Cloud and API Deployment

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Batch Code: LISUM15

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Submitted to: Data Glacier Team

To begin with, I used Google cloud API to deploy my app on cloud since Heroku changed its policy terms and obliged the user to pay some fees in order to deploy their app. The first step to deploy my app is that I installed google cloud SDK.

Then, I created a requirements.txt file to inform google cloud about the specific libraries I used in my project. I did this using the command below.

```
(virtual) C:\Users\abdul\Documents\FlaskDeployment>pip freeze > requirements.txt
```

requirements.txt

```
virtualenv
Flask
Werkzeug
gunicorn
pandas
scikit-learn
numpy
livereload
```

Also app.yaml is needed to defines your configuration settings for your runtime as well as general app, network, and other resource settings. I did this using the command “touch app.yaml”.

```
(virtual) C:\Users\abdul\Documents\FlaskDeployment>touch app.yaml
```

I created also an appengine_config.py but simply did not work afterward since I am using latest version of python and this requires python version 2. This file provides you the ability to specify the installation folder for libraries and provide your own values for constants and "hook functions" for some of the Python modules in the google.appengine packages.

Then, install new dependencies we have in requirements.txt file into a lib folder. This folder is required since it uploads to Appengine during deployment.

```
(virtual) C:\Users\abdul\Documents\FlaskDeployment>pip install -t lib -r requirements.txt
```

After deploying our project to github, we must clone it to google cloud using this command.

First create a new project name. My project name is flask-webapp with ID 374520.

Select a project

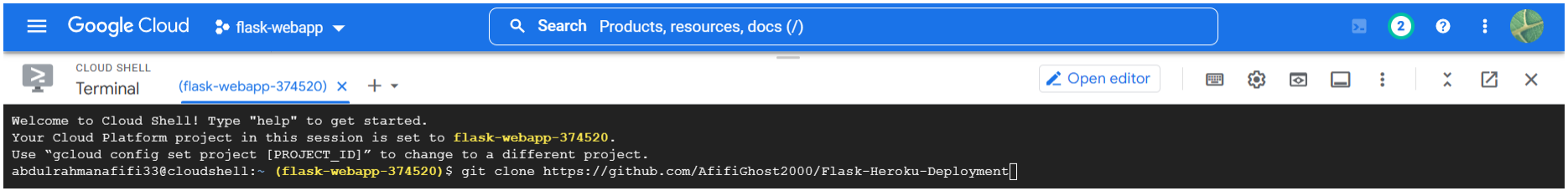
NEW PROJECT

Search projects and folders

RECENT STARRED ALL

Name	ID
flask-webapp	flask-webapp-374520
My First Project	silicon-badge-374413
SignInApp	signinapp-279800
My First Project	singular-arena-343221

