ADTA 5900/5560: Assignments – Important Notes

Thuan L Nguyen, PhD

1. Overview

Google has released a new TensorFlow version: Version 2.0 and later.

This new version is not automatically backward compatible to TensorFlow 1.xx.

The TensorFlow versions used in ADTA 5550 and ADTA 5560 are different. **For ADTA 5560, TensorFlow 2.xx is used**.

The student should ensure that he/she has selected **TensorFlow 2.xx latest version** when setting up the Deep Learning server VM for the class work, as discussed in HW 1-related lectures and documents.

2. Important Note 1: TensorFlow Version

As shown in the documents posted for lectures in WEEK 1 & 2, the version of TensorFlow that we should choose to configure the Deep Learning server when the VM is set up is **TensorFlow 2.xx latest version.**

Please be sure that you **do select the TensorFLow 2.xx** for the Deep Learning Image when you set up the VM.

How to check which version you used:
--) Open a Jupyter Notebook
--) Add the following lines of code:

```
//------------------------
import warnings
warnings.filterwarnings("ignore")

import tensorflow as tf

print(tf.__version__)
//------------------------
```

If you found that you did not use **TensorFlow 2.xx the latest version** while you set up the VM, I strongly recommend you start over to avoid serious issues along the road:
--) Stop and delete the current VM.
--) Set up a new Deep Learning VM – BE SURE: Select the **latest version** of **TensorFLow 2.xx**.

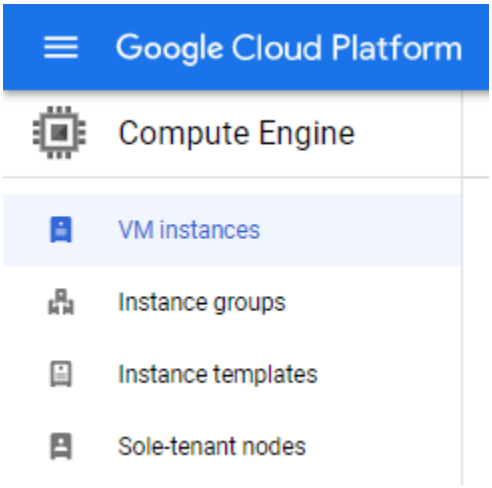
3. Important Note 2: GCP Project ID

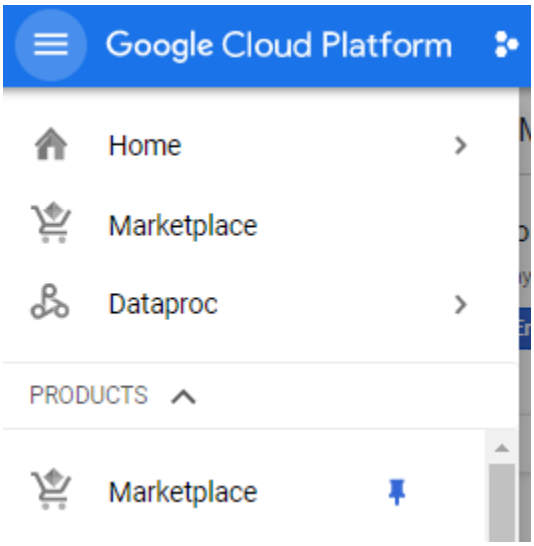
In Goolge Cloud Platform (GCP), any virtual machines (VM) are created in a GCP project that has both the project name and project ID. These two important pieces of information can be the same or different for a particular project.

In all the command lines that are executed in Gcloud SDK terminals, the project ID is used.

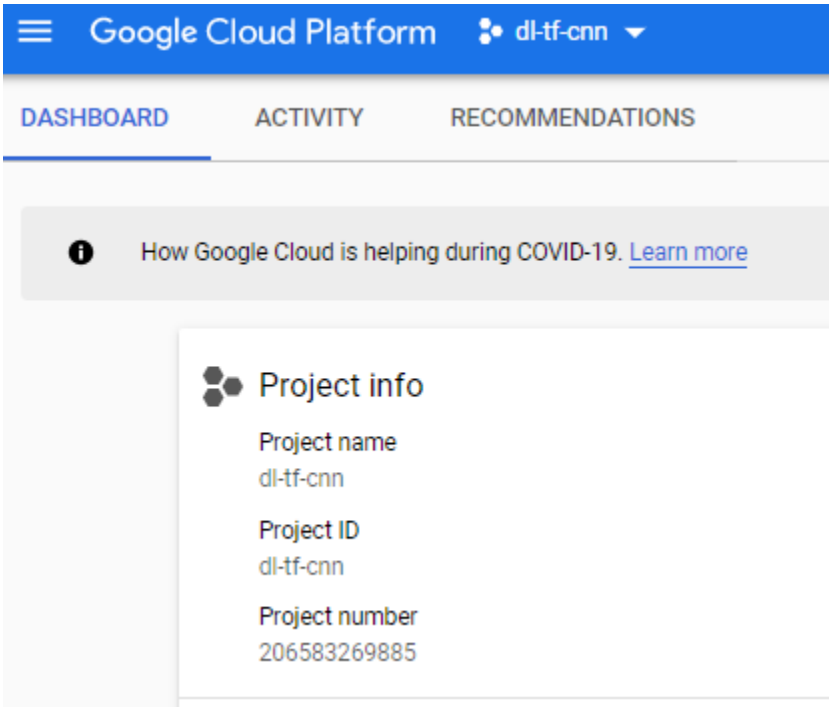
Before running a command line that requires the project ID, the student should check to be sure that the project ID is used, not the project name. Otherwise, errors would occur.

