



Movies Recommender by Personalize

Hands on Lab

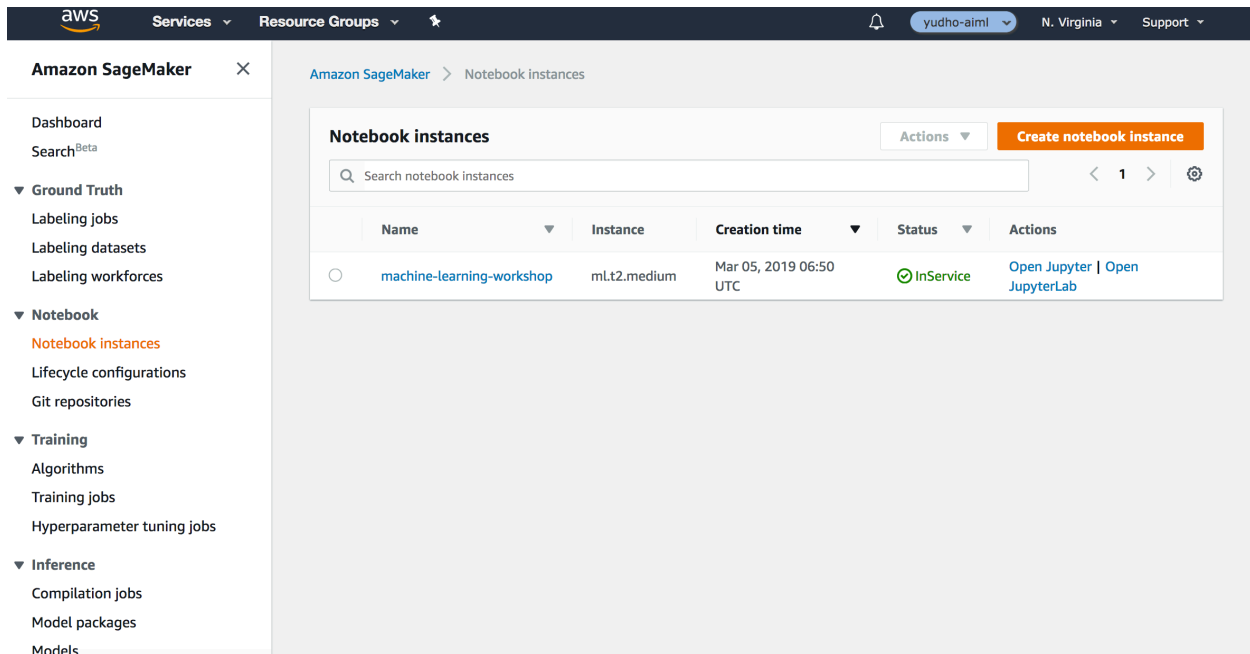
March 2019

Lab Preparation

This lab guide provides preparation steps for the machine learning workshop labs on AWS. This includes launching SageMaker notebook instances and creating necessary IAM role.

Launching Sagemaker notebook instance

1. Go to Amazon SageMaker UI console at
<https://console.aws.amazon.com/sagemaker/home?region=us-east-1#/>
2. Locate “Notebook Instances” on the left menu, and click it
3. Click “Create notebook instance” orange button
4. Fill in details:
 - a. Notebook instance name: **machine-learning-workshop**
 - b. Notebook instance type: **ml.t2.medium**
 - c. IAM role: **Create a new role**
 - i. When prompted, under “S3 buckets you specify – optional” section, select **Any S3 bucket**, then click “Create role”
 - d. Volume size in GB – optional: **50**
5. Leave other fields with default value
6. Click “Create notebook instance”
7. Go back to SageMaker Notebook instances dashboard and wait until the status of notebook is InService. You should see this after the notebook is InService



The screenshot displays the Amazon SageMaker console interface. The top navigation bar includes the AWS logo, 'Services', 'Resource Groups', and user information. The left sidebar lists various SageMaker services, with 'Notebook Instances' selected and highlighted in orange. The main content area shows the 'Notebook instances' dashboard. It features a search bar, a table of existing instances, and a prominent orange 'Create notebook instance' button. The table contains one instance named 'machine-learning-workshop' with the type 'ml.t2.medium', created on 'Mar 05, 2019 06:50 UTC', and a status of 'InService'. The 'Actions' column for this instance provides links to 'Open Jupyter' and 'Open JupyterLab'.

Name	Instance	Creation time	Status	Actions
machine-learning-workshop	ml.t2.medium	Mar 05, 2019 06:50 UTC	InService	Open Jupyter Open JupyterLab

Add permissions to IAM role

1. From AWS console, go to IAM service
2. Select Policies from the left menu
3. Click “Create policy”
4. Choose “JSON” tab
5. Paste this policy below, replacing the whole content:

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Sid": "VisualEditor0",
      "Effect": "Allow",
      "Action": [
        "s3:*",
        "rekognition:*",
        "sagemaker:*",
        "personalize:*",
        "transcribe:*",
        "translate:*",
        "polly:*",
        "comprehend:*",
        "iam:GetRole",
        "iam:PassRole"
      ],
      "Resource": "*"
    }
  ]
}
```

6. Click “Review policy”
7. Fill in this detail:
 - a. Name: **aiml-workshop**
 - b. Description: **Policy that allows to S3 and several AIML services including recognition, sagemaker, personalize, transcribe, translate, polly, and comprehend.**
8. Click “Create policy”
9. Go back to IAM console main page
10. Select Roles from the left menu
11. Find the Amazon SageMaker role that was created in the section above when we launched SageMaker notebook instance. It should start with “AmazonSageMaker-ExecutionRole-“. Click that role.
12. Under “Permissions” click “Attach policies”
13. On the “Filter policies” box type **aiml-workshop** that we created just now

14. Click “Attach policy”

Access Jupyter notebook and clone code

1. From AWS console go to Amazon SageMaker service
2. Click Notebook instances on the left menu
3. On the currently InService notebook instance we created before, click “Open Jupyter”
4. On the newly opened tab, click “New” then select “Terminal”
5. On the newly opened tab for Jupyter notebook terminal, do:
 - a. `cd SageMaker`
 - b. `git clone https://github.com/yudho/machine-learning-workshop.git`
6. Navigate back to the previous tab, which shows Jupyter notebook UI. Our lab materials today are there.