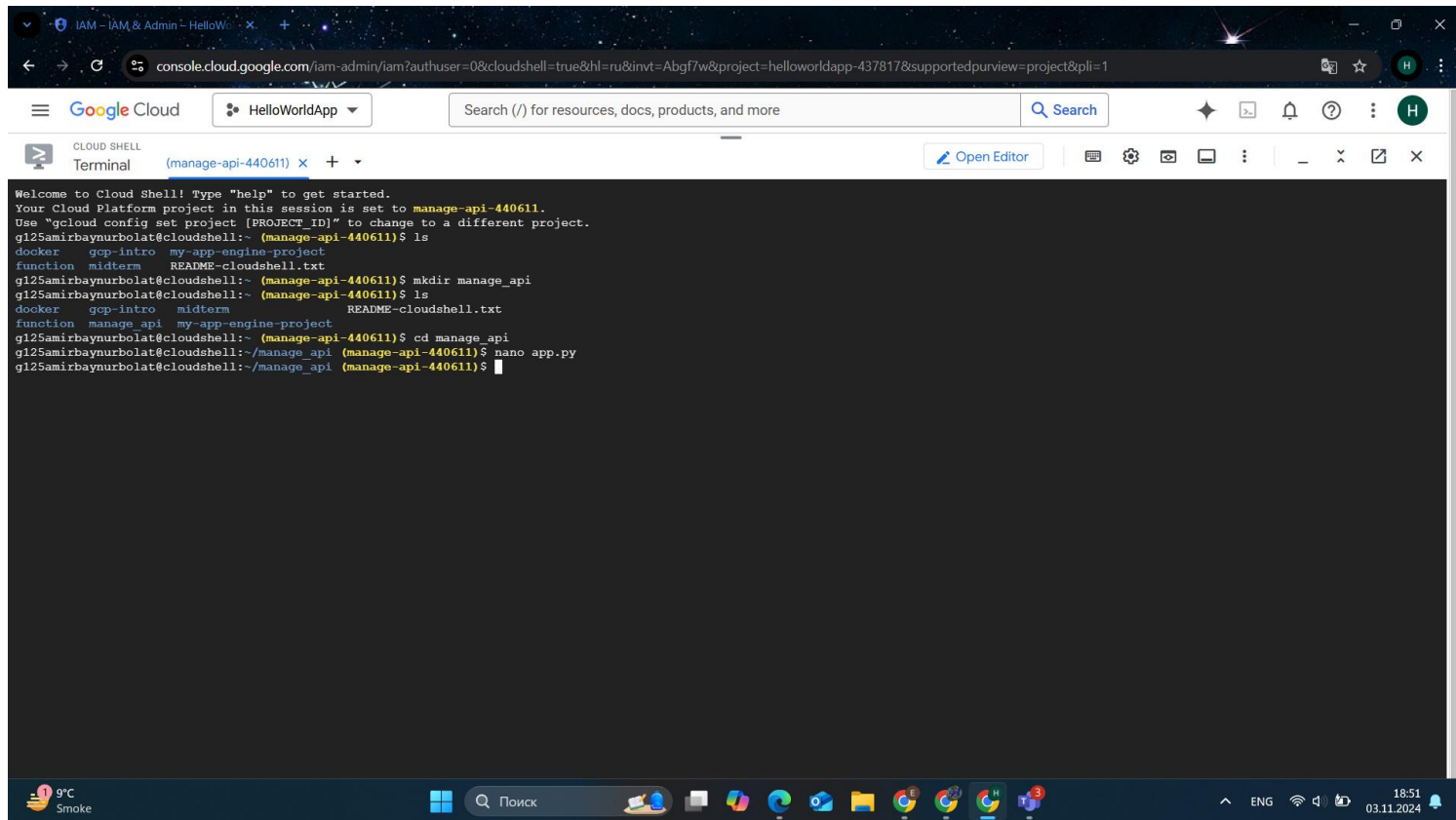


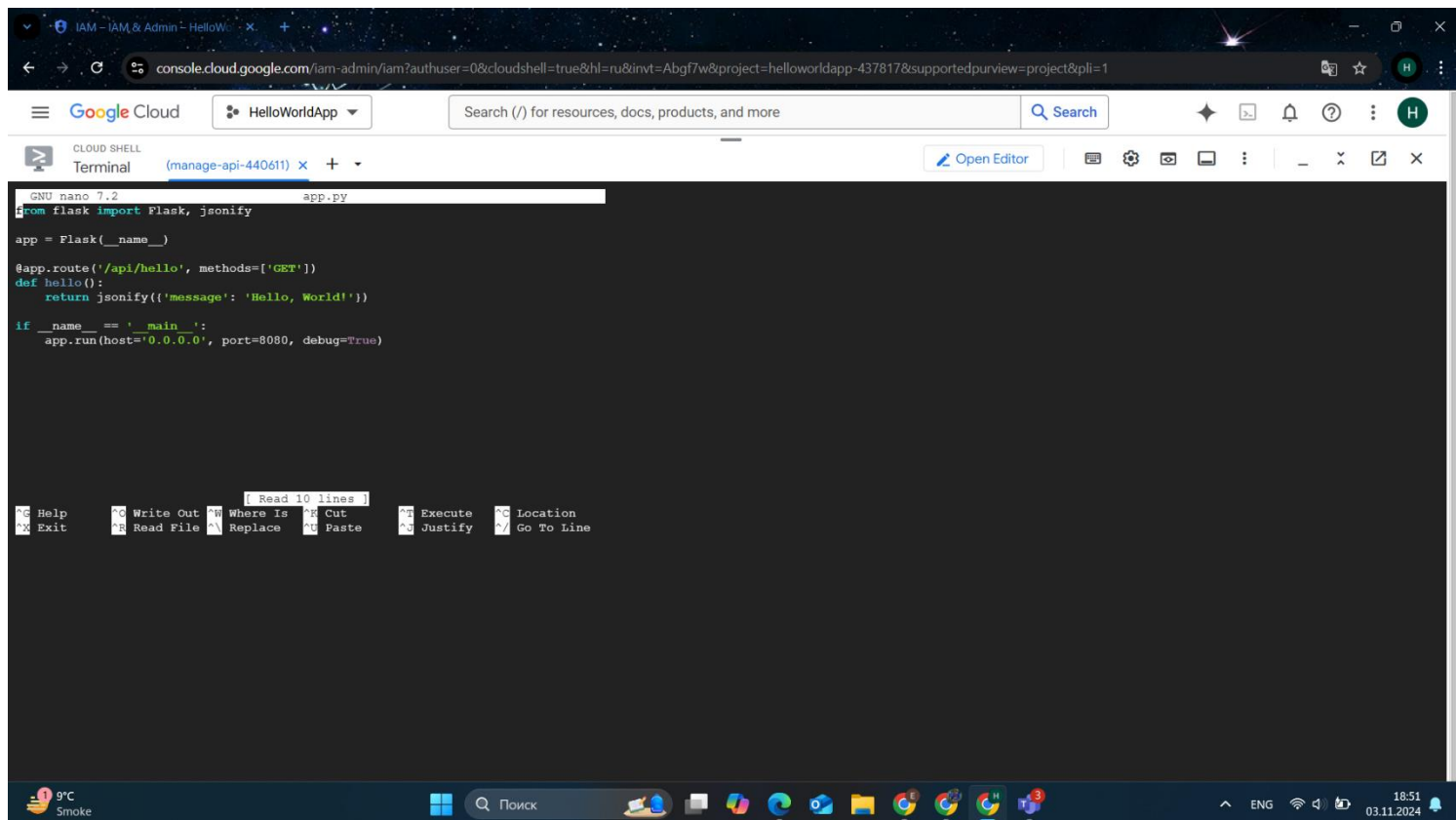
Exercise 1

I create a file called app.py and add the code:



The screenshot shows a Google Cloud Shell terminal window. The user has created a directory named 'manage_api' and listed the contents of the current directory, which includes 'manage_api' and 'README-cloudshell.txt'.

```
Welcome to Cloud Shell! Type "help" to get started.
Your Cloud Platform project in this session is set to manage-api-440611.
Use "gcloud config set project [PROJECT_ID]" to change to a different project.
g125amirbaynurbolat@cloudshell:~ (manage-api-440611)$ ls
docker  gcp-intro  my-app-engine-project
function  midterm  README-cloudshell.txt
g125amirbaynurbolat@cloudshell:~ (manage-api-440611)$ mkdir manage_api
g125amirbaynurbolat@cloudshell:~ (manage-api-440611)$ ls
docker  gcp-intro  midterm  README-cloudshell.txt
