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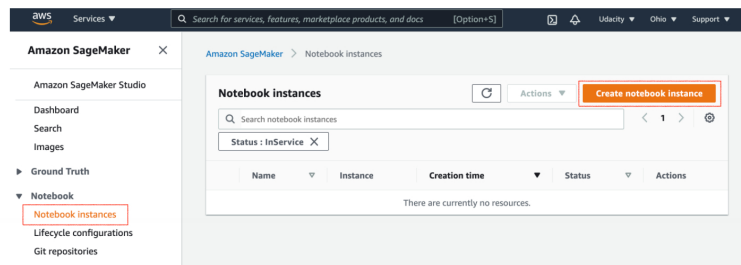
Setting up a Notebook Instance

The deployment project you will be working on is intended to be done using Amazon's SageMaker platform. In particular, it is assumed that you have a working notebook instance in which you can clone the deployment repository.

If you have not yet done this, please see the beginning of **Lesson: Building a Model using SageMaker** where we have walked you by creating a notebook and cloning the deployment repository. Alternatively, you can follow the instructions below.

Step 1. Go to AWS SageMaker

First, start by logging in to the [AWS console](#), opening the SageMaker dashboard, and clicking on **Create notebook instance**.



AWS SageMaker → Notebook instances service

Step 2. Create a notebook instance

The **Create notebook instance** wizard will come up, asking you the following information:

1. **Notebook instance settings** - In this section, you may choose the notebook instance name of your choice. By default, a **ml.t2.medium** type is available. But, we will use **ml.p2.xlarge** for **training** a model and **ml.m4.xlarge** for **deployment**. These instances may not be available to all users by default. If you haven't requested **ml.p2.xlarge** so far, go to the [AWS Support Center](#) to raise a *Service limit increase* request.

Note that your notebook may have a different name than the one displayed here.

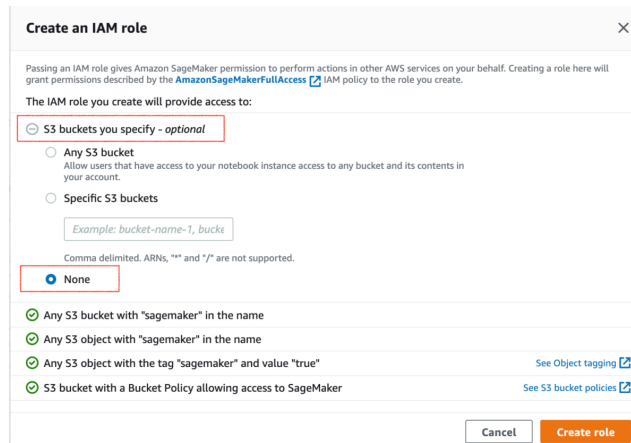
Create notebook instance → Notebook instance settings

2. **Permissions and encryption** - Next, under *IAM role* field select *Create a new role*.

Create notebook instance → Permissions and encryption. Create a new IAM role

3. **Create an IAM role** - You should get a pop-up dialog box, where you have to select **None** radio-button under **S3 buckets you specify** field, as is shown in the image below.

Note that the IAM role name that appears may be different than the one displayed here.



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.

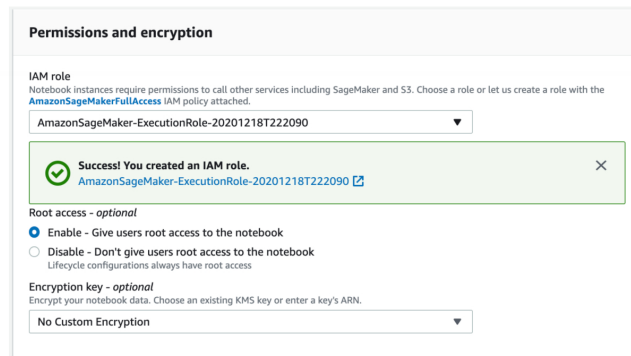
The IAM role you create will provide access to:

- ☒ **S3 buckets you specify - optional**
 - ☐ Any S3 bucket
Allow users that have access to your notebook instance access to any bucket and its contents in your account.
 - ☐ Specific S3 buckets

Comma delimited. ARNs, "*" and "/" are not supported.
- ☒ **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](#)

Create an IAM role dialog box



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.

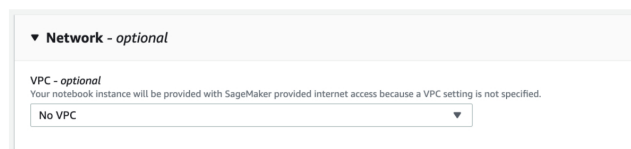
☒ **Success! You created an IAM role.**
[AmazonSageMaker-ExecutionRole-20201218T222090](#)

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.

Success, creating a new IAM role

4. **Network - optional** - Choose the *No VPC* option.



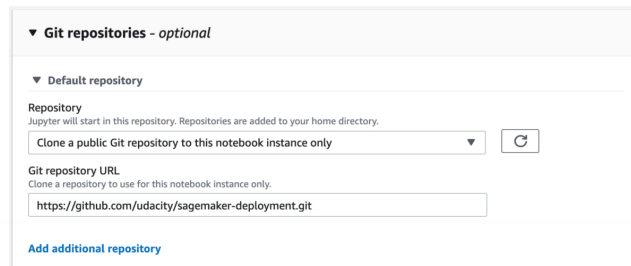
▼ Network - optional

VPC - optional
Your notebook instance will be provided with SageMaker provided internet access because a VPC setting is not specified.

Create notebook instance → Network settings. Choose *No VPC*

5. **Git repositories** - Here you will clone the

<https://github.com/udacity/sagemaker-deployment.git> repository to the current notebook instance only.



▼ Git repositories - optional

▼ Default repository

Repository
Jupyter will start in this repository. Repositories are added to your home directory.

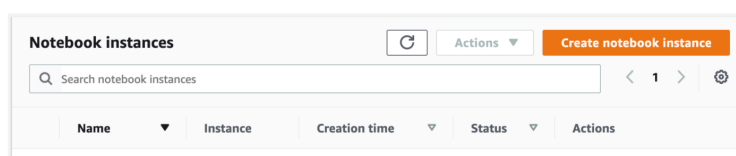
Git repository URL
Clone a repository to use for this notebook instance only.

[Add additional repository](#)

Create notebook instance → Git repositories setting

6. You're done! Click on **Create notebook instance** button.

Your notebook instance is now set up and ready to be used! Once the Notebook instance has loaded, you will see a screen similar to the following snapshot.



Notebook instances					<input type="button" value="🔄"/>	Actions ▼	<input type="button" value="Create notebook instance"/>
<input type="text" value="Search notebook instances"/>					< 1 > ⚙		
Name ▼	Instance	Creation time ▼	Status ▼	Actions			
					Dec 18, 2020 16:51	Open JupyterLab	

<input type="radio"/>	myNotebook	ml.t2.medium	Dec 10, 2020 10:31 UTC	 InService	Open Jupyter Open JupyterLab
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A successfully created notebook instance (Status: InService). You can access your notebook using the **Open Jupyter** Action.

NEXT