

SageMaker Setup Tutorial for MLU Course

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Following are the steps to work with Jupyter notebooks in SageMaker for MLU classes.

The goal of this walkthrough is to show how to setup the SageMaker environment to run your notebooks during the course.

All the notebooks that you will need to upload will be on Canvas.

1-AWS Account:

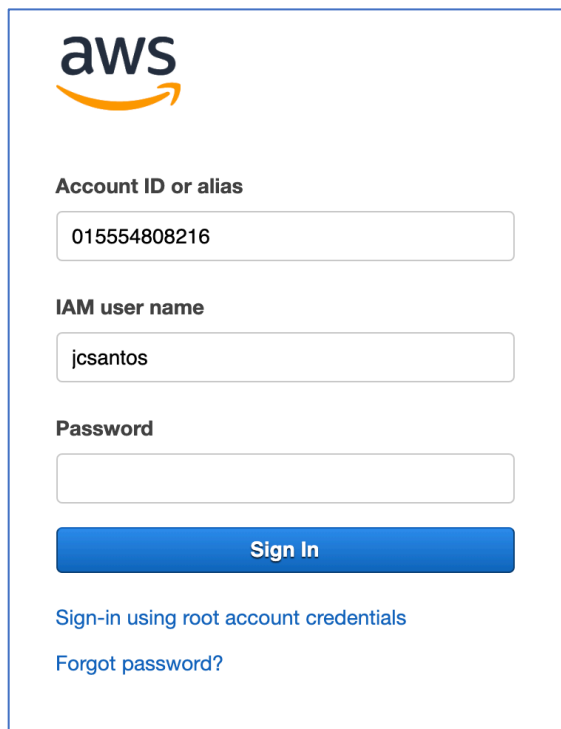
You can access your MLU AWS account here:

Sign-in URL: <https://015554808216.signin.aws.amazon.com/console>

User name: <your alias>

Password: <your alias>

Important: for alias with less than 6 digits, use the suffix MLU for your alias as password (Ex. User: john, password: johnMLU)

A screenshot of the AWS Sign In page. At the top left is the AWS logo. Below it, the text "Account ID or alias" is followed by a text input field containing "015554808216". Below that, the text "IAM user name" is followed by a text input field containing "jcsantos". Below that, the text "Password" is followed by a text input field. At the bottom of the form is a blue "Sign In" button. Below the button are two links: "Sign-in using root account credentials" and "Forgot password?".

aws

Account ID or alias

015554808216

IAM user name

jcsantos

Password

Sign In

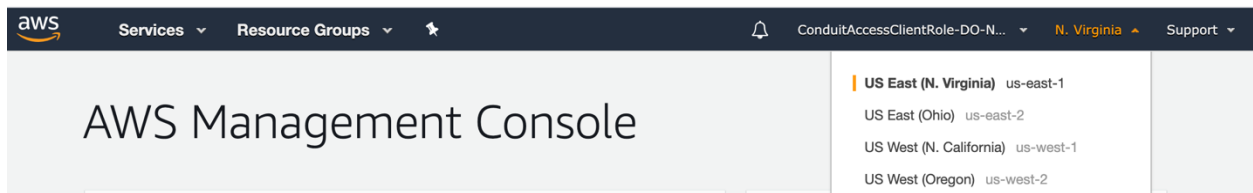
[Sign-in using root account credentials](#)

[Forgot password?](#)

