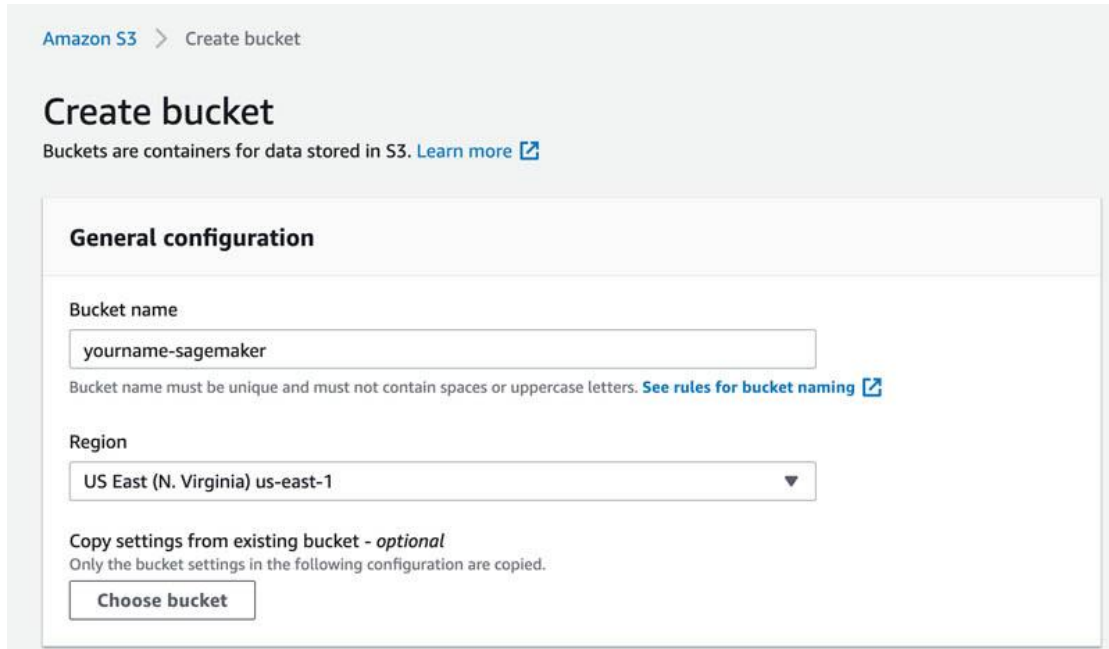


## Setup for Amazon Sagemaker:

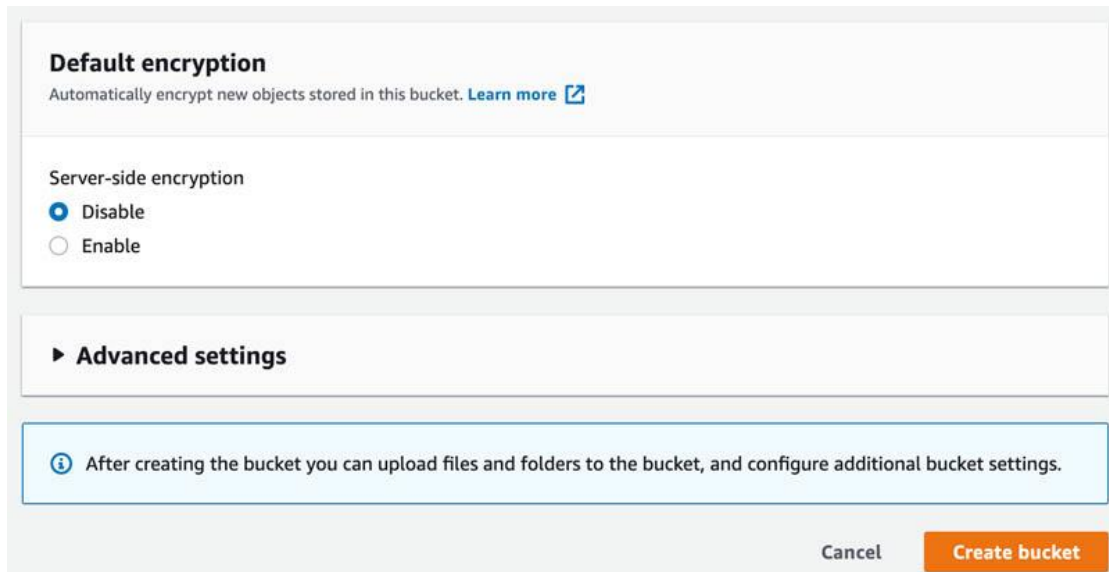
To start, we first create an Amazon S3 bucket. This stores our training dataset and the model that Amazon SageMaker outputs after the training job is complete. Next, we will create an Amazon SageMaker notebook instance. The notebook instance provides us with a managed Jupyter notebook environment to download the dataset, preprocess the data, train the model, host the model, and make predictions.

