

Infosys Responsible AI Toolkit
Feature and End Point Documentation for File Storage



# Contents

Introduction			3
File Storage Services			3
1)	Α	zure Blob Storage	3
	a)	Add File:	3
	b)	List Blobs:	4
	c)	Get Blob:	5
	d)	Delete Blob:	6
	e)	Update File:	7
	f)	List Containers:	8
	g)	Add Container:	9
	h)	Get Blob Properties:	10
2)	G	CP Cloud Storage	۱1
	a)	Add File:	11
	b)	List Objects:	12
	c)	Get Object:	13
	d)	Delete Object:	14
	e)	Update File:	15
	f)	List Buckets:	16
	g)	Add Bucket:	17
	h)	Get Object Properties:	18
3) /		WS Cloud Storage	١9
	a)	Upload File:	19
	b)	List Object:	20
	c)	Get Object:	21
	d)	Delete Object:	22
	e)	Update File:	22
	f)	List Buckets:	24
	g)	Create Bucket:	25
	h)	Get Object Properties:	26



### Introduction

The following set of endpoints facilitates interaction with file storage services across Google Cloud Platform (GCP), Amazon Web Services (AWS), and Microsoft Azure. These endpoints enable seamless file management, including uploading, downloading, deleting, and organizing files, as well as managing permissions and metadata. Each cloud provider's API offers unique capabilities tailored to their respective storage solutions, such as GCP's Cloud Storage, AWS S3, and Azure Blob Storage.

To utilize these endpoints, populate the API Swagger page as per the instructions provided in the respective GitHub repository Readme file. Once configured, click on 'Try it out' to interact with the required endpoints. Detailed specifications for the endpoints associated with each cloud provider's file storage services are outlined below.

# File Storage Services

### 1) Azure Blob Storage

#### a) Add File:

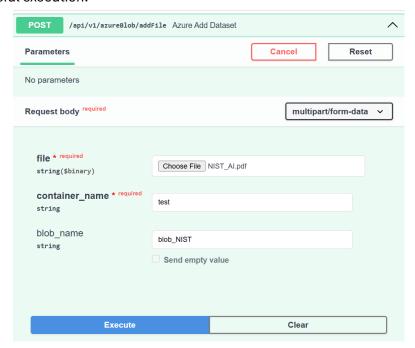
#### • Endpoint: api/v1/azureBlob/addFile

To upload a data file into the specified container with an optional blob name.

The details of the payload are as follows:

- o **file**: The file that is to be uploaded.
- container\_name: The name of the container into which the file is to be uploaded. This
  is a required field.
- o **blob\_name**: The blob name that is to be given to the added file. It is optional.

Once these fields are filled, click on execute. If the execution is successful, the response body will show the JSON of the blob\_name; The screenshot below demonstrates a successful execution.





The response to a successful execution is as follows:



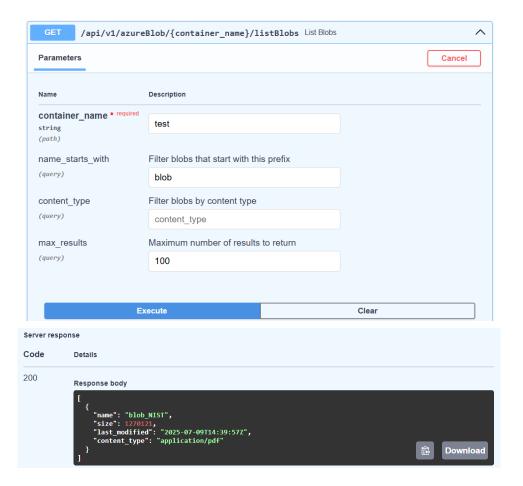
### b) List Blobs:

#### Endpoint: /api/v1/azureBlob/{container\_name}/listBlobs

This API is used to get a list of all the blobs in a given container. If required, the name with which the blob starts can be specified along with an optional content\_type of the blob (whether it is a PDF/CSV/XLSX etc.) The maximum number of results that should be populated can also be mentioned.

