CPSC 2221-002 Lab 1

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In this lab for CPSC 2221 course, I have learned what google cloud platform is and how to work with it efficiently. Lab thoroughly explains key features of a lab environment and walks students through how to access the cloud console with credentials and work with google cloud projects, google cloud navigation menu, roles, Cloud IAM service, and API library. There were no prerequisites for the lab other than having a google account and steps were broken down well for students to follow them along with ease.

First thing I have learned through this course was the lab components. We learned what each button and definition of the terms displayed on the interface such as “Start Lab” button, “Credit”, “Time”, and “Score”. This section of the lab was more so of a introductory section for the user to know how to start a lab, where to look for the price of the lab, and to notify users the consequences of running out of time and requirements in order to complete the lab.

Second section of the lab walks users through what happens after user starts a lab, where it focusses heavily on how to access google console using the credentials given. Credentials for Google Console login is displayed in the interface that is floating on the left side of the screen. It is broken down into columns under “Open Google Console” button as “Username”, “Password”, and GCP Project ID. “Open Google Console” button will open a new tab for users and will ask them to log in. However, users are not expected to log in with their business or personal email account but are expected to log in with given credentials underneath the button. Username will be used as an email account and password will be used as a password. GCP project ID will be used to locate where the project users are expected to work on project search bar.

Projects will consist of 3 columns of separate information which can be found in the upper-left corner of the central pane labeled “Project Info”. This card will contain project name, project ID, and Project number to easily identify and locate projects user is working on. Qwiklabs Resources on the other hand, is entirely different from GCPs. Students work will be done in GCPs where they can edit, modify and run lab steps which will be deleted when the lab ends; files, dataset, and machine images from “Qwiklabs Resource” is shared among students with read permission only preventing them to edit or modify any resource from Qwiklabs.

Next is how to work with the navigation bar and information on the types of google cloud services. List of categories of services google cloud provides are Compute, Storage, Networking, Cloud Operations, Tools, Big Data, and Artificial intelligence. Information on these services is thoroughly explained in the lab.

Roles and permission were taught in the lab as well. After clicking IAM & Admin tab from the navigation menu, we were able to view the list of users and permissions and roles that were granted to different accounts. There were 3 types of roles, each with different permissions:

1. Viewer, which has the permission to read-only and can not modify existing resources or data.
2. Editor, which has all the permission viewer has and permission to modify existing resources.
3. Owner, which has all the permissions viewer and editor has and permission to manage roles and permissions for a project and resources on top of that.

Above information is probably well known for students who are familiar with the concept of permissions, but it was very helpful for me as I had not known what permissions each roles had in details.

Lastly, Lab taught us how to view and enable APIs through Google Cloud. As someone who’s ultimate career goal is to become a fullstack developer, it was interesting to see API’s getting rendered on a cloud instead of manually creating endpoints and feeding the information to the front-end (Although that is probably what is happening behind the scenes for Google Cloud as well). User may view and enable API of their choice by navigating through menu > APIs & Services > Libraries and then search for the API. Enabling APIs are very easy as all it takes is to click “Enable” button from the interface.

In conclusion, I’ve learned the fundamentals of Google Cloud and Google Cloud Projects on the type of services it provides, how to easily navigate through its contents, and types and categories of the resources it offers along with different roles and permissions. Although I haven’t had the chance to explore GC and GCP as much as I wanted to, there is no doubt that these tools will come in very handy in the near future as I learn more about CPSC studies and feel the need to access a tool that offers diverse options such as creating pipes and managing databases which I can not do on my own just yet.

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