Homework #7 Google Cloud Platform (GCP) with Node.js

Using the instructions below one can establish a service using GCP App Engine. Once established, you will be able to move your Node.js program developed for Assignment #8 to your Google App Engine website and have it executed there.

1. Sign ups

This section assumes that you have performed the installation for homework #5, including (1) have a google account, and (2) obtained $50 GCP coupon and applied it.
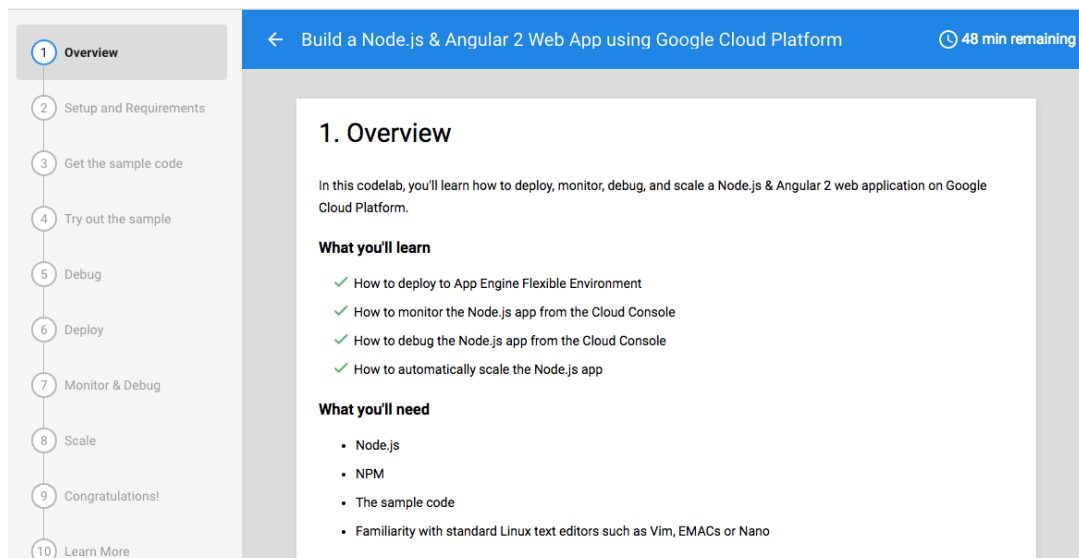
2. Set up Node.js on Google Cloud Platform (GCP) <u>App Engine</u>

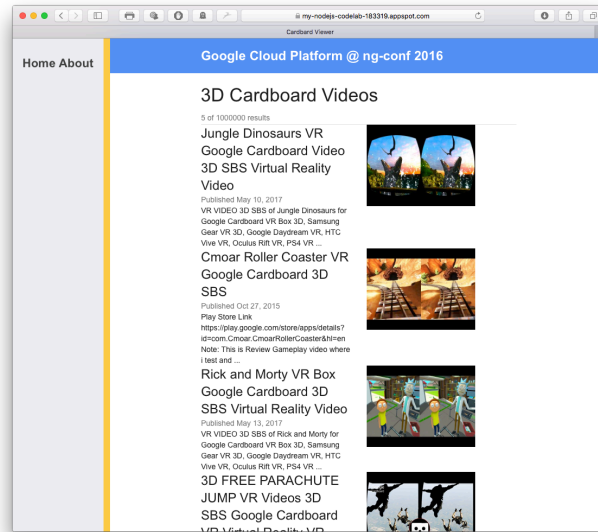### 2.1 Complex Tutorial (not recommended)

The best way to least how to properly set up Node.js on GCP is to follow the tutorial titled "*Build a Node.js & Angular Web App using Google Cloud Platform*," available on Google's CodeLabs at:

https://codelabs.developers.google.com/codelabs/cloud-cardboard-viewer/index.html#0

Following the tutorial takes about 50 minutes, and it is well worth it.

