be available.

Type: Boolean

Required: No

#### **ViolationReport**

The Amazon S3 URI of violation report if violations are detected.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# QueryFilters

Service: Amazon SageMaker Service

A set of filters to narrow the set of lineage entities connected to the StartArn(s) returned by the QueryLineage API action.

## Contents

### **CreatedAfter**

Filter the lineage entities connected to the StartArn(s) after the create date.

Type: Timestamp

Required: No

### **CreatedBefore**

Filter the lineage entities connected to the StartArn(s) by created date.

Type: Timestamp

Required: No

### **LineageTypes**

Filter the lineage entities connected to the StartArn(s) by the type of the lineage entity.

Type: Array of strings

Array Members: Maximum number of 4 items.

Valid Values: TrialComponent | Artifact | Context | Action

Required: No

### **ModifiedAfter**

Filter the lineage entities connected to the StartArn(s) after the last modified date.

Type: Timestamp

Required: No

### **ModifiedBefore**

Filter the lineage entities connected to the StartArn(s) before the last modified date.

Type: Timestamp

Required: No

### **Properties**

Filter the lineage entities connected to the StartArn(s) by a set if property key value pairs. If multiple pairs are provided, an entity is included in the results if it matches any of the provided pairs.

Type: String to string map

Map Entries: Maximum number of 5 items.

Key Length Constraints: Maximum length of 256.

Value Length Constraints: Maximum length of 256.

Required: No

#### Types

Filter the lineage entities connected to the StartArn by type. For example: DataSet, Model, Endpoint, or ModelDeployment.

Type: Array of strings

Array Members: Maximum number of 5 items.

Length Constraints: Maximum length of 40.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# RealTimeInferenceConfig

Service: Amazon SageMaker Service

The infrastructure configuration for deploying the model to a real-time inference endpoint.

## Contents

### InstanceCount

The number of instances of the type specified by InstanceType.

Type: Integer

Valid Range: Minimum value of 0.

Required: Yes

### InstanceType

The instance type the model is deployed to.

Type: String

Valid Values: ml.t2.medium | ml.t2.large | ml.t2.xlarge | ml.t2.2xlarge | ml.t3.medium | ml.t3.large | ml.t3.xlarge | ml.t3.2xlarge | ml.m4.xlarge | ml.m4.2xlarge | ml.m4.4xlarge | ml.m4.10xlarge | ml.m4.16xlarge | ml.m5.xlarge | ml.m5.2xlarge | ml.m5.4xlarge | ml.m5.12xlarge | ml.m5.24xlarge | ml.m5d.large | ml.m5d.xlarge | ml.m5d.2xlarge | ml.m5d.4xlarge | ml.m5d.8xlarge | ml.m5d.12xlarge | ml.m5d.16xlarge | ml.m5d.24xlarge | ml.c4.xlarge | ml.c4.2xlarge | ml.c4.4xlarge | ml.c4.8xlarge | ml.c5.xlarge | ml.c5.2xlarge | ml.c5.4xlarge | ml.c5.9xlarge | ml.c5.18xlarge | ml.c5d.xlarge | ml.c5d.2xlarge | ml.c5d.4xlarge | ml.c5d.9xlarge | ml.c5d.18xlarge | ml.p2.xlarge | ml.p2.8xlarge | ml.p2.16xlarge | ml.p3.2xlarge | ml.p3.8xlarge | ml.p3.16xlarge | ml.p3dn.24xlarge | ml.g4dn.xlarge | ml.g4dn.2xlarge | ml.g4dn.4xlarge | ml.g4dn.8xlarge | ml.g4dn.12xlarge | ml.g4dn.16xlarge | ml.r5.large | ml.r5.xlarge | ml.r5.2xlarge | ml.r5.4xlarge | ml.r5.8xlarge | ml.r5.12xlarge | ml.r5.16xlarge | ml.r5.24xlarge | ml.g5.xlarge | ml.g5.2xlarge | ml.g5.4xlarge | ml.g5.8xlarge | ml.g5.16xlarge | ml.g5.12xlarge | ml.g5.24xlarge | ml.g5.48xlarge

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# RecommendationJobCompiledOutputConfig

Service: Amazon SageMaker Service

Provides information about the output configuration for the compiled model.

## Contents

### S3OutputUri

Identifies the Amazon S3 bucket where you want SageMaker to store the compiled model artifacts.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: ^(https|s3)://([^\/]\*)/?(.\*)\$

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# RecommendationJobContainerConfig

Service: Amazon SageMaker Service

Specifies mandatory fields for running an Inference Recommender job directly in the [CreateInferenceRecommendationsJob](#) API. The fields specified in ContainerConfig override the corresponding fields in the model package. Use ContainerConfig if you want to specify these fields for the recommendation job but don't want to edit them in your model package.

## Contents

### Domain

The machine learning domain of the model and its components.

Valid Values: COMPUTER\_VISION | NATURAL\_LANGUAGE\_PROCESSING | MACHINE\_LEARNING

Type: String

Required: No

### Framework

The machine learning framework of the container image.

Valid Values: TENSORFLOW | PYTORCH | XGBOOST | SAGEMAKER-SCIKIT-LEARN

Type: String

Required: No

### FrameworkVersion

The framework version of the container image.

Type: String

Required: No

### NearestModelName

The name of a pre-trained machine learning model benchmarked by Amazon SageMaker Inference Recommender that matches your model.

Valid Values: efficientnetb7 | unet | xgboost | faster-rcnn-resnet101 | nasnetlarge | vgg16 | inception-v3 | mask-rcnn | sagemaker-scikit-learn | densenet201-gluon | resnet18v2-gluon | xception | densenet201 | yolov4 | resnet152 | bert-base-cased | xceptionV1-keras | resnet50 | retinanet

Type: String

Required: No

### PayloadConfig

Specifies the SamplePayloadUrl and all other sample payload-related fields.

Type: [RecommendationJobPayloadConfig \(p. 1691\)](#) object

Required: No

### SupportedInstanceTypes

A list of the instance types that are used to generate inferences in real-time.

Type: Array of strings

Required: No

**Task**

The machine learning task that the model accomplishes.

Valid Values: IMAGE\_CLASSIFICATION | OBJECT\_DETECTION | TEXT\_GENERATION | IMAGE\_SEGMENTATION | FILL\_MASK | CLASSIFICATION | REGRESSION | OTHER

Type: String

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# RecommendationJobInferenceBenchmark

Service: Amazon SageMaker Service

The details for a specific benchmark from an Inference Recommender job.

## Contents

### EndpointConfiguration

The endpoint configuration made by Inference Recommender during a recommendation job.

Type: [EndpointOutputConfiguration \(p. 1308\)](#) object

Required: No

### FailureReason

The reason why a benchmark failed.

Type: String

Required: No

### Metrics

The metrics of recommendations.

Type: [RecommendationMetrics \(p. 1694\)](#) object

Required: No

### ModelConfiguration

Defines the model configuration. Includes the specification name and environment parameters.

Type: [ModelConfiguration \(p. 1490\)](#) object

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# RecommendationJobInputConfig

Service: Amazon SageMaker Service

The input configuration of the recommendation job.

## Contents

### ContainerConfig

Specifies mandatory fields for running an Inference Recommender job. The fields specified in ContainerConfig override the corresponding fields in the model package.

Type: [RecommendationJobContainerConfig \(p. 1685\)](#) object

Required: No

### EndpointConfigurations

Specifies the endpoint configuration to use for a job.

Type: Array of [EndpointInputConfiguration \(p. 1304\)](#) objects

Array Members: Minimum number of 1 item. Maximum number of 10 items.

Required: No

### Endpoints

Existing customer endpoints on which to run an Inference Recommender job.

Type: Array of [EndpointInfo \(p. 1301\)](#) objects

Array Members: Maximum number of 1 item.

Required: No

### JobDurationInSeconds

Specifies the maximum duration of the job, in seconds.>

Type: Integer

Valid Range: Minimum value of 1.

Required: No

### ModelPackageVersionArn

The Amazon Resource Name (ARN) of a versioned model package.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: `arn:aws:[a-z\-\-]*:sagemaker:[a-z0-9\-\-]*:[0-9]{12}:model-package/.*`

Required: Yes

### ResourceLimit

Defines the resource limit of the job.

Type: [RecommendationJobResourceLimit \(p. 1692\)](#) object

Required: No

**TrafficPattern**

Specifies the traffic pattern of the job.

Type: [TrafficPattern \(p. 1755\)](#) object

Required: No

**VolumeKmsKeyId**

The Amazon Resource Name (ARN) of a AWS Key Management Service (AWS KMS) key that Amazon SageMaker uses to encrypt data on the storage volume attached to the ML compute instance that hosts the endpoint. This key will be passed to SageMaker Hosting for endpoint creation.

The SageMaker execution role must have kms:CreateGrant permission in order to encrypt data on the storage volume of the endpoints created for inference recommendation. The inference recommendation job will fail asynchronously during endpoint configuration creation if the role passed does not have kms:CreateGrant permission.

The KmsKeyId can be any of the following formats:

- // KMS Key ID
  - "1234abcd-12ab-34cd-56ef-1234567890ab"
- // Amazon Resource Name (ARN) of a KMS Key
  - "arn:aws:kms:<region>:<account>:key/<key-id-12ab-34cd-56ef-1234567890ab>"
- // KMS Key Alias
  - "alias/ExampleAlias"
- // Amazon Resource Name (ARN) of a KMS Key Alias
  - "arn:aws:kms:<region>:<account>:alias/<ExampleAlias>"

For more information about key identifiers, see [Key Identifiers \(KeyID\)](#) in the AWS Key Management Service (AWS KMS) documentation.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: .\*

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# RecommendationJobOutputConfig

Service: Amazon SageMaker Service

Provides information about the output configuration for the compiled model.

## Contents

### CompiledOutputConfig

Provides information about the output configuration for the compiled model.

Type: [RecommendationJobCompiledOutputConfig \(p. 1684\)](#) object

Required: No

### KmsKeyId

The Amazon Resource Name (ARN) of a AWS Key Management Service (AWS KMS) key that Amazon SageMaker uses to encrypt your output artifacts with Amazon S3 server-side encryption. The SageMaker execution role must have kms:GenerateDataKey permission.

The KmsKeyId can be any of the following formats:

- // KMS Key ID
  - "1234abcd-12ab-34cd-56ef-1234567890ab"
- // Amazon Resource Name (ARN) of a KMS Key
  - "arn:aws:kms:<region>:<account>:key/<key-id-12ab-34cd-56ef-1234567890ab>"
- // KMS Key Alias
  - "alias/ExampleAlias"
- // Amazon Resource Name (ARN) of a KMS Key Alias
  - "arn:aws:kms:<region>:<account>:alias/<ExampleAlias>"

For more information about key identifiers, see [Key identifiers \(KeyID\)](#) in the AWS Key Management Service (AWS KMS) documentation.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: .\*

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# RecommendationJobPayloadConfig

Service: Amazon SageMaker Service

The configuration for the payload for a recommendation job.

## Contents

### SamplePayloadUrl

The Amazon Simple Storage Service (Amazon S3) path where the sample payload is stored. This path must point to a single gzip compressed tar archive (.tar.gz suffix).

Type: String

Required: No

### SupportedContentTypes

The supported MIME types for the input data.

Type: Array of strings

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# RecommendationJobResourceLimit

Service: Amazon SageMaker Service

Specifies the maximum number of jobs that can run in parallel and the maximum number of jobs that can run.

## Contents

### **MaxNumberOfTests**

Defines the maximum number of load tests.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

### **MaxParallelOfTests**

Defines the maximum number of parallel load tests.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# RecommendationJobStoppingConditions

Service: Amazon SageMaker Service

Specifies conditions for stopping a job. When a job reaches a stopping condition limit, SageMaker ends the job.

## Contents

### MaxInvocations

The maximum number of requests per minute expected for the endpoint.

Type: Integer

Required: No

### ModelLatencyThresholds

The interval of time taken by a model to respond as viewed from SageMaker. The interval includes the local communication time taken to send the request and to fetch the response from the container of a model and the time taken to complete the inference in the container.

Type: Array of [ModelLatencyThreshold](#) (p. 1509) objects

Array Members: Fixed number of 1 item.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# RecommendationMetrics

Service: Amazon SageMaker Service

The metrics of recommendations.

## Contents

### **CostPerHour**

Defines the cost per hour for the instance.

Type: Float

Required: Yes

### **CostPerInference**

Defines the cost per inference for the instance .

Type: Float

Required: Yes

### **MaxInvocations**

The expected maximum number of requests per minute for the instance.

Type: Integer

Required: Yes

### **ModelLatency**

The expected model latency at maximum invocation per minute for the instance.

Type: Integer

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# RedshiftDatasetDefinition

Service: Amazon SageMaker Service

Configuration for Redshift Dataset Definition input.

## Contents

### ClusterId

The Redshift cluster Identifier.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: .\*

Required: Yes

### ClusterRoleArn

The IAM role attached to your Redshift cluster that Amazon SageMaker uses to generate datasets.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: ^arn:aws[a-zA-Z-]\*:iam::\d{12}:role/?[a-zA-Z\_0-9+=,.@/-/\_/]+\$

Required: Yes

### Database

The name of the Redshift database used in Redshift query execution.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: .\*

Required: Yes

### DbUser

The database user name used in Redshift query execution.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: .\*

Required: Yes

### KmsKeyId

The AWS Key Management Service (AWS KMS) key that Amazon SageMaker uses to encrypt data from a Redshift execution.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: .\*

Required: No

#### **OutputCompression**

The compression used for Redshift query results.

Type: String

Valid Values: None | GZIP | BZIP2 | ZSTD | SNAPPY

Required: No

#### **OutputFormat**

The data storage format for Redshift query results.

Type: String

Valid Values: PARQUET | CSV

Required: Yes

#### **OutputS3Uri**

The location in Amazon S3 where the Redshift query results are stored.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: ^(https|s3)://([^\/]\*)/?(.\*)\$

Required: Yes

#### **QueryString**

The SQL query statements to be executed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 4096.

Pattern: [\s\S]+

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# RegisterModelStepMetadata

Service: Amazon SageMaker Service

Metadata for a register model job step.

## Contents

### Arn

The Amazon Resource Name (ARN) of the model package.

Type: String

Length Constraints: Maximum length of 256.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## RenderableTask

Service: Amazon SageMaker Service

Contains input values for a task.

### Contents

#### Input

A JSON object that contains values for the variables defined in the template. It is made available to the template under the substitution variable `task.input`. For example, if you define a variable `task.input.text` in your template, you can supply the variable in the JSON object as "text": "sample text".

Type: String

Length Constraints: Minimum length of 2. Maximum length of 128000.

Pattern: [\S\s]+

Required: Yes

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# RenderingError

Service: Amazon SageMaker Service

A description of an error that occurred while rendering the template.

## Contents

### Code

A unique identifier for a specific class of errors.

Type: String

Required: Yes

### Message

A human-readable message describing the error.

Type: String

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# RepositoryAuthConfig

Service: Amazon SageMaker Service

Specifies an authentication configuration for the private docker registry where your model image is hosted. Specify a value for this property only if you specified Vpc as the value for the RepositoryAccessMode field of the ImageConfig object that you passed to a call to CreateModel and the private Docker registry where the model image is hosted requires authentication.

## Contents

### RepositoryCredentialsProviderArn

The Amazon Resource Name (ARN) of an AWS Lambda function that provides credentials to authenticate to the private Docker registry where your model image is hosted. For information about how to create an AWS Lambda function, see [Create a Lambda function with the console](#) in the *AWS Lambda Developer Guide*.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Pattern: .\*

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ResolvedAttributes

Service: Amazon SageMaker Service

The resolved attributes.

## Contents

### AutoMLJobObjective

Specifies a metric to minimize or maximize as the objective of a job.

Type: [AutoMLJobObjective \(p. 1169\)](#) object

Required: No

### CompletionCriteria

How long a job is allowed to run, or how many candidates a job is allowed to generate.

Type: [AutoMLJobCompletionCriteria \(p. 1166\)](#) object

Required: No

### ProblemType

The problem type.

Type: String

Valid Values: BinaryClassification | MulticlassClassification | Regression

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## ResourceConfig

Service: Amazon SageMaker Service

Describes the resources, including machine learning (ML) compute instances and ML storage volumes, to use for model training.

### Contents

#### InstanceCount

The number of ML compute instances to use. For distributed training, provide a value greater than 1.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

#### InstanceGroups

The configuration of a heterogeneous cluster in JSON format.

Type: Array of [InstanceGroup \(p. 1429\)](#) objects

Array Members: Maximum number of 5 items.

Required: No

#### InstanceType

The ML compute instance type.

##### Note

SageMaker Training on Amazon Elastic Compute Cloud (EC2) P4de instances is in preview release starting December 9th, 2022.

[Amazon EC2 P4de instances](#) (currently in preview) are powered by 8 NVIDIA A100 GPUs with 80GB high-performance HBM2e GPU memory, which accelerate the speed of training ML models that need to be trained on large datasets of high-resolution data. In this preview release, Amazon SageMaker supports ML training jobs on P4de instances (`ml.p4de.24xlarge`) to reduce model training time. The `ml.p4de.24xlarge` instances are available in the following AWS Regions.

- US East (N. Virginia) (`us-east-1`)
- US West (Oregon) (`us-west-2`)

To request quota limit increase and start using P4de instances, contact the SageMaker Training service team through your account team.

Type: String

Valid Values: `ml.m4.xlarge` | `ml.m4.2xlarge` | `ml.m4.4xlarge` | `ml.m4.10xlarge` | `ml.m4.16xlarge` | `ml.g4dn.xlarge` | `ml.g4dn.2xlarge` | `ml.g4dn.4xlarge` | `ml.g4dn.8xlarge` | `ml.g4dn.12xlarge` | `ml.g4dn.16xlarge` | `ml.m5.large` | `ml.m5.xlarge` | `ml.m5.2xlarge` | `ml.m5.4xlarge` | `ml.m5.12xlarge` | `ml.m5.24xlarge` | `ml.c4.xlarge` | `ml.c4.2xlarge` | `ml.c4.4xlarge` | `ml.c4.8xlarge` | `ml.p2.xlarge` | `ml.p2.8xlarge` | `ml.p2.16xlarge` | `ml.p3.2xlarge` | `ml.p3.8xlarge` | `ml.p3.16xlarge` | `ml.p3dn.24xlarge` | `ml.p4d.24xlarge` | `ml.c5.xlarge` | `ml.c5.2xlarge` | `ml.c5.4xlarge` | `ml.c5.9xlarge` | `ml.c5.18xlarge` | `ml.c5n.xlarge` | `ml.c5n.2xlarge` | `ml.c5n.4xlarge` | `ml.c5n.9xlarge` | `ml.c5n.18xlarge` | `ml.g5.xlarge` | `ml.g5.2xlarge` | `ml.g5.4xlarge` | `ml.g5.8xlarge` | `ml.g5.16xlarge` |

`m1.g5.12xlarge | m1.g5.24xlarge | m1.g5.48xlarge | m1.trn1.2xlarge |  
m1.trn1.32xlarge`

Required: No

#### **KeepAlivePeriodInSeconds**

The duration of time in seconds to retain configured resources in a warm pool for subsequent training jobs.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 3600.

Required: No

#### **VolumeKmsKeyId**

The AWS KMS key that SageMaker uses to encrypt data on the storage volume attached to the ML compute instance(s) that run the training job.

##### **Note**

Certain Nitro-based instances include local storage, dependent on the instance type. Local storage volumes are encrypted using a hardware module on the instance. You can't request a VolumeKmsKeyId when using an instance type with local storage.

For a list of instance types that support local instance storage, see [Instance Store Volumes](#).

For more information about local instance storage encryption, see [SSD Instance Store Volumes](#).

The VolumeKmsKeyId can be in any of the following formats:

- // KMS Key ID

`"1234abcd-12ab-34cd-56ef-1234567890ab"`

- // Amazon Resource Name (ARN) of a KMS Key

`"arn:aws:kms:us-west-2:111122223333:key/1234abcd-12ab-34cd-56ef-1234567890ab"`

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `.*`

Required: No

#### **VolumeSizeInGB**

The size of the ML storage volume that you want to provision.

ML storage volumes store model artifacts and incremental states. Training algorithms might also use the ML storage volume for scratch space. If you want to store the training data in the ML storage volume, choose File as the `TrainingInputMode` in the algorithm specification.

