**Google Africa Developer Scholarship Phase II**

**Google Cloud Practice Project**

**Associate Cloud Engineer: Learning Phase 1 Main Track Channel (2020)**

**Course: Essential Google Cloud Infrastructure: Foundation**

**Module**: Applications in the Cloud

**GCP Fundamentals: Getting Started with App Engine**

**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:**

**Activate Google Cloud Shell**

Result: - In GCP console, on the top right toolbar, click the Open Cloud Shell button

* Click C**ontinue**
* It takes a few moments to provision and connect to the environment. When you are connected, you are already authenticated, and the project is set to your PROJECT\_ID.
* gcloud is the command-line tool for Google Cloud Platform. It comes pre-installed on Cloud Shell and supports tab-completion.
* *gcloud auth list*

Result: Credentialed accounts:

- <myaccount>@<mydomain>.com (active)

Credentialed accounts:

- [google1623327\_student@qwiklabs.net](mailto:google1623327_student@qwiklabs.net)

* *gcloud config list project*

[core]

project = <project\_ID>

[core]

project = qwiklabs-gcp-44776a13dea667a6

1. Initialize App Engine

* *gcloud app create --project=$DEVSHELL\_PROJECT\_ID*
* Initialize your App Engine app with your project and choose its region

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

**When prompted, select the region 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*

**2: Run Hello World application locally**

In this task, you run the Hello World application in a local, virtual environment in Cloud Shell.

* Ensure that you are at the Cloud Shell command prompt.
* 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.

* In Cloud Shell, click Web preview (Web Preview) > Preview on port 8080 to preview the application.
* To access the Web preview icon, you may need to collapse the Navigation menu.

Result: 8080-dot-10490530-dot-devshell.appspot.com/?authuser=1&environment\_id=default

Hello World!

3. **Deploy an App Engine application, so that others can reach it.**

To deploy your application to the App Engine Standard environment:

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.

Result: Result: 8080-dot-10490530-dot-devshell.appspot.com/?authuser=1&environment\_id=default

Hello World!

4. **Disable an App Engine application, when you no longer want it to be visible.**

*gcloud app versions stop*

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.

In the Cloud Console, on the Navigation menu (Navigation menu), click App Engine > Settings.

Click Disable application.

Read the dialog message. Enter the App ID and click DISABLE.

If you refresh the browser window you used to view to the application site, you'll get a 404 error.