The details of the API are as follows:

- container\_name: The name of the container from which the blobs are to be listed.
   This is a required field.
- o name\_starts\_with: (Optional) The name with which the blob should begin.
- o **content\_type**: (Optional) The file type of the blob that we are looking for.
- o max\_results: Maximum number of results to return



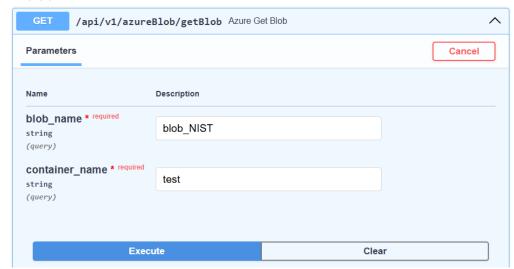


### c) Get Blob:

Endpoint: /api/v1/azureBlob/getBlob

This API is used to download a blob from the mentioned container.

- o **blob\_name**: The name of the blob we want to download.
- o **container\_name**: The name of the container from which we want to download the blob.



If the execution is successful, we will get the option to download the blob to our system.



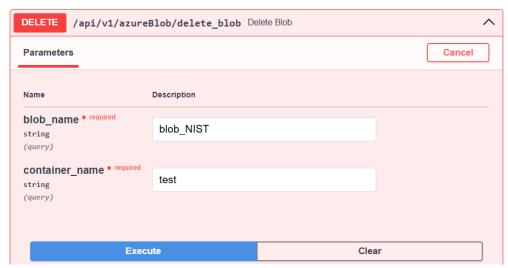


### d) Delete Blob:

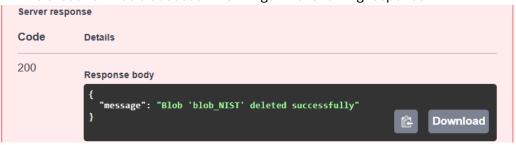
• Endpoint: /api/v1/azureBlob/delete\_blob

This API is used to delete a specific blob from a given container. The blob to be deleted is identified by its name, and the container is specified by its name.

- o **blob\_name**: The name of the blob to be deleted. This is a required field.
- o **container\_name**: The name of the container from which the blob is to be deleted. This is a required field.



If the execution was a success – we will get the following response:



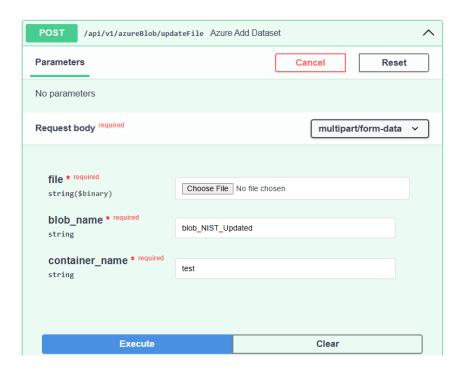


### e) Update File:

Endpoint: /api/v1/azureBlob/updateFile

This API is used to update a specific file in a given container. The file to be updated is provided along with the blob name and the container name where the file resides.

- o **file**: The updated file content to be uploaded. This is a required field.
- o **blob\_name**: The name of the blob to be updated. This is a required field.
- container\_name: The name of the container where the blob is located. This is a required field.



If the execution was successful, we will get the response as:

```
Server response

Code Details

200

Response body

{
    "blob_name": "blob_NIST_Updated"
}

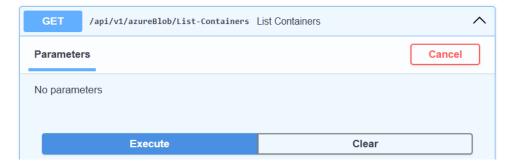
Download
```



### f) List Containers:

### Endpoint: /api/v1/azureBlob/List-Containers

This API is used to retrieve a list of all containers available in the Azure Blob storage. No parameters are required for this endpoint.