When using an ML instance with [NVMe SSD volumes](#), SageMaker doesn't provision Amazon EBS General Purpose SSD (gp2) storage. Available storage is fixed to the NVMe-type instance's storage capacity. SageMaker configures storage paths for training datasets, checkpoints, model artifacts, and outputs to use the entire capacity of the instance storage. For example, ML instance families with the NVMe-type instance storage include `m1.p4d`, `m1.g4dn`, and `m1.g5`.

When using an ML instance with the EBS-only storage option and without instance storage, you must define the size of EBS volume through `VolumeSizeInGB` in the `ResourceConfig` API. For example, ML instance families that use EBS volumes include `m1.c5` and `m1.p2`.

To look up instance types and their instance storage types and volumes, see [Amazon EC2 Instance Types](#).

To find the default local paths defined by the SageMaker training platform, see [Amazon SageMaker Training Storage Folders for Training Datasets, Checkpoints, Model Artifacts, and Outputs](#).

Type: Integer

Valid Range: Minimum value of 1.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ResourceConfigForUpdate

Service: Amazon SageMaker Service

The ResourceConfig to update KeepAlivePeriodInSeconds. Other fields in the ResourceConfig cannot be updated.

## Contents

### KeepAlivePeriodInSeconds

The KeepAlivePeriodInSeconds value specified in the ResourceConfig to update.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 3600.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## ResourceLimits

Service: Amazon SageMaker Service

Specifies the maximum number of training jobs and parallel training jobs that a hyperparameter tuning job can launch.

### Contents

#### **MaxNumberOfTrainingJobs**

The maximum number of training jobs that a hyperparameter tuning job can launch.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

#### **MaxParallelTrainingJobs**

The maximum number of concurrent training jobs that a hyperparameter tuning job can launch.

Type: Integer

Valid Range: Minimum value of 1.

Required: Yes

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## ResourceSpec

Service: Amazon SageMaker Service

Specifies the ARN's of a SageMaker image and SageMaker image version, and the instance type that the version runs on.

## Contents

### InstanceType

The instance type that the image version runs on.

#### Note

JupyterServer apps only support the system value.

For KernelGateway apps, the system value is translated to ml.t3.medium. KernelGateway apps also support all other values for available instance types.

Type: String

Valid Values: system | ml.t3.micro | ml.t3.small | ml.t3.medium | ml.t3.large | ml.t3.xlarge | ml.t3.2xlarge | ml.m5.large | ml.m5.xlarge | ml.m5.2xlarge | ml.m5.4xlarge | ml.m5.8xlarge | ml.m5.12xlarge | ml.m5.16xlarge | ml.m5.24xlarge | ml.m5d.large | ml.m5d.xlarge | ml.m5d.2xlarge | ml.m5d.4xlarge | ml.m5d.8xlarge | ml.m5d.12xlarge | ml.m5d.16xlarge | ml.m5d.24xlarge | ml.c5.large | ml.c5.xlarge | ml.c5.2xlarge | ml.c5.4xlarge | ml.c5.9xlarge | ml.c5.12xlarge | ml.c5.18xlarge | ml.c5.24xlarge | ml.p3.2xlarge | ml.p3.8xlarge | ml.p3.16xlarge | ml.p3dn.24xlarge | ml.g4dn.xlarge | ml.g4dn.2xlarge | ml.g4dn.4xlarge | ml.g4dn.8xlarge | ml.g4dn.12xlarge | ml.g4dn.16xlarge | ml.r5.large | ml.r5.xlarge | ml.r5.2xlarge | ml.r5.4xlarge | ml.r5.8xlarge | ml.r5.12xlarge | ml.r5.16xlarge | ml.r5.24xlarge | ml.g5.xlarge | ml.g5.2xlarge | ml.g5.4xlarge | ml.g5.8xlarge | ml.g5.16xlarge | ml.g5.12xlarge | ml.g5.24xlarge | ml.g5.48xlarge

Required: No

### LifecycleConfigArn

The Amazon Resource Name (ARN) of the Lifecycle Configuration attached to the Resource.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-\-]\*:sagemaker:[a-z0-9\-\-]\*:[0-9]{12}:studio-lifecycle-config/.\*

Required: No

### SageMakerImageArn

The ARN of the SageMaker image that the image version belongs to.

Type: String

Length Constraints: Maximum length of 256.

Pattern: ^arn:aws(-[\w\+])\*:sagemaker:.:+[0-9]{12}:image/[a-z0-9]([-.]?[a-z0-9])\*\$

Required: No

### SageMakerImageVersionArn

The ARN of the image version created on the instance.

Type: String

Length Constraints: Maximum length of 256.

Pattern: ^arn:aws(-[\w]+)\*:sagemaker:+:[0-9]{12}:image-version/[a-z0-9]([-.]?[a-z0-9])\*[/0-9]+\$

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## RetentionPolicy

Service: Amazon SageMaker Service

The retention policy for data stored on an Amazon Elastic File System (EFS) volume.

### Contents

#### HomeEfsFileSystem

The default is Retain, which specifies to keep the data stored on the EFS volume.

Specify Delete to delete the data stored on the EFS volume.

Type: String

Valid Values: Retain | Delete

Required: No

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# RetryStrategy

Service: Amazon SageMaker Service

The retry strategy to use when a training job fails due to an `InternalServerError`. `RetryStrategy` is specified as part of the `CreateTrainingJob` and `CreateHyperParameterTuningJob` requests. You can add the `StoppingCondition` parameter to the request to limit the training time for the complete job.

## Contents

### MaximumRetryAttempts

The number of times to retry the job. When the job is retried, it's `SecondaryStatus` is changed to `STARTING`.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 30.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# RSessionAppSettings

Service: Amazon SageMaker Service

A collection of settings that apply to an RSessionGateway app.

## Contents

### CustomImages

A list of custom SageMaker images that are configured to run as a RSession app.

Type: Array of [CustomImage \(p. 1234\)](#) objects

Array Members: Maximum number of 200 items.

Required: No

### DefaultResourceSpec

Specifies the ARN's of a SageMaker image and SageMaker image version, and the instance type that the version runs on.

Type: [ResourceSpec \(p. 1707\)](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# RStudioServerProAppSettings

Service: Amazon SageMaker Service

A collection of settings that configure user interaction with the RStudioServerPro app. RStudioServerProAppSettings cannot be updated. The RStudioServerPro app must be deleted and a new one created to make any changes.

## Contents

### AccessStatus

Indicates whether the current user has access to the RStudioServerPro app.

Type: String

Valid Values: ENABLED | DISABLED

Required: No

### UserGroup

The level of permissions that the user has within the RStudioServerPro app. This value defaults to `User`. The `Admin` value allows the user access to the RStudio Administrative Dashboard.

Type: String

Valid Values: R\_STUDIO\_ADMIN | R\_STUDIO\_USER

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# RStudioServerProDomainSettings

Service: Amazon SageMaker Service

A collection of settings that configure the RStudioServerPro Domain-level app.

## Contents

### **DefaultResourceSpec**

Specifies the ARN's of a SageMaker image and SageMaker image version, and the instance type that the version runs on.

Type: [ResourceSpec \(p. 1707\)](#) object

Required: No

### **DomainExecutionRoleArn**

The ARN of the execution role for the RStudioServerPro Domain-level app.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: ^arn:aws[a-z\-\]\*:iam::\d{12}:role/?[a-zA-Z\_0-9+=,.@\-\\_/\]+\$

Required: Yes

### **RStudioConnectUrl**

A URL pointing to an RStudio Connect server.

Type: String

Required: No

### **RStudioPackageManagerUrl**

A URL pointing to an RStudio Package Manager server.

Type: String

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# RStudioServerProDomainSettingsForUpdate

Service: Amazon SageMaker Service

A collection of settings that update the current configuration for the RStudioServerPro Domain-level app.

## Contents

### **DefaultResourceSpec**

Specifies the ARN's of a SageMaker image and SageMaker image version, and the instance type that the version runs on.

Type: [ResourceSpec \(p. 1707\)](#) object

Required: No

### **DomainExecutionRoleArn**

The execution role for the RStudioServerPro Domain-level app.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: ^arn:aws[a-zA-Z-]\*:iam::\d{12}:role/[a-zA-Z0-9+=,.@-\_/.]+\$

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## S3DataSource

Service: Amazon SageMaker Service

Describes the S3 data source.

### Contents

#### AttributeNames

A list of one or more attribute names to use that are found in a specified augmented manifest file.

Type: Array of strings

Array Members: Maximum number of 16 items.

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: .+

Required: No

#### InstanceGroupNames

A list of names of instance groups that get data from the S3 data source.

Type: Array of strings

Array Members: Maximum number of 5 items.

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: .+

Required: No

#### S3DataDistributionType

If you want SageMaker to replicate the entire dataset on each ML compute instance that is launched for model training, specify FullyReplicated.

If you want SageMaker to replicate a subset of data on each ML compute instance that is launched for model training, specify ShardedByS3Key. If there are  $n$  ML compute instances launched for a training job, each instance gets approximately  $1/n$  of the number of S3 objects. In this case, model training on each machine uses only the subset of training data.

Don't choose more ML compute instances for training than available S3 objects. If you do, some nodes won't get any data and you will pay for nodes that aren't getting any training data. This applies in both File and Pipe modes. Keep this in mind when developing algorithms.

In distributed training, where you use multiple ML compute EC2 instances, you might choose ShardedByS3Key. If the algorithm requires copying training data to the ML storage volume (when TrainingInputMode is set to File), this copies  $1/n$  of the number of objects.

Type: String

Valid Values: FullyReplicated | ShardedByS3Key

Required: No

#### S3DataType

If you choose S3Prefix, S3Uri identifies a key name prefix. SageMaker uses all objects that match the specified key name prefix for model training.

If you choose `ManifestFile`, `S3Uri` identifies an object that is a manifest file containing a list of object keys that you want SageMaker to use for model training.

If you choose `AugmentedManifestFile`, `S3Uri` identifies an object that is an augmented manifest file in JSON lines format. This file contains the data you want to use for model training. `AugmentedManifestFile` can only be used if the Channel's input mode is Pipe.

Type: String

Valid Values: `ManifestFile` | `S3Prefix` | `AugmentedManifestFile`

Required: Yes

### S3Uri

Depending on the value specified for the `S3DataType`, identifies either a key name prefix or a manifest. For example:

- A key name prefix might look like this: `s3://bucketname/exampleprefix`
- A manifest might look like this: `s3://bucketname/example.manifest`

A manifest is an S3 object which is a JSON file consisting of an array of elements. The first element is a prefix which is followed by one or more suffixes. SageMaker appends the suffix elements to the prefix to get a full set of `S3Uri`. Note that the prefix must be a valid non-empty `S3Uri` that precludes users from specifying a manifest whose individual `S3Uri` is sourced from different S3 buckets.

The following code example shows a valid manifest format:

```
[ {"prefix": "s3://customer_bucket/some/prefix/",  
  "relative/path/to/custdata-1",  
  "relative/path/custdata-2",  
  ...  
  "relative/path/custdata-N"  
}]
```

This JSON is equivalent to the following `S3Uri` list:

```
s3://customer_bucket/some/prefix/relative/path/to/custdata-1  
s3://customer_bucket/some/prefix/relative/path/custdata-2  
...  
s3://customer_bucket/some/prefix/relative/path/custdata-N
```

The complete set of `S3Uri` in this manifest is the input data for the channel for this data source. The object that each `S3Uri` points to must be readable by the IAM role that SageMaker uses to perform tasks on your behalf.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3)://([^\/]+)?(.*$)`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## S3StorageConfig

Service: Amazon SageMaker Service

The Amazon Simple Storage (Amazon S3) location and security configuration for OfflineStore.

### Contents

#### KmsKeyId

The AWS Key Management Service (KMS) key ID of the key used to encrypt any objects written into the OfflineStore S3 location.

The IAM roleARN that is passed as a parameter to CreateFeatureGroup must have below permissions to the KmsKeyId:

- "kms:GenerateDataKey"

Type: String

Length Constraints: Maximum length of 2048.

Pattern: .\*

Required: No

#### ResolvedOutputS3Uri

The S3 path where offline records are written.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: ^(https|s3)://([^\?]+)\?(\.\*\$)

Required: No

#### S3Uri

The S3 URI, or location in Amazon S3, of OfflineStore.

S3 URIs have a format similar to the following: s3://example-bucket/prefix/.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: ^(https|s3)://([^\?]+)\?(\.\*\$)

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# ScheduleConfig

Service: Amazon SageMaker Service

Configuration details about the monitoring schedule.

## Contents

### ScheduleExpression

A cron expression that describes details about the monitoring schedule.

Currently the only supported cron expressions are:

- If you want to set the job to start every hour, please use the following:

Hourly: `cron(0 * ? * * *)`

- If you want to start the job daily:

`cron(0 [00-23] ? * * *)`

For example, the following are valid cron expressions:

- Daily at noon UTC: `cron(0 12 ? * * *)`
- Daily at midnight UTC: `cron(0 0 ? * * *)`

To support running every 6, 12 hours, the following are also supported:

`cron(0 [00-23]/[01-24] ? * * *)`

For example, the following are valid cron expressions:

- Every 12 hours, starting at 5pm UTC: `cron(0 17/12 ? * * *)`
- Every two hours starting at midnight: `cron(0 0/2 ? * * *)`

#### Note

- Even though the cron expression is set to start at 5PM UTC, note that there could be a delay of 0-20 minutes from the actual requested time to run the execution.
- We recommend that if you would like a daily schedule, you do not provide this parameter. Amazon SageMaker will pick a time for running every day.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# SearchExpression

Service: Amazon SageMaker Service

A multi-expression that searches for the specified resource or resources in a search. All resource objects that satisfy the expression's condition are included in the search results. You must specify at least one subexpression, filter, or nested filter. A SearchExpression can contain up to twenty elements.

A SearchExpression contains the following components:

- A list of Filter objects. Each filter defines a simple Boolean expression comprised of a resource property name, Boolean operator, and value.
- A list of NestedFilter objects. Each nested filter defines a list of Boolean expressions using a list of resource properties. A nested filter is satisfied if a single object in the list satisfies all Boolean expressions.
- A list of SearchExpression objects. A search expression object can be nested in a list of search expression objects.
- A Boolean operator: And or Or.

## Contents

### Filters

A list of filter objects.

Type: Array of [Filter \(p. 1339\)](#) objects

Array Members: Minimum number of 1 item. Maximum number of 20 items.

Required: No

### NestedFilters

A list of nested filter objects.

Type: Array of [NestedFilters \(p. 1579\)](#) objects

Array Members: Minimum number of 1 item. Maximum number of 20 items.

Required: No

### Operator

A Boolean operator used to evaluate the search expression. If you want every conditional statement in all lists to be satisfied for the entire search expression to be true, specify And. If only a single conditional statement needs to be true for the entire search expression to be true, specify Or. The default value is And.

Type: String

Valid Values: And | Or

Required: No

### SubExpressions

A list of search expression objects.

Type: Array of [SearchExpression \(p. 1721\)](#) objects

Array Members: Minimum number of 1 item. Maximum number of 20 items.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# SearchRecord

Service: Amazon SageMaker Service

A single resource returned as part of the [Search \(p. 826\)](#) API response.

## Contents

### Endpoint

A hosted endpoint for real-time inference.

Type: [Endpoint \(p. 1297\)](#) object

Required: No

### Experiment

The properties of an experiment.

Type: [Experiment \(p. 1315\)](#) object

Required: No

### FeatureGroup

Amazon SageMaker Feature Store stores features in a collection called Feature Group. A Feature Group can be visualized as a table which has rows, with a unique identifier for each row where each column in the table is a feature. In principle, a Feature Group is composed of features and values per features.

Type: [FeatureGroup \(p. 1326\)](#) object

Required: No

### FeatureMetadata

The feature metadata used to search through the features.

Type: [FeatureMetadata \(p. 1332\)](#) object

Required: No

### HyperParameterTuningJob

The properties of a hyperparameter tuning job.

Type: [HyperParameterTuningJobSearchEntity \(p. 1397\)](#) object

Required: No

### Model

A model displayed in the Amazon SageMaker Model Dashboard.

Type: [ModelDashboardModel \(p. 1494\)](#) object

Required: No

### ModelCard

An Amazon SageMaker Model Card that documents details about a machine learning model.

Type: [ModelCard \(p. 1477\)](#) object

Required: No

### **ModelPackage**

A versioned model that can be deployed for SageMaker inference.

Type: [ModelPackage \(p. 1514\)](#) object

Required: No

### **ModelPackageGroup**

A group of versioned models in the model registry.

Type: [ModelPackageGroup \(p. 1522\)](#) object

Required: No

### **Pipeline**

A SageMaker Model Building Pipeline instance.

Type: [Pipeline \(p. 1616\)](#) object

Required: No

### **PipelineExecution**

An execution of a pipeline.

Type: [PipelineExecution \(p. 1620\)](#) object

Required: No

### **Project**

The properties of a project.

Type: [Project \(p. 1668\)](#) object

Required: No

### **TrainingJob**

The properties of a training job.

Type: [TrainingJob \(p. 1758\)](#) object

Required: No

### **Trial**

The properties of a trial.

Type: [Trial \(p. 1794\)](#) object

Required: No

### **TrialComponent**

The properties of a trial component.

Type: [TrialComponent \(p. 1797\)](#) object

Required: No

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## SecondaryStatusTransition

Service: Amazon SageMaker Service

An array element of [DescribeTrainingJob:SecondaryStatusTransitions \(p. 542\)](#). It provides additional details about a status that the training job has transitioned through. A training job can be in one of several states, for example, starting, downloading, training, or uploading. Within each state, there are a number of intermediate states. For example, within the starting state, SageMaker could be starting the training job or launching the ML instances. These transitional states are referred to as the job's secondary status.

## Contents

### EndTime

A timestamp that shows when the training job transitioned out of this secondary status state into another secondary status state or when the training job has ended.

Type: Timestamp

Required: No

### StartTime

A timestamp that shows when the training job transitioned to the current secondary status state.

Type: Timestamp

Required: Yes

### Status

Contains a secondary status information from a training job.

Status might be one of the following secondary statuses:

#### InProgress

- Starting - Starting the training job.
- Downloading - An optional stage for algorithms that support File training input mode. It indicates that data is being downloaded to the ML storage volumes.
- Training - Training is in progress.
- Uploading - Training is complete and the model artifacts are being uploaded to the S3 location.

#### Completed

- Completed - The training job has completed.

#### Failed

- Failed - The training job has failed. The reason for the failure is returned in the FailureReason field of `DescribeTrainingJobResponse`.

#### Stopped

- MaxRuntimeExceeded - The job stopped because it exceeded the maximum allowed runtime.
- Stopped - The training job has stopped.

#### Stopping

- Stopping - Stopping the training job.

We no longer support the following secondary statuses:

- LaunchingMLInstances
- PreparingTrainingStack
- DownloadingTrainingImage

Type: String

Valid Values: Starting | LaunchingMLInstances | PreparingTrainingStack | Downloading | DownloadingTrainingImage | Training | Uploading | Stopping | Stopped | MaxRuntimeExceeded | Completed | Failed | Interrupted | MaxWaitTimeExceeded | Updating | Restarting

Required: Yes

#### StatusMessage

A detailed description of the progress within a secondary status.

SageMaker provides secondary statuses and status messages that apply to each of them:

##### Starting

- Starting the training job.
- Launching requested ML instances.
- Insufficient capacity error from EC2 while launching instances, retrying!
- Launched instance was unhealthy, replacing it!
- Preparing the instances for training.

##### Training

- Downloading the training image.
- Training image download completed. Training in progress.

#### Important

Status messages are subject to change. Therefore, we recommend not including them in code that programmatically initiates actions. For example, don't use status messages in if statements.

To have an overview of your training job's progress, view TrainingJobStatus and SecondaryStatus in [DescribeTrainingJob \(p. 534\)](#), and StatusMessage together. For example, at the start of a training job, you might see the following:

- TrainingJobStatus - InProgress
- SecondaryStatus - Training
- StatusMessage - Downloading the training image

Type: String

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ServiceCatalogProvisionedProductDetails

Service: Amazon SageMaker Service

Details of a provisioned service catalog product. For information about service catalog, see [What is AWS Service Catalog](#).

## Contents

### ProvisionedProductId

The ID of the provisioned product.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: ^[a-zA-Z0-9\-\\_]\*

Required: No

### ProvisionedProductStatusMessage

The current status of the product.