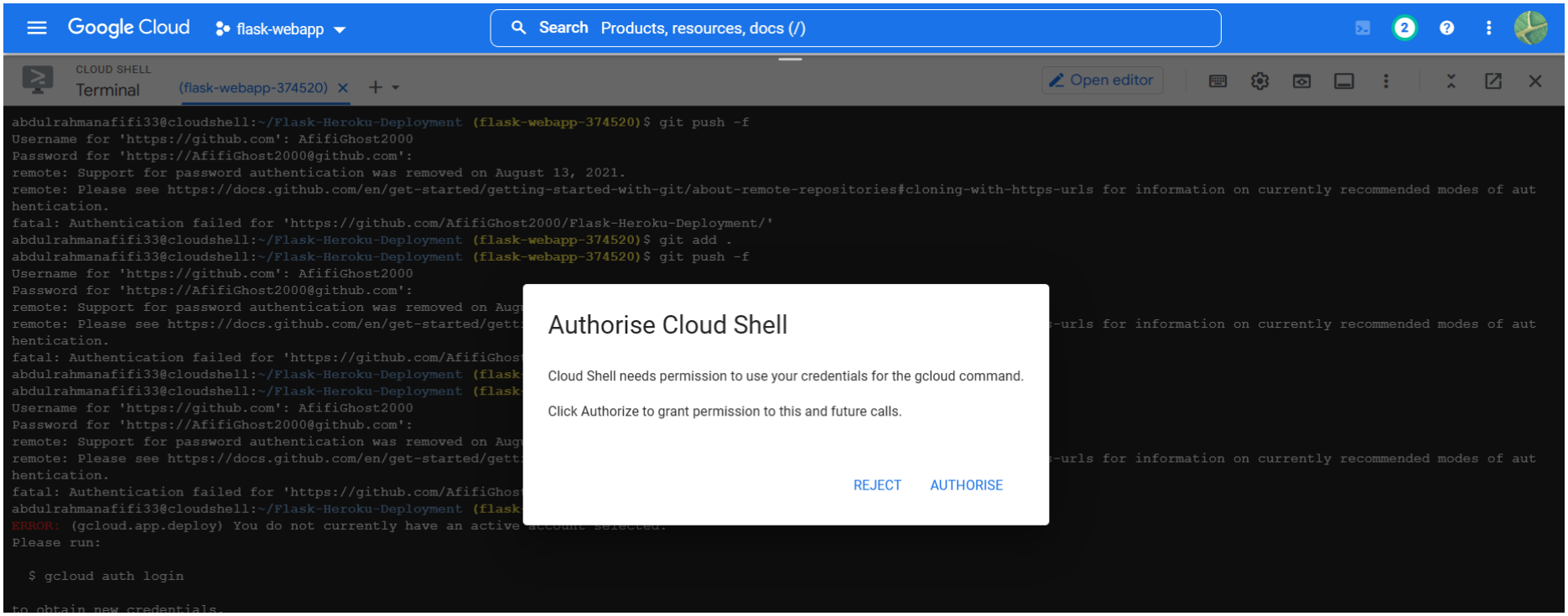
CANCEL OPEN



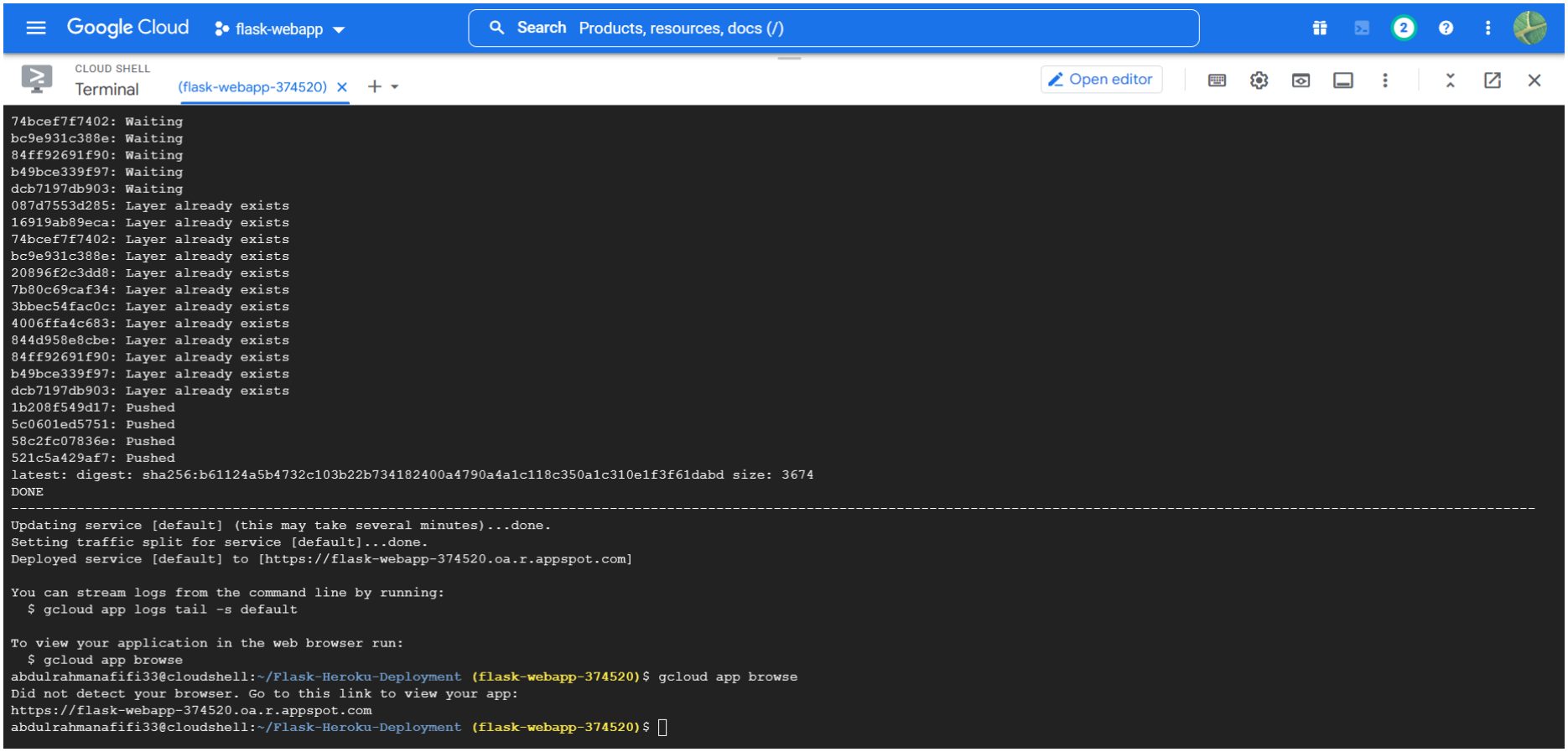
Then cd to Folder name. In our case it is cd Flask-Heroku-Deployment