The response will be:





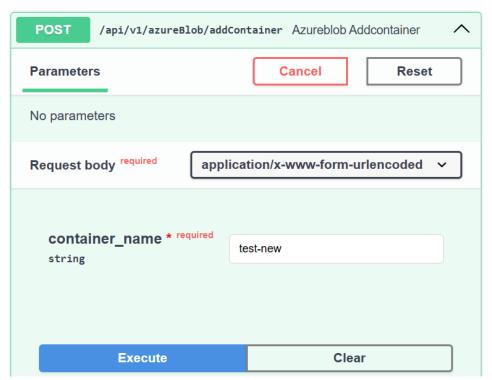
### g) Add Container:

### Endpoint: /api/v1/azureBlob/addContainer

This API is used to create a new container in the Azure Blob storage. The container is identified by its name, with the note that spaces and underscores are considered invalid characters, while hyphens are allowed.

The parameter for this API is:

o **container\_name**: The name of the container to be created. This is a required field.



The response to a successful execution will be as follows:

```
Code Details

Response body

{
    "message": "Container 'test-new' created successfully"
}

Download
```



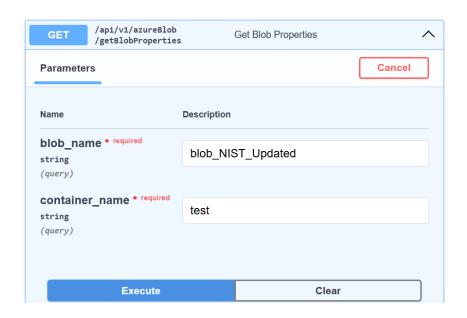
### h) Get Blob Properties:

Endpoint: /api/v1/azureBlob/getBlobProperties

This API is used to retrieve the properties of a blob that was uploaded. The details fetched include **blob\_name**, **blob\_type**, **blob\_size**, and **last\_modified**.

The parameters of this API are:

- blob\_name(required): The name of the blob whose properties are to be retrieved. This
  is a required field.
- o **container\_name**(required): The name of the container where the blob is located. This is a required field.



Upon successful execution, the response will be returned:



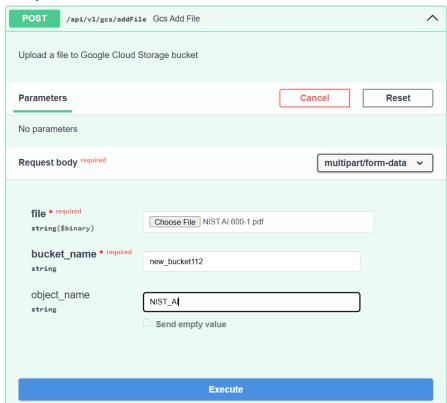
# 2) GCP Cloud Storage

### a) Add File:

### • Endpoint: /api/v1/gcs/addFile

This API is used to upload a file to a Google Cloud Storage bucket. The file to be uploaded, along with the bucket name and the desired object name, are specified.

- o **file**(required): The file to be uploaded. This is a required field.
- bucket\_name(required): The container or folder into which the file will be stored. This
  is a required field.
- o **object\_name**(optional): The name of the file that is to be given to the file being stored. This is an optional field.



Upon successfully adding the file to the bucket, the response will look like:



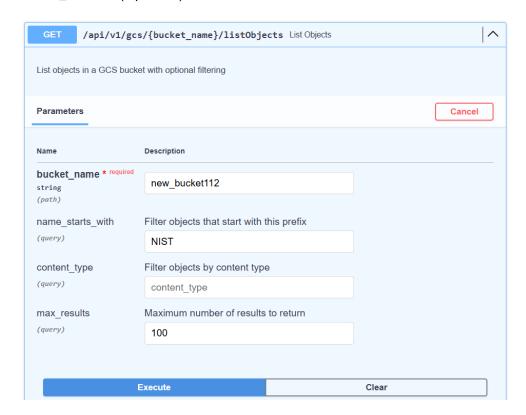


### b) List Objects:

### • Endpoint: /api/v1/gcs/{bucket\_name}/listObjects

This API is used to list objects within a specified bucket in Google Cloud Storage. The bucket name is included in the endpoint, with optional parameters to filter by object name prefix, content type, and maximum results.

