

HOS06A Inference Pipeline in SageMaker

AI620 Fall 2024 by Verónica Elze

A. Prepare input data on Amazon S3

1. Create a bucket

General purpose buckets (6) Info All AWS Regions

↺

Copy ARN

Empty

Delete

Create bucket

Search

hos06

×

1 match

<

1

>

⚙

	Name	▲	AWS Region	▼	IAM Access Analyzer	Creation date	▼
<input type="radio"/>	hos06emnotebook-velze		US East (N. Virginia) us-east-1		View analyzer for us-east-1	November 14, 2024, 10:34:03 (UTC-07:00)	

2. Upload data

Files and folders (2 Total, 15.0 MB)

Search

Find by name

↺

1

↻

Name	Folder	▼	Type	▼	Size	▼	Status	▼	Error	▼
ratings.csv	-		text/csv		11.9 MB		Succeeded		-	
books.csv	-		text/csv		3.1 MB		Succeeded		-	

B. Launch an Amazon EMR Cluster

1. Create cluster

[Amazon EMR](#) > [EMR on EC2: Clusters](#) > [Create cluster](#)

Create cluster [Info](#)

▼ **Name and applications - *required*** [Info](#)
Name your cluster and choose the applications that you want to install to your cluster.

Name

Amazon EMR release [Info](#)
A release contains a set of applications which can be installed on your cluster.

2. Set automatic termination after idle time

▼ **Cluster termination and node replacement** [Info](#)
Choose termination settings and protect your cluster from accidental shutdown.

Termination option

☐ Manually terminate cluster

☐ Automatically terminate cluster after last step ends

☒ Automatically terminate cluster after idle time (Recommended)

Idle time
Enter the time until your cluster terminates.

Choose a time that is greater than 1 minute (00:01:00) and less than 7 days. The time is in hh:mm:ss (24-hour) format.

☐ Use termination protection
Protects your cluster from accidental termination. If on, you must first turn off protection to terminate the cluster. We recommend turning on termination protection for your long running clusters.

3. Create service role

Identity and Access Management (IAM)

Search IAM

Dashboard

Access management

Access reports

Related consoles

IAM > Roles > Create role

Step 1

Select trusted entity

Step 2

Add permissions

Step 3

Name, review, and create

Select trusted entity

Trusted entity type

☒ AWS service

☐ AWS account

☐ Web identity

☐ SAML 2.0 federation

☐ Custom trust policy

Use case

Service or use case

Other services

Cancel

Next

Use case

Service or use case

Choose a use case for the specified service.

Use case

☐ EMR

☒ EMR Role for EC2

☐ EMR - Cleanup

Cancel

Next

IAM > Roles > Create role

Step 1

Select trusted entity

Step 2

Add permissions

Step 3

Name, review, and create

Add permissions

Permissions policies (1)

Policy name

Type

AmazonElasticMapReduceforEC2Role

AmazonElasticMapReduceforEC2Role

Copy JSON

Set permissions boundary - optional

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

Cancel

Previous

Next

Name, review, and create

Role details

Role name

Description

EC2 instance profile for Amazon EMR

Choose an existing instance profile

Create an instance profile

Instance profile

4. Create cluster

✔ Your cluster "hos06cluster" has been successfully created.

Amazon EMR > EMR on EC2: Clusters > hos06cluster

hos06cluster

Updated less than a minute ago

Terminate

Clone in AWS CLI

Clone

▼ Summary

Cluster info

Cluster ID
j-2FIHYNHEQDBTR

Cluster configuration
Instance groups

Capacity
1 Primary | 1 Core | 1 Task

Applications

Amazon EMR version
emr-7.4.0

Installed applications
Hadoop 3.4.0, Hive 3.1.3, JupyterEnterpriseGateway 2.6.0, Livy 0.8.0, Spark 3.5.2

Cluster management

Log destination in Amazon S3
[REDACTED]

Primary node public DNS
-

Status and time

Status
Starting

Creation time
November 14, 2024, 11:02 (UTC-07:00)

Elapsed time
12 seconds

C. Create Workspace

1. Steps 1 & 2

✔ You successfully created the Studio Studio_1 and the Workspace Studio_1_Workspace_1.

Amazon EMR > EMR Studio: Studios

Studios (1) Info

Find Studios by name or Studio access URL

View details

Edit

Delete

Create Studio

	Studio name	Creation time (UTC-07:00)	Authenticated by	Studio Access URL
	Studio_1	November 14, 2024, 11:08	IAM	https://es-23H9NWKQTOWPJWZ2ZJH...

2. Step 3

Workspaces (Notebooks) (1) Info

EMR Notebooks are now EMR Studio Workspaces. You can organize and run interactive notebooks in Workspaces.

All Studios

Find Workspaces by name, Studio, status, or last modified by

Attach cluster

Quick launch

Create Workspace

	Workspace name	Studio name	Status	Cluster ID	Creation time (UTC-07:00)	Last modified by	Last modified (UTC-07:00)
	Studio_1_Workspace_1	Studio_1	Ready	00fnura7oemit409	November 14, 2024, 11:08	arn:aws:iam::850995577816:root	November 14, 2024, 11:09