- AVAILABLE - Stable state, ready to perform any operation. The most recent operation succeeded and completed.
- UNDER\_CHANGE - Transitive state. Operations performed might not have valid results. Wait for an AVAILABLE status before performing operations.
- TAINTED - Stable state, ready to perform any operation. The stack has completed the requested operation but is not exactly what was requested. For example, a request to update to a new version failed and the stack rolled back to the current version.
- ERROR - An unexpected error occurred. The provisioned product exists but the stack is not running. For example, CloudFormation received a parameter value that was not valid and could not launch the stack.
- PLAN\_IN\_PROGRESS - Transitive state. The plan operations were performed to provision a new product, but resources have not yet been created. After reviewing the list of resources to be created, execute the plan. Wait for an AVAILABLE status before performing operations.

Type: String

Pattern: .\*

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ServiceCatalogProvisioningDetails

Service: Amazon SageMaker Service

Details that you specify to provision a service catalog product. For information about service catalog, see [What is AWS Service Catalog](#).

## Contents

### PathId

The path identifier of the product. This value is optional if the product has a default path, and required if the product has more than one path.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: ^[a-zA-Z0-9\_\-]\*

Required: No

### ProductId

The ID of the product to provision.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: ^[a-zA-Z0-9\_\-]\*

Required: Yes

### ProvisioningArtifactId

The ID of the provisioning artifact.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: ^[a-zA-Z0-9\_\-]\*

Required: No

### ProvisioningParameters

A list of key value pairs that you specify when you provision a product.

Type: Array of [ProvisioningParameter \(p. 1675\)](#) objects

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)

- [AWS SDK for Ruby V3](#)

# ServiceCatalogProvisioningUpdateDetails

Service: Amazon SageMaker Service

Details that you specify to provision a service catalog product. For information about service catalog, see [What is AWS Service Catalog](#).

## Contents

### ProvisioningArtifactId

The ID of the provisioning artifact.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Pattern: ^[a-zA-Z0-9\_\-]\*

Required: No

### ProvisioningParameters

A list of key value pairs that you specify when you provision a product.

Type: Array of [ProvisioningParameter \(p. 1675\)](#) objects

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ShadowModeConfig

Service: Amazon SageMaker Service

The configuration of ShadowMode inference experiment type, which specifies a production variant to take all the inference requests, and a shadow variant to which Amazon SageMaker replicates a percentage of the inference requests. For the shadow variant it also specifies the percentage of requests that Amazon SageMaker replicates.

## Contents

### ShadowModelVariants

List of shadow variant configurations.

Type: Array of [ShadowModelVariantConfig \(p. 1733\)](#) objects

Array Members: Fixed number of 1 item.

Required: Yes

### SourceModelVariantName

The name of the production variant, which takes all the inference requests.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9]([-a-zA-Z0-9]\*[a-zA-Z0-9])?

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ShadowModelVariantConfig

Service: Amazon SageMaker Service

The name and sampling percentage of a shadow variant.

## Contents

### SamplingPercentage

The percentage of inference requests that Amazon SageMaker replicates from the production variant to the shadow variant.

Type: Integer

Valid Range: Maximum value of 100.

Required: Yes

### ShadowModelVariantName

The name of the shadow variant.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9]([a-zA-Z0-9]\*[a-zA-Z0-9])?

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# SharingSettings

Service: Amazon SageMaker Service

Specifies options for sharing SageMaker Studio notebooks. These settings are specified as part of `DefaultUserSettings` when the `CreateDomain` API is called, and as part of `UserSettings` when the `CreateUserProfile` API is called. When `SharingSettings` is not specified, notebook sharing isn't allowed.

## Contents

### NotebookOutputOption

Whether to include the notebook cell output when sharing the notebook. The default is `Disabled`.

Type: String

Valid Values: `Allowed` | `Disabled`

Required: No

### S3KmsKeyId

When `NotebookOutputOption` is `Allowed`, the AWS Key Management Service (KMS) encryption key ID used to encrypt the notebook cell output in the Amazon S3 bucket.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: `.*`

Required: No

### S3OutputPath

When `NotebookOutputOption` is `Allowed`, the Amazon S3 bucket used to store the shared notebook snapshots.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^(https|s3)://([^\/]*)/?(.*)$`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ShuffleConfig

Service: Amazon SageMaker Service

A configuration for a shuffle option for input data in a channel. If you use `S3Prefix` for `S3DataType`, the results of the S3 key prefix matches are shuffled. If you use `ManifestFile`, the order of the S3 object references in the `ManifestFile` is shuffled. If you use `AugmentedManifestFile`, the order of the JSON lines in the `AugmentedManifestFile` is shuffled. The shuffling order is determined using the `Seed` value.

For Pipe input mode, when `ShuffleConfig` is specified shuffling is done at the start of every epoch. With large datasets, this ensures that the order of the training data is different for each epoch, and it helps reduce bias and possible overfitting. In a multi-node training job when `ShuffleConfig` is combined with `S3DataDistributionType` of `ShardedByS3Key`, the data is shuffled across nodes so that the content sent to a particular node on the first epoch might be sent to a different node on the second epoch.

## Contents

### Seed

Determines the shuffling order in `ShuffleConfig` value.

Type: Long

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## SourceAlgorithm

Service: Amazon SageMaker Service

Specifies an algorithm that was used to create the model package. The algorithm must be either an algorithm resource in your SageMaker account or an algorithm in AWS Marketplace that you are subscribed to.

## Contents

### AlgorithmName

The name of an algorithm that was used to create the model package. The algorithm must be either an algorithm resource in your SageMaker account or an algorithm in AWS Marketplace that you are subscribed to.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 170.

Pattern: (arn:aws[a-z\[-]\*:sagemaker:[a-zA-Z0-9\[-]\*:[0-9]{12}:[a-zA-Z\[-]\*\//)?([a-zA-Z0-9]([a-zA-Z0-9-]){0,62})(?<!-)\$

Required: Yes

### ModelDataUrl

The Amazon S3 path where the model artifacts, which result from model training, are stored. This path must point to a single gzip compressed tar archive (.tar.gz suffix).

#### Note

The model artifacts must be in an S3 bucket that is in the same region as the algorithm.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: ^(https|s3)://([^\/]+)/\*(.\*)\$

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# SourceAlgorithmSpecification

Service: Amazon SageMaker Service

A list of algorithms that were used to create a model package.

## Contents

### SourceAlgorithms

A list of the algorithms that were used to create a model package.

Type: Array of [SourceAlgorithm \(p. 1736\)](#) objects

Array Members: Fixed number of 1 item.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## SourcelpConfig

Service: Amazon SageMaker Service

A list of IP address ranges ([CIDRs](#)). Used to create an allow list of IP addresses for a private workforce. Workers will only be able to login to their worker portal from an IP address within this range. By default, a workforce isn't restricted to specific IP addresses.

## Contents

### Cidrs

A list of one to ten [Classless Inter-Domain Routing](#) (CIDR) values.

Maximum: Ten CIDR values

#### Note

The following Length Constraints apply to individual CIDR values in the CIDR value list.

Type: Array of strings

Length Constraints: Minimum length of 4. Maximum length of 64.

Pattern: `(^(([0-9]|1[0-9][0-9]|1[0-9]{2}|2[0-4][0-9]|25[0-5])\.){3}(([0-9]|1[0-9][0-9]|1[0-9]{2}|2[0-4][0-9]|25[0-5])(\(/(3[0-2]|1[2-9][0-9]|0[0-9]))$|(^s*((([0-9A-Fa-f]{1,4}):){7}(([0-9A-Fa-f]{1,4}|:))|(([0-9A-Fa-f]{1,4}):){6}(:[0-9A-Fa-f]{1,4}|((25[0-5]|2[0-4]d|1dd|[1-9]?d)(.(25[0-5]|2[0-4]d|1dd|[1-9]?d)){3})|:))|(([0-9A-Fa-f]{1,4}):){5}(((:[0-9A-Fa-f]{1,4}){1,2})|:(25[0-5]|2[0-4]d|1dd|[1-9]?d)(.(25[0-5]|2[0-4]d|1dd|[1-9]?d)){3})|:))|(([0-9A-Fa-f]{1,4}):){4}(((:[0-9A-Fa-f]{1,4}){1,3})|((:[0-9A-Fa-f]{1,4}):){4}(((25[0-5]|2[0-4]d|1dd|[1-9]?d)(.(25[0-5]|2[0-4]d|1dd|[1-9]?d)){3}))|:))|(([0-9A-Fa-f]{1,4}):){3}(((:[0-9A-Fa-f]{1,4}){1,4})|((:[0-9A-Fa-f]{1,4}){0,2}:((25[0-5]|2[0-4]d|1dd|[1-9]?d)(.(25[0-5]|2[0-4]d|1dd|[1-9]?d)){3}))|:))|(([0-9A-Fa-f]{1,4}):){2}(((:[0-9A-Fa-f]{1,4}){1,5})|((:[0-9A-Fa-f]{1,4}){0,3}:((25[0-5]|2[0-4]d|1dd|[1-9]?d)(.(25[0-5]|2[0-4]d|1dd|[1-9]?d)){3}))|:))|(([0-9A-Fa-f]{1,4}):){1}(((:[0-9A-Fa-f]{1,4}){1,6})|((:[0-9A-Fa-f]{1,4}){0,4}:((25[0-5]|2[0-4]d|1dd|[1-9]?d)(.(25[0-5]|2[0-4]d|1dd|[1-9]?d)){3}))|:))|((((:[0-9A-Fa-f]{1,4}){1,7})|((:[0-9A-Fa-f]{1,4}){0,5}:((25[0-5]|2[0-4]d|1dd|[1-9]?d)(.(25[0-5]|2[0-4]d|1dd|[1-9]?d)){3}))|:)))(%.+)?s*(\/(12[0-8]|1[0-1][0-9]|1[1-9][0-9]|0[0-9]))$)`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## SpaceDetails

Service: Amazon SageMaker Service

The space's details.

### Contents

#### **CreationTime**

The creation time.

Type: Timestamp

Required: No

#### **DomainId**

The ID of the associated Domain.

Type: String

Length Constraints: Maximum length of 63.

Required: No

#### **LastModifiedTime**

The last modified time.

Type: Timestamp

Required: No

#### **SpaceName**

The name of the space.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](~\*[a-zA-Z0-9])\{0,62\}

Required: No

#### **Status**

The status.

Type: String

Valid Values: Deleting | Failed | InService | Pending | Updating | Update\_Failed | Delete\_Failed

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)

- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# SpaceSettings

Service: Amazon SageMaker Service

A collection of space settings.

## Contents

### JupyterServerAppSettings

The JupyterServer app settings.

Type: [JupyterServerAppSettings \(p. 1435\)](#) object

Required: No

### KernelGatewayAppSettings

The KernelGateway app settings.

Type: [KernelGatewayAppSettings \(p. 1436\)](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## StoppingCondition

Service: Amazon SageMaker Service

Specifies a limit to how long a model training job or model compilation job can run. It also specifies how long a managed spot training job has to complete. When the job reaches the time limit, SageMaker ends the training or compilation job. Use this API to cap model training costs.

To stop a training job, SageMaker sends the algorithm the SIGTERM signal, which delays job termination for 120 seconds. Algorithms can use this 120-second window to save the model artifacts, so the results of training are not lost.

The training algorithms provided by SageMaker automatically save the intermediate results of a model training job when possible. This attempt to save artifacts is only a best effort case as model might not be in a state from which it can be saved. For example, if training has just started, the model might not be ready to save. When saved, this intermediate data is a valid model artifact. You can use it to create a model with `CreateModel`.

### Note

The Neural Topic Model (NTM) currently does not support saving intermediate model artifacts. When training NTMs, make sure that the maximum runtime is sufficient for the training job to complete.

## Contents

### MaxRuntimeInSeconds

The maximum length of time, in seconds, that a training or compilation job can run before it is stopped.

For compilation jobs, if the job does not complete during this time, a `TimeOut` error is generated. We recommend starting with 900 seconds and increasing as necessary based on your model.

For all other jobs, if the job does not complete during this time, SageMaker ends the job. When `RetryStrategy` is specified in the job request, `MaxRuntimeInSeconds` specifies the maximum time for all of the attempts in total, not each individual attempt. The default value is 1 day. The maximum value is 28 days.

The maximum time that a `TrainingJob` can run in total, including any time spent publishing metrics or archiving and uploading models after it has been stopped, is 30 days.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

### MaxWaitTimeInSeconds

The maximum length of time, in seconds, that a managed Spot training job has to complete. It is the amount of time spent waiting for Spot capacity plus the amount of time the job can run. It must be equal to or greater than `MaxRuntimeInSeconds`. If the job does not complete during this time, SageMaker ends the job.

When `RetryStrategy` is specified in the job request, `MaxWaitTimeInSeconds` specifies the maximum time for all of the attempts in total, not each individual attempt.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# StudioLifecycleConfigDetails

Service: Amazon SageMaker Service

Details of the Studio Lifecycle Configuration.

## Contents

### **CreationTime**

The creation time of the Studio Lifecycle Configuration.

Type: Timestamp

Required: No

### **LastModifiedTime**

This value is equivalent to CreationTime because Studio Lifecycle Configurations are immutable.

Type: Timestamp

Required: No

### **StudioLifecycleConfigAppType**

The App type to which the Lifecycle Configuration is attached.

Type: String

Valid Values: JupyterServer | KernelGateway

Required: No

### **StudioLifecycleConfigArn**

The Amazon Resource Name (ARN) of the Lifecycle Configuration.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws:[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:studio-lifecycle-config/.*`

Required: No

### **StudioLifecycleConfigName**

The name of the Studio Lifecycle Configuration.

Type: String

Length Constraints: Maximum length of 63.

Pattern: `^-[a-zA-Z0-9](-*[a-zA-Z0-9])\{0,62\}`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# SubscribedWorkteam

Service: Amazon SageMaker Service

Describes a work team of a vendor that does the a labelling job.

## Contents

### **ListingId**

Marketplace product listing ID.

Type: String

Required: No

### **MarketplaceDescription**

The description of the vendor from the Amazon Marketplace.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 200.

Pattern: .+

Required: No

### **MarketplaceTitle**

The title of the service provided by the vendor in the Amazon Marketplace.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 200.

Pattern: .+

Required: No

### **SellerName**

The name of the vendor in the Amazon Marketplace.

Type: String

Required: No

### **WorkteamArn**

The Amazon Resource Name (ARN) of the vendor that you have subscribed.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-\]\*:sagemaker:[a-z0-9\-\]\*:[0-9]{12}:workteam/.\*

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# SuggestionQuery

Service: Amazon SageMaker Service

Specified in the [GetSearchSuggestions \(p. 578\)](#) request. Limits the property names that are included in the response.

## Contents

### PropertyNameQuery

Defines a property name hint. Only property names that begin with the specified hint are included in the response.

Type: [PropertyNameQuery \(p. 1673\)](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## Tag

Service: Amazon SageMaker Service

A tag object that consists of a key and an optional value, used to manage metadata for SageMaker AWS resources.

You can add tags to notebook instances, training jobs, hyperparameter tuning jobs, batch transform jobs, models, labeling jobs, work teams, endpoint configurations, and endpoints. For more information on adding tags to SageMaker resources, see [AddTags \(p. 20\)](#).

For more information on adding metadata to your AWS resources with tagging, see [Tagging AWS resources](#). For advice on best practices for managing AWS resources with tagging, see [Tagging Best Practices: Implement an Effective AWS Resource Tagging Strategy](#).

## Contents

### Key

The tag key. Tag keys must be unique per resource.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `^([\\p{L}\\p{Z}]\\p{N}_.:/=+\\-@]*$`

Required: Yes

### Value

The tag value.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 256.

Pattern: `^([\\p{L}\\p{Z}]\\p{N}_.:/=+\\-@]*$`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TargetPlatform

Service: Amazon SageMaker Service

Contains information about a target platform that you want your model to run on, such as OS, architecture, and accelerators. It is an alternative of TargetDevice.

## Contents

### Accelerator

Specifies a target platform accelerator (optional).

- NVIDIA: Nvidia graphics processing unit. It also requires gpu-code, trt-ver, cuda-ver compiler options
- MALI: ARM Mali graphics processor
- INTEL\_GRAPHICS: Integrated Intel graphics

Type: String

Valid Values: INTEL\_GRAPHICS | MALI | NVIDIA | NNA

Required: No

### Arch

Specifies a target platform architecture.

- X86\_64: 64-bit version of the x86 instruction set.
- X86: 32-bit version of the x86 instruction set.
- ARM64: ARMv8 64-bit CPU.
- ARM\_EABIHF: ARMv7 32-bit, Hard Float.
- ARM\_EABI: ARMv7 32-bit, Soft Float. Used by Android 32-bit ARM platform.

Type: String

Valid Values: X86\_64 | X86 | ARM64 | ARM\_EABI | ARM\_EABIHF

Required: Yes

### Os

Specifies a target platform OS.

- LINUX: Linux-based operating systems.
- ANDROID: Android operating systems. Android API level can be specified using the ANDROID\_PLATFORM compiler option. For example, "CompilerOptions": { 'ANDROID\_PLATFORM': 28}

Type: String

Valid Values: ANDROID | LINUX

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)

- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TensorBoardAppSettings

Service: Amazon SageMaker Service

The TensorBoard app settings.

## Contents

### DefaultResourceSpec

The default instance type and the Amazon Resource Name (ARN) of the SageMaker image created on the instance.

Type: [ResourceSpec \(p. 1707\)](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TensorBoardOutputConfig

Service: Amazon SageMaker Service

Configuration of storage locations for the Amazon SageMaker Debugger TensorBoard output data.

## Contents

### LocalPath

Path to local storage location for tensorBoard output. Defaults to /opt/ml/output/tensorboard.

Type: String

Length Constraints: Maximum length of 4096.

Pattern: .\*

Required: No

### S3OutputPath

Path to Amazon S3 storage location for TensorBoard output.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: ^(https|s3)://([^\/]+)?(.\*)\$

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TimeSeriesForecastingSettings

Service: Amazon SageMaker Service

Time series forecast settings for the SageMaker Canvas app.

## Contents

### AmazonForecastRoleArn

The IAM role that Canvas passes to Amazon Forecast for time series forecasting. By default, Canvas uses the execution role specified in the `UserProfile` that launches the Canvas app. If an execution role is not specified in the `UserProfile`, Canvas uses the execution role specified in the Domain that owns the `UserProfile`. To allow time series forecasting, this IAM role should have the [AmazonSageMakerCanvasForecastAccess](#) policy attached and `forecast.amazonaws.com` added in the trust relationship as a service principal.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: ^arn:aws[a-zA-Z-]\*:iam::\d{12}:role/?[a-zA-Z\_0-9+=,.@/-/\_/]+\$

Required: No

### Status

Describes whether time series forecasting is enabled or disabled in the Canvas app.

Type: String

Valid Values: ENABLED | DISABLED

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TrafficPattern

Service: Amazon SageMaker Service

Defines the traffic pattern of the load test.

## Contents

### Phases

Defines the phases traffic specification.

Type: Array of [Phase \(p. 1615\)](#) objects

Array Members: Minimum number of 1 item.

Required: No

### TrafficType

Defines the traffic patterns.

Type: String

Valid Values: PHASES

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TrafficRoutingConfig

Service: Amazon SageMaker Service

Defines the traffic routing strategy during an endpoint deployment to shift traffic from the old fleet to the new fleet.

## Contents

### CanarySize

Batch size for the first step to turn on traffic on the new endpoint fleet. Value must be less than or equal to 50% of the variant's total instance count.

Type: [CapacitySize \(p. 1193\)](#) object

Required: No

### LinearStepSize

Batch size for each step to turn on traffic on the new endpoint fleet. Value must be 10-50% of the variant's total instance count.

Type: [CapacitySize \(p. 1193\)](#) object

Required: No

### Type

Traffic routing strategy type.

- ALL\_AT\_ONCE: Endpoint traffic shifts to the new fleet in a single step.
- CANARY: Endpoint traffic shifts to the new fleet in two steps. The first step is the canary, which is a small portion of the traffic. The second step is the remainder of the traffic.
- LINEAR: Endpoint traffic shifts to the new fleet in n steps of a configurable size.

Type: String

Valid Values: ALL\_AT\_ONCE | CANARY | LINEAR

Required: Yes

### WaitIntervalInSeconds

The waiting time (in seconds) between incremental steps to turn on traffic on the new endpoint fleet.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 3600.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)

- [AWS SDK for Ruby V3](#)

# TrainingJob

Service: Amazon SageMaker Service

Contains information about a training job.