- bucket\_name(required): The name of the bucket from which objects are to be listed.
   This is a required field.
- o name\_starts\_with: (Optional) The prefix with which object names should begin.
- o **content\_type**: (Optional) The file type of the objects to filter by.
- o max\_results: (Optional) The maximum number of results to return.



The response will be a list of objects that matched the search criteria. The details of the file/object will also be displayed.

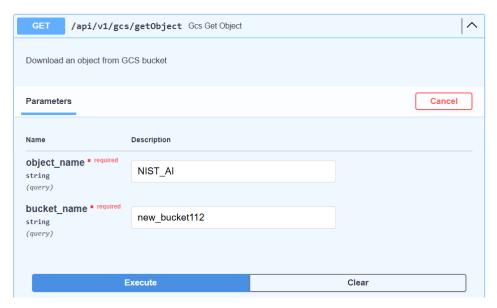


### c) Get Object:

Endpoint: /api/v1/gcs/getObject

This API is used to retrieve a specific object from a Google Cloud Storage bucket. The object is identified by its name and the bucket it resides in.

- o **object\_name**(required): The name of the object to be retrieved. This is a required field.
- bucket\_name(required): The name of the bucket from which the object is to be retrieved. This is a required field.



If the execution was successful, the requested file/object will be available for download.



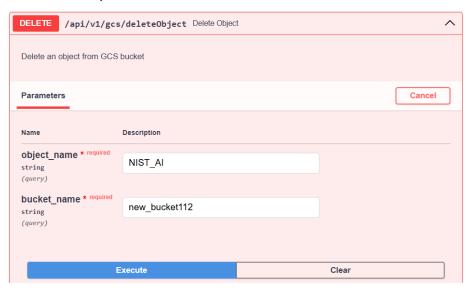


### d) Delete Object:

### Endpoint: /api/v1/gcs/deleteObject

This API is used to delete a specific object from a Google Cloud Storage bucket. The object is identified by its name and the bucket it resides in.

- o **object\_name**(required): The name of the object to be deleted. This is a required field.
- bucket\_name(required): The name of the bucket from which the object is to be deleted. This is a required field.



If the deletion was successful, then we will get the following response:



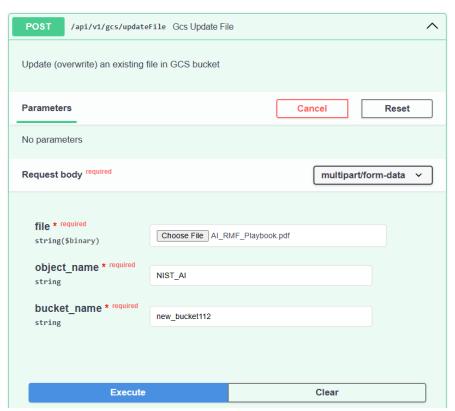


### e) Update File:

Endpoint: /api/v1/gcs/updateFile

This API is used to update a specific file in a Google Cloud Storage bucket. The updated file content, object name, and bucket name are required to perform the update.

- o **file** (required): The updated file content to be uploaded.
- o **object\_name** (required): The name of the object to be updated.
- o **bucket\_name** (required): The name of the bucket where the object is located.



The response to a successful execution will be as follows:

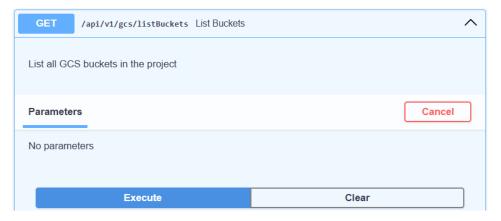




### f) List Buckets:

Endpoint: /api/v1/gcs/listBuckets

This API is used to retrieve a list of all buckets available in Google Cloud Storage. No parameters are required for this endpoint.