function  manage_api  my-app-engine-project
g125amirbaynurbolat@cloudshell:~ (manage-api-440611)$ cd manage_api
g125amirbaynurbolat@cloudshell:~/manage_api (manage-api-440611)$ nano app.py
g125amirbaynurbolat@cloudshell:~/manage_api (manage-api-440611)$
```



The screenshot shows the same Google Cloud Shell terminal window, but now the user is editing the 'app.py' file using the nano text editor. The code in the file is a simple Flask application that returns a JSON response 'Hello, World!' when the '/api/hello' endpoint is accessed via GET.

```
GNU nano 7.2 app.py
from flask import Flask, jsonify

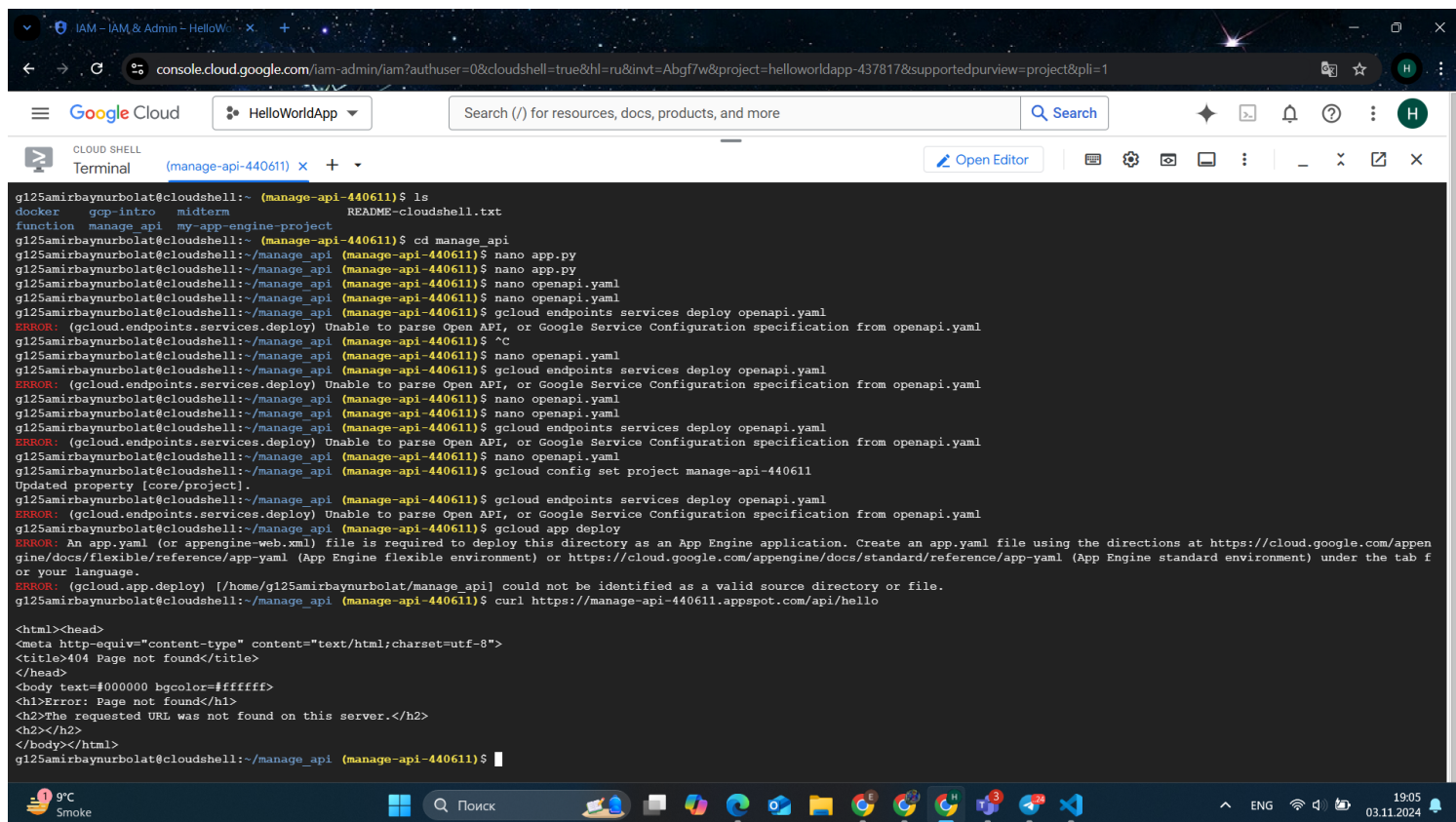
app = Flask(__name__)

@app.route('/api/hello', methods=['GET'])
def hello():
    return jsonify({'message': 'Hello, World!'})

if __name__ == '__main__':
    app.run(host='0.0.0.0', port=8080, debug=True)
```

