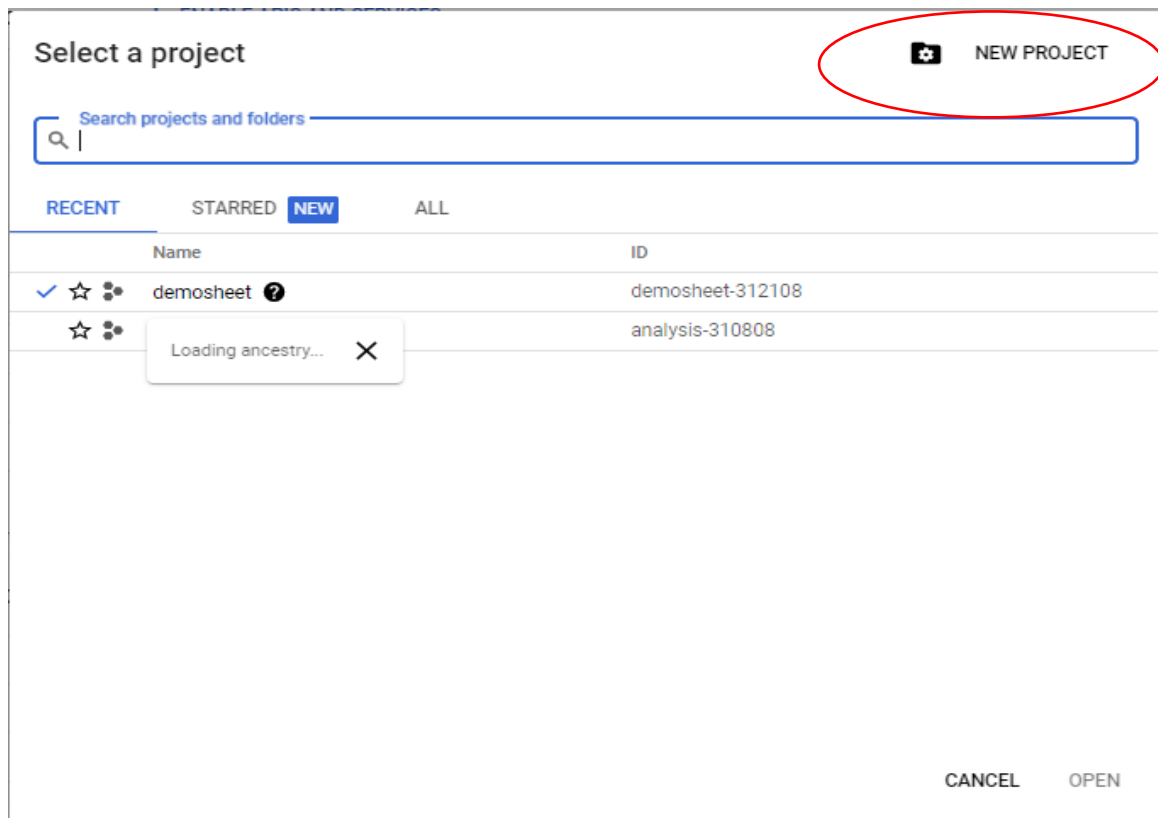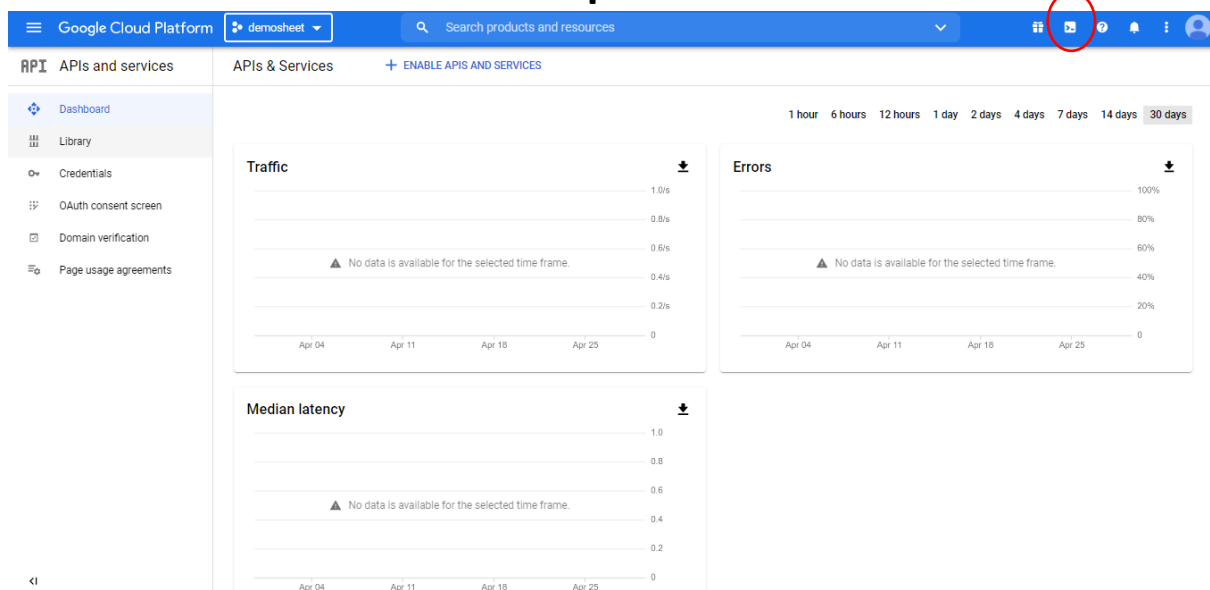# System Development
29-Apr-2021