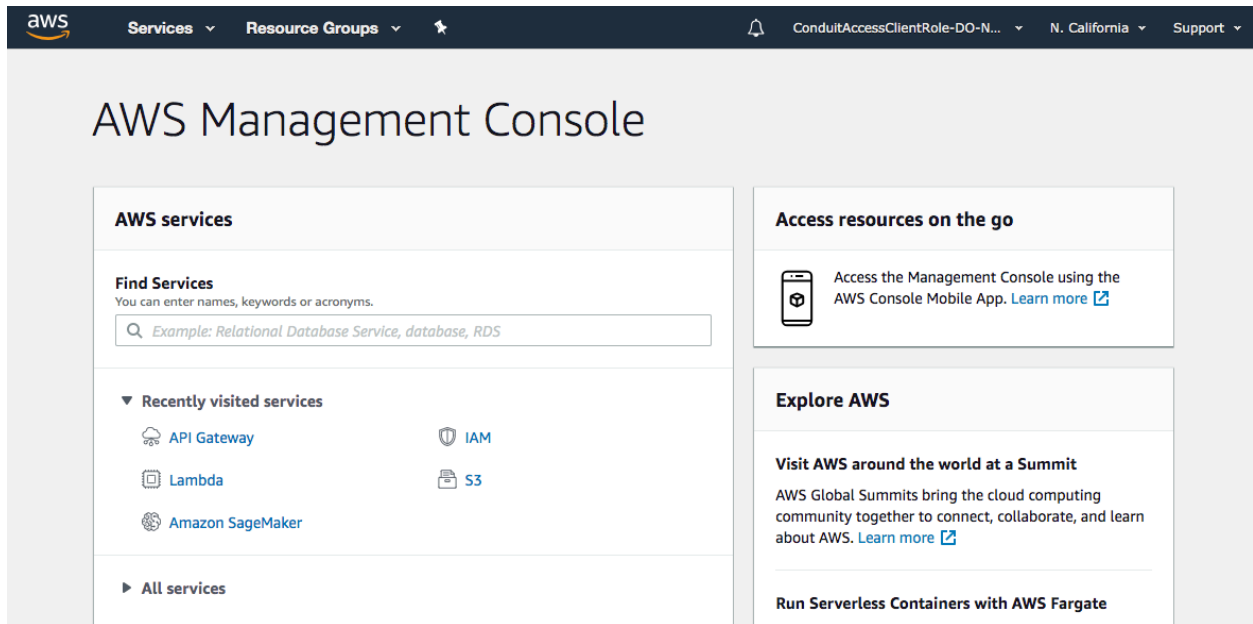
Please be aware that the “account is NOT free and will be frugal during account usage”.

At the AWS Management Console:

1. Select region US East (N. Virginia) at the top right menu.



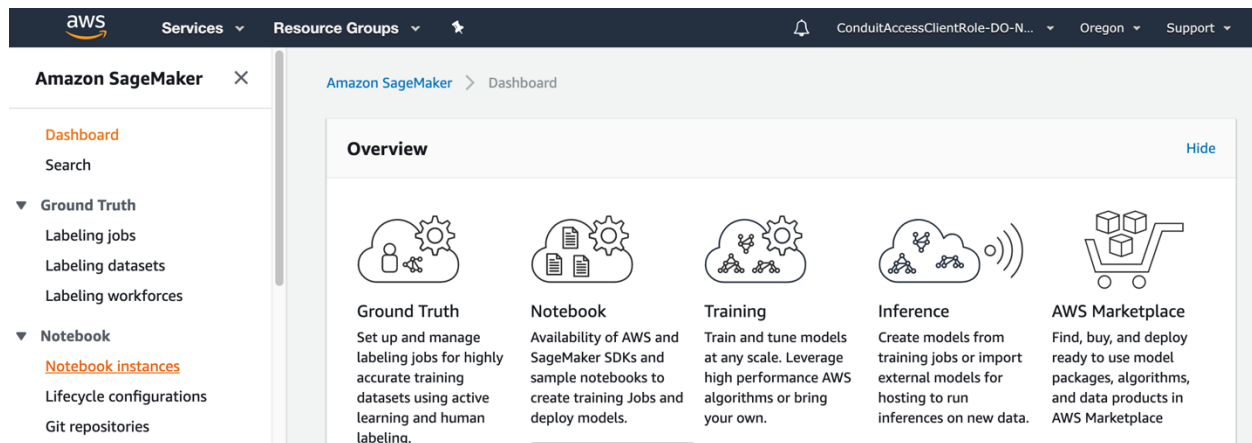
2. On Find Services, search for SageMaker and select it.



Use Jupyter Notebook instance in SageMaker:

Create notebook instance

SageMaker allows you to develop the training, testing and inference logics within Jupyter notebook instances. You can create the notebook instance using SageMaker by Notebook->Notebook Instances->Create Notebook Instance.



- Choose the notebook instance name “mlu-<your alias>”.
- Select the Notebook instance type as “ml.c4.2xlarge”

Amazon SageMaker > Notebook instances > Create notebook instance

Create notebook instance

Amazon SageMaker provides pre-built fully managed notebook instances that run Jupyter notebooks. The notebook instances include example code for common model training and hosting exercises. [Learn more](#)

Notebook instance settings

Notebook instance name

Maximum of 63 alphanumeric characters. Can include hyphens (-), but not spaces. Must be unique within your account in an AWS Region.

Notebook instance type

► Additional configuration

Permissions and encryption

IAM role

Notebook instances require permissions to call other services including SageMaker and S3. Choose a role or let us create a role with the [AmazonSageMakerFullAccess](#) IAM policy attached.

Left everything else in their default value and click the button **Create Notebook Instance**.