I create a new file named `openapi.yaml`.

Deploying the API to Google Cloud Endpoints and testing the API.

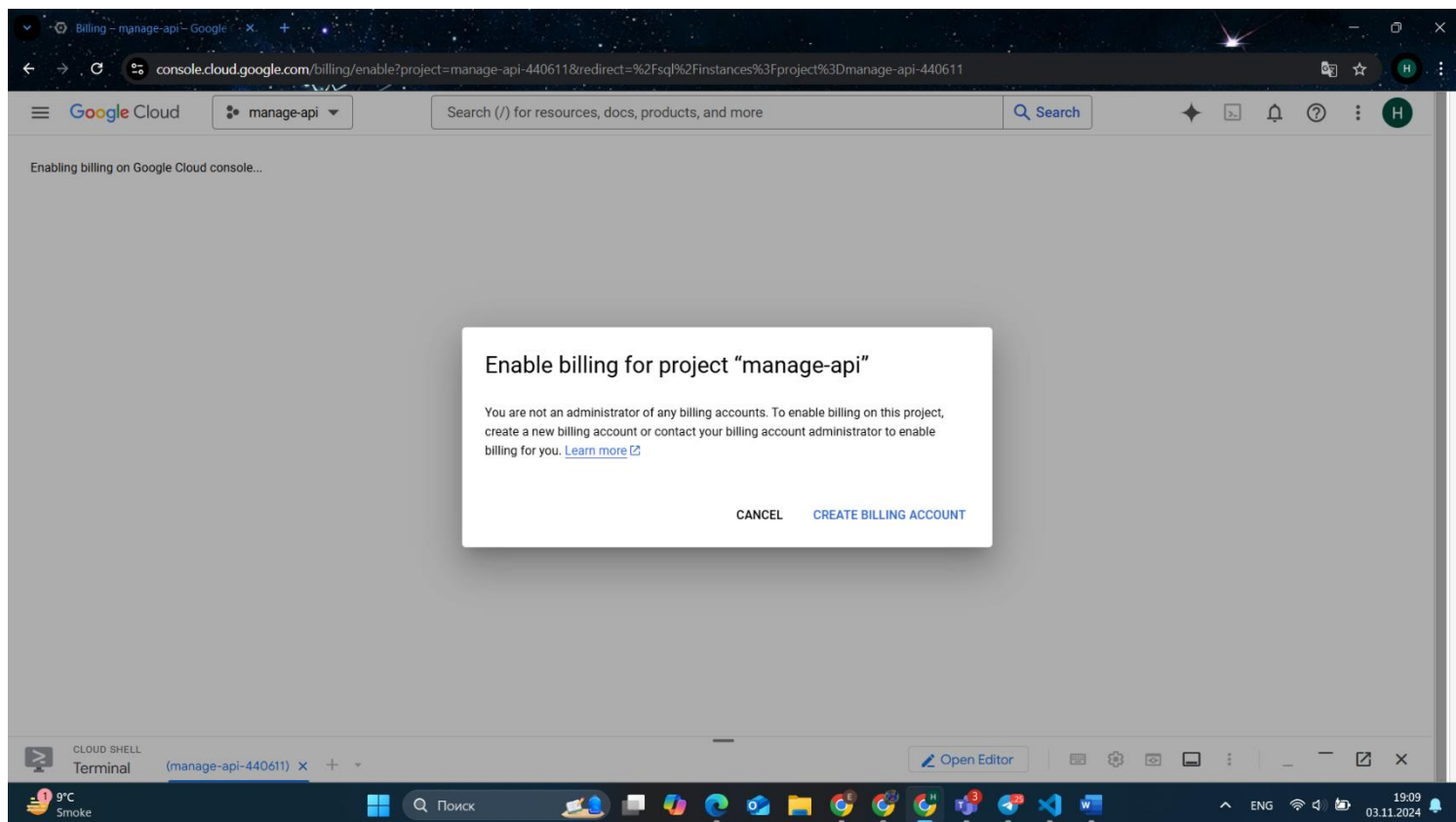


The screenshot shows a Google Cloud console window with a terminal open. The terminal output shows the user navigating to the 'manage-api' directory and attempting to deploy the API to Google Cloud Endpoints. The deployment fails with an error: 'Unable to parse Open API, or Google Service Configuration specification from openapi.yaml'. The user then creates an 'app.yaml' file and attempts to deploy the application to Google App Engine. The deployment fails with an error: 'An app.yaml (or appengine-web.xml) file is required to deploy this directory as an App Engine application. Create an app.yaml file using the directions at https://cloud.google.com/appengine/docs/flexible/reference/app-yaml (App Engine flexible environment) or https://cloud.google.com/appengine/docs/standard/reference/app-yaml (App Engine standard environment) under the tab f or your language.' The user then runs a curl command to test the API, which returns a 404 error: 'Page not found'.

```
g125amirbaynurulat@cloudshell:~ (manage-api-440611)$ ls
docker  gcp-intro  midterm  README-cloudshell.txt
function  manage-api  my-app-engine-project
g125amirbaynurulat@cloudshell:~ (manage-api-440611)$ cd manage-api
g125amirbaynurulat@cloudshell:~/manage-api (manage-api-440611)$ nano app.py
g125amirbaynurulat@cloudshell:~/manage-api (manage-api-440611)$ nano app.py
g125amirbaynurulat@cloudshell:~/manage-api (manage-api-440611)$ nano openapi.yaml
g125amirbaynurulat@cloudshell:~/manage-api (manage-api-440611)$ nano openapi.yaml
g125amirbaynurulat@cloudshell:~/manage-api (manage-api-440611)$ gcloud endpoints services deploy openapi.yaml
ERROR: (gcloud.endpoints.services.deploy) Unable to parse Open API, or Google Service Configuration specification from openapi.yaml
g125amirbaynurulat@cloudshell:~/manage-api (manage-api-440611)$ ^C
g125amirbaynurulat@cloudshell:~/manage-api (manage-api-440611)$ nano openapi.yaml
g125amirbaynurulat@cloudshell:~/manage-api (manage-api-440611)$ gcloud endpoints services deploy openapi.yaml