To get Project ID, click on the three short lines on the top left corner of the console:





Click on Home to display all the information of the project:



4. Important Note 3: Use Remote Deep Learning Server in GCP

The remote deep learning server in GCP that the student set up in HW 1 provides all the necessary software applications, including AI frameworks – TensorFlow and Keras, tools such as Jupyter Notebooks, and programming languages like Python.

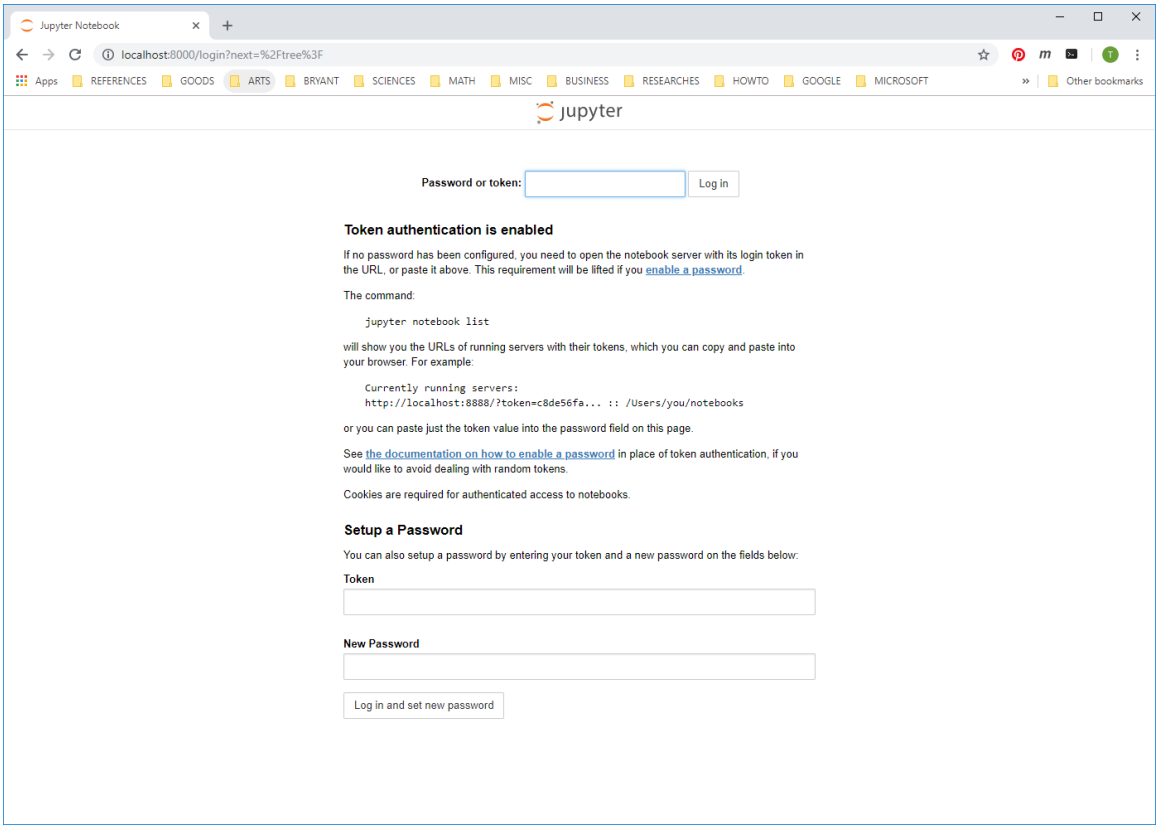
The most important benefit of using the deep learning server in GCP is that all the versions of these software applications work altogether correctly, which guarantees that unexpected errors caused by mismatched versions and incompatibility would not occur.

It is expected that the student should **use the remote deep learning server** for **all the class assignments**, including HWs, the midterm, and the final project.

The student should not use Jupyter Notebook in the Anaconda package installed in the local computer because such a system cannot guarantee the features, especially the compatibility among the versions of software applications, which might cause unexpected errors, while he/she works on a class assignment.

5. Important Note 4: Enter Only Token (for Jupyter Notebook Authentication)

After starting Jupyter Notebook server in the remote deep learning server in GCP, before being able to use Jupyter Notebook in the local computer, the student needs to start Google Chrome browser and open the URL http://localhost:8000 to connect to the Jupyter Notebook server.

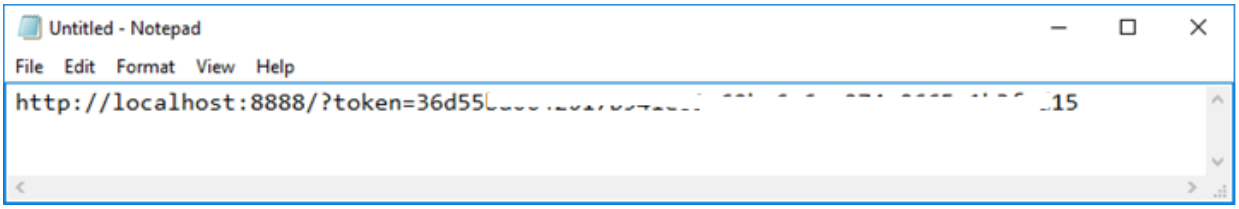


When the browser starts, the student has to enter the token value into a text field to complete the authentication process.

He/she should **enter only** the **TOKEN VALUE**.

For example:

The text that shows the token provided by the Jupyter Notebook server started in the remote deep learning server:



The student should **enter only** the **token value**: **36d55 …….. 15**.

It would be an **error** if the student **entered all the text**: “http://.....15”