Submitted by:

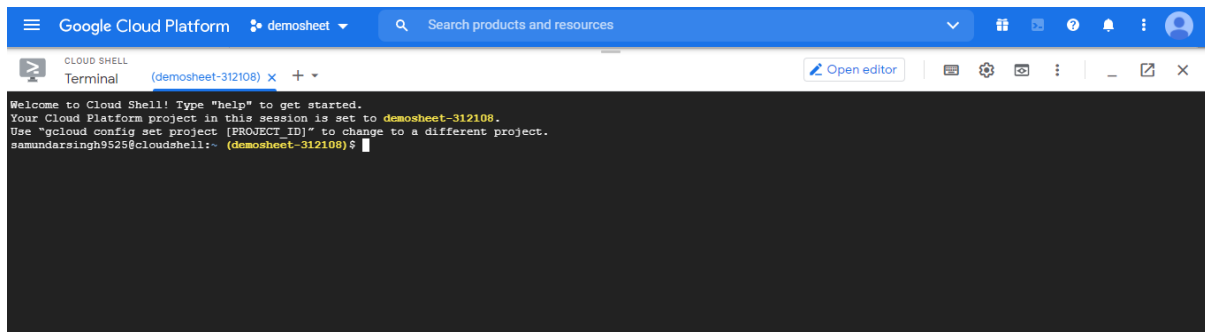Samundar Singh
2019272033(SS)

Setup Docker in Cloud:

Step 1: open google developer console and create a new project.