The response will be as follows:

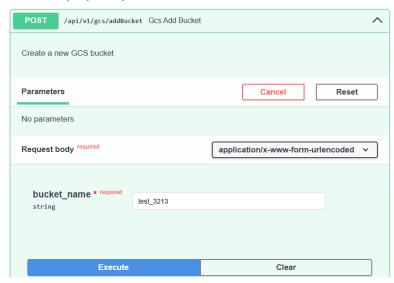


### g) Add Bucket:

• Endpoint: /api/v1/gcs/addBucket

This API is used to create a new bucket in Google Cloud Storage. The bucket name must be unique and should not have been used previously.

o **bucket\_name** (required): The name of the bucket to be created.



Once the bucket is created, the response will be as follows:





### h) Get Object Properties:

### Endpoint: /api/v1/gcs/getObjectProperties

This API is used to retrieve the properties of a specific object in a Google Cloud Storage bucket. The object is identified by its name and the bucket it resides in. The details of the parameters are as follows:

- o **object\_name** (required): The name of the object whose properties are to be retrieved.
- bucket\_name (required): The name of the bucket where the object is located.

The properties displayed include various metadata details.

object\_name: The name of the object.

object\_type: The type of object.

object\_size: The size of the object in bytes.

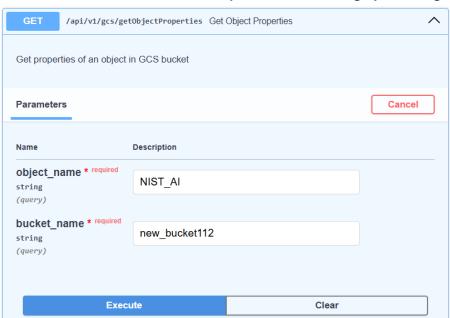
last\_modified: The date and time when the object was last modified.

time\_created: The date and time when the object was created.

content\_type: The file type of the object.

etag: The entity tag of the object, used for versioning.

md5\_hash: The MD5 hash of the object content for integrity checking.



The response will be as follows:



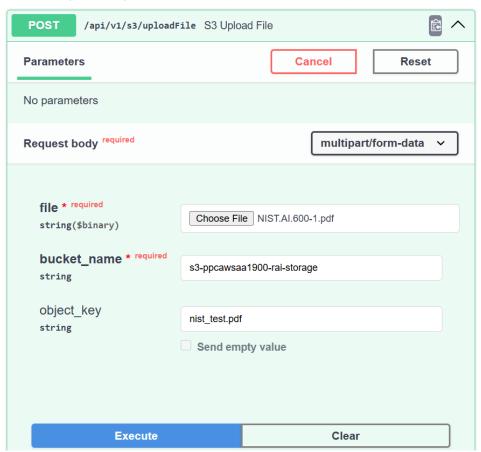
# 3) AWS Cloud Storage

### a) Upload File:

#### • Endpoint: /api/v1/s3/uploadFile

This API is used to upload a file to an Amazon S3 bucket. The file to be uploaded, the bucket name, and an optional object key (for custom naming) are specified.

- o **file** (required): The file to be uploaded.
- o **bucket\_name** (required): The name of the bucket where the file will be stored.
- o **object\_key** (optional): The custom key or name for the uploaded file.



Once file has been successfully added the response will be as follows:

```
Code Details

200

Response body

{
    "object_key": "nist_test.pdf"
}

Download
```

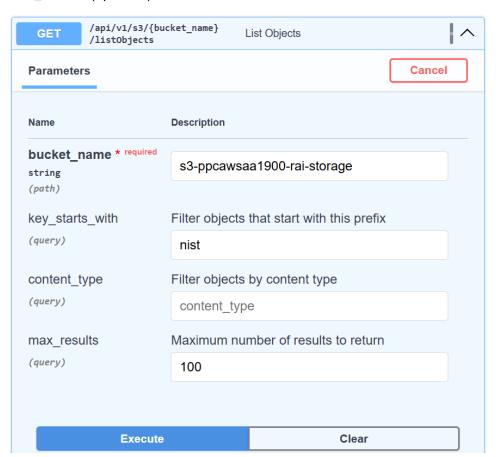


### b) List Object:

#### Endpoint: /api/v1/s3/{bucket\_name}/listObjects

This API is used to list objects within a specified Amazon S3 bucket. The bucket name is included in the endpoint, with optional parameters to filter by content type, object key prefix, and maximum results.

