**LAB: Google Cloud Fundamentals: Getting Started with App Engine**

**Overview**

In this lab, you create and deploy a simple App Engine application using a virtual environment in the Google Cloud Shell.

**Objectives**

In this lab, you learn how to perform the following tasks:

* Initialize App Engine.
* Preview an App Engine application running locally in Cloud Shell.
* Deploy an App Engine application, so that others can reach it.
* Disable an App Engine application, when you no longer want it to be visible.

**STEPS**

1. **Initializing your app engine**

* To display your project ID, enter this command:

gcloud config list project

The output should look like this:

[core] project = qwiklabs-gcp-44776a13dea667a6

* Initialize your App Engine app with your project and choose its region:

gcloud app create --project=$DEVSHELL\_PROJECT\_ID

When prompted, select the [region](https://cloud.google.com/appengine/docs/locations)where you want your App Engine application located.

* Clone the source code repository for a sample application in the **hello\_world** directory:

git clone https://github.com/GoogleCloudPlatform/python-docs-samples

* Navigate to the source directory:

cd python-docs-samples/appengine/standard\_python3/hello\_world

1. **Run Hello World application locally**

* Execute the following command to download and update the packages list:

sudo apt-get update

* Set up a virtual environment in which you will run your application. Python virtual environments are used to isolate package installations from the system.

sudo apt-get install virtualenv

If prompted [Y/n], press Y and then Enter.

virtualenv -p python3 venv

* Activate the virtual environment.

source venv/bin/activate

* Navigate to your project directory and install dependencies.

pip install -r requirements.txt

* Run the application:

python main.py

Please ignore the warning if any.

* View the app on a new tab on the specified port 8080

1. **Deploy and run Hello World on App Engine**

* Navigate to the source directory:

cd ~/python-docs-samples/appengine/standard\_python3/hello\_world

* Deploy your Hello World application.

gcloud app deploy

If prompted "Do you want to continue (Y/n)?", press Y and then Enter.

This **app deploy** command uses the *app.yaml* file to identify project configuration

* Launch your browser to view the app at http://YOUR\_PROJECT\_ID.appspot.com

gcloud app browse

Copy and paste the URL into a new browser window. You should see HELLO WORLD.

1. **Disable the application**

App Engine offers no option to **Undeploy** an application. After an application is deployed, it remains deployed, although you could instead replace the application with a simple page that says something like "not in service."

However, you can disable the application, which causes it to no longer be accessible to users.

* Disable the application:

gcloud app disable