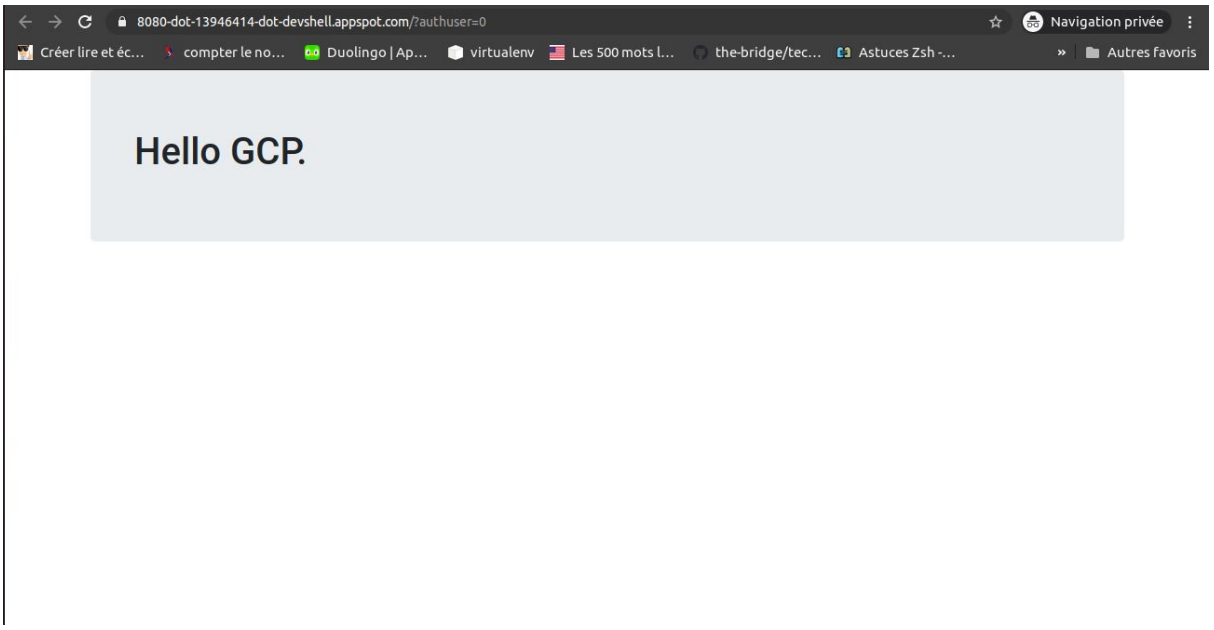
Deploying Apps to Google Cloud

Lab Objectives

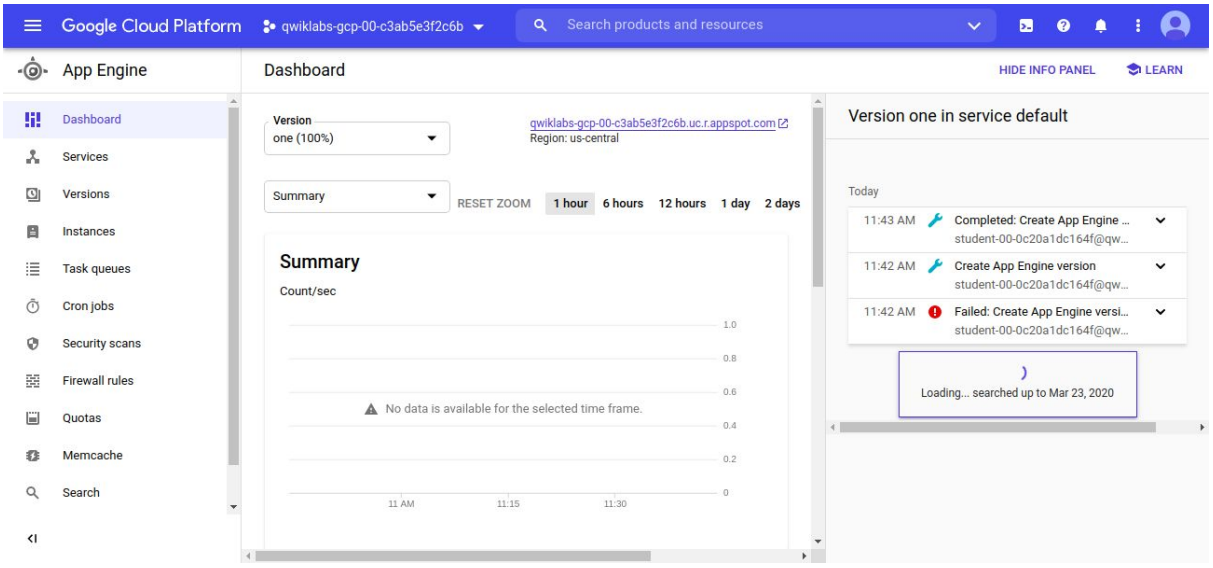
- Download a sample app from github
- Deploy to app Engine
- Deploy to kubernetes Engine
- Deploy to Cloud Run

For this lab, we cloned a training python app from github. This app just shows a hello gcp message like shown on the capture below:



[Sample training app]