- o **bucket\_name** (required): The name of the bucket from which objects are to be listed.
- o **content\_type** (optional): The file type to filter the objects by.
- o **key\_starts\_with** (optional): The prefix with which object keys should begin.
- o max\_results (optional): The maximum number of results to return.





The response of the listed object will be as follows:

```
Code Details

200

Response body

[

    "name": "nist_test.pdf",
    "size": 1174643,
    "last_modified": "2025-07-10T10:01:44Z",
    "content_type": "binary/octet-stream"
    }
]

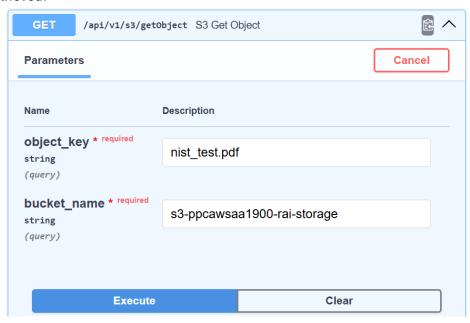
Download
```

### c) Get Object:

• Endpoint: /api/v1/s3/getObject

This API is used to retrieve a specific object from an Amazon S3 bucket. The object is identified by its key and the bucket it resides in.

- o **object\_key** (required): The key of the object to be retrieved.
- bucket\_name (required): The name of the bucket from which the object is to be retrieved.



The response of a successfully pulled object will be as follows:



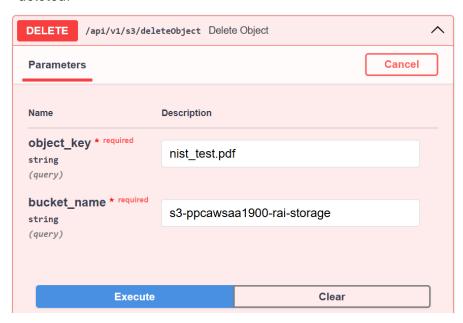


### d) Delete Object:

• Endpoint: /api/v1/s3/deleteObject

This API is used to delete a specific object from an Amazon S3 bucket. The object is identified by its key and the bucket it resides in.

- o **object\_key** (required): The key of the object to be deleted.
- bucket\_name (required): The name of the bucket from which the object is to be deleted.



If the execution is successful, the response will be shown as below:

```
Server response

Code Details

200

Response body

{ "message": "object 'nist_test.pdf' deleted successfully" }

Download
```

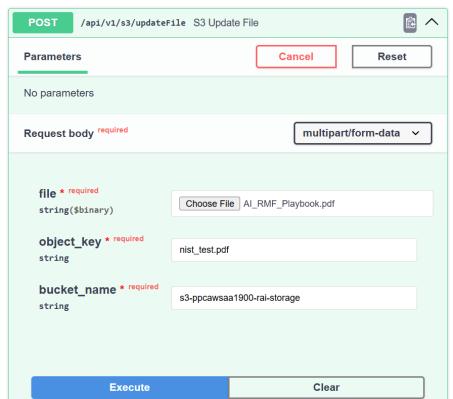
### e) Update File:

• Endpoint: /api/v1/s3/updateFile



This API is used to update a specific file in an Amazon S3 bucket. The updated file content, object key, and bucket name are all required to perform the update.

- o **file** (required): The updated file content to be uploaded.
- o **object\_key** (required): The key of the object to be updated.
- o **bucket\_name** (required): The name of the bucket where the object is located.



The response to a successful execution will be as follows:

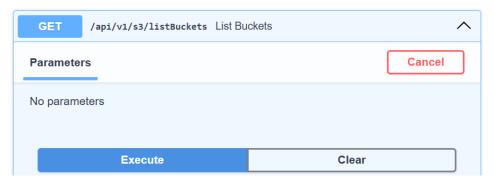




### f) List Buckets:

#### Endpoint: /api/v1/s3/listBuckets

This API is used to retrieve a list of all buckets available in Amazon S3. No parameters are required for this endpoint.