Once deployed the app would look this in the following picture.

and will be available at a URL looking like this **https://<PROJECT_ID>.appspot.com**:

https://my-nodejs-codelab-183319.appspot.com

2.2 Simple Tutorial (recommended)

"*Google App Engine Node.js Standard Environment documentation*", with Quickstart "Hello World" sample and Tutorial is available here:

https://cloud.google.com/appengine/docs/standard/nodejs/

The "Hello World" sample in the **Quickstart** shows how to deploy a sample app on App Engine and there are no costs with running the sample app since it does not exceed the free quota.

2.3 Node.JS on Google Could Platform

Additional documentation for Node.js on all GCP Services, including Quickstart, API & Libraries, Tutorials, Code samples is available at the "*Node.js on Google Cloud Platform*" web page at:

https://cloud.google.com/nodejs/

3. Node.JS on GCP Compute Engine (not recommended)

As an alternative to installing Node.JS on GCP App Engine, you can install Node.JS on a GCP Compute Engine virtual machine. Quickstart documentation for a sample Bookshelf app can be found here:
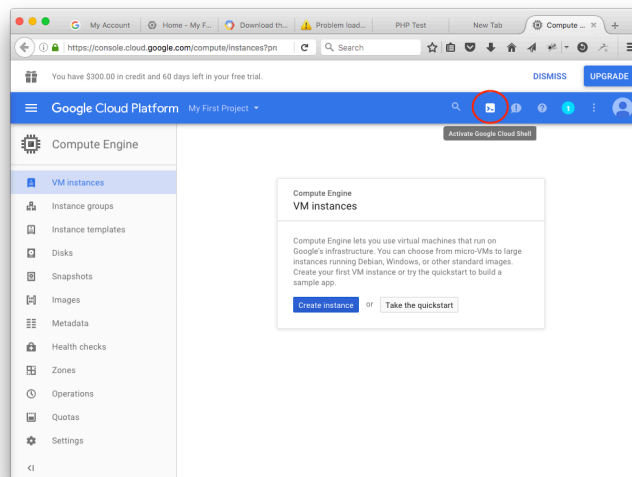
https://cloud.google.com/nodejs/docs/tutorials/bookshelf-on-compute-engine

Please note that **this installation is more complex** than one on Node.JS on App Engine.
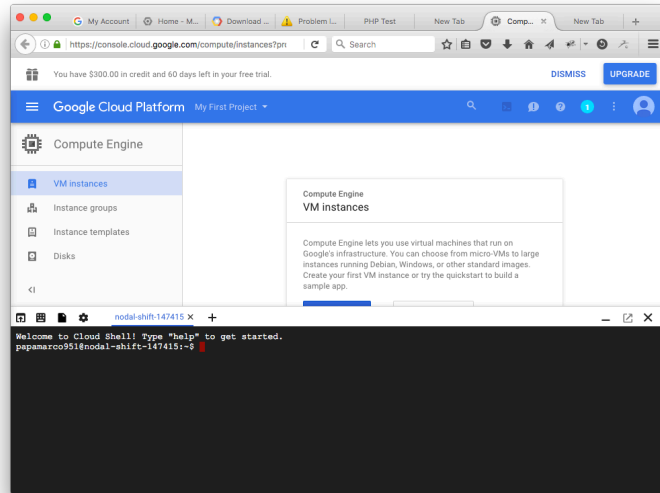
4. Set up Exploring Your instance (Optional)

If you want to explore your server instance you can activate the **Google Cloud Shell**.

https://console.cloud.google.com/compute

Select the helloworld project from the dropdown. Now click on the **Activate Google Cloud Shell** icon next to helloworld.

