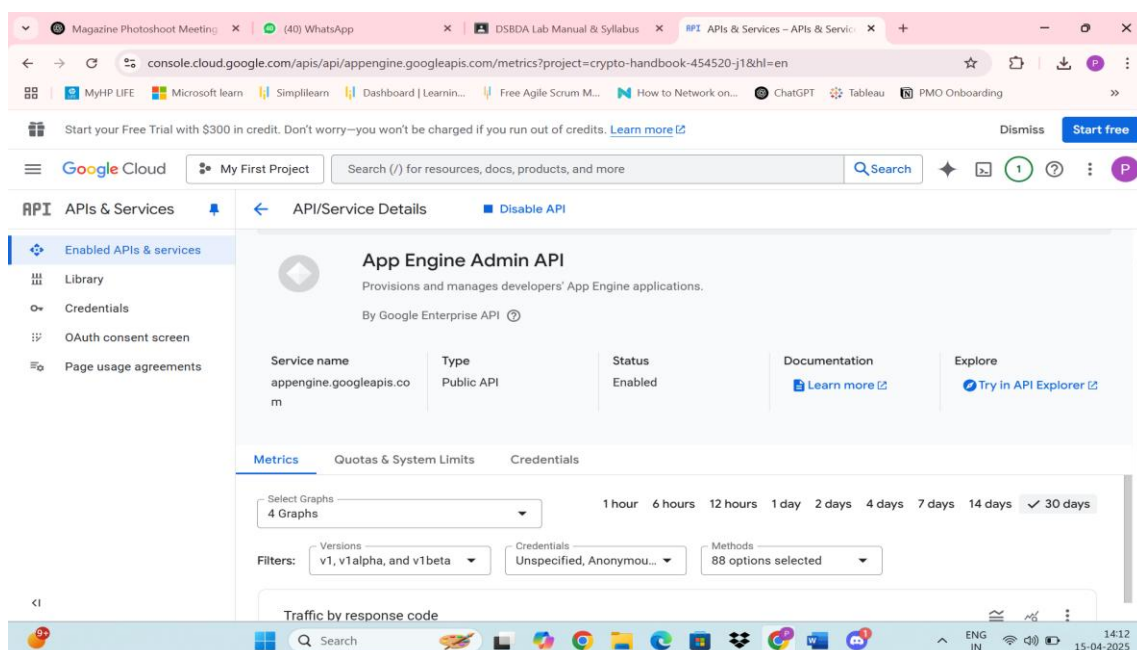
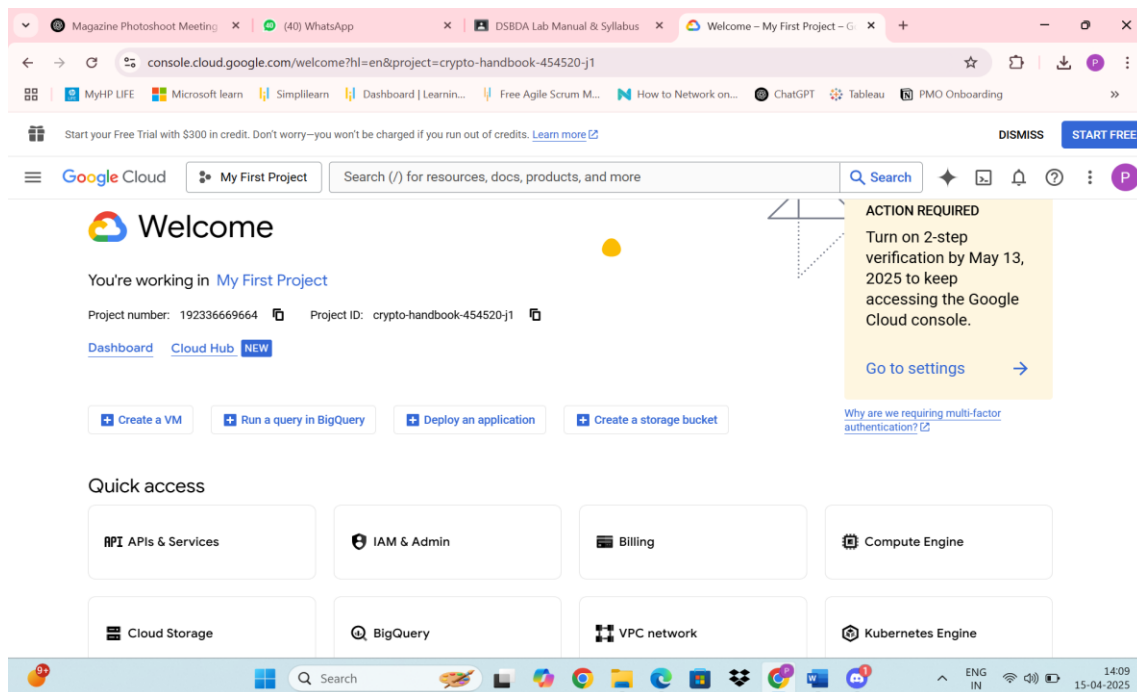