Step 2: once you select the project it will open this window Here u choose the terminal option.
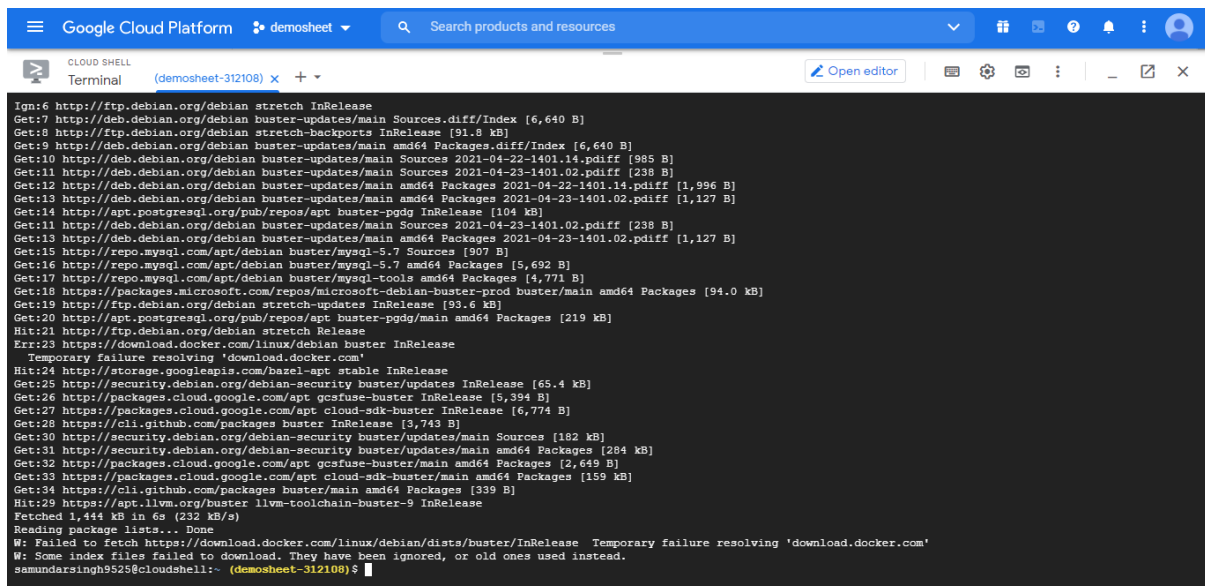
Step 3: we get a terminal like this.

Step 4: install the docker for installation type these commands

```
$ sudo apt-get update
```



```
$ sudo apt-get install docker-ce docker-ce-cli containerd.io
```


Since I have already installed it will show like this but if you start it from scratch it will download the Docker.

Step 5: After in installation of docker we check the version of docker only to insure that the installation is successful or not.


```
samundarsingh9525@cloudshell:~ (demosheet-312108)$ docker --version
Docker version 20.10.6, build 370c289
samundarsingh9525@cloudshell:~ (demosheet-312108)$
```

Step 6: Now we install some images like(ubuntu os ,nginx server etc.)