1. First, go to the Amazon S3 console at <https://s3.console.aws.amazon.com/>. Choose the Create bucket button. In the General configuration section, give your bucket a name, such as “yourname-sagemaker”.



The screenshot shows the 'Create bucket' page in the Amazon S3 console. The breadcrumb navigation at the top reads 'Amazon S3 > Create bucket'. The main heading is 'Create bucket', followed by a subtext: 'Buckets are containers for data stored in S3. [Learn more](#)'. Below this is a section titled 'General configuration'. Inside this section, there is a 'Bucket name' label and a text input field containing 'yourname-sagemaker'. A note below the input field states: 'Bucket name must be unique and must not contain spaces or uppercase letters. [See rules for bucket naming](#)'. Below the name field is a 'Region' label and a dropdown menu showing 'US East (N. Virginia) us-east-1'. Further down, there is a section for 'Copy settings from existing bucket - optional' with the text 'Only the bucket settings in the following configuration are copied.' and a 'Choose bucket' button.

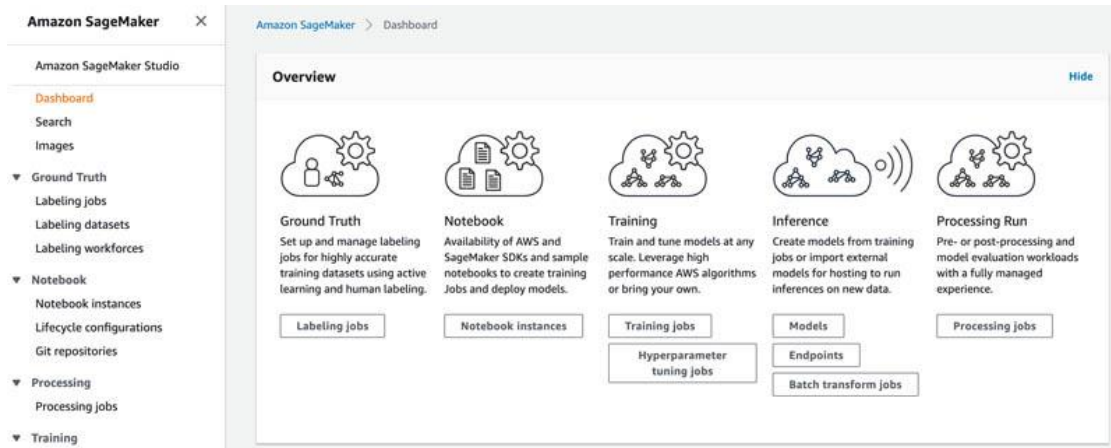
2. Choose Create bucket.



This screenshot shows the 'Default encryption' and 'Advanced settings' sections of the 'Create bucket' page. The 'Default encryption' section has the heading 'Default encryption' and subtext 'Automatically encrypt new objects stored in this bucket. [Learn more](#)'. It contains a 'Server-side encryption' label and two radio buttons: 'Disable' (which is selected) and 'Enable'. Below this is a section titled 'Advanced settings' with a right-pointing triangle icon. At the bottom of the form is a blue-bordered box containing an information icon and the text: 'After creating the bucket you can upload files and folders to the bucket, and configure additional bucket settings.' At the very bottom of the page are two buttons: 'Cancel' and 'Create bucket'.

3. Choose Notebook

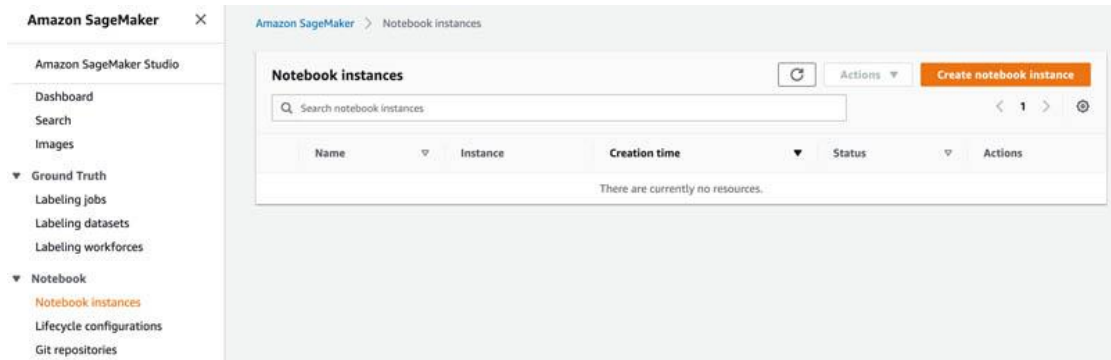
instances.