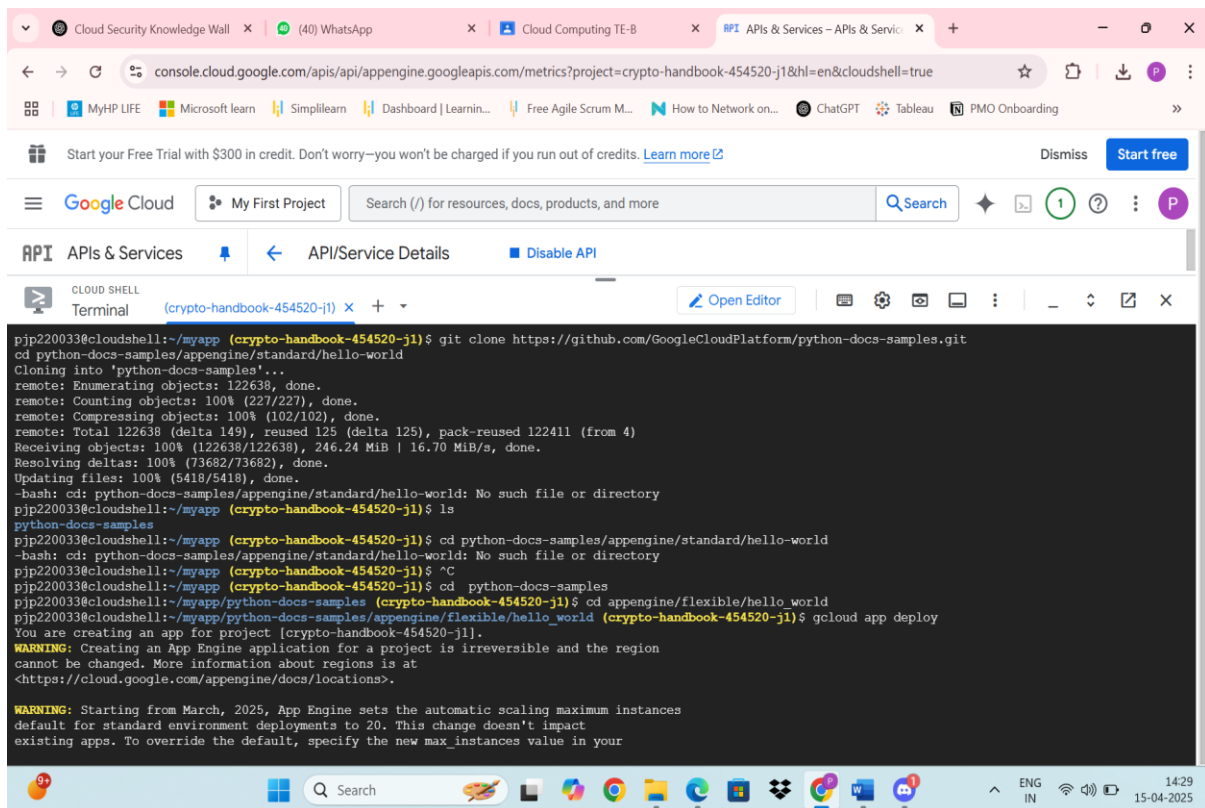
Practical No. 2

Problem Statement :- Installation and configure Google App Engine.