## Contents

### **AlgorithmSpecification**

Information about the algorithm used for training, and algorithm metadata.

Type: [AlgorithmSpecification \(p. 1117\)](#) object

Required: No

### **AutoMLJobArn**

The Amazon Resource Name (ARN) of the job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:automl-job/.*`

Required: No

### **BillableTimeInSeconds**

The billable time in seconds.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

### **CheckpointConfig**

Contains information about the output location for managed spot training checkpoint data.

Type: [CheckpointConfig \(p. 1203\)](#) object

Required: No

### **CreationTime**

A timestamp that indicates when the training job was created.

Type: Timestamp

Required: No

### **DebugHookConfig**

Configuration information for the Amazon SageMaker Debugger hook parameters, metric and tensor collections, and storage paths. To learn more about how to configure the `DebugHookConfig` parameter, see [Use the SageMaker and Debugger Configuration API Operations to Create, Update, and Debug Your Training Job](#).

Type: [DebugHookConfig \(p. 1249\)](#) object

Required: No

### **DebugRuleConfigurations**

Information about the debug rule configuration.

Type: Array of [DebugRuleConfiguration \(p. 1251\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 20 items.

Required: No

### **DebugRuleEvaluationStatuses**

Information about the evaluation status of the rules for the training job.

Type: Array of [DebugRuleEvaluationStatus \(p. 1253\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 20 items.

Required: No

### **EnableInterContainerTrafficEncryption**

To encrypt all communications between ML compute instances in distributed training, choose `True`. Encryption provides greater security for distributed training, but training might take longer. How long it takes depends on the amount of communication between compute instances, especially if you use a deep learning algorithm in distributed training.

Type: Boolean

Required: No

### **EnableManagedSpotTraining**

When true, enables managed spot training using Amazon EC2 Spot instances to run training jobs instead of on-demand instances. For more information, see [Managed Spot Training](#).

Type: Boolean

Required: No

### **EnableNetworkIsolation**

If the `TrainingJob` was created with network isolation, the value is set to `true`. If network isolation is enabled, nodes can't communicate beyond the VPC they run in.

Type: Boolean

Required: No

### **Environment**

The environment variables to set in the Docker container.

Type: String to string map

Map Entries: Maximum number of 48 items.

Key Length Constraints: Maximum length of 512.

Key Pattern: `[a-zA-Z_][a-zA-Z0-9_]*`

Value Length Constraints: Maximum length of 512.

Value Pattern: `[\S\s]*`

Required: No

### **ExperimentConfig**

Associates a SageMaker job as a trial component with an experiment and trial. Specified when you call the following APIs:

- [CreateProcessingJob \(p. 193\)](#)
- [CreateTrainingJob \(p. 207\)](#)
- [CreateTransformJob \(p. 216\)](#)

Type: [ExperimentConfig \(p. 1317\)](#) object

Required: No

### **FailureReason**

If the training job failed, the reason it failed.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

### **FinalMetricDataList**

A list of final metric values that are set when the training job completes. Used only if the training job was configured to use metrics.

Type: Array of [MetricData \(p. 1467\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 40 items.

Required: No

### **HyperParameters**

Algorithm-specific parameters.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 100 items.

Key Length Constraints: Maximum length of 256.

Key Pattern: .\*

Value Length Constraints: Maximum length of 2500.

Value Pattern: .\*

Required: No

### **InputDataConfig**

An array of Channel objects that describes each data input channel.

Type: Array of [Channel \(p. 1199\)](#) objects

Array Members: Minimum number of 1 item. Maximum number of 20 items.

Required: No

### **LabelingJobArn**

The Amazon Resource Name (ARN) of the labeling job.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: arn:aws[a-z\-\-]\*:sagemaker:[a-z0-9\-\-]\*:[0-9]{12}:labeling-job/.\*

Required: No

#### **LastModifiedTime**

A timestamp that indicates when the status of the training job was last modified.

Type: Timestamp

Required: No

#### **ModelArtifacts**

Information about the Amazon S3 location that is configured for storing model artifacts.

Type: [ModelArtifacts \(p. 1473\)](#) object

Required: No

#### **OutputDataConfig**

The S3 path where model artifacts that you configured when creating the job are stored. SageMaker creates subfolders for model artifacts.

Type: [OutputDataConfig \(p. 1601\)](#) object

Required: No

#### **ResourceConfig**

Resources, including ML compute instances and ML storage volumes, that are configured for model training.

Type: [ResourceConfig \(p. 1702\)](#) object

Required: No

#### **RetryStrategy**

The number of times to retry the job when the job fails due to an `InternalServerError`.

Type: [RetryStrategy \(p. 1710\)](#) object

Required: No

#### **RoleArn**

The AWS Identity and Access Management (IAM) role configured for the training job.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: ^arn:aws[a-z\-\-]\*:iam::\d{12}:role/?[a-zA-Z\_0-9+=,.@\-\\_]+\$

Required: No

#### **SecondaryStatus**

Provides detailed information about the state of the training job. For detailed information about the secondary status of the training job, see `StatusMessage` under [SecondaryStatusTransition \(p. 1726\)](#).

SageMaker provides primary statuses and secondary statuses that apply to each of them:

**InProgress**

- Starting - Starting the training job.
- Downloading - An optional stage for algorithms that support `File` training input mode. It indicates that data is being downloaded to the ML storage volumes.
- Training - Training is in progress.
- Uploading - Training is complete and the model artifacts are being uploaded to the S3 location.

**Completed**

- Completed - The training job has completed.

**Failed**

- Failed - The training job has failed. The reason for the failure is returned in the `FailureReason` field of `DescribeTrainingJobResponse`.

**Stopped**

- MaxRuntimeExceeded - The job stopped because it exceeded the maximum allowed runtime.
- Stopped - The training job has stopped.

**Stopping**

- Stopping - Stopping the training job.

**Important**

Valid values for `SecondaryStatus` are subject to change.

We no longer support the following secondary statuses:

- LaunchingMLInstances
- PreparingTrainingStack
- DownloadingTrainingImage

Type: String

Valid Values: Starting | LaunchingMLInstances | PreparingTrainingStack | Downloading | DownloadingTrainingImage | Training | Uploading | Stopping | Stopped | MaxRuntimeExceeded | Completed | Failed | Interrupted | MaxWaitTimeExceeded | Updating | Restarting

Required: No

**SecondaryStatusTransitions**

A history of all of the secondary statuses that the training job has transitioned through.

Type: Array of [SecondaryStatusTransition \(p. 1726\)](#) objects

Required: No

**StoppingCondition**

Specifies a limit to how long a model training job can run. It also specifies how long a managed Spot training job has to complete. When the job reaches the time limit, SageMaker ends the training job. Use this API to cap model training costs.

To stop a job, SageMaker sends the algorithm the SIGTERM signal, which delays job termination for 120 seconds. Algorithms can use this 120-second window to save the model artifacts, so the results of training are not lost.

Type: [StoppingCondition \(p. 1742\)](#) object

Required: No

#### Tags

An array of key-value pairs. You can use tags to categorize your AWS resources in different ways, for example, by purpose, owner, or environment. For more information, see [Tagging AWS Resources](#).

Type: Array of [Tag \(p. 1749\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

#### TensorBoardOutputConfig

Configuration of storage locations for the Amazon SageMaker Debugger TensorBoard output data.

Type: [TensorBoardOutputConfig \(p. 1753\)](#) object

Required: No

#### TrainingEndTime

Indicates the time when the training job ends on training instances. You are billed for the time interval between the value of `TrainingStartTime` and this time. For successful jobs and stopped jobs, this is the time after model artifacts are uploaded. For failed jobs, this is the time when SageMaker detects a job failure.

Type: Timestamp

Required: No

#### TrainingJobArn

The Amazon Resource Name (ARN) of the training job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:training-job/.*`

Required: No

#### TrainingJobName

The name of the training job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])\{0,62\}`

Required: No

#### TrainingJobStatus

The status of the training job.

Training job statuses are:

- `InProgress` - The training is in progress.
- `Completed` - The training job has completed.
- `Failed` - The training job has failed. To see the reason for the failure, see the `FailureReason` field in the response to a `DescribeTrainingJobResponse` call.

- Stopping - The training job is stopping.
- Stopped - The training job has stopped.

For more detailed information, see [SecondaryStatus](#).

Type: String

Valid Values: InProgress | Completed | Failed | Stopping | Stopped

Required: No

#### **TrainingStartTime**

Indicates the time when the training job starts on training instances. You are billed for the time interval between this time and the value of `TrainingEndTime`. The start time in CloudWatch Logs might be later than this time. The difference is due to the time it takes to download the training data and to the size of the training container.

Type: Timestamp

Required: No

#### **TrainingTimeInSeconds**

The training time in seconds.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

#### **TuningJobArn**

The Amazon Resource Name (ARN) of the associated hyperparameter tuning job if the training job was launched by a hyperparameter tuning job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:hyper-parameter-tuning-job/.*`

Required: No

#### **VpcConfig**

A [VpcConfig \(p. 1829\)](#) object that specifies the VPC that this training job has access to. For more information, see [Protect Training Jobs by Using an Amazon Virtual Private Cloud](#).

Type: [VpcConfig \(p. 1829\)](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)

- [AWS SDK for Ruby V3](#)

# TrainingJobDefinition

Service: Amazon SageMaker Service

Defines the input needed to run a training job using the algorithm.

## Contents

### HyperParameters

The hyperparameters used for the training job.

Type: String to string map

Map Entries: Minimum number of 0 items. Maximum number of 100 items.

Key Length Constraints: Maximum length of 256.

Key Pattern: .\*

Value Length Constraints: Maximum length of 2500.

Value Pattern: .\*

Required: No

### InputDataConfig

An array of Channel objects, each of which specifies an input source.

Type: Array of [Channel \(p. 1199\)](#) objects

Array Members: Minimum number of 1 item. Maximum number of 20 items.

Required: Yes

### OutputDataConfig

the path to the S3 bucket where you want to store model artifacts. SageMaker creates subfolders for the artifacts.

Type: [OutputDataConfig \(p. 1601\)](#) object

Required: Yes

### ResourceConfig

The resources, including the ML compute instances and ML storage volumes, to use for model training.

Type: [ResourceConfig \(p. 1702\)](#) object

Required: Yes

### StoppingCondition

Specifies a limit to how long a model training job can run. It also specifies how long a managed Spot training job has to complete. When the job reaches the time limit, SageMaker ends the training job. Use this API to cap model training costs.

To stop a job, SageMaker sends the algorithm the SIGTERM signal, which delays job termination for 120 seconds. Algorithms can use this 120-second window to save the model artifacts.

Type: [StoppingCondition \(p. 1742\)](#) object

Required: Yes

### TrainingInputMode

The training input mode that the algorithm supports. For more information about input modes, see [Algorithms](#).

#### Pipe mode

If an algorithm supports Pipe mode, Amazon SageMaker streams data directly from Amazon S3 to the container.

#### File mode

If an algorithm supports File mode, SageMaker downloads the training data from S3 to the provisioned ML storage volume, and mounts the directory to the Docker volume for the training container.

You must provision the ML storage volume with sufficient capacity to accommodate the data downloaded from S3. In addition to the training data, the ML storage volume also stores the output model. The algorithm container uses the ML storage volume to also store intermediate information, if any.

For distributed algorithms, training data is distributed uniformly. Your training duration is predictable if the input data objects sizes are approximately the same. SageMaker does not split the files any further for model training. If the object sizes are skewed, training won't be optimal as the data distribution is also skewed when one host in a training cluster is overloaded, thus becoming a bottleneck in training.

#### FastFile mode

If an algorithm supports FastFile mode, SageMaker streams data directly from S3 to the container with no code changes, and provides file system access to the data. Users can author their training script to interact with these files as if they were stored on disk.

FastFile mode works best when the data is read sequentially. Augmented manifest files aren't supported. The startup time is lower when there are fewer files in the S3 bucket provided.

Type: String

Valid Values: Pipe | File | FastFile

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TrainingJobStatusCounters

Service: Amazon SageMaker Service

The numbers of training jobs launched by a hyperparameter tuning job, categorized by status.

## Contents

### Completed

The number of completed training jobs launched by the hyperparameter tuning job.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

### InProgress

The number of in-progress training jobs launched by a hyperparameter tuning job.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

### NonRetryableError

The number of training jobs that failed and can't be retried. A failed training job can't be retried if it failed because a client error occurred.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

### RetryableError

The number of training jobs that failed, but can be retried. A failed training job can be retried only if it failed because an internal service error occurred.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

### Stopped

The number of training jobs launched by a hyperparameter tuning job that were manually stopped.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TrainingJobStepMetadata

Service: Amazon SageMaker Service

Metadata for a training job step.

## Contents

### Arn

The Amazon Resource Name (ARN) of the training job that was run by this step execution.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-\-]*:sagemaker:[a-z0-9\-\-]*:[0-9]{12}:training-job/.*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TrainingJobSummary

Service: Amazon SageMaker Service

Provides summary information about a training job.

## Contents

### **CreationTime**

A timestamp that shows when the training job was created.

Type: Timestamp

Required: Yes

### **LastModifiedTime**

Timestamp when the training job was last modified.

Type: Timestamp

Required: No

### **TrainingEndTime**

A timestamp that shows when the training job ended. This field is set only if the training job has one of the terminal statuses (Completed, Failed, or Stopped).

Type: Timestamp

Required: No

### **TrainingJobArn**

The Amazon Resource Name (ARN) of the training job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-\]*:sagemaker:[a-z0-9\-\]*:[0-9]{12}:training-job/.*`

Required: Yes

### **TrainingJobName**

The name of the training job that you want a summary for.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^ [a-zA-Z0-9] ( - [a-zA-Z0-9] ) {0,62}`

Required: Yes

### **TrainingJobStatus**

The status of the training job.

Type: String

Valid Values: InProgress | Completed | Failed | Stopping | Stopped

Required: Yes

**WarmPoolStatus**

The status of the warm pool associated with the training job.

Type: [WarmPoolStatus \(p. 1830\)](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TrainingSpecification

Service: Amazon SageMaker Service

Defines how the algorithm is used for a training job.

## Contents

### MetricDefinitions

A list of MetricDefinition objects, which are used for parsing metrics generated by the algorithm.

Type: Array of [MetricDefinition \(p. 1469\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 40 items.

Required: No

### SupportedHyperParameters

A list of the HyperParameterSpecification objects, that define the supported hyperparameters. This is required if the algorithm supports automatic model tuning.>

Type: Array of [HyperParameterSpecification \(p. 1383\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 100 items.

Required: No

### SupportedTrainingInstanceTypes

A list of the instance types that this algorithm can use for training.

Type: Array of strings

Valid Values: ml.m4.xlarge | ml.m4.2xlarge | ml.m4.4xlarge | ml.m4.10xlarge | ml.m4.16xlarge | ml.g4dn.xlarge | ml.g4dn.2xlarge | ml.g4dn.4xlarge | ml.g4dn.8xlarge | ml.g4dn.12xlarge | ml.g4dn.16xlarge | ml.m5.large | ml.m5.xlarge | ml.m5.2xlarge | ml.m5.4xlarge | ml.m5.12xlarge | ml.m5.24xlarge | ml.c4.xlarge | ml.c4.2xlarge | ml.c4.4xlarge | ml.c4.8xlarge | ml.p2.xlarge | ml.p2.8xlarge | ml.p2.16xlarge | ml.p3.2xlarge | ml.p3.8xlarge | ml.p3.16xlarge | ml.p3dn.24xlarge | ml.p4d.24xlarge | ml.c5.xlarge | ml.c5.2xlarge | ml.c5.4xlarge | ml.c5.9xlarge | ml.c5.18xlarge | ml.c5n.xlarge | ml.c5n.2xlarge | ml.c5n.4xlarge | ml.c5n.9xlarge | ml.c5n.18xlarge | ml.g5.xlarge | ml.g5.2xlarge | ml.g5.4xlarge | ml.g5.8xlarge | ml.g5.16xlarge | ml.g5.12xlarge | ml.g5.24xlarge | ml.g5.48xlarge | ml.trn1.2xlarge | ml.trn1.32xlarge

Required: Yes

### SupportedTuningJobObjectiveMetrics

A list of the metrics that the algorithm emits that can be used as the objective metric in a hyperparameter tuning job.

Type: Array of [HyperParameterTuningJobObjective \(p. 1396\)](#) objects

Required: No

### **SupportsDistributedTraining**

Indicates whether the algorithm supports distributed training. If set to false, buyers can't request more than one instance during training.

Type: Boolean

Required: No

### **TrainingChannels**

A list of ChannelSpecification objects, which specify the input sources to be used by the algorithm.

Type: Array of [ChannelSpecification \(p. 1201\)](#) objects

Array Members: Minimum number of 1 item. Maximum number of 8 items.

Required: Yes

### **TrainingImage**

The Amazon ECR registry path of the Docker image that contains the training algorithm.

Type: String

Length Constraints: Maximum length of 255.

Pattern: [\S]+

Required: Yes

### **TrainingImageDigest**

An MD5 hash of the training algorithm that identifies the Docker image used for training.

Type: String

Length Constraints: Maximum length of 72.

Pattern: ^[Ss][Hh][Aa]256:[0-9a-fA-F]{64}\$

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## TransformDataSource

Service: Amazon SageMaker Service

Describes the location of the channel data.

### Contents

#### S3DataSource

The S3 location of the data source that is associated with a channel.

Type: [TransformS3DataSource \(p. 1792\)](#) object

Required: Yes

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TransformInput

Service: Amazon SageMaker Service

Describes the input source of a transform job and the way the transform job consumes it.

## Contents

### CompressionType

If your transform data is compressed, specify the compression type. Amazon SageMaker automatically decompresses the data for the transform job accordingly. The default value is None.

Type: String

Valid Values: None | Gzip

Required: No

### ContentType

The multipurpose internet mail extension (MIME) type of the data. Amazon SageMaker uses the MIME type with each http call to transfer data to the transform job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: No

### DataSource

Describes the location of the channel data, which is, the S3 location of the input data that the model can consume.

Type: [TransformDataSource \(p. 1775\)](#) object

Required: Yes

### SplitType

The method to use to split the transform job's data files into smaller batches. Splitting is necessary when the total size of each object is too large to fit in a single request. You can also use data splitting to improve performance by processing multiple concurrent mini-batches. The default value for SplitType is None, which indicates that input data files are not split, and request payloads contain the entire contents of an input object. Set the value of this parameter to Line to split records on a newline character boundary. SplitType also supports a number of record-oriented binary data formats. Currently, the supported record formats are:

- RecordIO
- TFRecord

When splitting is enabled, the size of a mini-batch depends on the values of the BatchStrategy and MaxPayloadInMB parameters. When the value of BatchStrategy is MultiRecord, Amazon SageMaker sends the maximum number of records in each request, up to the MaxPayloadInMB limit. If the value of BatchStrategy is SingleRecord, Amazon SageMaker sends individual records in each request.

#### Note

Some data formats represent a record as a binary payload wrapped with extra padding bytes. When splitting is applied to a binary data format, padding is removed if the value

of BatchStrategy is set to SingleRecord. Padding is not removed if the value of BatchStrategy is set to MultiRecord.

For more information about RecordIO, see [Create a Dataset Using RecordIO](#) in the MXNet documentation. For more information about TFRecord, see [Consuming TFRecord data](#) in the TensorFlow documentation.

Type: String

Valid Values: None | Line | RecordIO | TFRecord

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TransformJob

Service: Amazon SageMaker Service

A batch transform job. For information about SageMaker batch transform, see [Use Batch Transform](#).

## Contents

### AutoMLJobArn

The Amazon Resource Name (ARN) of the AutoML job that created the transform job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: arn:aws[a-z\-\-]\*:sagemaker:[a-z0-9\-\-]\*:[0-9]{12}:automl-job/.\*

Required: No

### BatchStrategy

Specifies the number of records to include in a mini-batch for an HTTP inference request. A record is a single unit of input data that inference can be made on. For example, a single line in a CSV file is a record.

Type: String

Valid Values: MultiRecord | SingleRecord

Required: No

### CreationTime

A timestamp that shows when the transform Job was created.

Type: Timestamp

Required: No

### DataProcessing

The data structure used to specify the data to be used for inference in a batch transform job and to associate the data that is relevant to the prediction results in the output. The input filter provided allows you to exclude input data that is not needed for inference in a batch transform job. The output filter provided allows you to include input data relevant to interpreting the predictions in the output from the job. For more information, see [Associate Prediction Results with their Corresponding Input Records](#).