4. Choose Create

notebook

instance.



On the screen that appears, give your notebook a name, such as “yourname-notebook”.

5. In the IAM role drop-down list, choose Create a new role.

### 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**

**Elastic Inference** [Learn more](#)

► **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.

**Root access - optional**

☒ **Enable - Give users root access to the notebook**

☐ **Disable - Don't give users root access to the notebook**

Create the new role by specifying the name of your bucket in the Specific S3 bucket text box. This gives Amazon SageMaker permission to access your S3 bucket.

6. Choose Create

role.

Create an IAM role

×

Passing an IAM role gives Amazon SageMaker permission to perform actions in other AWS services on your behalf. Creating a role here will grant permissions described by the [AmazonSageMakerFullAccess](#) IAM policy to the role you create.

The IAM role you create will provide access to:

✔ S3 buckets you specify - *optional*

☒ Specific S3 buckets

yourname-sagemaker

Comma delimited. ARNs, "\*" and "/" are not supported.

☐ Any S3 bucket

Allow users that have access to your notebook instance access to any bucket and its contents in your account.

☐ None

✔ Any S3 bucket with "sagemaker" in the name

✔ Any S3 object with "sagemaker" in the name

✔ Any S3 object with the tag "sagemaker" and value "true" [See Object tagging](#)

✔ S3 bucket with a Bucket Policy allowing access to SageMaker [See S3 bucket policies](#)

Cancel



Create role

7. Choose Create notebook instance.

**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.

AmazonSageMaker-ExecutionRole-20210102T191422 ▼

 **Success! You created an IAM role.** [AmazonSageMaker-ExecutionRole-20210102T191422](#) 

**Root access - optional**

☒ Enable - Give users root access to the notebook

☐ Disable - Don't give users root access to the notebook  
Lifecycle configurations always have root access

**Encryption key - optional**  
Encrypt your notebook data. Choose an existing KMS key or enter a key's ARN.

No Custom Encryption ▼

► **Network - optional**

► **Git repositories - optional**

► **Tags - optional**


Cancel **Create notebook instance**

After the notebook is ready, you have the option to open the notebook.

8. Choose Open Jupyter.

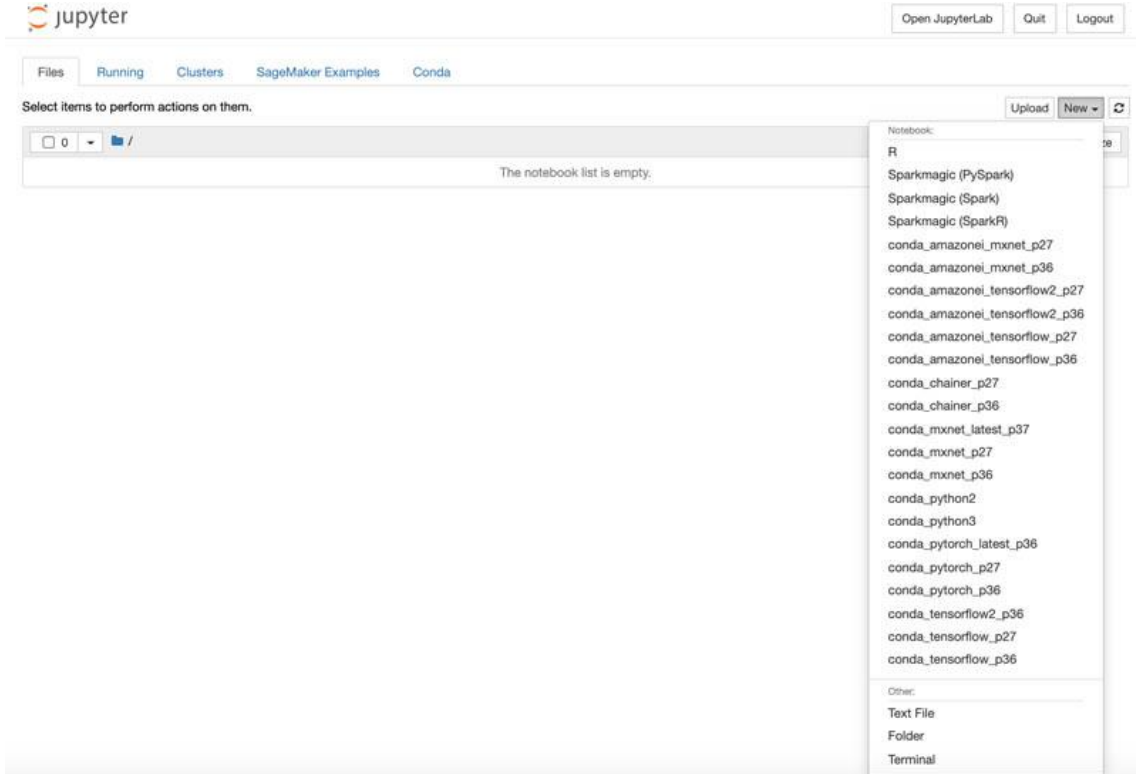
**Notebook instances**  Actions ▼ **Create notebook instance**

