Module 7 -------- Assignment

Create an instance and install apache2 in it.

Update the system and install apache2.

```
arpitacs0024@instance-stackdriver:~$ sudo apt-get install apache2
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
apache2 is already the newest version (2.4.53-1~deb11u1).
0 upgraded, 0 newly installed, 0 to remove and 3 not upgraded.
arpitacs0024@instance-stackdriver:~$ []
```

Create an app service on any technology.

Deploy a nodejs application on App Engine standard using gcloud.

Clone this repository.

```
arpitacs0024@cloudshell:~$ cloudshell_open --repo_url "https://github.com/GoogleCloudPlatform/nodejs-docs-samples" --page "editor" --force_new_clone
2022/06/07 14:37:37 Cloning https://github.com/GoogleCloudPlatform/nodejs-docs-samples into /home/arpitacs0024/cloudshell_open/nodejs-docs-samples-5
Cloning into '/home/arpitacs0024/cloudshell_open/nodejs-docs-samples-5'...
remote: Enumerating objects: 27689, done.
remote: Counting objects: 100% (4/4), done.
remote: Compressing objects: 100% (4/4), done.
remote: Total 27689 (delta 0), reused 3 (delta 0), pack-reused 27685
Receiving objects: 100% (27689/27689), 21.01 MiB | 9.12 MiB/s, done.
Resolving deltas: 100% (18604/18604), done.
arpitacs0024@cloudshell:~/cloudshell_open/nodejs-docs-samples-5$ cd appengine/hello-world/standard
```

Run the below command.

```
arpitacs0024@cloudshell:~/cloudshell_open/nodejs-docs-samples-5/appengine/hello-world/standard$ npm install

added 158 packages, and audited 159 packages in 7s

28 packages are looking for funding
  run `npm fund` for details

found 0 vulnerabilities
arpitacs0024@cloudshell:~/cloudshell_open/nodejs-docs-samples-5/appengine/hello-world/standard$ npm start

> appengine-hello-world@0.0.2 start
> node app.js

App listening on port 8080
Press Ctrl+C to quit.
^C
```

Now, Deploy the app using below command.

```
arpitacs0024@cloudshell:~/cloudshell_open/nodejs-docs-samples-5/appengine/hello-world/standard$ gcloud config set project prac-project-351313
Updated property [core/project].
arpitacs0024@cloudshell:~/cloudshell_open/nodejs-docs-samples-5/appengine/hello-world/standard (prac-project-351313)$ gcloud app deploy
Initializing App Engine resources...done.
Services to deploy:

descriptor:              [/home/arpitacs0024/cloudshell_open/nodejs-docs-samples-5/appengine/hello-world/standard/app.yaml]
source:                  [/home/arpitacs0024/cloudshell_open/nodejs-docs-samples-5/appengine/hello-world/standard]
target project:          [prac-project-351313]
target service:          [default]
target version:          [20220607t144507]
target url:              [https://prac-project-351313.uc.r.appspot.com]
target service account:  [App Engine default service account]
```
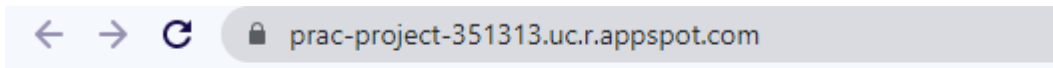
To view your application in the web browser.

```
arpitacs0024@cloudshell:~/cloudshell_open/nodejs-docs-samples-5/appengine/hello-world/standard (prac-project-351313)$ gcloud app browse
Did not detect your browser. Go to this link to view your app:
https://prac-project-351313.uc.r.appspot.com
```
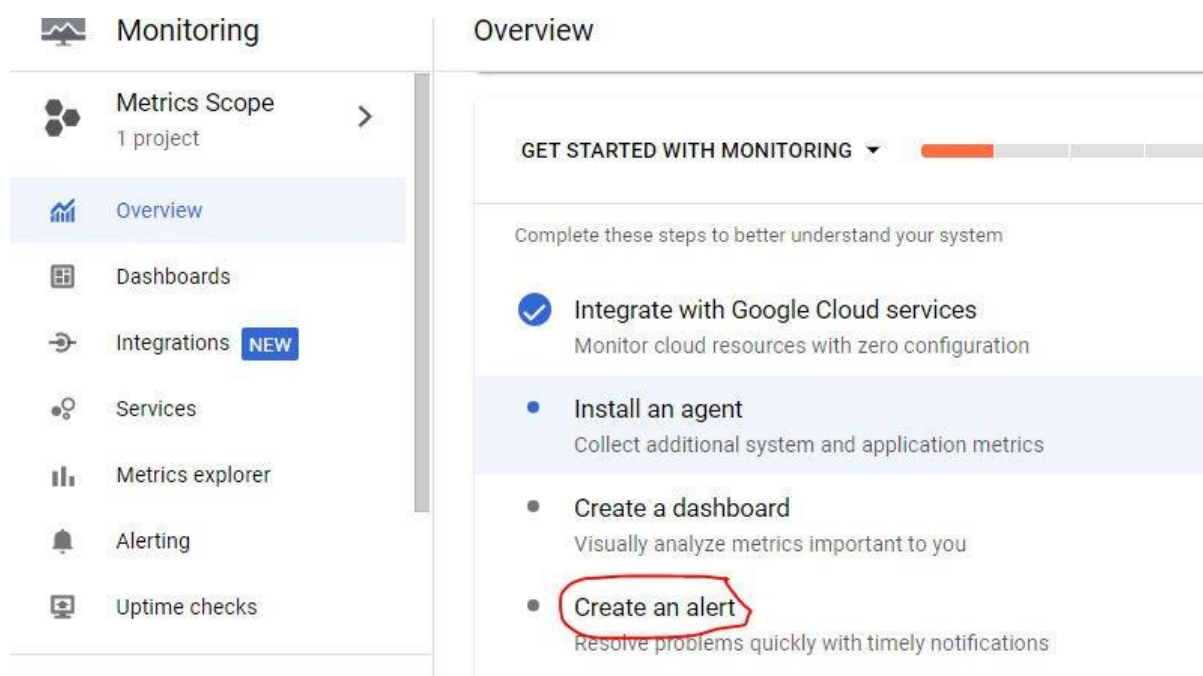
Hello, world!