Type: [DataProcessing \(p. 1240\)](#) object

Required: No

### Environment

The environment variables to set in the Docker container. We support up to 16 key and values entries in the map.

Type: String to string map

Map Entries: Maximum number of 16 items.

Key Length Constraints: Maximum length of 1024.

Key Pattern: [a-zA-Z\_][a-zA-Z0-9\_]{0,1023}

Value Length Constraints: Maximum length of 10240.

Value Pattern: [\S\s]\*

Required: No

#### **ExperimentConfig**

Associates a SageMaker job as a trial component with an experiment and trial. Specified when you call the following APIs:

- [CreateProcessingJob \(p. 193\)](#)
- [CreateTrainingJob \(p. 207\)](#)
- [CreateTransformJob \(p. 216\)](#)

Type: [ExperimentConfig \(p. 1317\)](#) object

Required: No

#### **FailureReason**

If the transform job failed, the reason it failed.

Type: String

Length Constraints: Maximum length of 1024.

Required: No

#### **LabelingJobArn**

The Amazon Resource Name (ARN) of the labeling job that created the transform job.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: arn:aws[a-zA-Z-]\*:sagemaker:[a-zA-Z0-9-]\*:[0-9]{12}:labeling-job/.\*

Required: No

#### **MaxConcurrentTransforms**

The maximum number of parallel requests that can be sent to each instance in a transform job. If MaxConcurrentTransforms is set to 0 or left unset, SageMaker checks the optional execution-parameters to determine the settings for your chosen algorithm. If the execution-parameters endpoint is not enabled, the default value is 1. For built-in algorithms, you don't need to set a value for MaxConcurrentTransforms.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

#### **MaxPayloadInMB**

The maximum allowed size of the payload, in MB. A payload is the data portion of a record (without metadata). The value in MaxPayloadInMB must be greater than, or equal to, the size of a single record. To estimate the size of a record in MB, divide the size of your dataset by the number of records. To ensure that the records fit within the maximum payload size, we recommend using a slightly larger value. The default value is 6 MB. For cases where the payload might be arbitrarily

large and is transmitted using HTTP chunked encoding, set the value to 0. This feature works only in supported algorithms. Currently, SageMaker built-in algorithms do not support HTTP chunked encoding.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

#### **ModelClientConfig**

Configures the timeout and maximum number of retries for processing a transform job invocation.

Type: [ModelClientConfig \(p. 1489\)](#) object

Required: No

#### **ModelName**

The name of the model associated with the transform job.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\*

Required: No

#### **Tags**

A list of tags associated with the transform job.

Type: Array of [Tag \(p. 1749\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

#### **TransformEndTime**

Indicates when the transform job has been completed, or has stopped or failed. You are billed for the time interval between this time and the value of `TransformStartTime`.

Type: Timestamp

Required: No

#### **TransformInput**

Describes the input source of a transform job and the way the transform job consumes it.

Type: [TransformInput \(p. 1776\)](#) object

Required: No

#### **TransformJobArn**

The Amazon Resource Name (ARN) of the transform job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-zA-Z-]\*:sagemaker:[a-zA-Z0-9-]\*:[0-9]{12}:transform-job/.\*

Required: No

**TransformJobName**

The name of the transform job.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: No

**TransformJobStatus**

The status of the transform job.

Transform job statuses are:

- InProgress - The job is in progress.
- Completed - The job has completed.
- Failed - The transform job has failed. To see the reason for the failure, see the FailureReason field in the response to a `DescribeTransformJob` call.
- Stopping - The transform job is stopping.
- Stopped - The transform job has stopped.

Type: String

Valid Values: InProgress | Completed | Failed | Stopping | Stopped

Required: No

**TransformOutput**

Describes the results of a transform job.

Type: [TransformOutput \(p. 1788\)](#) object

Required: No

**TransformResources**

Describes the resources, including ML instance types and ML instance count, to use for transform job.

Type: [TransformResources \(p. 1790\)](#) object

Required: No

**TransformStartTime**

Indicates when the transform job starts on ML instances. You are billed for the time interval between this time and the value of `TransformEndTime`.

Type: Timestamp

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)

- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TransformJobDefinition

Service: Amazon SageMaker Service

Defines the input needed to run a transform job using the inference specification specified in the algorithm.

## Contents

### BatchStrategy

A string that determines the number of records included in a single mini-batch.

SingleRecord means only one record is used per mini-batch. MultiRecord means a mini-batch is set to contain as many records that can fit within the MaxPayloadInMB limit.

Type: String

Valid Values: MultiRecord | SingleRecord

Required: No

### Environment

The environment variables to set in the Docker container. We support up to 16 key and values entries in the map.

Type: String to string map

Map Entries: Maximum number of 16 items.

Key Length Constraints: Maximum length of 1024.

Key Pattern: [a-zA-Z\_][a-zA-Z0-9\_]{0,1023}

Value Length Constraints: Maximum length of 10240.

Value Pattern: [\S\s]\*

Required: No

### MaxConcurrentTransforms

The maximum number of parallel requests that can be sent to each instance in a transform job. The default value is 1.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

### MaxPayloadInMB

The maximum payload size allowed, in MB. A payload is the data portion of a record (without metadata).

Type: Integer

Valid Range: Minimum value of 0.

Required: No

### **TransformInput**

A description of the input source and the way the transform job consumes it.

Type: [TransformInput \(p. 1776\)](#) object

Required: Yes

### **TransformOutput**

Identifies the Amazon S3 location where you want Amazon SageMaker to save the results from the transform job.

Type: [TransformOutput \(p. 1788\)](#) object

Required: Yes

### **TransformResources**

Identifies the ML compute instances for the transform job.

Type: [TransformResources \(p. 1790\)](#) object

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TransformJobStepMetadata

Service: Amazon SageMaker Service

Metadata for a transform job step.

## Contents

### Arn

The Amazon Resource Name (ARN) of the transform job that was run by this step execution.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:transform-job/.*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TransformJobSummary

Service: Amazon SageMaker Service

Provides a summary of a transform job. Multiple `TransformJobSummary` objects are returned as a list after in response to a [ListTransformJobs \(p. 793\)](#) call.

## Contents

### **CreationTime**

A timestamp that shows when the transform Job was created.

Type: `Timestamp`

Required: Yes

### **FailureReason**

If the transform job failed, the reason it failed.

Type: `String`

Length Constraints: Maximum length of 1024.

Required: No

### **LastModifiedTime**

Indicates when the transform job was last modified.

Type: `Timestamp`

Required: No

### **TransformEndTime**

Indicates when the transform job ends on compute instances. For successful jobs and stopped jobs, this is the exact time recorded after the results are uploaded. For failed jobs, this is when Amazon SageMaker detected that the job failed.

Type: `Timestamp`

Required: No

### **TransformJobArn**

The Amazon Resource Name (ARN) of the transform job.

Type: `String`

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-\]*:sagemaker:[a-z0-9\-\]*:[0-9]{12}:transform-job/.*`

Required: Yes

### **TransformJobName**

The name of the transform job.

Type: `String`

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: Yes

#### **TransformJobStatus**

The status of the transform job.

Type: String

Valid Values: InProgress | Completed | Failed | Stopping | Stopped

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TransformOutput

Service: Amazon SageMaker Service

Describes the results of a transform job.

## Contents

### Accept

The MIME type used to specify the output data. Amazon SageMaker uses the MIME type with each http call to transfer data from the transform job.

Type: String

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: No

### AssembleWith

Defines how to assemble the results of the transform job as a single S3 object. Choose a format that is most convenient to you. To concatenate the results in binary format, specify None. To add a newline character at the end of every transformed record, specify Line.

Type: String

Valid Values: None | Line

Required: No

### KmsKeyId

The AWS Key Management Service (AWS KMS) key that Amazon SageMaker uses to encrypt the model artifacts at rest using Amazon S3 server-side encryption. The KmsKeyId can be any of the following formats:

- Key ID: 1234abcd-12ab-34cd-56ef-1234567890ab
- Key ARN: arn:aws:kms:us-west-2:111122223333:key/1234abcd-12ab-34cd-56ef-1234567890ab
- Alias name: alias/ExampleAlias
- Alias name ARN: arn:aws:kms:us-west-2:111122223333:alias/ExampleAlias

If you don't provide a KMS key ID, Amazon SageMaker uses the default KMS key for Amazon S3 for your role's account. For more information, see [KMS-Managed Encryption Keys](#) in the *Amazon Simple Storage Service Developer Guide*.

The KMS key policy must grant permission to the IAM role that you specify in your [CreateModel](#) request. For more information, see [Using Key Policies in AWS KMS](#) in the *AWS Key Management Service Developer Guide*.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: .\*

Required: No

### S3OutputPath

The Amazon S3 path where you want Amazon SageMaker to store the results of the transform job. For example, s3://bucket-name/key-name-prefix.

For every S3 object used as input for the transform job, batch transform stores the transformed data with an .out suffix in a corresponding subfolder in the location in the output prefix. For example, for the input data stored at s3://bucket-name/input-name-prefix/dataset01/data.csv, batch transform stores the transformed data at s3://bucket-name/output-name-prefix/input-name-prefix/data.csv.out. Batch transform doesn't upload partially processed objects. For an input S3 object that contains multiple records, it creates an .out file only if the transform job succeeds on the entire file. When the input contains multiple S3 objects, the batch transform job processes the listed S3 objects and uploads only the output for successfully processed objects. If any object fails in the transform job batch transform marks the job as failed to prompt investigation.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: ^(https|s3)://([^\/]\*)/?(.\*)\$

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TransformResources

Service: Amazon SageMaker Service

Describes the resources, including ML instance types and ML instance count, to use for transform job.

## Contents

### InstanceCount

The number of ML compute instances to use in the transform job. The default value is 1, and the maximum is 100. For distributed transform jobs, specify a value greater than 1.

Type: Integer

Valid Range: Minimum value of 1.

Required: Yes

### InstanceType

The ML compute instance type for the transform job. If you are using built-in algorithms to transform moderately sized datasets, we recommend using ml.m4.xlarge or ml.m5.large instance types.

Type: String

Valid Values: ml.m4.xlarge | ml.m4.2xlarge | ml.m4.4xlarge | ml.m4.10xlarge | ml.m4.16xlarge | ml.c4.xlarge | ml.c4.2xlarge | ml.c4.4xlarge | ml.c4.8xlarge | ml.p2.xlarge | ml.p2.8xlarge | ml.p2.16xlarge | ml.p3.2xlarge | ml.p3.8xlarge | ml.p3.16xlarge | ml.c5.xlarge | ml.c5.2xlarge | ml.c5.4xlarge | ml.c5.9xlarge | ml.c5.18xlarge | ml.m5.large | ml.m5.xlarge | ml.m5.2xlarge | ml.m5.4xlarge | ml.m5.12xlarge | ml.m5.24xlarge | ml.g4dn.xlarge | ml.g4dn.2xlarge | ml.g4dn.4xlarge | ml.g4dn.8xlarge | ml.g4dn.12xlarge | ml.g4dn.16xlarge

Required: Yes

### VolumeKmsKeyId

The AWS Key Management Service (AWS KMS) key that Amazon SageMaker uses to encrypt model data on the storage volume attached to the ML compute instance(s) that run the batch transform job.

#### Note

Certain Nitro-based instances include local storage, dependent on the instance type. Local storage volumes are encrypted using a hardware module on the instance. You can't request a VolumeKmsKeyId when using an instance type with local storage.

For a list of instance types that support local instance storage, see [Instance Store Volumes](#).

For more information about local instance storage encryption, see [SSD Instance Store Volumes](#).

The VolumeKmsKeyId can be any of the following formats:

- Key ID: 1234abcd-12ab-34cd-56ef-1234567890ab
- Key ARN: arn:aws:kms:us-west-2:111122223333:key/1234abcd-12ab-34cd-56ef-1234567890ab
- Alias name: alias/ExampleAlias
- Alias name ARN: arn:aws:kms:us-west-2:111122223333:alias/ExampleAlias

Type: String

Length Constraints: Maximum length of 2048.

Pattern: .\*

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TransformS3DataSource

Service: Amazon SageMaker Service

Describes the S3 data source.

## Contents

### S3DataType

If you choose `S3Prefix`, `S3Uri` identifies a key name prefix. Amazon SageMaker uses all objects with the specified key name prefix for batch transform.

If you choose `ManifestFile`, `S3Uri` identifies an object that is a manifest file containing a list of object keys that you want Amazon SageMaker to use for batch transform.

The following values are compatible: `ManifestFile`, `S3Prefix`

The following value is not compatible: `AugmentedManifestFile`

Type: String

Valid Values: `ManifestFile` | `S3Prefix` | `AugmentedManifestFile`

Required: Yes

### S3Uri

Depending on the value specified for the `S3DataType`, identifies either a key name prefix or a manifest. For example:

- A key name prefix might look like this: `s3://bucketname/exampleprefix`.
- A manifest might look like this: `s3://bucketname/example.manifest`

The manifest is an S3 object which is a JSON file with the following format:

```
[ {"prefix": "s3://customer_bucket/some/prefix/"},  
  "relative/path/to/custdata-1",  
  "relative/path/custdata-2",  
  ...  
  "relative/path/custdata-N"  
]
```

The preceding JSON matches the following `S3Uris`:

```
s3://customer_bucket/some/prefix/relative/path/to/custdata-1  
s3://customer_bucket/some/prefix/relative/path/custdata-2  
...  
s3://customer_bucket/some/prefix/relative/path/custdata-N
```

The complete set of `S3Uris` in this manifest constitutes the input data for the channel for this datasource. The object that each `S3Uris` points to must be readable by the IAM role that Amazon SageMaker uses to perform tasks on your behalf.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: ^(https|s3)://([^\/]\*)/?(.\*)\$

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## Trial

Service: Amazon SageMaker Service

The properties of a trial as returned by the [Search \(p. 826\)](#) API.

### Contents

#### **CreatedBy**

Who created the trial.

Type: [UserContext \(p. 1822\)](#) object

Required: No

#### **CreationTime**

When the trial was created.

Type: Timestamp

Required: No

#### **DisplayName**

The name of the trial as displayed. If DisplayName isn't specified, TrialName is displayed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,119\}

Required: No

#### **ExperimentName**

The name of the experiment the trial is part of.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,119\}

Required: No

#### **LastModifiedBy**

Information about the user who created or modified an experiment, trial, trial component, lineage group, project, or model card.

Type: [UserContext \(p. 1822\)](#) object

Required: No

#### **LastModifiedTime**

Who last modified the trial.

Type: Timestamp

Required: No

### MetadataProperties

Metadata properties of the tracking entity, trial, or trial component.

Type: [MetadataProperties \(p. 1465\)](#) object

Required: No

### Source

The source of the trial.

Type: [TrialSource \(p. 1812\)](#) object

Required: No

### Tags

The list of tags that are associated with the trial. You can use [Search \(p. 826\)](#) API to search on the tags.

Type: Array of [Tag \(p. 1749\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

### TrialArn

The Amazon Resource Name (ARN) of the trial.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-zA-Z-]*:sagemaker:[a-zA-Z0-9-]*:[0-9]{12}:experiment-trial/.*`

Required: No

### TrialComponentSummaries

A list of the components associated with the trial. For each component, a summary of the component's properties is included.

Type: Array of [TrialComponentSimpleSummary \(p. 1805\)](#) objects

Required: No

### TrialName

The name of the trial.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^[\wZ-\w-]{0,119}`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TrialComponent

Service: Amazon SageMaker Service

The properties of a trial component as returned by the [Search \(p. 826\)](#) API.

## Contents

### **CreatedBy**

Who created the trial component.

Type: [UserContext \(p. 1822\)](#) object

Required: No

### **CreationTime**

When the component was created.

Type: Timestamp

Required: No

### **DisplayName**

The name of the component as displayed. If DisplayName isn't specified, TrialComponentName is displayed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,119\}

Required: No

### **EndTime**

When the component ended.

Type: Timestamp

Required: No

### **InputArtifacts**

The input artifacts of the component.

Type: String to [TrialComponentArtifact \(p. 1801\)](#) object map

Map Entries: Maximum number of 30 items.

Key Length Constraints: Maximum length of 64.

Key Pattern: .\*

Required: No

### **LastModifiedBy**

Information about the user who created or modified an experiment, trial, trial component, lineage group, project, or model card.

Type: [UserContext \(p. 1822\)](#) object

Required: No

#### **LastModifiedTime**

When the component was last modified.

Type: Timestamp

Required: No

#### **LineageGroupArn**

The Amazon Resource Name (ARN) of the lineage group resource.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:lineage-group/.*`

Required: No

#### **MetadataProperties**

Metadata properties of the tracking entity, trial, or trial component.

Type: [MetadataProperties \(p. 1465\)](#) object

Required: No

#### **Metrics**

The metrics for the component.

Type: Array of [TrialComponentMetricSummary \(p. 1802\)](#) objects

Required: No

#### **OutputArtifacts**

The output artifacts of the component.

Type: String to [TrialComponentArtifact \(p. 1801\)](#) object map

Map Entries: Maximum number of 30 items.

Key Length Constraints: Maximum length of 64.

Key Pattern: `.*`

Required: No

#### **Parameters**

The hyperparameters of the component.

Type: String to [TrialComponentParameterValue \(p. 1804\)](#) object map

Map Entries: Maximum number of 150 items.

Key Length Constraints: Maximum length of 256.

Key Pattern: `.*`

Required: No

### Parents

An array of the parents of the component. A parent is a trial the component is associated with and the experiment the trial is part of. A component might not have any parents.

Type: Array of [Parent \(p. 1608\)](#) objects

Required: No

### RunName

The name of the experiment run.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,119\}

Required: No

### Source

The Amazon Resource Name (ARN) and job type of the source of the component.

Type: [TrialComponentSource \(p. 1807\)](#) object

Required: No

### SourceDetail

Details of the source of the component.

Type: [TrialComponentSourceDetail \(p. 1808\)](#) object

Required: No

### StartTime

When the component started.

Type: Timestamp

Required: No

### Status

The status of the trial component.

Type: [TrialComponentStatus \(p. 1809\)](#) object

Required: No

### Tags

The list of tags that are associated with the component. You can use [Search \(p. 826\)](#) API to search on the tags.

Type: Array of [Tag \(p. 1749\)](#) objects

Array Members: Minimum number of 0 items. Maximum number of 50 items.

Required: No

### TrialComponentArn

The Amazon Resource Name (ARN) of the trial component.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-\-]\*:sagemaker:[a-z0-9\-\-]\*:[0-9]{12}:experiment-trial-component/.\*

Required: No

#### TrialComponentName

The name of the trial component.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,119\}

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TrialComponentArtifact

Service: Amazon SageMaker Service

Represents an input or output artifact of a trial component. You specify TrialComponentArtifact as part of the InputArtifacts and OutputArtifacts parameters in the [CreateTrialComponent \(p. 225\)](#) request.

Examples of input artifacts are datasets, algorithms, hyperparameters, source code, and instance types.  
Examples of output artifacts are metrics, snapshots, logs, and images.

## Contents

### MediaType

The media type of the artifact, which indicates the type of data in the artifact file. The media type consists of a *type* and a *subtype* concatenated with a slash (/) character, for example, text/csv, image/jpeg, and s3/uri. The type specifies the category of the media. The subtype specifies the kind of data.

Type: String

Length Constraints: Maximum length of 64.

Pattern: ^[-\w]+/\[-\w+]+\\$

Required: No

### Value

The location of the artifact.

Type: String

Length Constraints: Maximum length of 2048.

Pattern: .\*

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TrialComponentMetricSummary

Service: Amazon SageMaker Service

A summary of the metrics of a trial component.

## Contents

### Avg

The average value of the metric.

Type: Double

Required: No

### Count

The number of samples used to generate the metric.

Type: Integer

Required: No

### Last

The most recent value of the metric.

Type: Double

Required: No

### Max

The maximum value of the metric.

Type: Double

Required: No

### MetricName

The name of the metric.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: .+

Required: No

### Min

The minimum value of the metric.

Type: Double

Required: No

### SourceArn

The Amazon Resource Name (ARN) of the source.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-]\*:sagemaker:[a-z0-9\-]\*:[0-9]{12}:\.\*

Required: No

#### **StdDev**

The standard deviation of the metric.

Type: Double

Required: No

#### **TimeStamp**

When the metric was last updated.