ERROR: (gcloud.endpoints.services.deploy) Unable to parse Open API, or Google Service Configuration specification from openapi.yaml
g125amirbaynurulat@cloudshell:~/manage-api (manage-api-440611)$ nano openapi.yaml
g125amirbaynurulat@cloudshell:~/manage-api (manage-api-440611)$ nano openapi.yaml
g125amirbaynurulat@cloudshell:~/manage-api (manage-api-440611)$ gcloud endpoints services deploy openapi.yaml
ERROR: (gcloud.endpoints.services.deploy) Unable to parse Open API, or Google Service Configuration specification from openapi.yaml
g125amirbaynurulat@cloudshell:~/manage-api (manage-api-440611)$ nano openapi.yaml
g125amirbaynurulat@cloudshell:~/manage-api (manage-api-440611)$ gcloud config set project manage-api-440611
Updated property [core/project].
g125amirbaynurulat@cloudshell:~/manage-api (manage-api-440611)$ gcloud endpoints services deploy openapi.yaml
ERROR: (gcloud.endpoints.services.deploy) Unable to parse Open API, or Google Service Configuration specification from openapi.yaml
g125amirbaynurulat@cloudshell:~/manage-api (manage-api-440611)$ gcloud app deploy
ERROR: An app.yaml (or appengine-web.xml) file is required to deploy this directory as an App Engine application. Create an app.yaml file using the directions at https://cloud.google.com/appengine/docs/flexible/reference/app-yaml (App Engine flexible environment) or https://cloud.google.com/appengine/docs/standard/reference/app-yaml (App Engine standard environment) under the tab f or your language.
g125amirbaynurulat@cloudshell:~/manage-api (manage-api-440611)$ gcloud app deploy [/home/g125amirbaynurulat/manage-api] could not be identified as a valid source directory or file.
g125amirbaynurulat@cloudshell:~/manage-api (manage-api-440611)$ curl https://manage-api-440611.appspot.com/api/hello
<html><head>
<meta http-equiv="content-type" content="text/html; charset=utf-8">
<title>404 Page not found</title>
</head>
<body text=#000000 bgcolor=#ffffff>
<h1>Error: Page not found</h1>
<h2>The requested URL was not found on this server.</h2>
</body></html>
g125amirbaynurulat@cloudshell:~/manage-api (manage-api-440611)$
```