Using stack driver configure the following things:

Trigger an email, if the apache service goes down (should not wait for instance to stop responding, should respond when apache service goes down).

Go to stack driver > Monitoring

Create an alert.

Now, Create an alert policy.

Alerting

Respond to performance problems before they affect your customers by configuring alerting policies to notify you when events occur or particular system or custom metrics violate rules that you define. Use multiple conditions to define complex alerting rules.

Leverage built-in integrtions to receive notifications via email, SMS, Slack, PagerDuty, and more.

CREATE ALERT POLICY   Explore sample policies ⬈

Manage using API ⬈

Select metric VM instance.

VM Instance - Traffic for apache [RATE]

METRIC   UPTIME CHECK   PROCESS HEALTH

Target ❓   ⟨⟩ **Query Editor**

Find resource type and metric ❓

Resource type: VM Instance ✕

Metric: Traffic ✕

Filter ❓

server_name = "apache" ✕   + Add a filter

Group By ❓

+ Add a label

Aggregator ❓

none ▼

ADD   CANCEL

What do you want to track?

Conditions

Conditions describe when apps and services are considered unhealthy. When conditions are met, they trigger alerting policy violations.

Condition	Actions
VM Instance - Traffic for apache [RATE] Violates when: Any agent.googleapis.com/apache/traffic stream is above a threshold of 9	✏️ 🗑️

ADD CONDITION

NEXT

Who should be notified? (optional)

Add notification channel and add email.

Notification channels	
Slack ❓	ADD NEW
No Slack channels configured	
Webhooks	ADD NEW
No webhook channels configured	
Email	ADD NEW

Filter Filter email addresses   ❓

Email	Display Name	
arpitacs0024@gmail.com	arpita	✏️ 🗑️

SMS	ADD NEW
No SMS channels configured	
Cloud Pub/Sub	ADD NEW

Name the alert.

Policy created for apache service.

Trigger an email when app service goes down.

Monitoring/Logging Agent Uptime [RATE]

METRIC   UPTIME CHECK   PROCESS HEALTH

Target ❓   `<>` **Query Editor**

Find resource type and metric ❓

Resource type: GAE Application ✕

Metric: Monitoring/Logging A... ✕

Filter ❓

+ Add a filter

Group By ❓

+ Add a label

Aggregator ❓

none ▾

ADD   CANCEL