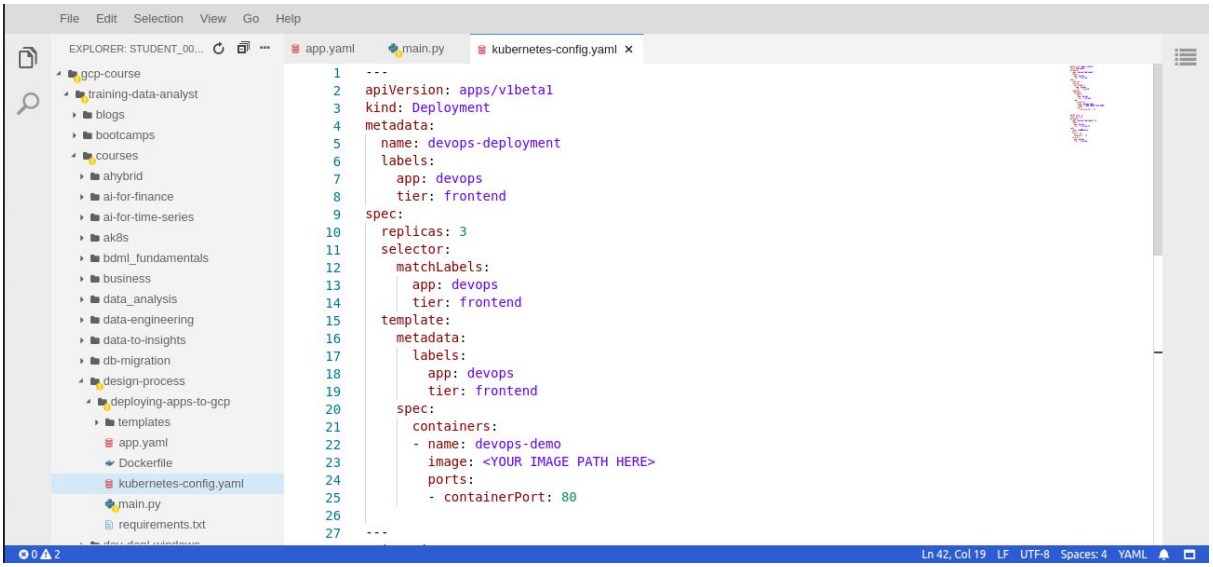
We first deployed the app on the App Engine. To do this, we created a file named *app.yaml* in which we specified the language runtime. This was enough for our case but the file can contain many more settings in other cases. We then deployed the app in the App Engine by using *gcloud app deploy* command. This provided us a link to our app. The link appeared on top center corner of app engine dashboard as we can see below:



[app deployed on the App Engine]

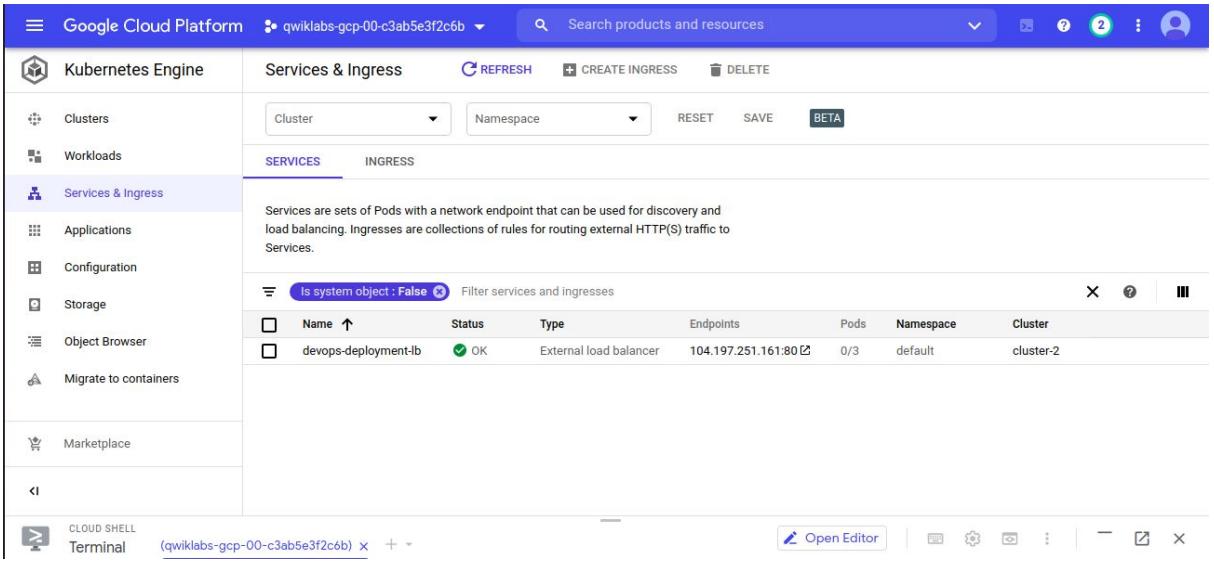
Note that we can deploy many versions of our app. When deploying another version of the app, one of *gcloud app deploy* parameters could interest us: the *--no-promote* parameter. This parameter tells the App Engine to continue serving the requests with the old version. This may be useful because we can test the app before putting it into production.

Secondly, we deployed the app to Kubernetes Engine. To do this, we first created a cluster with GCP console and connected to it. We then created a kubernetes file configuration. This was very similar to the previous case, but the configurations to make here are not the same. The configuration file in this case was the following:



[Kubernetes config files]

Before using GKE, we built a docker container image of our app. We then deployed the app using the *kubectl apply* command.



[app deployed on GKE]

Finally we deployed to Cloud Run. With Cloud Run, we can deploy apps on our own cluster, or on clusters managed by google. To Use cloud run, the application must meet two conditions:

- It must be stateless
- It must be deployed using a Docker Image