🔍 Search notebook instances

Name	Instance	Creation time	Status	Actions
 yourname-notebook	ml.t2.medium	Jan 02, 2021 17:09 UTC	 InService	<a href="#">Open Jupyter</a>   <a href="#">Open JupyterLab</a>

The SageMaker notebook instance comes with various sample notebooks, but in this tutorial, we'll be authoring a new notebook.

9. Choose the New button. Choose conda\_python3 to open a new notebook with a Python3.6 environment.



10. Now that you have a notebook, you can run the code from ipynb file from the repository

## Setup for Quicksight

### *Signing in to Amazon QuickSight*

You can sign in on the Amazon QuickSight page, <https://quicksight.aws.amazon.com/>. Follow the screen prompts to sign in. For your convenience, the procedure is outlined here. It varies slightly depending on the type of account you have.

### To sign in to Amazon QuickSight

1. For **Account name**, enter the QuickSight account name. This is the name that was created for the QuickSight subscription in this AWS account. Take note of it in case you need it later.
2. Enter your email address if you are prompted for it.
3. If the user name is blank, enter the user name that you want to use to sign in. User names that contain a semicolon (;) aren't supported. Choose one of the following:
  - For organizational users – the user name provided by your administrator.

Your account can be based on AWS Identity and Access Management (IAM) credentials, a single sign-on (SSO) service, or your email address. If you received an invitation email from another Amazon QuickSight user, it indicates what type of credentials to use.

- For individual users – the user name that you created for yourself.

This is usually the IAM credentials you created.

4. Enter your password in **Password**. If you aren't sure, ask the administrator. If you create a new password, enter your password again to confirm it.

Passwords are case-sensitive and must be 8–64 characters in length. They must contain at least one character from three of the following categories:

- Lowercase letters (a–z)
  - Uppercase letters (A–Z)
  - Numbers (0–9)
  - Nonalphanumeric characters (~!@#\$%^&\*\_-+=`|\(){}[]:;'"<>.,?/)
5. Choose **Sign in**. In some cases, this button is labeled **Create account and sign in**.
  6. (Only for users invited by email.) You are prompted to enter the account name provided in your email invitation. If you mistype it, you get an authentication error. To change the account name, choose the account name next to the **Account name**, and enter the correct one.

### *Setting up Amazon QuickSight to access Amazon S3 files*

Use this section to learn how to set up Amazon QuickSight so you can access Amazon S3 files in another AWS account. For information on allowing someone else to access your Amazon S3 files from their Amazon QuickSight account, see [Setting up Amazon S3 to allow access from a different Amazon QuickSight account](#).

Use the following procedure to access another account's Amazon S3 files from Amazon QuickSight. Before you can use this procedure, the users in the other AWS account must share the files in their Amazon S3 bucket with you.

#### **To access another account's Amazon S3 files from QuickSight**

1. Verify that the user or users in the other AWS account gave your account read and write permission to the S3 bucket in question.
2. Choose your profile icon, and then choose **Manage Amazon QuickSight**.
3. Choose **Security & permissions**.
4. Under **QuickSight access to AWS services**, choose **Manage**.
5. Choose **Select S3 buckets**.

6. On the **Select Amazon S3 buckets** screen, choose the **S3 buckets you can access across AWS** tab.

The default tab is named **S3 buckets linked to Amazon QuickSight account**. It shows all the buckets your Amazon QuickSight account has access to.

7. Do one of the following:
  - To add all the buckets that you have permission to use, choose **Choose accessible buckets from other AWS accounts**.
  - If you have one or more Amazon S3 buckets that you want to add, enter their names. Each must exactly match the unique name of the Amazon S3 bucket.

If you don't have the appropriate permissions, you see the error message "We can't connect to this S3 bucket. Make sure that any S3 buckets you specify are associated with the AWS account used to create this Amazon QuickSight account." This error message appears if you don't have either account permissions or Amazon QuickSight permissions.

8. To use Amazon Athena, Amazon QuickSight needs to access the Amazon S3 buckets that Athena uses.
9. You can add them here one by one, or use the **Choose accessible buckets from other AWS accounts** option.
10. Choose **Select buckets** to confirm your selection.
11. Create a new dataset based on Amazon S3, and upload your manifest file. For more information Amazon S3 datasets, see [Creating a dataset using Amazon S3 files](#).