After waiting a few minutes for Google to establish the connection, you will see the shell appear at the bottom of the browser window. You can now use Linux commands to manage your Cloud Platform Console projects and resources.
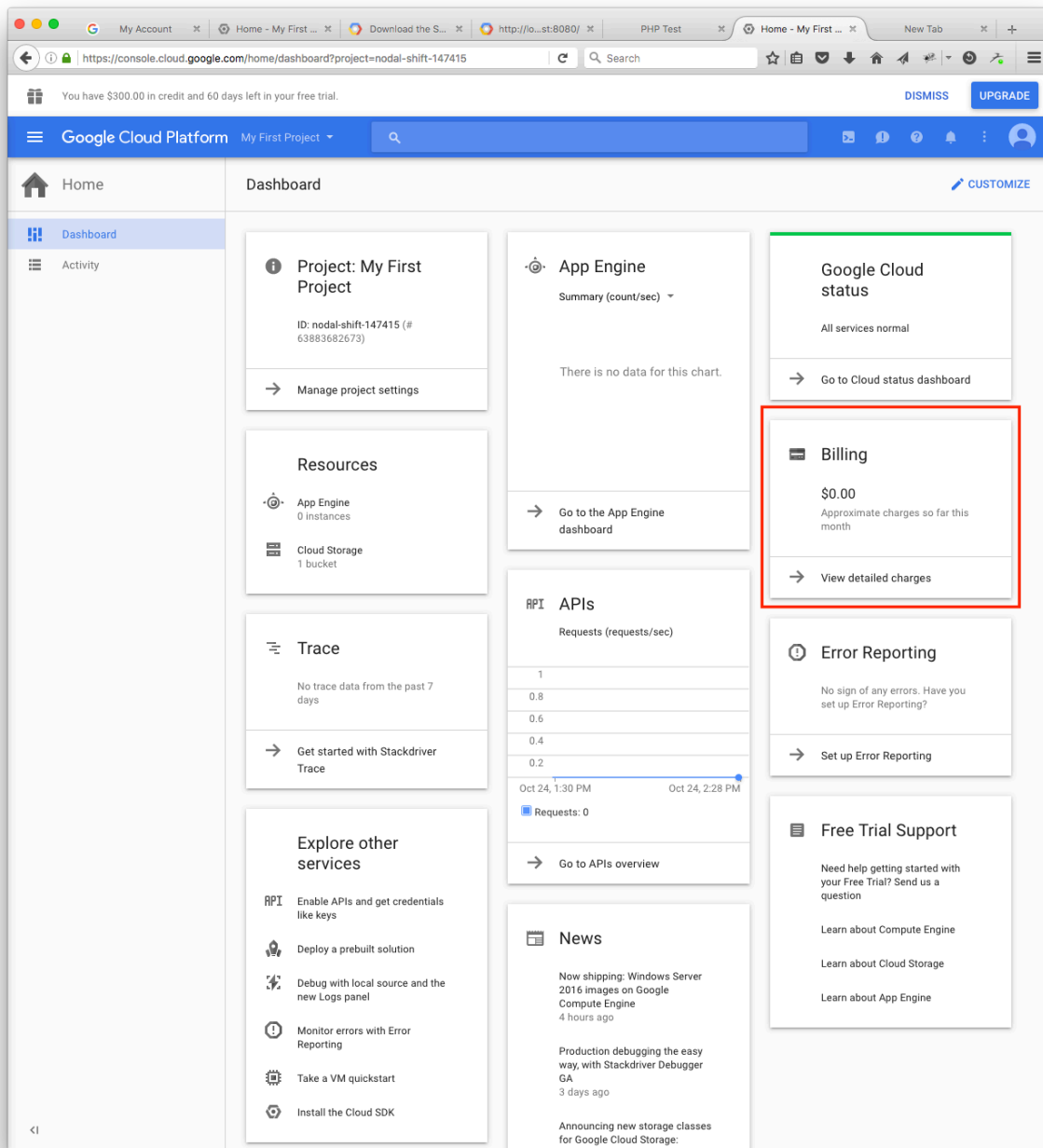
You can read more about the **Google Cloud Shell** here:

https://cloud.google.com/cloud-shell/docs/

10. Monitoring your instance and you Bill

Select Google Cloud Platform and go to the Dashboard. Under **Billing** you will see if you are incurring any charges.

Have fun exploring Google Cloud Platform!!