Type: Timestamp

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TrialComponentParameterValue

Service: Amazon SageMaker Service

The value of a hyperparameter. Only one of `NumberValue` or `StringValue` can be specified.

This object is specified in the [CreateTrialComponent \(p. 225\)](#) request.

## Contents

### **NumberValue**

The numeric value of a numeric hyperparameter. If you specify a value for this parameter, you can't specify the `StringValue` parameter.

Type: Double

Required: No

### **StringValue**

The string value of a categorical hyperparameter. If you specify a value for this parameter, you can't specify the `NumberValue` parameter.

Type: String

Length Constraints: Maximum length of 256.

Pattern: .\*

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TrialComponentSimpleSummary

Service: Amazon SageMaker Service

A short summary of a trial component.

## Contents

### **CreatedBy**

Information about the user who created or modified an experiment, trial, trial component, lineage group, project, or model card.

Type: [UserContext \(p. 1822\)](#) object

Required: No

### **CreationTime**

When the component was created.

Type: Timestamp

Required: No

### **TrialComponentArn**

The Amazon Resource Name (ARN) of the trial component.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:experiment-trial-component/.*`

Required: No

### **TrialComponentName**

The name of the trial component.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^ [a-zA-Z0-9] ( -* [a-zA-Z0-9] ) {0,119}`

Required: No

### **TrialComponentSource**

The Amazon Resource Name (ARN) and job type of the source of a trial component.

Type: [TrialComponentSource \(p. 1807\)](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)

- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TrialComponentSource

Service: Amazon SageMaker Service

The Amazon Resource Name (ARN) and job type of the source of a trial component.

## Contents

### SourceArn

The source Amazon Resource Name (ARN).

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-\-]*:sagemaker:[a-z0-9\-\-]*:[0-9]{12}:\.*`

Required: Yes

### SourceType

The source job type.

Type: String

Length Constraints: Maximum length of 128.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TrialComponentSourceDetail

Service: Amazon SageMaker Service

Detailed information about the source of a trial component. Either `ProcessingJob` or `TrainingJob` is returned.

## Contents

### **ProcessingJob**

Information about a processing job that's the source of a trial component.

Type: [ProcessingJob \(p. 1637\)](#) object

Required: No

### **SourceArn**

The Amazon Resource Name (ARN) of the source.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-\-]*:sagemaker:[a-z0-9\-\-]*:[0-9]{12}:\.*`

Required: No

### **TrainingJob**

Information about a training job that's the source of a trial component.

Type: [TrainingJob \(p. 1758\)](#) object

Required: No

### **TransformJob**

Information about a transform job that's the source of a trial component.

Type: [TransformJob \(p. 1778\)](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TrialComponentStatus

Service: Amazon SageMaker Service

The status of the trial component.

## Contents

### Message

If the component failed, a message describing why.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: .\*

Required: No

### PrimaryStatus

The status of the trial component.

Type: String

Valid Values: InProgress | Completed | Failed | Stopping | Stopped

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TrialComponentSummary

Service: Amazon SageMaker Service

A summary of the properties of a trial component. To get all the properties, call the [DescribeTrialComponent \(p. 553\)](#) API and provide the TrialComponentName.

## Contents

### **CreatedBy**

Who created the trial component.

Type: [UserContext \(p. 1822\)](#) object

Required: No

### **CreationTime**

When the component was created.

Type: Timestamp

Required: No

### **DisplayName**

The name of the component as displayed. If DisplayName isn't specified, TrialComponentName is displayed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,119\}

Required: No

### **EndTime**

When the component ended.

Type: Timestamp

Required: No

### **LastModifiedBy**

Who last modified the component.

Type: [UserContext \(p. 1822\)](#) object

Required: No

### **LastModifiedTime**

When the component was last modified.

Type: Timestamp

Required: No

### **StartTime**

When the component started.

Type: Timestamp

Required: No

#### **Status**

The status of the component. States include:

- InProgress
- Completed
- Failed

Type: [TrialComponentStatus \(p. 1809\)](#) object

Required: No

#### **TrialComponentArn**

The Amazon Resource Name (ARN) of the trial component.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-\]*:sagemaker:[a-z0-9\-\-]*:[0-9]{12}:experiment-trial-component/.*`

Required: No

#### **TrialComponentName**

The name of the trial component.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: `^ [a-zA-Z0-9] ( -*[a-zA-Z0-9] ) {0,119}`

Required: No

#### **TrialComponentSource**

The Amazon Resource Name (ARN) and job type of the source of a trial component.

Type: [TrialComponentSource \(p. 1807\)](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## TrialSource

Service: Amazon SageMaker Service

The source of the trial.

### Contents

#### SourceArn

The Amazon Resource Name (ARN) of the source.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-\-]*:sagemaker:[a-z0-9\-\-]*:[0-9]{12}:\.*`

Required: Yes

#### SourceType

The source job type.

Type: String

Length Constraints: Maximum length of 128.

Required: No

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TrialSummary

Service: Amazon SageMaker Service

A summary of the properties of a trial. To get the complete set of properties, call the [DescribeTrial \(p. 550\)](#) API and provide the TrialName.

## Contents

### **CreationTime**

When the trial was created.

Type: Timestamp

Required: No

### **DisplayName**

The name of the trial as displayed. If DisplayName isn't specified, TrialName is displayed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,119\}

Required: No

### **LastModifiedTime**

When the trial was last modified.

Type: Timestamp

Required: No

### **TrialArn**

The Amazon Resource Name (ARN) of the trial.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-zA-Z-]\*:sagemaker:[a-zA-Z0-9-]\*:[0-9]\{12\}:experiment-trial/.\*

Required: No

### **TrialName**

The name of the trial.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 120.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,119\}

Required: No

### **TrialSource**

The source of the trial.

Type: [TrialSource \(p. 1812\)](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TuningJobCompletionCriteria

Service: Amazon SageMaker Service

The job completion criteria.

## Contents

### TargetObjectiveMetricValue

The value of the objective metric.

Type: Float

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TuningJobStepMetaData

Service: Amazon SageMaker Service

Metadata for a tuning step.

## Contents

### Arn

The Amazon Resource Name (ARN) of the tuning job that was run by this step execution.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-]*:sagemaker:[a-z0-9\-]*:[0-9]{12}:hyper-parameter-tuning-job/.*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# UiConfig

Service: Amazon SageMaker Service

Provided configuration information for the worker UI for a labeling job. Provide either HumanTaskUiArn or UiTemplateS3Uri.

For named entity recognition, 3D point cloud and video frame labeling jobs, use HumanTaskUiArn.

For all other Ground Truth built-in task types and custom task types, use UiTemplateS3Uri to specify the location of a worker task template in Amazon S3.

## Contents

### HumanTaskUiArn

The ARN of the worker task template used to render the worker UI and tools for labeling job tasks.

Use this parameter when you are creating a labeling job for named entity recognition, 3D point cloud and video frame labeling jobs. Use your labeling job task type to select one of the following ARNs and use it with this parameter when you create a labeling job. Replace aws-region with the AWS Region you are creating your labeling job in. For example, replace aws-region with us-west-1 if you create a labeling job in US West (N. California).

#### Named Entity Recognition

Use the following HumanTaskUiArn for named entity recognition labeling jobs:

arn:aws:sagemaker:aws-region:394669845002:human-task-ui/  
NamedEntityRecognition

#### 3D Point Cloud HumanTaskUiArns

Use this HumanTaskUiArn for 3D point cloud object detection and 3D point cloud object detection adjustment labeling jobs.

- arn:aws:sagemaker:aws-region:394669845002:human-task-ui/  
PointCloudObjectDetection

Use this HumanTaskUiArn for 3D point cloud object tracking and 3D point cloud object tracking adjustment labeling jobs.

- arn:aws:sagemaker:aws-region:394669845002:human-task-ui/  
PointCloudObjectTracking

Use this HumanTaskUiArn for 3D point cloud semantic segmentation and 3D point cloud semantic segmentation adjustment labeling jobs.

- arn:aws:sagemaker:aws-region:394669845002:human-task-ui/  
PointCloudSemanticSegmentation

#### Video Frame HumanTaskUiArns

Use this HumanTaskUiArn for video frame object detection and video frame object detection adjustment labeling jobs.

- arn:aws:sagemaker:region:394669845002:human-task-ui/VideoObjectDetection

Use this HumanTaskUiArn for video frame object tracking and video frame object tracking adjustment labeling jobs.

- arn:aws:sagemaker:aws-region:394669845002:human-task-ui/  
VideoObjectTracking

Type: String

Length Constraints: Maximum length of 1024.

Pattern: arn:aws[a-z\-\-]\*:sagemaker:[a-z0-9\-\-]\*:[0-9]{12}:human-task-ui/.\*

Required: No

#### **UiTemplateS3Uri**

The Amazon S3 bucket location of the UI template, or worker task template. This is the template used to render the worker UI and tools for labeling job tasks. For more information about the contents of a UI template, see [Creating Your Custom Labeling Task Template](#).

Type: String

Length Constraints: Maximum length of 1024.

Pattern: ^(https|s3)://([^\/\r\n]+)?(.\*)\$

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## UiTemplate

Service: Amazon SageMaker Service

The Liquid template for the worker user interface.

### Contents

#### Content

The content of the Liquid template for the worker user interface.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128000.

Pattern: [\S\s]+

Required: Yes

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## UiTemplateInfo

Service: Amazon SageMaker Service

Container for user interface template information.

### Contents

#### ContentSha256

The SHA-256 digest of the contents of the template.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128000.

Required: No

#### Url

The URL for the user interface template.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Required: No

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## USD

Service: Amazon SageMaker Service

Represents an amount of money in United States dollars.

## Contents

### Cents

The fractional portion, in cents, of the amount.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 99.

Required: No

### Dollars

The whole number of dollars in the amount.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 2.

Required: No

### TenthFractionsOfACent

Fractions of a cent, in tenths.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 9.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## UserContext

Service: Amazon SageMaker Service

Information about the user who created or modified an experiment, trial, trial component, lineage group, project, or model card.

### Contents

#### DomainId

The domain associated with the user.

Type: String

Required: No

#### UserProfileArn

The Amazon Resource Name (ARN) of the user's profile.

Type: String

Required: No

#### UserProfileName

The name of the user's profile.

Type: String

Required: No

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# UserProfileDetails

Service: Amazon SageMaker Service

The user profile details.

## Contents

### **CreationTime**

The creation time.

Type: Timestamp

Required: No

### **DomainId**

The domain ID.

Type: String

Length Constraints: Maximum length of 63.

Required: No

### **LastModifiedTime**

The last modified time.

Type: Timestamp

Required: No

### **Status**

The status.

Type: String

Valid Values: Deleting | Failed | InService | Pending | Updating | Update\_Failed | Delete\_Failed

Required: No

### **UserProfileName**

The user profile name.

Type: String

Length Constraints: Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,62\}

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)

- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# UserSettings

Service: Amazon SageMaker Service

A collection of settings that apply to users of Amazon SageMaker Studio. These settings are specified when the `CreateUserProfile` API is called, and as `DefaultUserSettings` when the `CreateDomain` API is called.

`SecurityGroups` is aggregated when specified in both calls. For all other settings in `UserSettings`, the values specified in `CreateUserProfile` take precedence over those specified in `CreateDomain`.

## Contents

### **CanvasAppSettings**

The Canvas app settings.

Type: [CanvasAppSettings \(p. 1192\)](#) object

Required: No

### **ExecutionRole**

The execution role for the user.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: ^arn:aws[a-zA-Z-]\*:iam::\d{12}:role/[a-zA-Z0-9+=,.@/-/\_]+\$

Required: No

### **JupyterServerAppSettings**

The Jupyter server's app settings.

Type: [JupyterServerAppSettings \(p. 1435\)](#) object

Required: No

### **KernelGatewayAppSettings**

The kernel gateway app settings.

Type: [KernelGatewayAppSettings \(p. 1436\)](#) object

Required: No

### **RSessionAppSettings**

A collection of settings that configure the RSessionGateway app.

Type: [RSessionAppSettings \(p. 1711\)](#) object

Required: No

### **RStudioServerProAppSettings**

A collection of settings that configure user interaction with the RStudioServerPro app.

Type: [RStudioServerProAppSettings \(p. 1712\)](#) object

Required: No

### SecurityGroups

The security groups for the Amazon Virtual Private Cloud (VPC) that Studio uses for communication.

Optional when the `CreateDomain.AppNetworkAccessType` parameter is set to `PublicInternetOnly`.

Required when the `CreateDomain.AppNetworkAccessType` parameter is set to `VpcOnly`.

Amazon SageMaker adds a security group to allow NFS traffic from SageMaker Studio. Therefore, the number of security groups that you can specify is one less than the maximum number shown.

Type: Array of strings

Array Members: Maximum number of 5 items.

Length Constraints: Maximum length of 32.

Pattern: [-0-9a-zA-Z]+

Required: No

### SharingSettings

Specifies options for sharing SageMaker Studio notebooks.

Type: [SharingSettings \(p. 1734\)](#) object

Required: No

### TensorBoardAppSettings

The TensorBoard app settings.

Type: [TensorBoardAppSettings \(p. 1752\)](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# VariantProperty

Service: Amazon SageMaker Service

Specifies a production variant property type for an Endpoint.

If you are updating an endpoint with the [UpdateEndpoint:RetainAllVariantProperties \(p. 925\)](#) option set to true, the VariantProperty objects listed in [UpdateEndpoint:ExcludeRetainedVariantProperties \(p. 925\)](#) override the existing variant properties of the endpoint.

## Contents

### Variant.PropertyType

The type of variant property. The supported values are:

- DesiredInstanceCount: Overrides the existing variant instance counts using the [ProductionVariant:InitialInstanceCount \(p. 1651\)](#) values in the [CreateEndpointConfig:ProductionVariants \(p. 88\)](#).
- DesiredWeight: Overrides the existing variant weights using the [ProductionVariant:InitialVariantWeight \(p. 1651\)](#) values in the [CreateEndpointConfig:ProductionVariants \(p. 88\)](#).
- DataCaptureConfig: (Not currently supported.)

Type: String

Valid Values: DesiredInstanceCount | DesiredWeight | DataCaptureConfig

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## Vertex

Service: Amazon SageMaker Service

A lineage entity connected to the starting entity(ies).

## Contents

### Arn

The Amazon Resource Name (ARN) of the lineage entity resource.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-\-]\*:sagemaker:[a-z0-9\-\-]\*:[0-9]{12}:(experiment|experiment-trial-component|artifact|action|context)/.\*

Required: No

### LineageType

The type of resource of the lineage entity.

Type: String

Valid Values: TrialComponent | Artifact | Context | Action

Required: No

### Type

The type of the lineage entity resource. For example: DataSet, Model, Endpoint, etc...

Type: String

Length Constraints: Maximum length of 40.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## VpcConfig

Service: Amazon SageMaker Service

Specifies a VPC that your training jobs and hosted models have access to. Control access to and from your training and model containers by configuring the VPC. For more information, see [Protect Endpoints by Using an Amazon Virtual Private Cloud](#) and [Protect Training Jobs by Using an Amazon Virtual Private Cloud](#).

## Contents

### SecurityGroupIds

The VPC security group IDs, in the form sg-xxxxxxxx. Specify the security groups for the VPC that is specified in the Subnets field.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 5 items.

Length Constraints: Maximum length of 32.

Pattern: [-0-9a-zA-Z]+

Required: Yes

### Subnets

The ID of the subnets in the VPC to which you want to connect your training job or model. For information about the availability of specific instance types, see [Supported Instance Types and Availability Zones](#).

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 16 items.

Length Constraints: Maximum length of 32.

Pattern: [-0-9a-zA-Z]+

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## WarmPoolStatus

Service: Amazon SageMaker Service

Status and billing information about the warm pool.

### Contents

#### **ResourceRetainedBillableTimeInSeconds**

The billable time in seconds used by the warm pool. Billable time refers to the absolute wall-clock time.

Multiply `ResourceRetainedBillableTimeInSeconds` by the number of instances (`InstanceCount`) in your training cluster to get the total compute time SageMaker bills you if you run warm pool training. The formula is as follows: `ResourceRetainedBillableTimeInSeconds * InstanceCount`.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

#### **ReusedByJob**

The name of the matching training job that reused the warm pool.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])\{0,62\}`

Required: No

#### **Status**

The status of the warm pool.

- `InUse`: The warm pool is in use for the training job.
- `Available`: The warm pool is available to reuse for a matching training job.
- `Reused`: The warm pool moved to a matching training job for reuse.
- `Terminated`: The warm pool is no longer available. Warm pools are unavailable if they are terminated by a user, terminated for a patch update, or terminated for exceeding the specified `KeepAlivePeriodInSeconds`.

Type: String

Valid Values: `Available` | `Terminated` | `Reused` | `InUse`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)

- [AWS SDK for Ruby V3](#)

# Workforce

Service: Amazon SageMaker Service

A single private workforce, which is automatically created when you create your first private work team. You can create one private work force in each AWS Region. By default, any workforce-related API operation used in a specific region will apply to the workforce created in that region. To learn how to create a private workforce, see [Create a Private Workforce](#).

## Contents

### CognitoConfig

The configuration of an Amazon Cognito workforce. A single Cognito workforce is created using and corresponds to a single [Amazon Cognito user pool](#).

Type: [CognitoConfig \(p. 1219\)](#) object

Required: No

### CreateDate

The date that the workforce is created.

Type: Timestamp

Required: No

### FailureReason

The reason your workforce failed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: .+

Required: No

### LastUpdatedDate

The most recent date that [UpdateWorkforce \(p. 989\)](#) was used to successfully add one or more IP address ranges ([CIDRs](#)) to a private workforce's allow list.

Type: Timestamp

Required: No

### OidcConfig

The configuration of an OIDC Identity Provider (IdP) private workforce.

Type: [OidcConfigForResponse \(p. 1592\)](#) object

Required: No

### SourcelpConfig

A list of one to ten IP address ranges ([CIDRs](#)) to be added to the workforce allow list. By default, a workforce isn't restricted to specific IP addresses.

Type: [SourcelpConfig \(p. 1738\)](#) object

Required: No

## Status

The status of your workforce.

Type: String

Valid Values: Initializing | Updating | Deleting | Failed | Active

Required: No

## SubDomain

The subdomain for your OIDC Identity Provider.

Type: String

Required: No

## WorkforceArn

The Amazon Resource Name (ARN) of the private workforce.

Type: String

Length Constraints: Maximum length of 256.

Pattern: arn:aws[a-z\-\-]\*:sagemaker:[a-z0-9\-\-]\*:[0-9]{12}:workforce/.\*

Required: Yes

## WorkforceName

The name of the private workforce.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9]([a-zA-Z0-9\-\-])\{0,62\}\$

Required: Yes

## WorkforceVpcConfig

The configuration of a VPC workforce.

Type: [WorkforceVpcConfigResponse \(p. 1835\)](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# WorkforceVpcConfigRequest

Service: Amazon SageMaker Service

The VPC object you use to create or update a workforce.

## Contents

### SecurityGroupIds

The VPC security group IDs, in the form sg-xxxxxxxx. The security groups must be for the same VPC as specified in the subnet.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 5 items.

Length Constraints: Maximum length of 32.

Pattern: ^sg-[0-9a-z]\*\$

Required: No

### Subnets

The ID of the subnets in the VPC that you want to connect.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 16 items.

Length Constraints: Maximum length of 32.

Pattern: ^subnet-[0-9a-z]\*\$

Required: No

### VpcId

The ID of the VPC that the workforce uses for communication.

Type: String

Length Constraints: Maximum length of 32.

Pattern: ^vpc-[0-9a-z]\*\$

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# WorkforceVpcConfigResponse

Service: Amazon SageMaker Service

A VpcConfig object that specifies the VPC that you want your workforce to connect to.

## Contents

### SecurityGroupIds

The VPC security group IDs, in the form sg-xxxxxxxx. The security groups must be for the same VPC as specified in the subnet.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 5 items.

Length Constraints: Maximum length of 32.

Pattern: ^sg-[0-9a-z]\*\$

Required: Yes

### Subnets

The ID of the subnets in the VPC that you want to connect.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 16 items.

Length Constraints: Maximum length of 32.

Pattern: ^subnet-[0-9a-z]\*\$

Required: Yes

### VpcEndpointId

The IDs for the VPC service endpoints of your VPC workforce when it is created and updated.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: ^vpce-[0-9a-z]\*\$

Required: No

### VpcId

The ID of the VPC that the workforce uses for communication.

