

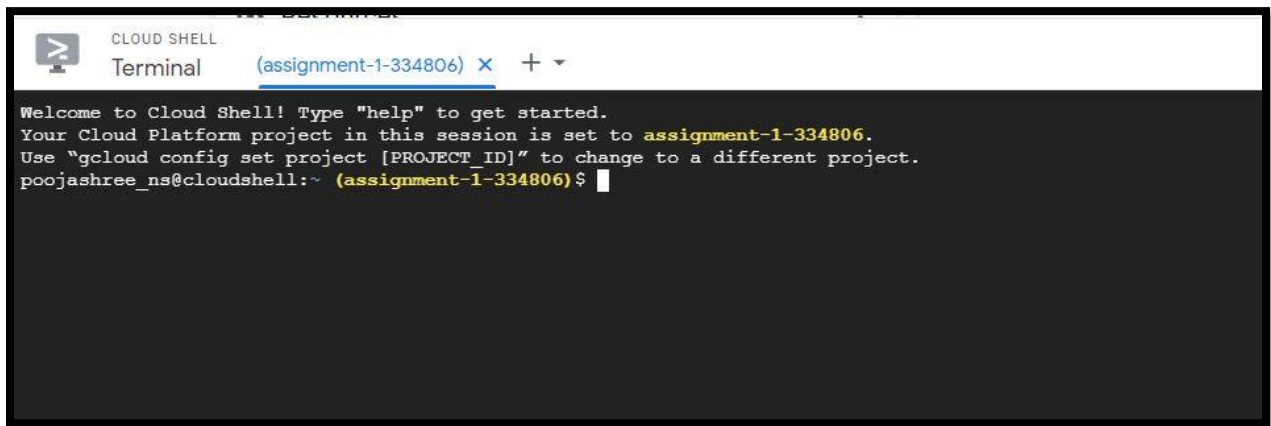
## CMPE-255 OPTIONAL ASSIGNMENT VERTEX-AI

Optional catchup assignment 2 - VERTEX AI - for midterm and quiz - this will catch up midterm.

Subsection a: <https://codelabs.developers.google.com/vertex-pipelines-intro#0>

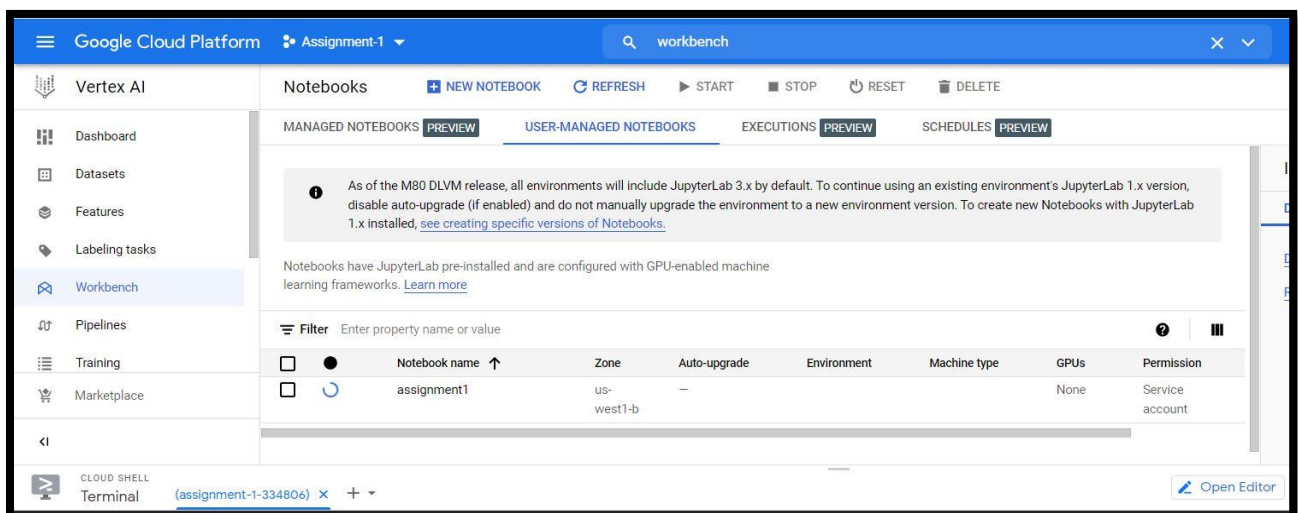
### Screenshots:

Enable cloud shell:



```
CLOUD SHELL Terminal (assignment-1-334806) x + v
Welcome to Cloud Shell! Type "help" to get started.
Your Cloud Platform project in this session is set to assignment-1-334806.
Use "gcloud config set project [PROJECT_ID]" to change to a different project.
poojashree_ns@cloudshell:~ (assignment-1-334806) $
```

Create New Notebook:



Google Cloud Platform Assignment-1 workbench

Vertex AI

Notebooks + NEW NOTEBOOK REFRESH START STOP RESET DELETE

MANAGED NOTEBOOKS PREVIEW USER-MANAGED NOTEBOOKS EXECUTIONS PREVIEW SCHEDULES PREVIEW

As of the M80 DLVM release, all environments will include JupyterLab 3.x by default. To continue using an existing environment's JupyterLab 1.x version, disable auto-upgrade (if enabled) and do not manually upgrade the environment to a new environment version. To create new Notebooks with JupyterLab 1.x installed, see creating specific versions of Notebooks.