Last but not least, deploy to google using this command below. (do not forget to authorise)

```
abdulrahmanafifi33@cloudshell:~/Flask-Heroku-Deployment (flask-webapp-374520)$ gcloud app deploy
```



Finally, type command “gcloud app browse” and click on link given and then booom. You have a public website web app deployed on cloud.


Google Cloud
flask-webapp
Search Products, resources, docs (/)
CLOUD SHELL
Terminal
(flask-webapp-374520)
Open editor
74bcef7f7402: Waiting
bc9e931c388e: Waiting
84ff92691f90: Waiting
b49bce339f97: Waiting
dcb7197db903: Waiting
087d7553d285: Layer already exists
16919ab89eca: Layer already exists
74bcef7f7402: Layer already exists
bc9e931c388e: Layer already exists
20896f2c3dd8: Layer already exists
7b80c69caf34: Layer already exists
3bbec54fac0c: Layer already exists
4006ffa4c683: Layer already exists
844d958e8cbe: Layer already exists
84ff92691f90: Layer already exists
b49bce339f97: Layer already exists
dcb7197db903: Layer already exists
1b208f549d17: Pushed
5c0601ed5751: Pushed
58c2fc07836e: Pushed
521c5a429af7: Pushed
latest: digest: sha256:b61124a5b4732c103b22b734182400a4790a4a1c118c350a1c310e1f3f61dabd size: 3674
DONE
Updating service [default] (this may take several minutes)...done.
Setting traffic split for service [default]...done.
Deployed service [default] to [https://flask-webapp-374520.oa.r.appspot.com]
You can stream logs from the command line by running:
$ gcloud app logs tail -s default
To view your application in the web browser run:
$ gcloud app browse
abdulrahmanafifi33@cloudshell:~/Flask-Heroku-Deployment (flask-webapp-374520)$ gcloud app browse
Did not detect your browser. Go to this link to view your app:
https://flask-webapp-374520.oa.r.appspot.com
abdulrahmanafifi33@cloudshell:~/Flask-Heroku-Deployment (flask-webapp-374520)$

```
Updating service [default] (this may take several minutes)...done.
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  $ gcloud app browse
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https://flask-webapp-374520.oa.r.appspot.com
```
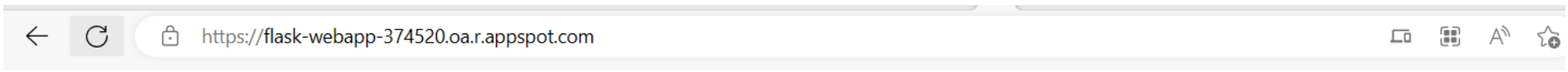

[Customer Prediction Model (flask-webapp-374520.oa.r.appspot.com)]



Predicted Customer's Income

Customer Id

City:

Dallas | New York City | Los Angeles | Mountain View

Boston | Washington D.C. | San Diego | Austin

Gender:

Male | Female

Age

PREDICT

$ 75797.26