

10. Configure Apache2 HTTP server on a GCE VM instance and setup an email alert notification which triggers when the health check of the instance fails. Use console.

1. Configure Apache2:

- a) Create a VM instance.
- b) SSH into it and install apache2 as shown below:

```
avinash@Quantiphi-929:~/Documents/gcp_assessment_1$ gcloud compute ssh av-a1-q10
Updating project ssh metadata...:Updated
[https://www.googleapis.com/compute/v1/projects/pe-training].
Updating project ssh metadata...done.
Waiting for SSH key to propagate.
Warning: Permanently added 'compute.6559356343937715178' (ECDSA) to the list of
known hosts.
Linux av-a1-q10 4.9.0-9-amd64 #1 SMP Debian 4.9.168-1+deb9u3 (2019-06-16)
x86_64
The programs included with the Debian GNU/Linux system are free software; the exact
distribution terms for each program are described in the individual files in
/usr/share/doc/*/copyright.
Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent
permitted by applicable law.
```

```
$ sudo apt-get update
$ sudo apt-get install apache2
```

- c) open your browser and type your instance's public IP in the address bar to check whether it's working or not.

2. Setup email alert:

- a) SSH into your instance and install the Stackdriver Monitoring and Logging agents using the following commands:

```
$ curl -sSO https://dl.google.com/cloudagents/install-monitoring-agent.sh
$ sudo bash install-monitoring-agent.sh

$ curl -sSO https://dl.google.com/cloudagents/install-logging-agent.sh
$ sudo bash install-logging-agent.sh --structured
```
- b) Now open the Stackdriver Monitoring console. Under 'Create uptime checks', click on 'CREATE CHECK'.
- c) Enter the title. Set Check Type as HTTP and Resource Type as Instance. In path, enter *http://<public-ip-of-instance>*. Enter the time interval between consecutive checks and click on Save.
- d) In the pop-up that appears, click on Create Alert Policy.
- e) Enter the title. All other parameters are already filled from the uptime check you created. Now click on Save.
- f) In the next page, under the Notifications section, for Notification Channel Type, select Email, enter your email id and click on Add Notification Channel.
- g) Give this policy a name and then click on Save.