The response of a successful execution will be as follows:

```
Server response
Code
             Details
200
             Response body
                "s3-ppcawsaa1322-rg-smash-data",
                "s3-ppcawsaa1334-sagemaker-n-virginia",
                "s3-ppcawsaa1370-s3-infosyspinnacle",
                "s3-ppcawsaa1417-kendra-bucket",
                "s3-ppcawsaa1455-s3-iva-poc",
                "s3-ppcawsaa1461-s3-ragdoc-poc",
                "s3-ppcawsaa1471-s3-transformer-foundry",
                "s3-ppcawsaa1493-travel-claims-assistant",
                "s3-ppcawsaa1495-s3-greenleaf-poc",
                "s3-ppcawsaa1556-s3-lambda-file",
                "s3-ppcawsaa1569-hil-usecase-bucket",
                "s3-ppcawsaa1661-s3-iva",
                "s3-ppcawsaa1806-iva-poc
                "s3-ppcawsaa1807-iva-poc",
                "s3-ppcawsaa1808-iva-poc",
                "s3-ppcawsaa1809-iva-poc",
                "s3-ppcawsaa1819-iva-poc",
                "s3-ppcawsaa1894-duke-energy-poc",
                "s3-ppcawsaa1895-topaz-coe",
                "s3-ppcawsaa1900-rai-storage
                "s3-ppcawsaa1903-s3-ingestion",
                "sagemaker-studio-501121655816-0ycivvq1f6m",
                "sagemaker-studio-501121655816-1sgcpu3d301",
                "sagemaker-studio-501121655816-h9yk99ti6fn",
                "sagemaker-studio-501121655816-wbwmxl38g28",
"sagemaker-us-east-1-501121655816"
                                                                         Download
```

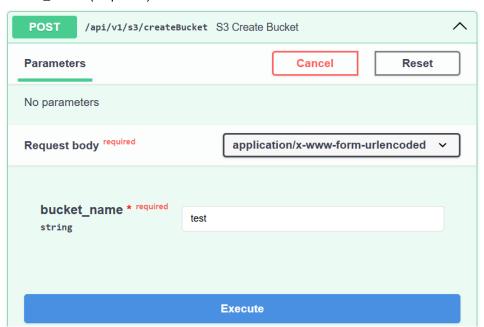


### g) Create Bucket:

Endpoint: /api/v1/s3/createBucket

This API is used to create a new bucket in Amazon S3. The bucket is identified by its name, which is required.

o bucket\_name (required): The name of the bucket to be created.



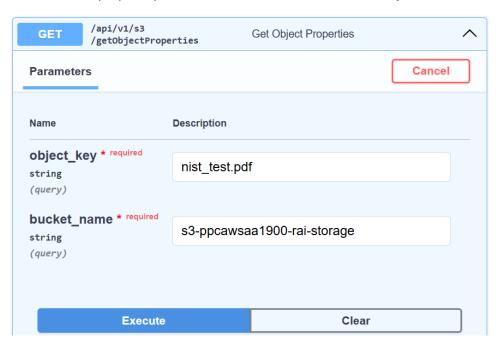


### h) Get Object Properties:

Endpoint: /api/v1/s3/getObjectProperties

This API is used to retrieve the properties of a specific object in an Amazon S3 bucket. The object is identified by its key and the bucket it resides in.

- o **object\_key** (required): The key of the object whose properties are to be retrieved.
- o **bucket\_name** (required): The name of the bucket where the object is located.



The response of a successful execution will be as follows:

```
Code Details

200

Response body

{
    "object_key": "nist_test.pdf",
    "object_type": "s30bject",
    "object_size": 2882270,
    "last_modified": "2025-07-10T10:07:19+00:00",
    "content_type": "binary/octet-stream",
    "etag": "\"0171ec4e16ca2ac5b45964d8c4832ca6\"",
    "metadata": {}
}

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```