

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) App Engine

2.1 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.

2.2 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>

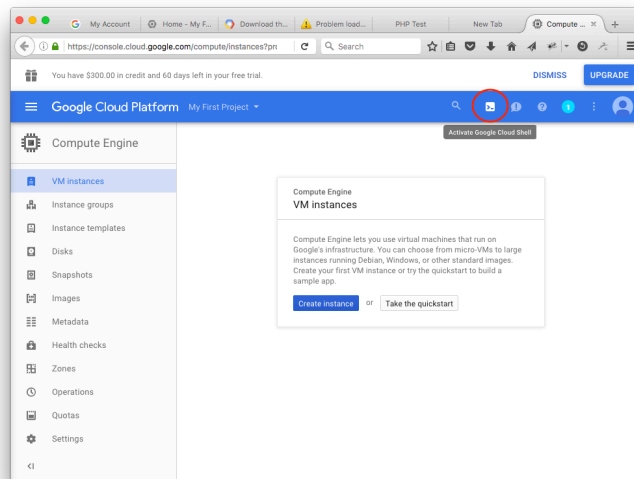
Please note that this installation is more complex than one on Node.JS on App Engine.

4. Set up Exploring Your instance (Optional)

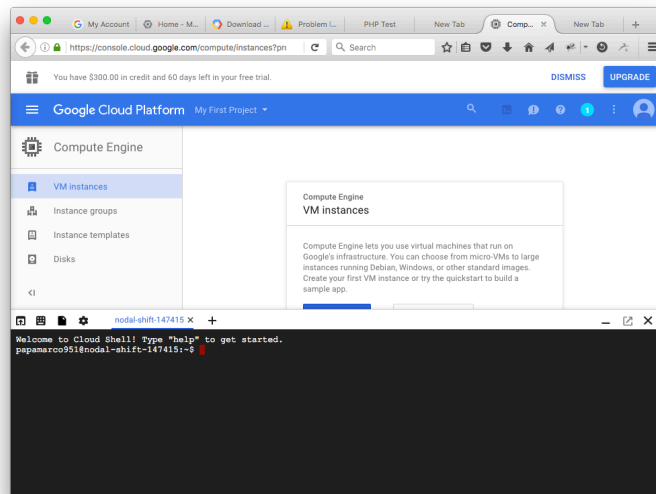
If you want to explore your server instance you can activate the **Google Cloud Shell**.

<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.

The screenshot shows the Google Cloud Platform Dashboard for a project named "My First Project". The dashboard is organized into several sections:

- Project: My First Project**: Shows the project ID (nodal-shift-147415) and a link to "Manage project settings".
- Resources**: Lists resources like App Engine (0 instances) and Cloud Storage (1 bucket).
- Trace**: Shows no trace data from the past 7 days and a link to "Get started with Stackdriver Trace".
- Explore other services**: A list of links to explore various services like APIs, Compute Engine, and Cloud Storage.
- App Engine**: Shows a summary of App Engine instances and a link to "Go to the App Engine dashboard".
- APIs**: Shows a summary of API requests and a link to "Go to APIs overview".
- Google Cloud status**: Shows "All services normal" and a link to "Go to Cloud status dashboard".
- Billing**: This section is highlighted with a red box. It shows a balance of "\$0.00" and "Approximate charges so far this month". It includes a link to "View detailed charges".
- Error Reporting**: Shows "No sign of any errors" and a link to "Set up Error Reporting".
- Free Trial Support**: Provides links to learn about various services and get help.

Have fun exploring Google Cloud Platform!!