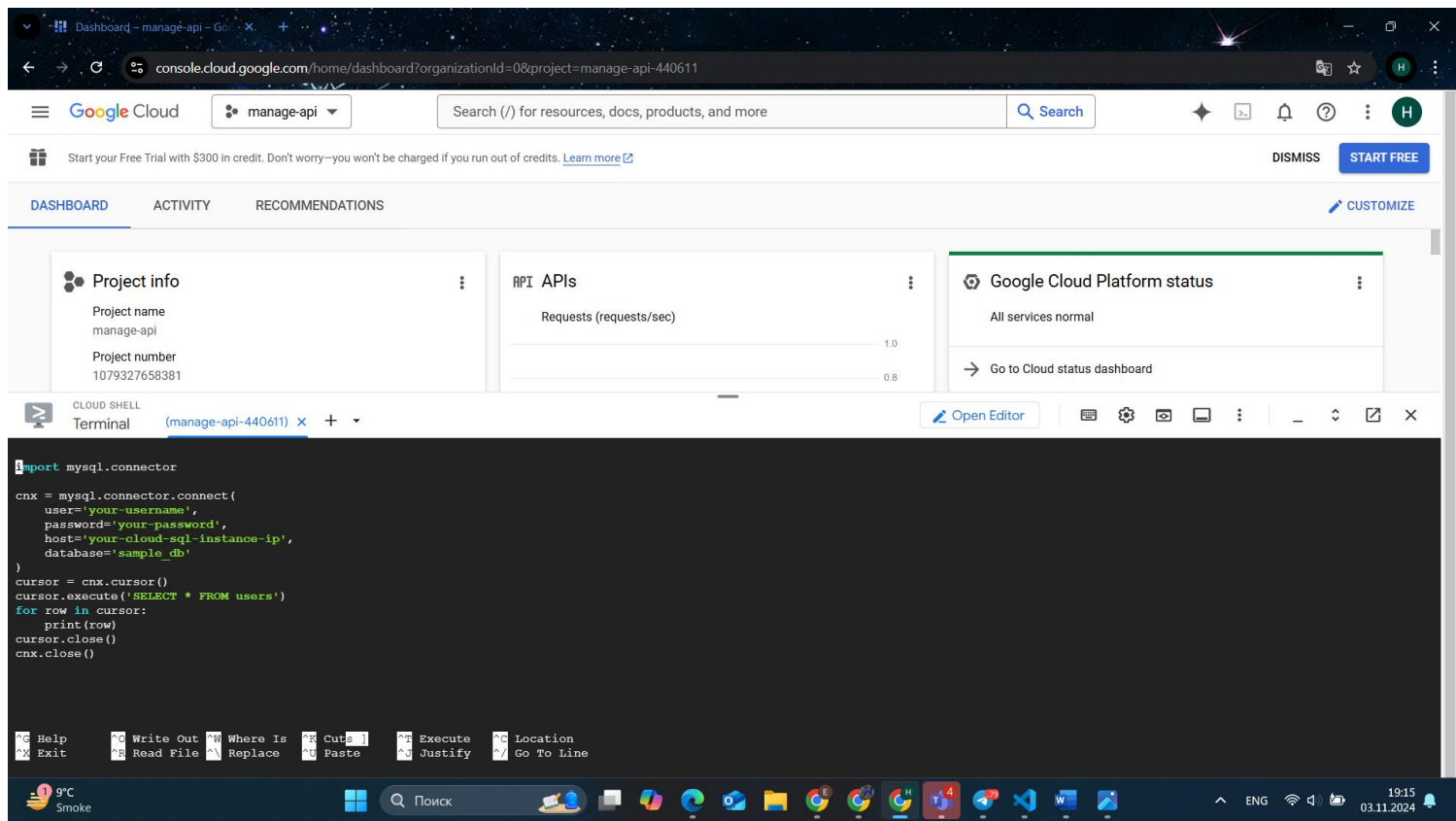
Exercise 2

Setup Google Cloud SQL, but needed billing account:

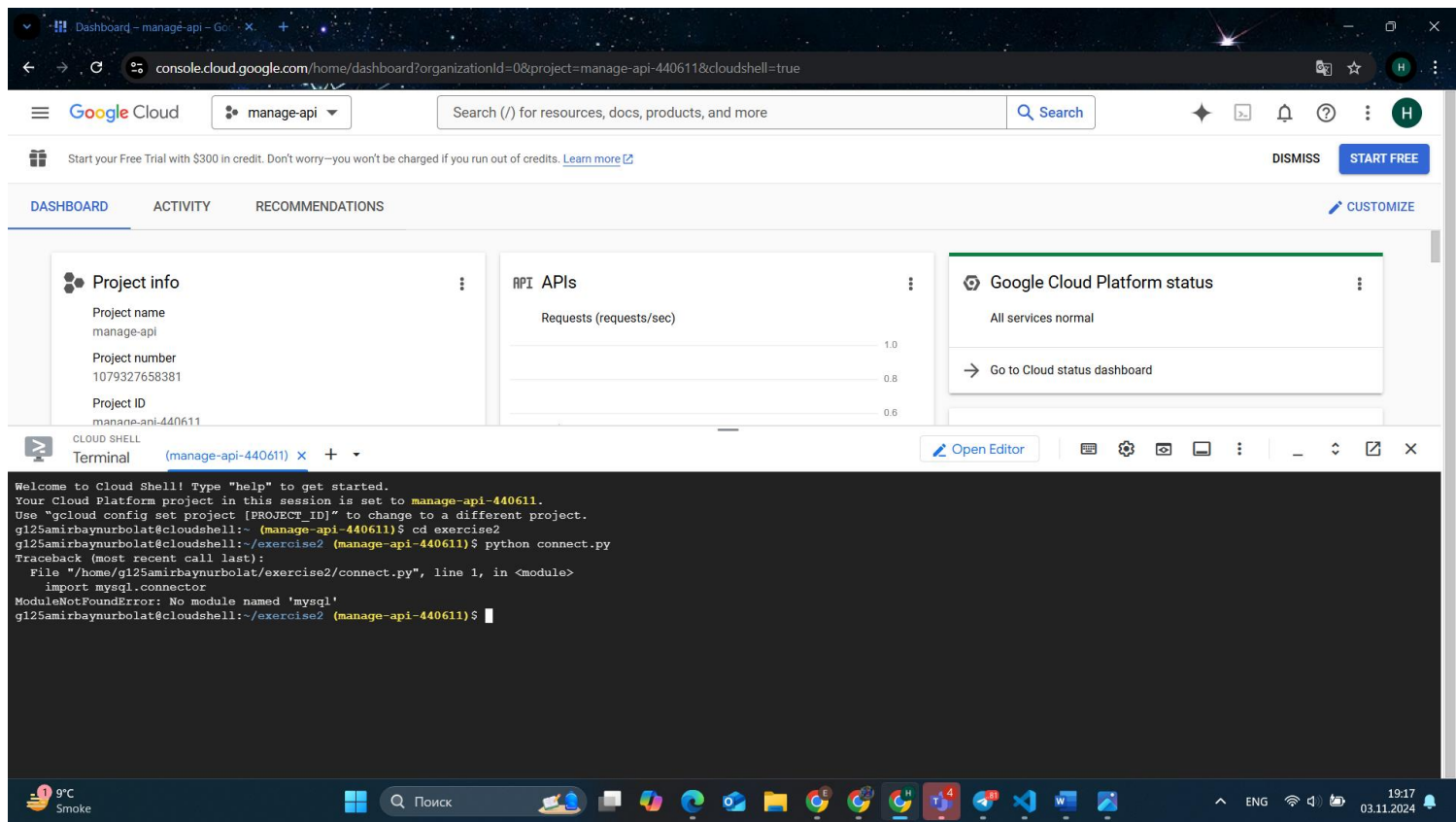


Connecting to the Database:

In a new file connect.py, I write the Python code

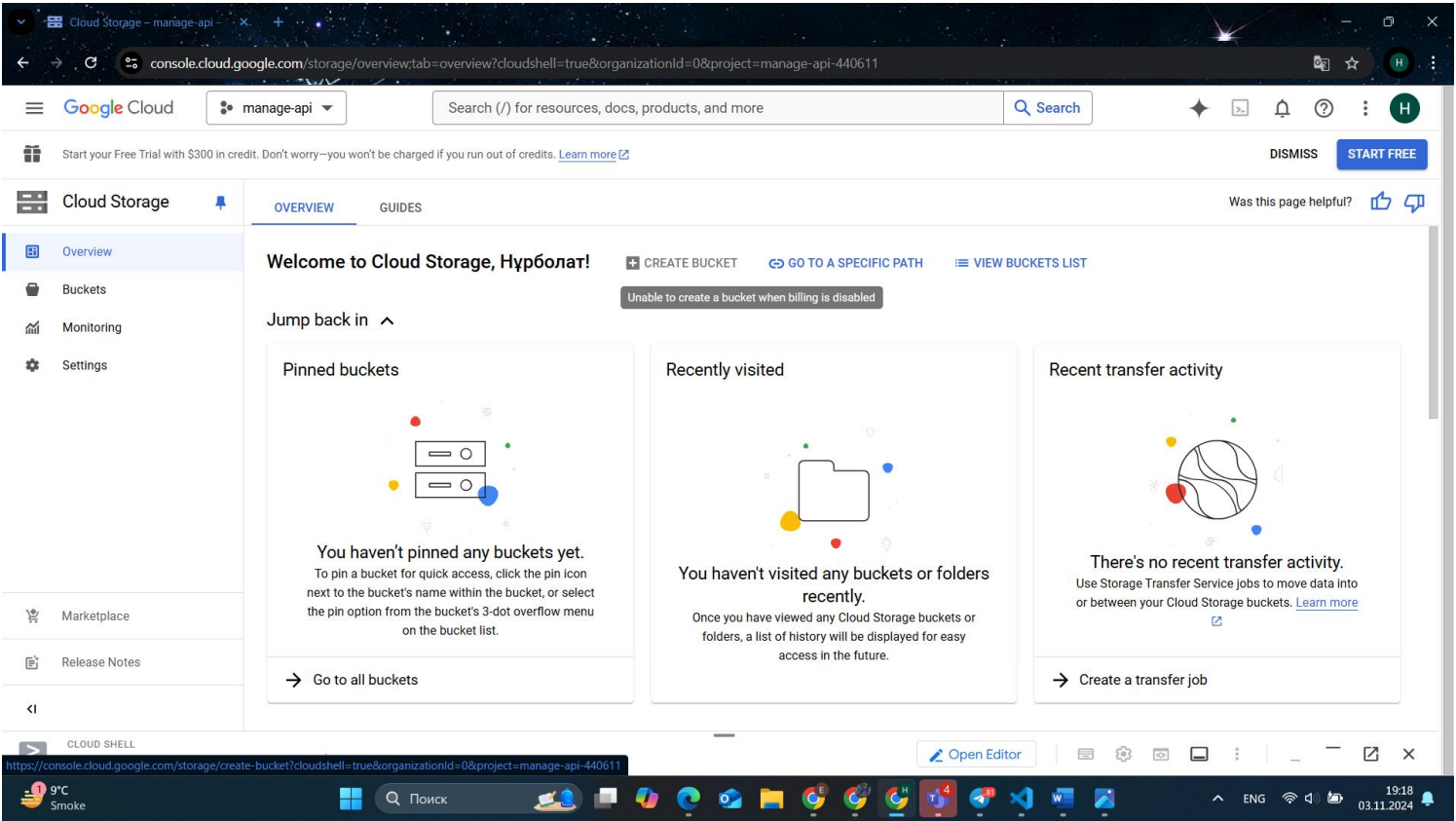


Running the Connection Code:



