**Lab - Getting Started with Deployment Manager and Cloud Monitoring**

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

* Create a Deployment Manager deployment.
* Update a Deployment Manager deployment.
* View the load on a VM instance using Cloud Monitoring.

**Steps:**

1. **Create a Deployment Manager deployment.**

* For your convenience, place the zone that Qwiklabs assigned you to into an environment variable called MY\_ZONE. At the Cloud Shell prompt, type this partial command:

*export MY\_ZONE=*

* followed by the zone that Qwiklabs assigned you to. Your complete command will look similar to this:

*export MY\_ZONE=us-central1-a*

* At the Cloud Shell prompt, download an editable Deployment Manager template:

*gsutil cp gs://cloud-training/gcpfcoreinfra/mydeploy.yaml mydeploy.yaml*

* In the Cloud Shell, use the sed command to replace the PROJECT\_ID placeholder string with your Google Cloud Platform project ID using this command:

*sed -i -e "s/PROJECT\_ID/$DEVSHELL\_PROJECT\_ID/" mydeploy.yaml*

* In the Cloud Shell, use the sed command to replace the ZONE placeholder string with your Google Cloud Platform zone using this command:

*sed -i -e "s/ZONE/$MY\_ZONE/" mydeploy.yaml*

* View the mydeploy.yaml file, with your modifications, with this command:

*cat mydeploy.yaml*

Response:

resources:

- name: my-vm

type: compute.v1.instance

properties:

zone: us-central1-a

machineType: zones/us-central1-a/machineTypes/n1-standard-1

metadata:

items:

- key: startup-script

value: "apt-get update"

*disks:*

*- deviceName: boot*

*type: PERSISTENT*

*boot: true*

*autoDelete: true*

*initializeParams:*

*sourceImage: https://www.googleapis.com/compute/v1/projects/debian-cloud/global/images/debian-9-stretch-v20180806*

*networkInterfaces:*

*- network: https://www.googleapis.com/compute/v1/projects/qwiklabs-gcp-00-d62151175054/global/networks/default*

*accessConfigs:*

*- name: External NAT*

*type: ONE\_TO\_ONE\_NAT*

* *Build a deployment from the template:*

*gcloud deployment-manager deployments create my-first-depl --config mydeploy.yaml*

1. **Update a Deployment Manager deployment.**

* Return to your Cloud Shell prompt. Launch the nano text editor to edit the mydeploy.yaml file:

*nano mydeploy.yaml*

* Find the line that sets the value of the startup script, value: "apt-get update", and edit it so that it looks like this:

*value: "apt-get update; apt-get install nginx-light -y"*

* Press Ctrl+O and then press Enter to save your edited file
* Press Ctrl+X to exit the nano text editor.
* Return to your Cloud Shell prompt. Enter this command to cause Deployment Manager to update your deployment to install the new startup script:

*gcloud deployment-manager deployments update my-first-depl --config mydeploy.yaml*

1. **View the load on a VM instance using Cloud Monitoring.**

* Connect to my-vm

*gcloud compute ssh my-vm-2*

* In the ssh session on my-vm, execute this command to create a CPU load:

*dd if=/dev/urandom | gzip -9 >> /dev/null &*

Response:

[1] 1586

- Add the agent's package repository to install monitoring agent:

*curl -sSO https://dl.google.com/cloudagents/add-monitoring-agent-repo.sh*

*sudo bash add-monitoring-agent-repo.sh*

Response:

Adding agent repository for Debian or Ubuntu.

OK

* To install the latest version of the agent, run:

*sudo yum install -y stackdriver-agent*

* sudo service stackdriver-agent start

*sudo service stackdriver-agent start*

- Add the agent's package repository to install logging agent:

*curl -sSO https://dl.google.com/cloudagents/add-logging-agent-repo.sh*

*sudo bash add-logging-agent-repo.sh*

* To install the latest version of the agent, run:

*sudo yum install -y google-fluentd*

* Install the Configuration files.

*sudo yum install -y google-fluentd-catch-all-config*

* *Start the agent service*

*sudo service google-fluentd start*

* Terminate your workload generator. Return to your ssh session on my-vm and enter this command:

*kill %1*