Enabling Admin API and navigating to cloud shell :



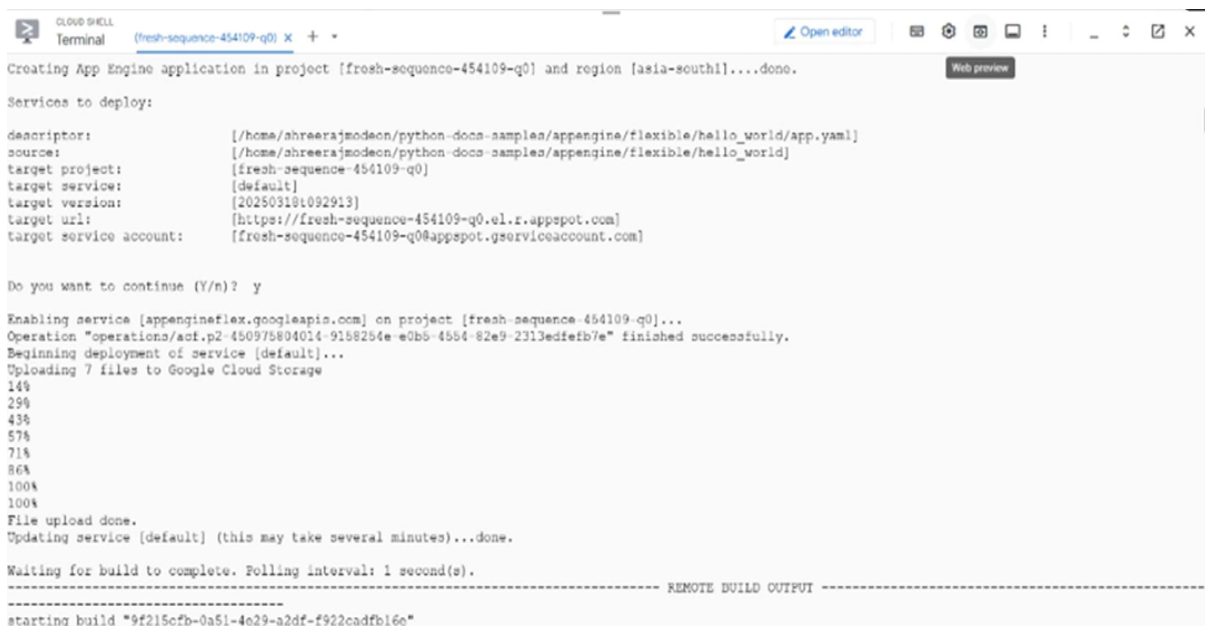
Cloning github repository and deploying the app :



```
pjp220033@cloudshell:~/myapp (crypto-handbook-454520-j1) $ git clone https://github.com/GoogleCloudPlatform/python-docs-samples.git
Cloning into 'python-docs-samples'...
remote: Enumerating objects: 122638, done.
remote: Counting objects: 100% (227/227), done.
remote: Compressing objects: 100% (102/102), done.
remote: Total 122638 (delta 149), reused 125 (delta 125), pack-reused 122411 (from 4)
Receiving objects: 100% (122638/122638), 246.24 MiB | 16.70 MiB/s, done.
Resolving deltas: 100% (73682/73682), done.
Updating files: 100% (5418/5418), done.
