Jupyter Notebook on Microk8s Kubeflow

Jupyter Notebooks

- Appropriate open-source environment for code building, visualizations.

- Integrated into Kubeflow by connecting to the Notebook Server.

- Allows standard/custom notebook images , role-based access control (RBAC), secrets and credentials to manage for teams.

- Kubeflow provides multiple notebook servers per kubeflow deployments, each having a single namespace that corresponds to a team or project name.

Jupyter Notebooks

Set up your Notebook

Start by setting up a jupyter notebook through the Notebook Servers tab following the steps below:

1. Click **Notebook Servers** in the left-hand panel of the Kubeflow UI.

2. Click the **namespace** dropdown and choose the a that corresponds to your Kubeflow profile.

3. Click **new server** at the top right corner of the Notebook Servers page to create a notebook server.
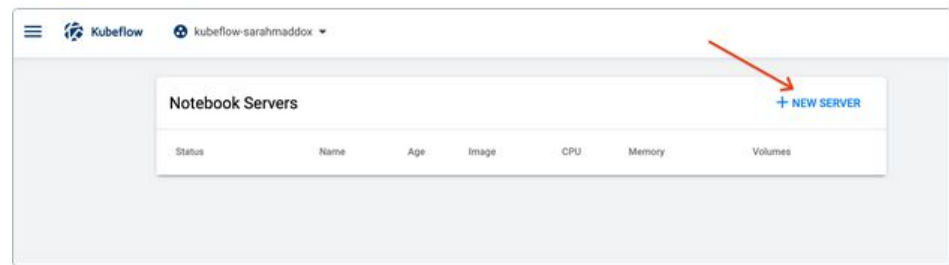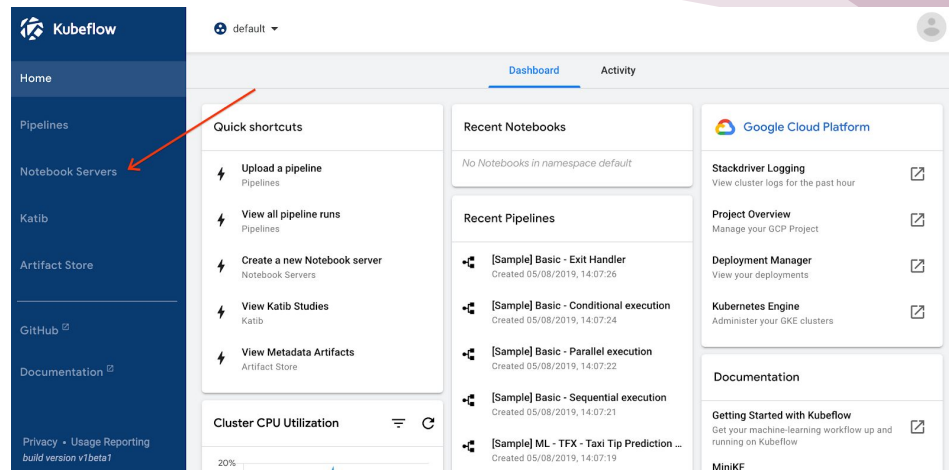
Set up your Notebook

4. Enter the details of your new server on the next page:

a. Give a **name** of your choice to the notebook server, which must be in *lowercase*

b. The **namespace** is automatically updated by Kubeflow.

c. Select a Docker image. Use the gcr.io/kubeflow-images-public/tensorflow-1.15.2-notebook-cpu:1.0.0 image for our example.

▤ Name

Specify the name of the Notebook Server and the Namespace it will belong to.

Name	Namespace
my-first-notebook	admin

🐳 Image

A starter Jupyter Docker Image with a baseline deployment and typical ML packages.

☐ Custom Image

Image
gcr.io/kubeflow-images-public/tensorflow-1.15.2-notebook-cpu:1.0.0 ▾

Set up your Notebook

6. Specify the total amount of **CPU** that your notebook server should reserve. **For this labs use 0.5**

7. Specify the total amount of memory your notebook server should reserve. **For this labs use 1.0GI**

8. Specify a **workspace volume** to hold your personal workspace for this notebook server. The name is automatically updated by kubeflow(you can decide to edit it as well), leave the size as 10Gi and the mode at ReadWriteOnce for this labs.

9. Click **LAUNCH** and you should see a new Notebook server entry.

CPU / RAM

Specify the total amount of CPU and RAM reserved by your Notebook Server. For CPU-intensive workloads, you can choose more than 1 CPU (e.g. 1.5).

CPU	Memory
0.5	1.0Gi

Workspace Volume

Configure the Volume to be mounted as your personal Workspace.

☐ Don't use Persistent Storage for User's home

Type	Name	Size	Mode	Mount Point
New	workspace-(notebook-nam	10Gi	ReadWriteOnce	/home/jovyan

Notebook Servers   + NEW SERVER

Status	Name	Age	Image	CPU	Memory	Volumes		
✓	my-first-notebook	4 mins ago	tensorflow-1.13.1-notebook-cpu:v0.5.0	0.5	1.0Gi	⋮	CONNECT	🗑

Clone the Repository

10. Connect to your notebook and open up the terminal.

11. In the terminal run the following to clone the repository.

```
git clone
https://github.com/MavenCode/Kubefl
owTraining.git
```