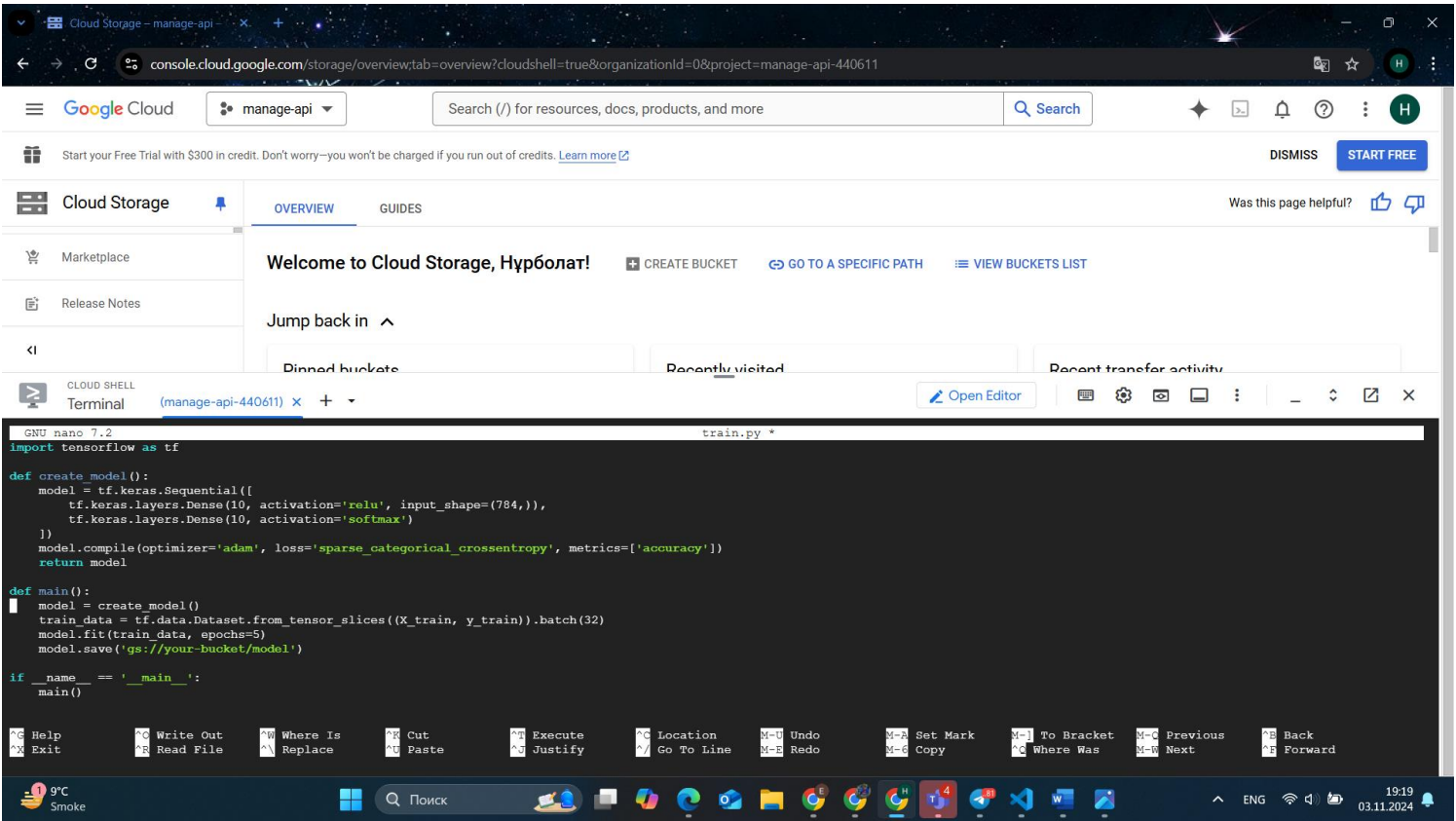
Exercise 3

Creating Cloud Storage Bucket, but for this need billing account:



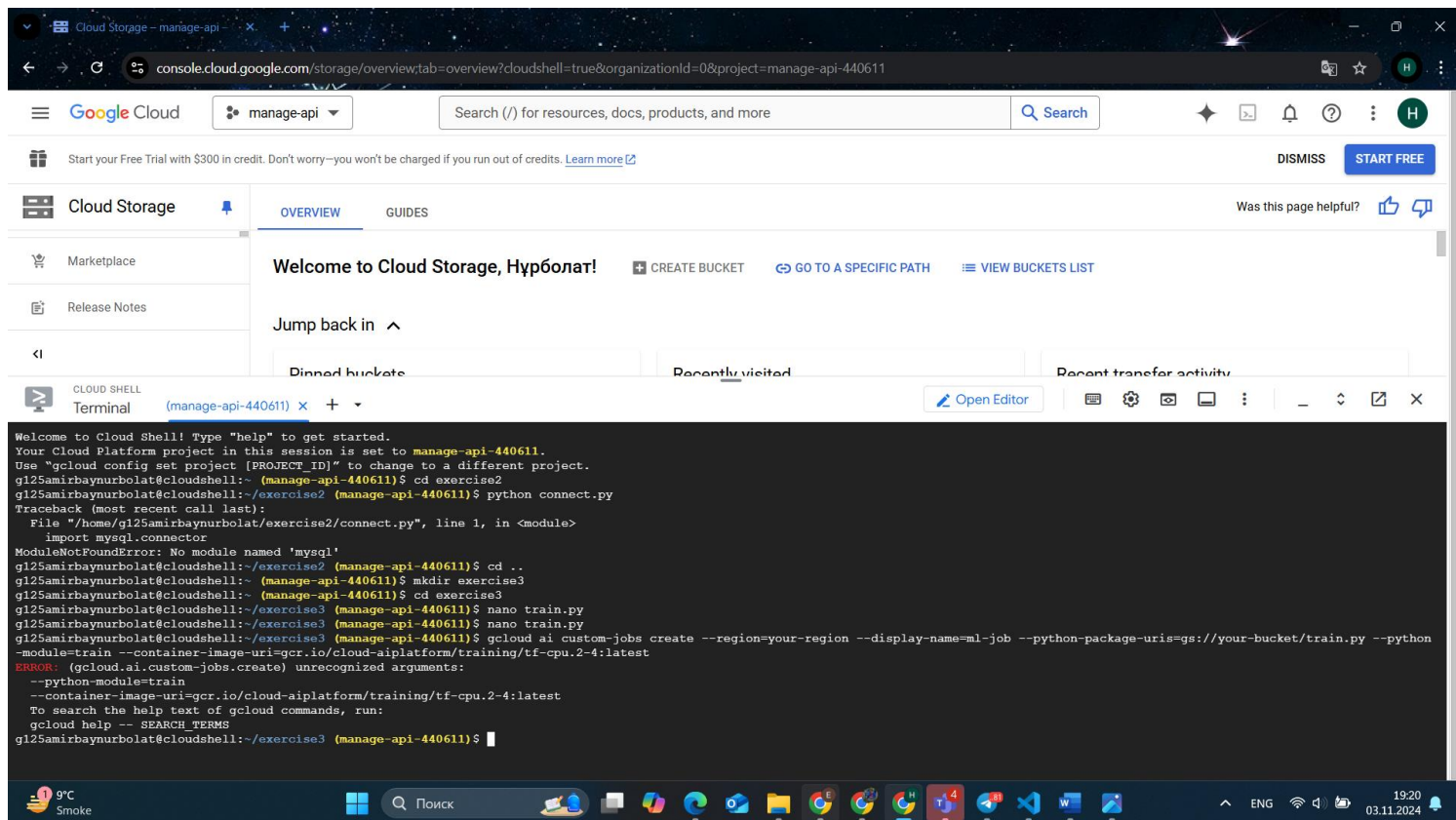
Creating a Training Script:

Creating a file called train.py with code:

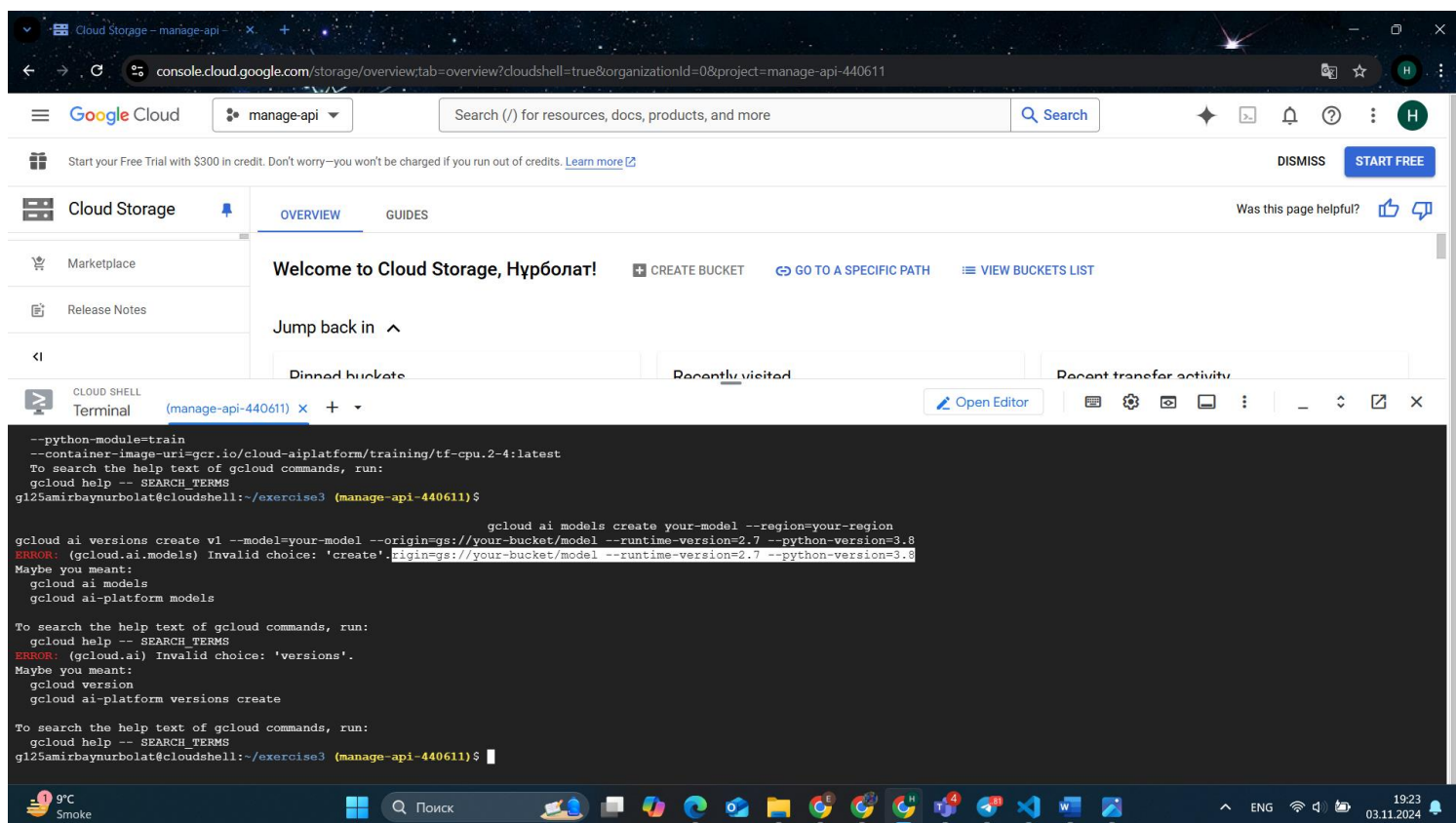


Training the Model:

Running this command to submit my training job:



Deploying the Model:



Testing the Model:

In predict.py, I using this code to make predictions:

Cloud Storage – manage-api

console.cloud.google.com/storage/overview;tab=overview?cloudshell=true&organizationId=0&project=manage-api-440611

Google Cloud

manage-api

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Cloud Storage

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Welcome to Cloud Storage, Нүрболат!

CREATE BUCKET

GO TO A SPECIFIC PATH

VIEW BUCKETS LIST

Jump back in

↗

Dinned buckets

Recently visited

Recent transfer activity

CLOUD SHELL

Terminal

(manage-api-440611)

Open Editor

To search the help text of gcloud commands, run:
gcloud help -- SEARCH_TERMS
ERROR: (gcloud.ai) Invalid choice: 'versions'.
Maybe you meant:
gcloud version
gcloud ai-platform versions create

To search the help text of gcloud commands, run:
gcloud help -- SEARCH_TERMS
g125amirbaynurbolat@cloudshell:~/exercise3 (manage-api-440611)\$ mkdir predict.py
g125amirbaynurbolat@cloudshell:~/exercise3 (manage-api-440611)\$
g125amirbaynurbolat@cloudshell:~/exercise3 (manage-api-440611)\$ cd predict.py
g125amirbaynurbolat@cloudshell:~/exercise3/predict.py (manage-api-440611)\$ cd ..
g125amirbaynurbolat@cloudshell:~/exercise3 (manage-api-440611)\$
g125amirbaynurbolat@cloudshell:~/exercise3 (manage-api-440611)\$ ls
predict.py train.py
g125amirbaynurbolat@cloudshell:~/exercise3 (manage-api-440611)\$ rmdir predict.py
g125amirbaynurbolat@cloudshell:~/exercise3 (manage-api-440611)\$
g125amirbaynurbolat@cloudshell:~/exercise3 (manage-api-440611)\$ ls
train.py
g125amirbaynurbolat@cloudshell:~/exercise3 (manage-api-440611)\$ nano predict.py
g125amirbaynurbolat@cloudshell:~/exercise3 (manage-api-440611)\$ nano predict.py
g125amirbaynurbolat@cloudshell:~/exercise3 (manage-api-440611)\$

10°C

Smoke

Поиск

19:25

03.11.2024

Cloud Storage – manage-api

console.cloud.google.com/storage/overview;tab=overview?cloudshell=true&organizationId=0&project=manage-api-440611

Google Cloud

manage-api

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Jump back in

↗

Dinned buckets

Recently visited

Recent transfer activity

CLOUD SHELL

Terminal

(manage-api-440611)

Open Editor

from google.cloud import aiplatform

def predict():
 client = aiplatform.gapic.PredictionServiceClient()
 endpoint = client.endpoint_path(project='your-project', location='your-regi
 instance = {'input': [/* your data */]}
 response = client.predict(endpoint=endpoint, instances=[instance])
 print(response.predictions)

if __name__ == '__main__':
 predict()

Help

Write Out

Where Is

Execute

Location

Exit

Read File

Replace

Justify

Go To Line

Read 11 lines

Cut

Paste

10°C

Smoke

Поиск

19:25

03.11.2024