Type: String

Length Constraints: Maximum length of 32.

Pattern: ^vpc-[0-9a-z]\*\$

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# Workteam

Service: Amazon SageMaker Service

Provides details about a labeling work team.

## Contents

### **CreateDate**

The date and time that the work team was created (timestamp).

Type: Timestamp

Required: No

### **Description**

A description of the work team.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 200.

Pattern: .+

Required: Yes

### **LastUpdatedDate**

The date and time that the work team was last updated (timestamp).

Type: Timestamp

Required: No

### **MemberDefinitions**

A list of MemberDefinition objects that contains objects that identify the workers that make up the work team.

Workforces can be created using Amazon Cognito or your own OIDC Identity Provider (IdP). For private workforces created using Amazon Cognito use CognitoMemberDefinition. For workforces created using your own OIDC identity provider (IdP) use OidcMemberDefinition.

Type: Array of [MemberDefinition \(p. 1464\)](#) objects

Array Members: Minimum number of 1 item. Maximum number of 10 items.

Required: Yes

### **NotificationConfiguration**

Configures SNS notifications of available or expiring work items for work teams.

Type: [NotificationConfiguration \(p. 1586\)](#) object

Required: No

### **ProductListingIds**

The Amazon Marketplace identifier for a vendor's work team.

Type: Array of strings

Required: No

**SubDomain**

The URI of the labeling job's user interface. Workers open this URI to start labeling your data objects.

Type: String

Required: No

**WorkforceArn**

The Amazon Resource Name (ARN) of the workforce.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-\]*:sagemaker:[a-z0-9\-\]*:[0-9]{12}:workforce/.*`

Required: No

**WorkteamArn**

The Amazon Resource Name (ARN) that identifies the work team.

Type: String

Length Constraints: Maximum length of 256.

Pattern: `arn:aws[a-z\-\]*:sagemaker:[a-z0-9\-\]*:[0-9]{12}:workteam/.*`

Required: Yes

**WorkteamName**

The name of the work team.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: `^[a-zA-Z0-9](-*[a-zA-Z0-9])\{0,62\}`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# Amazon SageMaker Runtime

The following data types are supported by Amazon SageMaker Runtime:

## Amazon Sagemaker Edge Manager

The following data types are supported by Amazon Sagemaker Edge Manager:

- [Checksum \(p. 1840\)](#)
- [Definition \(p. 1841\)](#)
- [DeploymentModel \(p. 1842\)](#)
- [DeploymentResult \(p. 1844\)](#)
- [EdgeDeployment \(p. 1846\)](#)
- [EdgeMetric \(p. 1847\)](#)
- [Model \(p. 1848\)](#)

## Checksum

Service: Amazon Sagemaker Edge Manager

Information about the checksum of a model deployed on a device.

## Contents

### Sum

The checksum of the model.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\*\$

Required: No

### Type

The type of the checksum.

Type: String

Valid Values: SHA1

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## Definition

Service: Amazon Sagemaker Edge Manager

Information about deployment details based on the deployment type.

## Contents

### Checksum

The checksum information of the model.

Type: [Checksum \(p. 1840\)](#) object

Required: No

### ModelHandle

The unique model handle.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\*\$

Required: No

### S3Url

The absolute S3 location of the model.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: ^s3://([^\?]+)?(.\*\$)

Required: No

### State

The desired state of the model.

Type: String

Valid Values: DEPLOY | UNDEPLOY

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DeploymentModel

Service: Amazon Sagemaker Edge Manager

Information about a model deployed on an edge device that is registered with SageMaker Edge Manager.

## Contents

### DesiredState

The desired state of the model.

Type: String

Valid Values: DEPLOY | UNDEPLOY

Required: No

### ModelHandle

The name by which the device refers to the model.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\*\$

Required: No

### ModelName

The name of the model.

Type: String

Length Constraints: Minimum length of 4. Maximum length of 255.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\*\$

Required: No

### ModelVersion

The version of the model.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: [a-zA-Z0-9\ \\_\.\ ]+

Required: No

### RollbackFailureReason

Returns the error message if there is a rollback.

Type: String

Required: No

### State

Returns the current state of the model.

Type: String

Valid Values: DEPLOY | UNDEPLOY

Required: No

**Status**

Returns the deployment status of the model.

Type: String

Valid Values: SUCCESS | FAIL

Required: No

**StatusReason**

Returns the error message for the deployment status result.

Type: String

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# DeploymentResult

Service: Amazon Sagemaker Edge Manager

Information about the result of a deployment on an edge device that is registered with SageMaker Edge Manager.

## Contents

### DeploymentEndTime

The timestamp of when the deployment was ended, and the agent got the deployment results.

Type: Timestamp

Required: No

### DeploymentModels

Returns a list of models deployed on the agent.

Type: Array of [DeploymentModel \(p. 1842\)](#) objects

Required: No

### DeploymentName

The name and unique ID of the deployment.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\*\$

Required: No

### DeploymentStartTime

The timestamp of when the deployment was started on the agent.

Type: Timestamp

Required: No

### DeploymentStatus

Returns the bucket error code.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\*\$

Required: No

### DeploymentStatusMessage

Returns the detailed error message.

Type: String

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# EdgeDeployment

Service: Amazon Sagemaker Edge Manager

Information about a deployment on an edge device that is registered with SageMaker Edge Manager.

## Contents

### Definitions

Returns a list of Definition objects.

Type: Array of [Definition \(p. 1841\)](#) objects

Required: No

### DeploymentName

The name and unique ID of the deployment.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 63.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\*\$

Required: No

### FailureHandlingPolicy

Determines whether to rollback to previous configuration if deployment fails.

Type: String

Valid Values: ROLLBACK\_ON\_FAILURE | DO\_NOTHING

Required: No

### Type

The type of the deployment.

Type: String

Valid Values: Model

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# EdgeMetric

Service: Amazon Sagemaker Edge Manager

Information required for edge device metrics.

## Contents

### Dimension

The dimension of metrics published.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1000.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9\ ])\*\$

Required: No

### MetricName

Returns the name of the metric.

Type: String

Length Constraints: Minimum length of 4. Maximum length of 100.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\*\$

Required: No

### Timestamp

Timestamp of when the metric was requested.

Type: Timestamp

Required: No

### Value

Returns the value of the metric.

Type: Double

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# Model

Service: Amazon Sagemaker Edge Manager

Information about a model deployed on an edge device that is registered with SageMaker Edge Manager.

## Contents

### LatestInference

The timestamp of the last inference that was made.

Type: Timestamp

Required: No

### LatestSampleTime

The timestamp of the last data sample taken.

Type: Timestamp

Required: No

### ModelMetrics

Information required for model metrics.

Type: Array of [EdgeMetric \(p. 1847\)](#) objects

Required: No

### ModelName

The name of the model.

Type: String

Length Constraints: Minimum length of 4. Maximum length of 255.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\*\$

Required: No

### ModelVersion

The version of the model.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: [a-zA-Z0-9\ \\_\.\ ]+

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## Amazon SageMaker Feature Store Runtime

The following data types are supported by Amazon SageMaker Feature Store Runtime:

- [BatchGetRecordError \(p. 1850\)](#)
- [BatchGetRecordIdentifier \(p. 1852\)](#)
- [BatchGetRecordResultDetail \(p. 1853\)](#)
- [FeatureValue \(p. 1854\)](#)

## BatchGetRecordError

Service: Amazon SageMaker Feature Store Runtime

The error that has occurred when attempting to retrieve a batch of Records.

### Contents

#### **ErrorCode**

The error code of an error that has occurred when attempting to retrieve a batch of Records. For more information on errors, see [Errors](#).

Type: String

Length Constraints: Maximum length of 358400.

Pattern: .\*

Required: Yes

#### **ErrorMessage**

The error message of an error that has occurred when attempting to retrieve a record in the batch.

Type: String

Length Constraints: Maximum length of 2048.

Required: Yes

#### **FeatureGroupName**

The name of the feature group that the record belongs to.

Type: String

Length Constraints: Maximum length of 358400.

Pattern: .\*

Required: Yes

#### **RecordIdentifierValueAsString**

The value for the RecordIdentifier in string format of a Record from a FeatureGroup that is causing an error when attempting to be retrieved.

Type: String

Length Constraints: Maximum length of 358400.

Pattern: .\*

Required: Yes

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# BatchGetRecordIdentifier

Service: Amazon SageMaker Feature Store Runtime

The identifier that identifies the batch of Records you are retrieving in a batch.

## Contents

### FeatureGroupName

A FeatureGroupName containing Records you are retrieving in a batch.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: ^[a-zA-Z0-9](-\*[a-zA-Z0-9])\{0,63\}

Required: Yes

### FeatureNames

List of names of Features to be retrieved. If not specified, the latest value for all the Features are returned.

Type: Array of strings

Array Members: Minimum number of 1 item.

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: ^[a-zA-Z0-9]([-\_]\*[a-zA-Z0-9])\{0,63\}

Required: No

### RecordIdentifiersValueAsString

The value for a list of record identifiers in string format.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Length Constraints: Maximum length of 358400.

Pattern: .\*

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## BatchGetRecordResultDetail

Service: Amazon SageMaker Feature Store Runtime

The output of Records that have been retrieved in a batch.

### Contents

#### FeatureGroupName

The FeatureGroupName containing Records you retrieved in a batch.

Type: String

Length Constraints: Maximum length of 358400.

Pattern: .\*

Required: Yes

#### Record

The Record retrieved.

Type: Array of [FeatureValue](#) (p. 1854) objects

Array Members: Minimum number of 1 item.

Required: Yes

#### RecordIdentifierValueAsString

The value of the record identifier in string format.

Type: String

Length Constraints: Maximum length of 358400.

Pattern: .\*

Required: Yes

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## FeatureValue

Service: Amazon SageMaker Feature Store Runtime

The value associated with a feature.

### Contents

#### FeatureName

The name of a feature that a feature value corresponds to.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: ^[a-zA-Z0-9]([-\_]\*[a-zA-Z0-9])\{0,63\}

Required: Yes

#### ValueAsString

The value associated with a feature, in string format. Note that features types can be String, Integral, or Fractional. This value represents all three types as a string.

Type: String

Length Constraints: Maximum length of 358400.

Pattern: .\*

Required: Yes

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## Amazon SageMaker geospatial capabilities

The following data types are supported by Amazon SageMaker geospatial capabilities:

- [AreaOfInterest \(p. 1857\)](#)
- [AreaOfInterestGeometry \(p. 1858\)](#)
- [AssetValue \(p. 1859\)](#)
- [BandMathConfigInput \(p. 1860\)](#)
- [CloudMaskingConfigInput \(p. 1861\)](#)
- [CloudRemovalConfigInput \(p. 1862\)](#)
- [CustomIndicesInput \(p. 1863\)](#)
- [EarthObservationJobErrorDetails \(p. 1864\)](#)

- [EoCloudCoverInput \(p. 1865\)](#)
- [EojDataSourceConfigInput \(p. 1866\)](#)
- [ExportErrorDetails \(p. 1867\)](#)
- [ExportErrorDetailsOutput \(p. 1868\)](#)
- [ExportS3DataInput \(p. 1869\)](#)
- [ExportVectorEnrichmentJobOutputConfig \(p. 1870\)](#)
- [Filter \(p. 1871\)](#)
- [Geometry \(p. 1872\)](#)
- [GeoMosaicConfigInput \(p. 1873\)](#)
- [InputConfigInput \(p. 1874\)](#)
- [InputConfigOutput \(p. 1875\)](#)
- [ItemSource \(p. 1876\)](#)
- [JobConfigInput \(p. 1877\)](#)
- [LandCoverSegmentationConfigInput \(p. 1879\)](#)
- [LandsatCloudCoverLandInput \(p. 1880\)](#)
- [ListEarthObservationJobOutputConfig \(p. 1881\)](#)
- [ListVectorEnrichmentJobOutputConfig \(p. 1883\)](#)
- [MapMatchingConfig \(p. 1885\)](#)
- [MultiPolygonGeometryInput \(p. 1886\)](#)
- [Operation \(p. 1887\)](#)
- [OutputBand \(p. 1888\)](#)
- [OutputConfigInput \(p. 1889\)](#)
- [OutputResolutionResamplingInput \(p. 1890\)](#)
- [OutputResolutionStackInput \(p. 1891\)](#)
- [PlatformInput \(p. 1892\)](#)
- [PolygonGeometryInput \(p. 1893\)](#)
- [Properties \(p. 1894\)](#)
- [Property \(p. 1895\)](#)
- [PropertyFilter \(p. 1896\)](#)
- [PropertyFilters \(p. 1897\)](#)
- [RasterDataCollectionMetadata \(p. 1898\)](#)
- [RasterDataCollectionQueryInput \(p. 1900\)](#)
- [RasterDataCollectionQueryOutput \(p. 1901\)](#)
- [RasterDataCollectionQueryWithBandFilterInput \(p. 1902\)](#)
- [ResamplingConfigInput \(p. 1903\)](#)
- [ReverseGeocodingConfig \(p. 1904\)](#)
- [S3DataInput \(p. 1905\)](#)
- [StackConfigInput \(p. 1906\)](#)
- [TemporalStatisticsConfigInput \(p. 1907\)](#)
- [TimeRangeFilterInput \(p. 1908\)](#)
- [UserDefined \(p. 1909\)](#)
- [VectorEnrichmentJobConfig \(p. 1910\)](#)
- [VectorEnrichmentJobDataSourceConfigInput \(p. 1911\)](#)
- [VectorEnrichmentJobErrorDetails \(p. 1912\)](#)
- [VectorEnrichmentJobExportErrorDetails \(p. 1913\)](#)
- [VectorEnrichmentJobInputConfig \(p. 1914\)](#)

- [VectorEnrichmentJobS3Data \(p. 1915\)](#)
- [ViewOffNadirInput \(p. 1916\)](#)
- [ViewSunAzimuthInput \(p. 1917\)](#)
- [ViewSunElevationInput \(p. 1918\)](#)
- [ZonalStatisticsConfigInput \(p. 1919\)](#)

## AreaOfInterest

Service: Amazon SageMaker geospatial capabilities

### Contents

#### AreaOfInterestGeometry

Type: [AreaOfInterestGeometry \(p. 1858\)](#) object

Required: No

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# AreaOfInterestGeometry

Service: Amazon SageMaker geospatial capabilities

## Contents

### **MultiPolygonGeometry**

Type: [MultiPolygonGeometryInput \(p. 1886\)](#) object

Required: No

### **PolygonGeometry**

Type: [PolygonGeometryInput \(p. 1893\)](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## AssetValue

Service: Amazon SageMaker geospatial capabilities

### Contents

#### **Href**

Type: String

Required: No

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# BandMathConfigInput

Service: Amazon SageMaker geospatial capabilities

## Contents

### CustomIndices

Type: [CustomIndicesInput \(p. 1863\)](#) object

Required: No

### PredefinedIndices

Type: Array of strings

Array Members: Minimum number of 1 item.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# CloudMaskingConfigInput

Service: Amazon SageMaker geospatial capabilities

## Contents

The members of this structure are context-dependent.

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# CloudRemovalConfigInput

Service: Amazon SageMaker geospatial capabilities

## Contents

### **AlgorithmName**

The name of the algorithm used for cloud removal.

Type: String

Valid Values: INTERPOLATION

Required: No

### **InterpolationValue**

The interpolation value you provide for cloud removal.

Type: String

Required: No

### **TargetBands**

Type: Array of strings

Array Members: Minimum number of 1 item.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## CustomIndicesInput

Service: Amazon SageMaker geospatial capabilities

### Contents

#### Operations

Type: Array of [Operation \(p. 1887\)](#) objects

Array Members: Minimum number of 1 item.

Required: No

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# EarthObservationJobErrorDetails

Service: Amazon SageMaker geospatial capabilities

The structure representing the errors in an EarthObservationJob.

## Contents

### **Message**

Type: String

Required: No

### **Type**

Type: String

Valid Values: CLIENT\_ERROR | SERVER\_ERROR

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## EoCloudCoverInput

Service: Amazon SageMaker geospatial capabilities

### Contents

#### **LowerBound**

Type: Float

Required: Yes

#### **UpperBound**

Type: Float

Required: Yes

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# EojDataSourceConfigInput

Service: Amazon SageMaker geospatial capabilities

## Contents

### S3Data

Type: [S3DataInput \(p. 1905\)](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## ExportErrorDetails

Service: Amazon SageMaker geospatial capabilities

The structure for returning the export error details in a GetEarthObservationJob.

### Contents

#### ExportResults

Type: [ExportErrorDetailsOutput \(p. 1868\)](#) object

Required: No

#### ExportSourceImages

Type: [ExportErrorDetailsOutput \(p. 1868\)](#) object

Required: No

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ExportErrorDetailsOutput

Service: Amazon SageMaker geospatial capabilities

## Contents

### Message

Type: String

Required: No

### Type

Type: String

Valid Values: CLIENT\_ERROR | SERVER\_ERROR

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## ExportS3DataInput

Service: Amazon SageMaker geospatial capabilities

### Contents

#### KmsKeyId

The Amazon Key Management Service (KMS) key ID for server-side encryption.

Type: String

Required: No

#### S3Uri

The URL to the Amazon S3 data input.

Type: String

Required: Yes

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ExportVectorEnrichmentJobOutputConfig

Service: Amazon SageMaker geospatial capabilities

An object containing information about the output file.

## Contents

### S3Data

Type: [VectorEnrichmentJobS3Data \(p. 1915\)](#) object

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## Filter

Service: Amazon SageMaker geospatial capabilities

The structure representing the filters supported by a RasterDataCollection.

### Contents

#### Maximum

The maximum value of the filter.

Type: Float

Required: No

#### Minimum

The minimum value of the filter.

Type: Float

Required: No

#### Name

The name of the filter.

Type: String

Required: Yes

#### Type

The type of the filter being used.

Type: String

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# Geometry

Service: Amazon SageMaker geospatial capabilities

## Contents

### Coordinates

Type: Array of arrays of arrays of doubles

Array Members: Minimum number of 1 item.

Array Members: Minimum number of 4 items.

Array Members: Fixed number of 2 items.

Required: Yes

### Type

Type: String

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# GeoMosaicConfigInput

Service: Amazon SageMaker geospatial capabilities

Input configuration information for the geomosaic.

## Contents

### AlgorithmName

The name of the algorithm being used for geomosaic.

Type: String

Valid Values: NEAR | BILINEAR | CUBIC | CUBICSPLINE | LANCZOS | AVERAGE | RMS | MODE | MAX | MIN | MED | Q1 | Q3 | SUM

Required: No

### TargetBands

The target bands for geomosaic.

Type: Array of strings

Array Members: Minimum number of 1 item.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# InputConfigInput

Service: Amazon SageMaker geospatial capabilities

Input configuration information.

## Contents

### DataSourceConfig

The location of the input data.>

Type: [EojDataSourceConfigInput \(p. 1866\)](#) object

Required: No

### PreviousEarthObservationJobArn

The Amazon Resource Name (ARN) of the previous Earth Observation job.

Type: String

Required: No

### RasterDataCollectionQuery

Type: [RasterDataCollectionQueryInput \(p. 1900\)](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# InputConfigOutput

Service: Amazon SageMaker geospatial capabilities

The InputConfig for an EarthObservationJob response.

## Contents

### DataSourceConfig

The location of the input data.

Type: [EojDataSourceConfigInput \(p. 1866\)](#) object

Required: No

### PreviousEarthObservationJobArn

The Amazon Resource Name (ARN) of the previous Earth Observation job.

Type: String

Required: No

### RasterDataCollectionQuery

Type: [RasterDataCollectionQueryOutput \(p. 1901\)](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## ItemSource

Service: Amazon SageMaker geospatial capabilities

Structure representing the items in the response for SearchRasterDataCollection.

## Contents

### Assets

Type: String to [AssetValue \(p. 1859\)](#) object map

Required: No

### DateTime

Type: Timestamp

Required: Yes

### Geometry

Type: [Geometry \(p. 1872\)](#) object

Required: Yes

### Id

A unique Id for the source item.

Type: String

Required: Yes

### Properties

Type: [Properties \(p. 1894\)](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# JobConfigInput

Service: Amazon SageMaker geospatial capabilities

The input structure for the JobConfig in an EarthObservationJob.

## Contents

### **BandMathConfig**

Type: [BandMathConfigInput \(p. 1860\)](#) object

Required: No

### **CloudMaskingConfig**

An object containing information about the job configuration for cloud masking.