Once your notebook is created you will see its status changing from “Pending” to “InService”. Click on the Open Jupyter option on the right to open you Jupyter notebook.

Amazon SageMaker

Dashboard

Search^{Beta}

▼ Notebook

Notebook instances

Lifecycle configurations

Git repositories

Amazon SageMaker > Notebook instances

Notebook instances

Actions

Create notebook instance

Search notebook instances

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	Name	Instance	Creation time	Status	Actions
○	mlu-data-example	ml.t2.medium	Mar 26, 2019 17:19 UTC	✔ InService	Open Jupyter Open JupyterLab

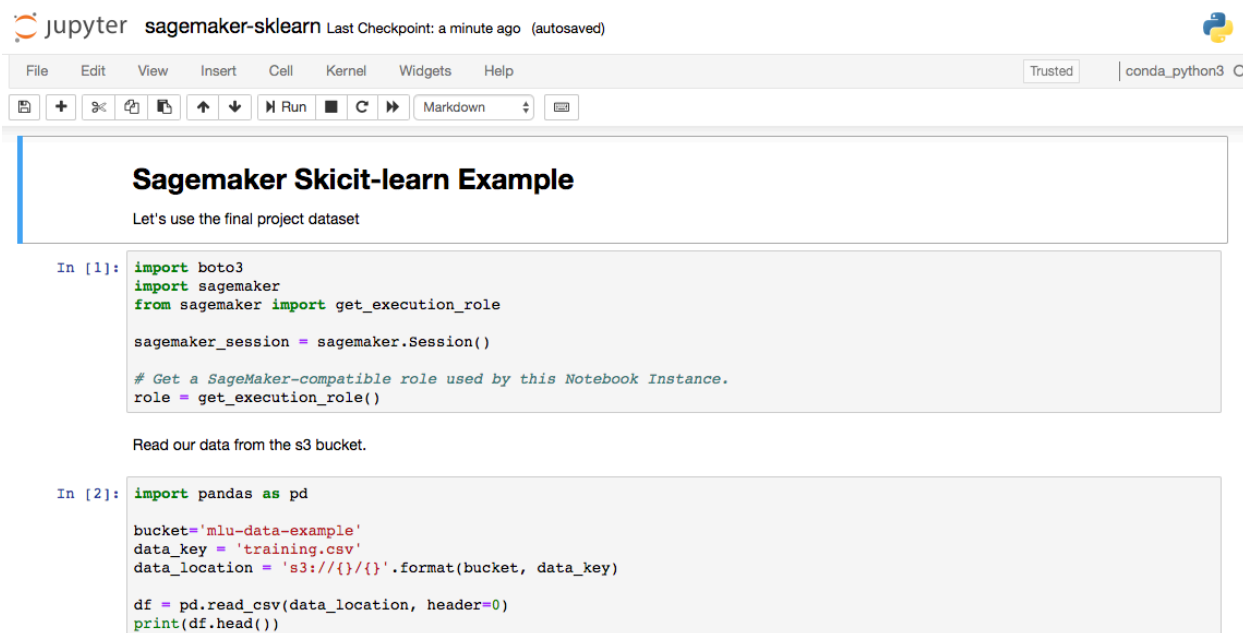
Upload a Jupyter Notebook:

1. Click on the **Upload** option at the top right corner of your screen to upload the Jupyter notebook that you have previously downloaded from Canvas.
2. Click on the notebook name to open it.
3. If you are asked to choose a kernel, choose “conda_python3”.



Edit/Run the .ipynb notebook file

The Jupyter notebook is very similar to Eider.



A Note on Frugality: Shutdown your instance when not in use

Every time you need to interrupt your work on your assignment, remember to stop your SageMaker instance.

You can always start the instance later to continue working on it.

For this, go back to your SageMaker page, select your instance and click the option “Stop” on the “Actions ” menu.

Amazon SageMaker > Notebook instances

Notebook instances

Actions ▾

Open Jupyter
Open JupyterLab
Stop
Start
Update settings
Add/Edit tags
Delete

Create notebook instance

	Name ▾	Instance	Creation time		Actions
<input checked="" type="radio"/>	cass-experiments	mL.c4.2xlarge	May 22, 2020 18:13 UTC		Open Jupyter Open JupyterLab
<input type="radio"/>	Brent-D2L-2	mL.p2.xlarge	Aug 13, 2020 21:35 UTC		Open Jupyter Open JupyterLab
<input type="radio"/>	teste	mL.t2.medium	Jan 08, 2020 23:28 UTC	✔ InService	Open Jupyter Open JupyterLab

Thank you!