-bash: cd: python-docs-samples/appengine/standard/hello-world: No such file or directory
pjp220033@cloudshell:~/myapp (crypto-handbook-454520-j1) $ ls
python-docs-samples
pjp220033@cloudshell:~/myapp (crypto-handbook-454520-j1) $ cd python-docs-samples/appengine/standard/hello-world
-bash: cd: python-docs-samples/appengine/standard/hello-world: No such file or directory
pjp220033@cloudshell:~/myapp (crypto-handbook-454520-j1) $ ^C
pjp220033@cloudshell:~/myapp (crypto-handbook-454520-j1) $ cd python-docs-samples
pjp220033@cloudshell:~/myapp/python-docs-samples (crypto-handbook-454520-j1) $ cd appengine/flexible/hello_world
pjp220033@cloudshell:~/myapp/python-docs-samples/appengine/flexible/hello_world (crypto-handbook-454520-j1) $ gcloud app deploy
You are creating an app for project [crypto-handbook-454520-j1].
WARNING: Creating an App Engine application for a project is irreversible and the region
cannot be changed. More information about regions is at
<https://cloud.google.com/appengine/docs/locations>.

WARNING: Starting from March, 2025, App Engine sets the automatic scaling maximum instances
default for standard environment deployments to 20. This change doesn't impact
existing apps. To override the default, specify the new max_instances value in your
```

Uploading Files :



```
Creating App Engine application in project [fresh-sequence-454109-q0] and region [asia-south1]...done.

Services to deploy:

descriptor:      [/home/ahreerajmodeon/python-docs-samples/appengine/flexible/hello_world/app.yaml]
source:          [/home/ahreerajmodeon/python-docs-samples/appengine/flexible/hello_world]
target project:  [fresh-sequence-454109-q0]
target service:  [default]
target version:  [20250318t092913]
target url:      [https://fresh-sequence-454109-q0.e1.r.appspot.com]
target service account: [fresh-sequence-454109-q0@appspot.gserviceaccount.com]

Do you want to continue (Y/n)? y

Enabling service [appengineflex.googleapis.com] on project [fresh-sequence-454109-q0]...
Operation "operations/act.p2-450975804014-9158254e-e0b5-4554-82e9-2313edfeb7e" finished successfully.
Beginning deployment of service [default]...
Uploading 7 files to Google Cloud Storage
14%
29%
43%
57%
71%
86%
100%
100%
File upload done.
Updating service [default] (this may take several minutes)...done.

Waiting for build to complete. Polling interval: 1 second(s).

----- REMOTE BUILD OUTPUT -----
starting build "9f215cfb-0a51-4e29-a2df-f922cadfb16e"
```

Fetching :

```
Cloud Shell
Terminal [fresh-sequence-454109-q0] X +
Open editor

FETCHSOURCE
BUILD
Starting Step #0 - "fetch"
Step #0 - "fetch": Pulling image: asia-south1-docker.pkg.dev/serverless-runtimes/utilities/gce-fetcher:base_20250310_18_04_RC00
Step #0 - "fetch": base_20250310_18_04_RC00: Pulling from serverless-runtimes/utilities/gce-fetcher
Step #0 - "fetch": 1b0dd3642181: Pulling fs layer
Step #0 - "fetch": 1b0dd3642181: Verifying Checksum
Step #0 - "fetch": 1b0dd3642181: Download complete
Step #0 - "fetch": 1b0dd3642181: Pull complete
Step #0 - "fetch": Digest: sha256:rd2e95f72b9e660b5b7020596cae4c2b03e5491fbc154033651e9dc564be60fbd
Step #0 - "fetch": Status: Downloaded newer image for asia-south1-docker.pkg.dev/serverless-runtimes/utilities/gce-fetcher:base_20250310_18_04_RC00
Step #0 - "fetch": asia-south1-docker.pkg.dev/serverless-runtimes/utilities/gce-fetcher:base_20250310_18_04_RC00
Step #0 - "fetch": Fetching manifest gs://staging.fresh-sequence-454109-q0.appspot.com/ae/435e5166-fb85-4a2b-97a8-10485f454608/manifest.json.