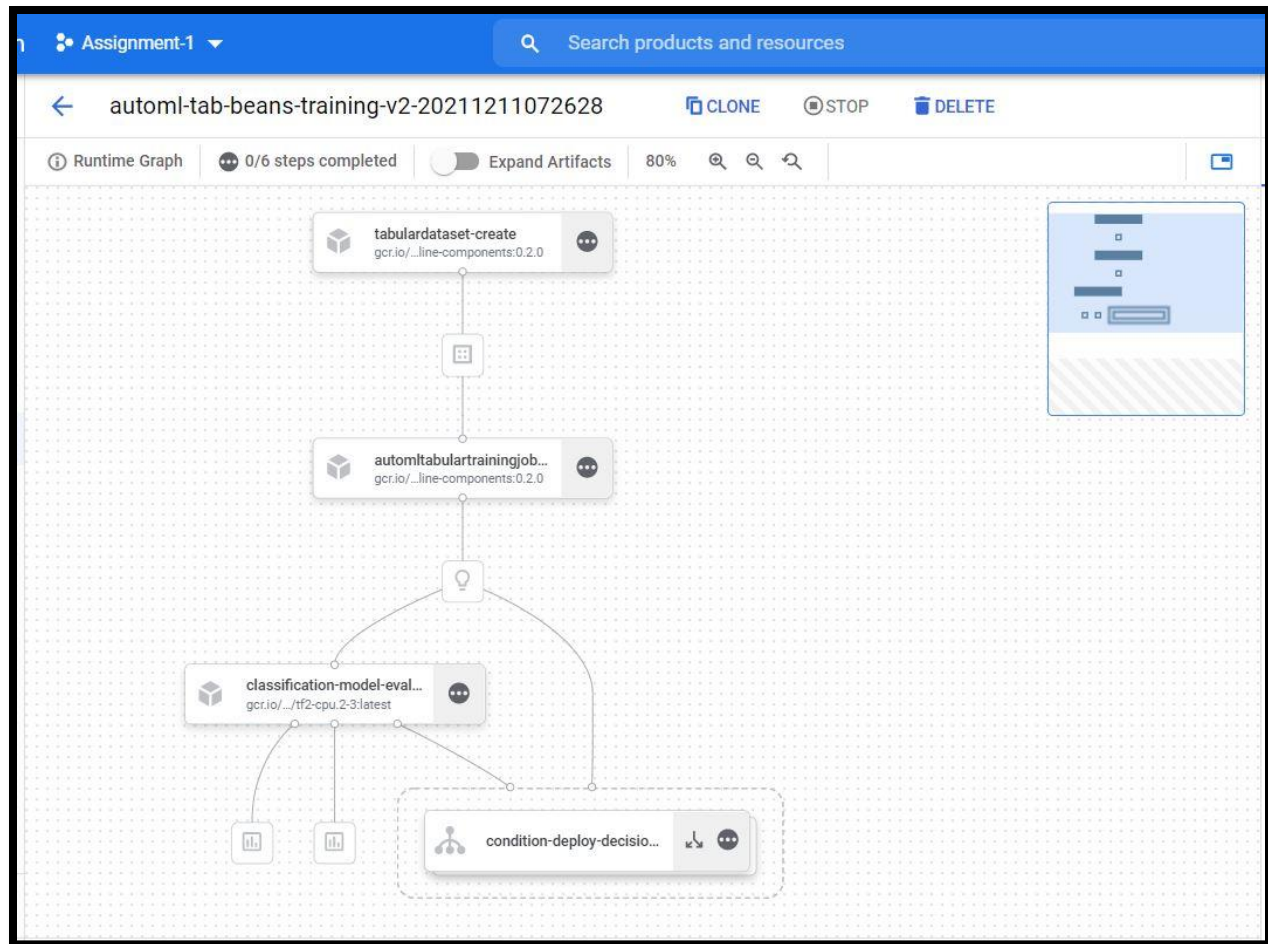
Notebooks have JupyterLab pre-installed and are configured with GPU-enabled machine learning frameworks. [Learn more](#)

Filter Enter property name or value

	Notebook name ↑	Zone	Auto-upgrade	Environment	Machine type	GPUs	Permission
<input type="checkbox"/>	assignment1	us-west1-b	—			None	Service account

CLOUD SHELL Terminal (assignment-1-334806) x + v Open Editor





## Code for pipeline Creation:

```
File Edit View Run Kernel Git Tabs Settings Help
Untitled.ipynb
Filter files by name
Name Last Modified
src 21 minutes ago
tutorials 21 minutes ago
Yt first-component.yaml 5 minutes ago
Yt intro_pipeline_job.json 5 minutes ago
Yt tab_classif_pipeline.json 3 minutes ago
Yt tabular_eval_component... 3 minutes ago
Untitled.ipynb a minute ago

[1]: USER_FLAG = "--user"

[2]: !pip3 install {USER_FLAG} google-cloud-aiplatform==1.7.0 --upgrade
!pip3 install {USER_FLAG} kfp==1.8.9 google-cloud-pipeline-components==0.2.0

[2]: import os

if not os.getenv("IS_TESTING"):
    # Automatically restart kernel after installs
    import IPython
    app = IPython.Application.instance()
    app.kernel.do_shutdown(True)

[17]: !python3 -c "import kfp; print('KFP SDK version: {}'.format(kfp.__version__))"
!python3 -c "import google_cloud_pipeline_components; print('google_cloud_pipeline_components version: {}'.format(google_cloud_pipeline_comp

KFP SDK version: 1.8.9
google_cloud_pipeline_components version: 0.2.0

[18]: import os
PROJECT_ID = ""

# Get your Google Cloud project ID from gcloud
if not os.getenv("IS_TESTING"):
    shell_output = gcloud config list --format 'value(core.project)' 2>/dev/null
    PROJECT_ID = shell_output[0]
    print("Project ID: ", PROJECT_ID)

Project ID: assignment-1-334806
```