Type: [CloudMaskingConfigInput \(p. 1861\)](#) object

Required: No

### **CloudRemovalConfig**

An object containing information about the job configuration for cloud removal.

Type: [CloudRemovalConfigInput \(p. 1862\)](#) object

Required: No

### **GeoMosaicConfig**

An object containing information about the job configuration for geomosaic.

Type: [GeoMosaicConfigInput \(p. 1873\)](#) object

Required: No

### **LandCoverSegmentationConfig**

An object containing information about the job configuration for land cover segmentation.

Type: [LandCoverSegmentationConfigInput \(p. 1879\)](#) object

Required: No

### **ResamplingConfig**

An object containing information about the job configuration for resampling.

Type: [ResamplingConfigInput \(p. 1903\)](#) object

Required: No

### **StackConfig**

Type: [StackConfigInput \(p. 1906\)](#) object

Required: No

### **TemporalStatisticsConfig**

An object containing information about the job configuration for temporal statistics.

Type: [TemporalStatisticsConfigInput \(p. 1907\)](#) object

Required: No

**ZonalStatisticsConfig**

An object containing information about the job configuration for zonal statistics.

Type: [ZonalStatisticsConfigInput \(p. 1919\)](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# LandCoverSegmentationConfigInput

Service: Amazon SageMaker geospatial capabilities

## Contents

The members of this structure are context-dependent.

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# LandsatCloudCoverLandInput

Service: Amazon SageMaker geospatial capabilities

## Contents

### **LowerBound**

Type: Float

Required: Yes

### **UpperBound**

Type: Float

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ListEarthObservationJobOutputConfig

Service: Amazon SageMaker geospatial capabilities

An object containing information about the output file.

## Contents

### Arn

The Amazon Resource Name (ARN) of the list of the Earth Observation jobs.

Type: String

Required: Yes

### CreationTime

The creation time.

Type: Timestamp

Required: Yes

### DurationInSeconds

The duration of the session, in seconds.

Type: Integer

Required: Yes

### Name

The names of the Earth Observation jobs in the list.

Type: String

Required: Yes

### OperationType

Type: String

Required: Yes

### Status

The status of the list of the Earth Observation jobs.

Type: String

Valid Values: INITIALIZING | IN\_PROGRESS | STOPPING | COMPLETED | STOPPED | FAILED | DELETING | DELETED

Required: Yes

### Tags

Each tag consists of a key and a value.

Type: String to string map

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## ListVectorEnrichmentJobOutputConfig

Service: Amazon SageMaker geospatial capabilities

An object containing information about the output file.

### Contents

#### Arn

The Amazon Resource Name (ARN) of the list of the Vector Enrichment jobs.

Type: String

Pattern: ^arn:aws[a-z-]{0,12}:sagemaker-geospatial:[a-z0-9-]{1,25}:[0-9]{12}:vector-enrichment-job/[a-z0-9]{12,}\$

Required: Yes

#### CreationTime

The creation time.

Type: Timestamp

Required: Yes

#### DurationInSeconds

The duration of the session, in seconds.

Type: Integer

Required: Yes

#### Name

The names of the Vector Enrichment jobs in the list.

Type: String

Required: Yes

#### Status

The status of the Vector Enrichment jobs list.

Type: String

Valid Values: INITIALIZING | IN\_PROGRESS | STOPPING | STOPPED | COMPLETED | FAILED | DELETING | DELETED

Required: Yes

#### Tags

Each tag consists of a key and a value.

Type: String to string map

Required: No

#### Type

The type of the list of Vector Enrichment jobs.

Type: String

Valid Values: REVERSE\_GEOCODING | MAP\_MATCHING

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# MapMatchingConfig

Service: Amazon SageMaker geospatial capabilities

## Contents

### **IdAttributeName**

Type: String

Required: Yes

### **TimestampAttributeName**

The name of the timestamp attribute.

Type: String

Required: Yes

### **XAttributeName**

The name of the X-attribute

Type: String

Required: Yes

### **YAttributeName**

The name of the Y-attribute

Type: String

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# MultiPolygonGeometryInput

Service: Amazon SageMaker geospatial capabilities

## Contents

### Coordinates

The coordinates of the multipolygon geometry.

Type: Array of arrays of arrays of arrays of doubles

Array Members: Minimum number of 1 item.

Array Members: Minimum number of 4 items.

Array Members: Fixed number of 2 items.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# Operation

Service: Amazon SageMaker geospatial capabilities

## Contents

### Equation

Type: String

Required: Yes

### Name

The name of the operation.

Type: String

Required: Yes

### OutputType

The type of the operation.

Type: String

Valid Values: INT32 | FLOAT32 | INT16 | FLOAT64 | UINT16

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## OutputBand

Service: Amazon SageMaker geospatial capabilities

A single EarthObservationJob output band.

### Contents

#### **BandName**

The name of the band.

Type: String

Required: Yes

#### **OutputDataType**

The datatype of the output band.

Type: String

Valid Values: INT32 | FLOAT32 | INT16 | FLOAT64 | UINT16

Required: Yes

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# OutputConfigInput

Service: Amazon SageMaker geospatial capabilities

The response structure for an OutputConfig returned by an ExportEarthObservationJob.

## Contents

### S3Data

Path to Amazon S3 storage location for the output configuration file.

Type: [ExportS3DataInput \(p. 1869\)](#) object

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# OutputResolutionResamplingInput

Service: Amazon SageMaker geospatial capabilities

## Contents

### UserDefined

Type: [UserDefined \(p. 1909\)](#) object

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# OutputResolutionStackInput

Service: Amazon SageMaker geospatial capabilities

## Contents

### Predefined

Type: String

Valid Values: HIGHEST | LOWEST | AVERAGE

Required: No

### UserDefined

Type: [UserDefined \(p. 1909\)](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## PlatformInput

Service: Amazon SageMaker geospatial capabilities

### Contents

#### ComparisonOperator

Type: String

Valid Values: EQUALS | NOT\_EQUALS | STARTS\_WITH

Required: No

#### Value

The value of the platform.

Type: String

Required: Yes

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# PolygonGeometryInput

Service: Amazon SageMaker geospatial capabilities

## Contents

### Coordinates

Type: Array of arrays of arrays of doubles

Array Members: Minimum number of 1 item.

Array Members: Minimum number of 4 items.

Array Members: Fixed number of 2 items.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## Properties

Service: Amazon SageMaker geospatial capabilities

### Contents

#### **EoCloudCover**

Type: Float

Required: No

#### **LandsatCloudCoverLand**

Type: Float

Required: No

#### **Platform**

Type: String

Required: No

#### **ViewOffNadir**

Type: Float

Required: No

#### **ViewSunAzimuth**

Type: Float

Required: No

#### **ViewSunElevation**

Type: Float

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# Property

Service: Amazon SageMaker geospatial capabilities

## Contents

### **EoCloudCover**

Type: [EoCloudCoverInput \(p. 1865\)](#) object

Required: No

### **LandsatCloudCoverLand**

Type: [LandsatCloudCoverLandInput \(p. 1880\)](#) object

Required: No

### **Platform**

Type: [PlatformInput \(p. 1892\)](#) object

Required: No

### **ViewOffNadir**

Type: [ViewOffNadirInput \(p. 1916\)](#) object

Required: No

### **ViewSunAzimuth**

Type: [ViewSunAzimuthInput \(p. 1917\)](#) object

Required: No

### **ViewSunElevation**

Type: [ViewSunElevationInput \(p. 1918\)](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# PropertyFilter

Service: Amazon SageMaker geospatial capabilities

## Contents

### Property

Type: [Property \(p. 1895\)](#) object

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# PropertyFilters

Service: Amazon SageMaker geospatial capabilities

## Contents

### LogicalOperator

Type: String

Valid Values: AND

Required: No

### Properties

Type: Array of [PropertyFilter \(p. 1896\)](#) objects

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# RasterDataCollectionMetadata

Service: Amazon SageMaker geospatial capabilities

Response object containing details for a specific RasterDataCollection.

## Contents

### Arn

The Amazon Resource Name (ARN) of the raster data collection.

Type: String

Pattern: ^arn:aws[a-z-]{0,12}:sagemaker-geospatial:[a-z0-9-]{1,25}:[0-9]{12}:raster-data-collection/(public|premium|user)/[a-z0-9]{12,}\$

Required: Yes

### Description

A description of the raster data collection.

Type: String

Required: Yes

### DescriptionPageUrl

The description URL of the raster data collection.

Type: String

Required: No

### Name

The name of the raster data collection.

Type: String

Required: Yes

### SupportedFilters

Type: Array of [Filter \(p. 1871\)](#) objects

Required: Yes

### Tags

Each tag consists of a key and a value.

Type: String to string map

Required: No

### Type

The type of raster data collection.

Type: String

Valid Values: PUBLIC | PREMIUM | USER

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# RasterDataCollectionQueryInput

Service: Amazon SageMaker geospatial capabilities

## Contents

### **AreaOfInterest**

The area of interest being queried for the raster data collection.

Type: [AreaOfInterest \(p. 1857\)](#) object

Required: No

### **PropertyFilters**

Type: [PropertyFilters \(p. 1897\)](#) object

Required: No

### **RasterDataCollectionArn**

The Amazon Resource Name (ARN) of the raster data collection.

Type: String

Required: Yes

### **TimeRangeFilter**

Type: [TimeRangeFilterInput \(p. 1908\)](#) object

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# RasterDataCollectionQueryOutput

Service: Amazon SageMaker geospatial capabilities

## Contents

### **AreaOfInterest**

Type: [AreaOfInterest \(p. 1857\)](#) object

Required: No

### **PropertyFilters**

Type: [PropertyFilters \(p. 1897\)](#) object

Required: No

### **RasterDataCollectionArn**

Type: String

Required: Yes

### **RasterDataCollectionName**

The name of the raster data collection.

Type: String

Required: Yes

### **TimeRangeFilter**

Type: [TimeRangeFilterInput \(p. 1908\)](#) object

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# RasterDataCollectionQueryWithBandFilterInput

Service: Amazon SageMaker geospatial capabilities

This is a RasterDataCollectionQueryInput containing AreaOfInterest, Time Range filter and Property filters.

## Contents

### **AreaOfInterest**

Type: [AreaOfInterest \(p. 1857\)](#) object

Required: No

### **BandFilter**

Type: Array of strings

Array Members: Minimum number of 1 item.

Required: No

### **PropertyFilters**

Type: [PropertyFilters \(p. 1897\)](#) object

Required: No

### **TimeRangeFilter**

Type: [TimeRangeFilterInput \(p. 1908\)](#) object

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ResamplingConfigInput

Service: Amazon SageMaker geospatial capabilities

## Contents

### AlgorithmName

The name of the algorithm used for resampling.

Type: String

Valid Values: NEAR | BILINEAR | CUBIC | CUBICSPLINE | LANCZOS | AVERAGE | RMS | MODE | MAX | MIN | MED | Q1 | Q3 | SUM

Required: No

### OutputResolution

Type: [OutputResolutionResamplingInput \(p. 1890\)](#) object

Required: Yes

### TargetBands

Type: Array of strings

Array Members: Minimum number of 1 item.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ReverseGeocodingConfig

Service: Amazon SageMaker geospatial capabilities

## Contents

### XAttributeName

Type: String

Required: Yes

### YAttributeName

Type: String

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## S3DataInput

Service: Amazon SageMaker geospatial capabilities

Path to Amazon S3 storage location for input data.

### Contents

#### KmsKeyId

The Amazon Key Management Service (KMS) key ID for server-side encryption.

Type: String

Required: No

#### MetadataProvider

Type: String

Valid Values: PLANET\_ORDER

Required: Yes

#### S3Uri

The URL to the Amazon S3 input.

Type: String

Required: Yes

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# StackConfigInput

Service: Amazon SageMaker geospatial capabilities

## Contents

### **OutputResolution**

Type: [OutputResolutionStackInput \(p. 1891\)](#) object

Required: No

### **TargetBands**

Type: Array of strings

Array Members: Minimum number of 1 item.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TemporalStatisticsConfigInput

Service: Amazon SageMaker geospatial capabilities

## Contents

### GroupBox

Type: String

Valid Values: ALL | YEARLY

Required: No

### Statistics

Type: Array of strings

Array Members: Minimum number of 1 item.

Valid Values: MEAN | MEDIAN | STANDARD\_DEVIATION

Required: Yes

### TargetBands

Type: Array of strings

Array Members: Minimum number of 1 item.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TimeRangeFilterInput

Service: Amazon SageMaker geospatial capabilities

The input for the time-range filter.

## Contents

### EndTime

The end time for the time-range filter.

Type: Timestamp

Required: Yes

### StartTime

The start time for the time-range filter.

Type: Timestamp

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## UserDefined

Service: Amazon SageMaker geospatial capabilities

### Contents

#### Unit

Type: String

Valid Values: METERS

Required: Yes

#### Value

Type: Float

Required: Yes

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# VectorEnrichmentJobConfig

Service: Amazon SageMaker geospatial capabilities

It contains configs such as ReverseGeocodingConfig and MapMatchingConfig.

## Contents

### MapMatchingConfig

Type: [MapMatchingConfig \(p. 1885\)](#) object

Required: No

### ReverseGeocodingConfig

Type: [ReverseGeocodingConfig \(p. 1904\)](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# VectorEnrichmentJobDataSourceConfigInput

Service: Amazon SageMaker geospatial capabilities

## Contents

### S3Data

Type: [VectorEnrichmentJobS3Data \(p. 1915\)](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## VectorEnrichmentJobErrorDetails

Service: Amazon SageMaker geospatial capabilities

VectorEnrichmentJob error details in response from GetVectorEnrichmentJob.

### Contents

#### ErrorMessage

A message that you define and then is processed and rendered by the Vector Enrichment job when the error occurs.

Type: String

Required: No

#### ErrorType

The type of error generated during the Vector Enrichment job.

Type: String

Valid Values: CLIENT\_ERROR | SERVER\_ERROR

Required: No

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# VectorEnrichmentJobExportErrorDetails

Service: Amazon SageMaker geospatial capabilities

VectorEnrichmentJob export error details in response from GetVectorEnrichmentJob.

## Contents

### Message

The message providing details about the errors generated during the Vector Enrichment job.

Type: String

Required: No

### Type

Type: String

Valid Values: CLIENT\_ERROR | SERVER\_ERROR

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# VectorEnrichmentJobInputConfig

Service: Amazon SageMaker geospatial capabilities

The input structure for the InputConfig in a VectorEnrichmentJob.

## Contents

### DataSourceConfig

Type: [VectorEnrichmentJobDataSourceConfigInput \(p. 1911\)](#) object

Required: Yes

### DocumentType

Type: String

Valid Values: CSV

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

## VectorEnrichmentJobS3Data

Service: Amazon SageMaker geospatial capabilities

The Amazon S3 data for the Vector Enrichment job.

### Contents

#### KmsKeyId

The Amazon Key Management Service (KMS) key ID for server-side encryption.

Type: String

Required: No

#### S3Uri

The URL to the Amazon S3 data for the Vector Enrichment job.

Type: String

Required: Yes

### See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ViewOffNadirInput

Service: Amazon SageMaker geospatial capabilities

## Contents

### **LowerBound**

Type: Float

Required: Yes

### **UpperBound**

Type: Float

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ViewSunAzimuthInput

Service: Amazon SageMaker geospatial capabilities

## Contents

### **LowerBound**

Type: Float

Required: Yes

### **UpperBound**

Type: Float

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ViewSunElevationInput

Service: Amazon SageMaker geospatial capabilities

## Contents

### **LowerBound**

The lower bound to view the sun elevation.

Type: Float

Required: Yes

### **UpperBound**

The upper bound to view the sun elevation.

Type: Float

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ZonalStatisticsConfigInput

Service: Amazon SageMaker geospatial capabilities

## Contents

### Statistics

Type: Array of strings

Array Members: Minimum number of 1 item.

Valid Values: MEAN | MEDIAN | STANDARD\_DEVIATION | MAX | MIN | SUM

Required: Yes

### TargetBands

Type: Array of strings

Array Members: Minimum number of 1 item.

Required: No

### ZoneS3Path

Type: String

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# Common Parameters

The following list contains the parameters that all actions use for signing Signature Version 4 requests with a query string. Any action-specific parameters are listed in the topic for that action. For more information about Signature Version 4, see [Signature Version 4 Signing Process](#) in the *Amazon Web Services General Reference*.

## Action

The action to be performed.

Type: string

Required: Yes

## Version

The API version that the request is written for, expressed in the format YYYY-MM-DD.

Type: string

Required: Yes

## X-Amz-Algorithm

The hash algorithm that you used to create the request signature.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Valid Values: AWS4-HMAC-SHA256

Required: Conditional

## X-Amz-Credential

The credential scope value, which is a string that includes your access key, the date, the region you are targeting, the service you are requesting, and a termination string ("aws4\_request"). The value is expressed in the following format: *access\_key/YYYYMMDD/region/service/aws4\_request*.

For more information, see [Task 2: Create a String to Sign for Signature Version 4](#) in the *Amazon Web Services General Reference*.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Required: Conditional

## X-Amz-Date

The date that is used to create the signature. The format must be ISO 8601 basic format (YYYYMMDD'T'HHMMSS'Z'). For example, the following date time is a valid X-Amz-Date value: 20120325T120000Z.

Condition: X-Amz-Date is optional for all requests; it can be used to override the date used for signing requests. If the Date header is specified in the ISO 8601 basic format, X-Amz-Date is

not required. When X-Amz-Date is used, it always overrides the value of the Date header. For more information, see [Handling Dates in Signature Version 4](#) in the *Amazon Web Services General Reference*.

Type: string

Required: Conditional

**X-Amz-Security-Token**

The temporary security token that was obtained through a call to AWS Security Token Service (AWS STS). For a list of services that support temporary security credentials from AWS Security Token Service, go to [AWS Services That Work with IAM](#) in the *IAM User Guide*.

Condition: If you're using temporary security credentials from the AWS Security Token Service, you must include the security token.

Type: string

Required: Conditional

**X-Amz-Signature**

Specifies the hex-encoded signature that was calculated from the string to sign and the derived signing key.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Required: Conditional

**X-Amz-SignedHeaders**

Specifies all the HTTP headers that were included as part of the canonical request. For more information about specifying signed headers, see [Task 1: Create a Canonical Request For Signature Version 4](#) in the *Amazon Web Services General Reference*.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Required: Conditional

# Common Errors

This section lists the errors common to the API actions of all AWS services. For errors specific to an API action for this service, see the topic for that API action.

## **AccessDeniedException**

You do not have sufficient access to perform this action.

HTTP Status Code: 400

## **IncompleteSignature**

The request signature does not conform to AWS standards.

HTTP Status Code: 400

## **InternalFailure**

The request processing has failed because of an unknown error, exception or failure.

HTTP Status Code: 500

## **InvalidAction**

The action or operation requested is invalid. Verify that the action is typed correctly.

HTTP Status Code: 400

## **InvalidClientId**

The X.509 certificate or AWS access key ID provided does not exist in our records.

HTTP Status Code: 403

## **InvalidParameterCombination**

Parameters that must not be used together were used together.

HTTP Status Code: 400

## **InvalidParameterValue**

An invalid or out-of-range value was supplied for the input parameter.

HTTP Status Code: 400

## **InvalidQueryParameter**

The AWS query string is malformed or does not adhere to AWS standards.

HTTP Status Code: 400

## **MalformedQueryString**

The query string contains a syntax error.

HTTP Status Code: 404

## **MissingAction**

The request is missing an action or a required parameter.

HTTP Status Code: 400

**MissingAuthenticationToken**

The request must contain either a valid (registered) AWS access key ID or X.509 certificate.

HTTP Status Code: 403

**MissingParameter**

A required parameter for the specified action is not supplied.

HTTP Status Code: 400

**NotAuthorized**

You do not have permission to perform this action.

HTTP Status Code: 400

**OptInRequired**

The AWS access key ID needs a subscription for the service.

HTTP Status Code: 403

**RequestExpired**

The request reached the service more than 15 minutes after the date stamp on the request or more than 15 minutes after the request expiration date (such as for pre-signed URLs), or the date stamp on the request is more than 15 minutes in the future.

HTTP Status Code: 400

**ServiceUnavailable**

The request has failed due to a temporary failure of the server.

HTTP Status Code: 503

**ThrottlingException**

The request was denied due to request throttling.

HTTP Status Code: 400

**ValidationException**

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400