Step #0 - "fetch": Processing 7 files.
Step #0 - "fetch": *****
Step #0 - "fetch": Status: SUCCESS
Step #0 - "fetch": Started: 2025-03-18T09:31:36Z
Step #0 - "fetch": Completed: 2025-03-18T09:31:41Z
Step #0 - "fetch": Requested workers: 200
Step #0 - "fetch": Actual workers: 7
Step #0 - "fetch": Total files: 7
Step #0 - "fetch": Total retries: 3
Step #0 - "fetch": GCS timeouts: 3
Step #0 - "fetch": MiB downloaded: 0.00 MiB
Step #0 - "fetch": MiB/s throughput: 0.00 MiB/s
Step #0 - "fetch": Time for manifest: 1858.18 ms
Step #0 - "fetch": Total time: 4.99 s
Step #0 - "fetch": *****
Finished Step #0 - "fetch"
Starting Step #1 - "pre-buildpack"
Step #1 - "pre-buildpack": Pulling image: asia-south1-docker.pkg.dev/serverless-runtimes/google-22-full/builder/python:python_20250309_RC00
Step #1 - "pre-buildpack": python_20250309_RC00: Pulling from serverless-runtimes/google-22-full/builder/python
Step #1 - "pre-buildpack": 7478e0ac0ff23: Already exists
Step #1 - "pre-buildpack": 9f99b89cb008: Already exists
Step #1 - "pre-buildpack": 6a8ada699b32: Already exists
```

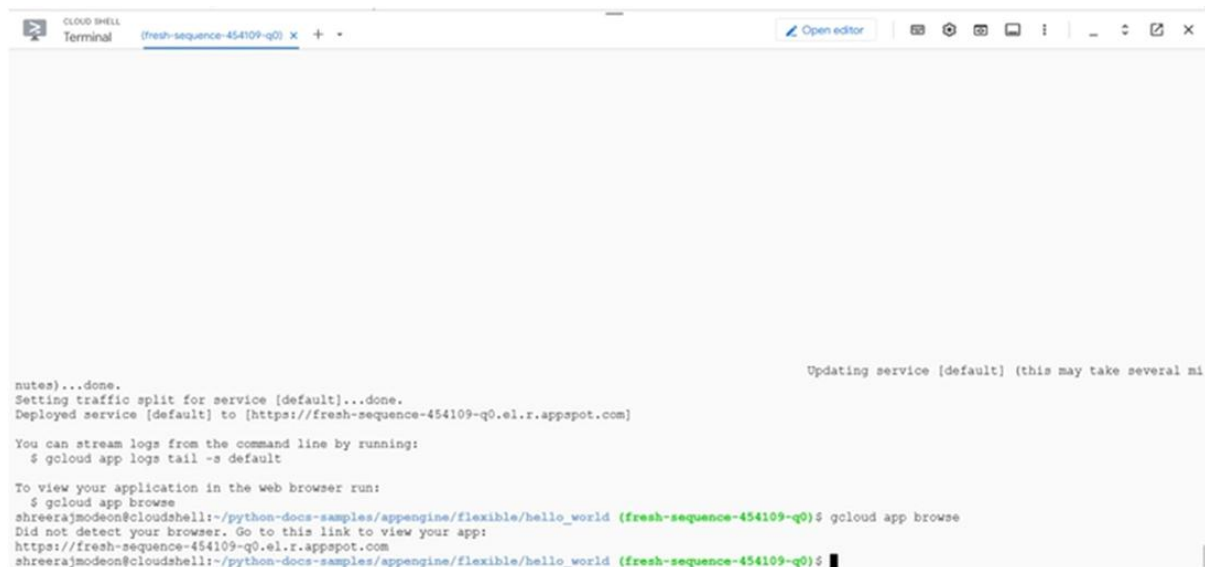
Building :

```
Cloud Shell
Terminal [fresh-sequence-454109-q0] X +
Open editor

Step #2 - "build": --- Config - Entrypoint (google.config.entrypoint@0.9.0) ---
Step #2 - "build": Using entrypoint from environment variable GOOGLE_ENTRYPOINT: gunicorn -b $PORT main:app
Step #2 - "build": --- Util - Label image (google.util.label-image@0.0.2) ---
Step #2 - "build": Adding image label google.builder-image: asia-south1-docker.pkg.dev/serverless-runtimes/google-22-full/builder/python:python_20250309_RC00
Step #2 - "build": Adding image label google.run-image: asia-south1-docker.pkg.dev/serverless-runtimes/google-22-full/run:python_20250309_RC00
Step #2 - "build": Adding image label google.source: gs://staging.fresh-sequence-454109-q0.appspot.com/ae/435e5166-fb85-4a2b-97a8-10485f454608/manifest.json
Step #2 - "build": Adding image label google.builder-version: python_20250309_RC00
Step #2 - "build": ==> EXPORTING
Step #2 - "build": Adding layer 'google.python.runtime:python'
Step #2 - "build": Adding layer 'google.python.pip:pip'
Step #2 - "build": Adding layer 'buildpacksio/lifecycle:launch.shom'
Step #2 - "build": Added 1/1 app layer(s)
Step #2 - "build": Adding layer 'buildpacksio/lifecycle:launcher'
Step #2 - "build": Adding layer 'buildpacksio/lifecycle:config'
Step #2 - "build": Adding layer 'buildpacksio/lifecycle:process-types'
Step #2 - "build": Adding label 'io.buildpacks.lifecycle.metadata'
Step #2 - "build": Adding label 'io.buildpacks.build.metadata'
Step #2 - "build": Adding label 'io.buildpacks.project.metadata'
Step #2 - "build": Adding label 'google.builder-image'
Step #2 - "build": Adding label 'google.run-image'
Step #2 - "build": Adding label 'google.source'
Step #2 - "build": Adding label 'google.builder-version'
Step #2 - "build": Setting default process type 'web'
Step #2 - "build": Saving asia-south1-docker.pkg.dev/fresh-sequence-454109-q0/gae-flexible/default.20250318t092913:435e5166-fb85-4a2b-97a8-10485f454608...
Step #2 - "build": *** Images (sha256:a85fa85926f33b0ca07b3780eb2b7fef5802297a125a36c41a7e66fc0f316):
Step #2 - "build": asia-south1-docker.pkg.dev/fresh-sequence-454109-q0/gae-flexible/default.20250318t092913:435e5166-fb85-4a2b-97a8-10485f454608
Step #2 - "build": asia-south1-docker.pkg.dev/fresh-sequence-454109-q0/gae-flexible/default.20250318t092913:latest
Finished Step #2 - "build"
POSH
DONE

-----
Updating service [default] (this may take several minutes)...Working..
```

Generates a link to open your app in browser :



```
CLOUD SHELL Terminal (fresh-sequence-454109-q0) x + - Open editor
...
Updating service [default] (this may take several minutes)...done.
Setting traffic split for service [default]...done.
Deployed service [default] to [https://fresh-sequence-454109-q0.el.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
shreerajmodeon@cloudshell:~/python-docs-samples/appengine/flexible/hello_world (fresh-sequence-454109-q0) $ gcloud app browse
Did not detect your browser. Go to this link to view your app:
https://fresh-sequence-454109-q0.el.r.appspot.com
shreerajmodeon@cloudshell:~/python-docs-samples/appengine/flexible/hello_world (fresh-sequence-454109-q0) $
```

Hello world output web page :



Conclusion : Thus I have successfully hosted an app using google cloud engine.