a.)   Creating ubuntu container:
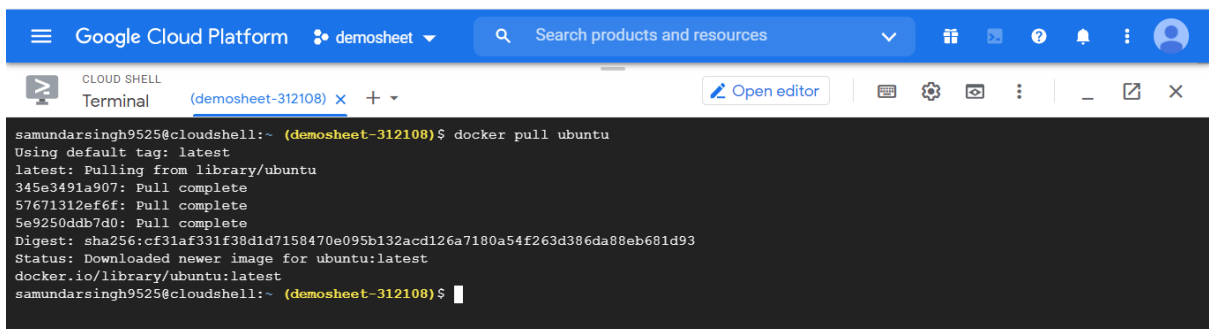
Cmd: $ docker pull ubuntu
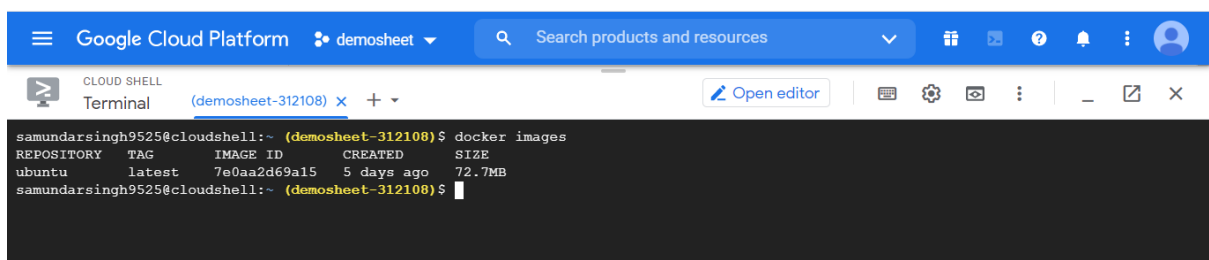
To install the ubuntu image


```
samundarsingh9525@cloudshell:~ (demosheet-312108)$ docker pull ubuntu
Using default tag: latest
latest: Pulling from library/ubuntu
345e3491a907: Pull complete
57671312ef6f: Pull complete
5e9250ddb7d0: Pull complete
Digest: sha256:cf31af331f38d1d7158470e095b132acd126a7180a54f263d386da88eb681d93
Status: Downloaded newer image for ubuntu:latest
docker.io/library/ubuntu:latest
samundarsingh9525@cloudshell:~ (demosheet-312108)$
```
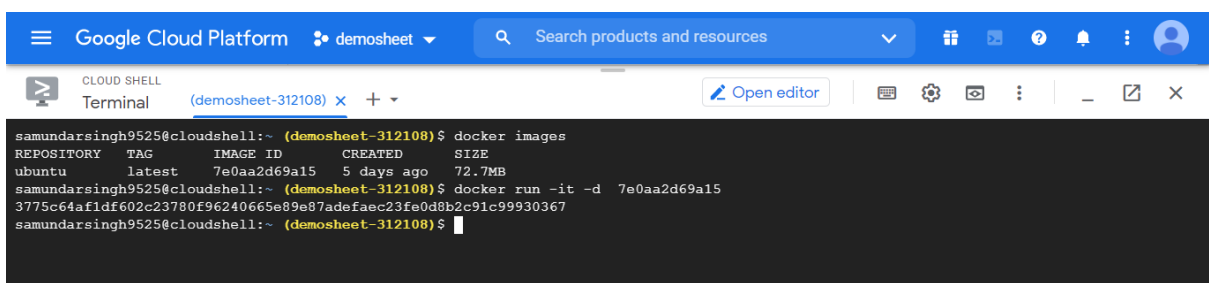
To check the Id of Ubuntu:

Cmd: $ docker images


```
samundarsingh9525@cloudshell:~ (demosheet-312108)$ docker images
REPOSITORY    TAG      IMAGE ID       CREATED      SIZE
ubuntu        latest   7e0aa2d69a15   5 days ago   72.7MB
samundarsingh9525@cloudshell:~ (demosheet-312108)$
```
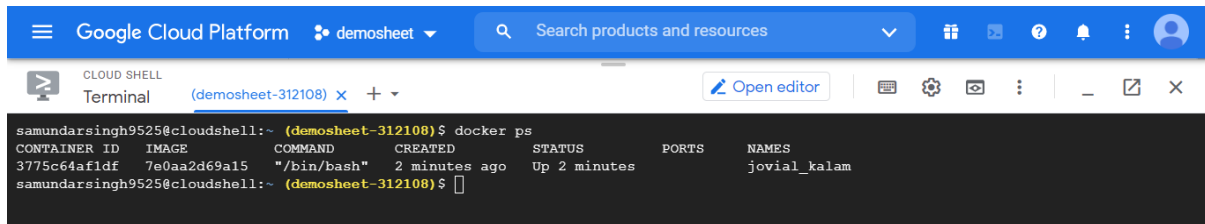
To launch the container of Ubuntu:

Cmd: $ docker run -it -d 7e0aa2d69a15


```
samundarsingh9525@cloudshell:~ (demosheet-312108)$ docker images
REPOSITORY    TAG      IMAGE ID       CREATED      SIZE
ubuntu        latest   7e0aa2d69a15   5 days ago   72.7MB
samundarsingh9525@cloudshell:~ (demosheet-312108)$ docker run -it -d  7e0aa2d69a15
3775c64af1df602c23780f96240665e89e87adefaec23fe0d8b2c91c99930367
samundarsingh9525@cloudshell:~ (demosheet-312108)$
```

Cmd: $ docker ps

Then

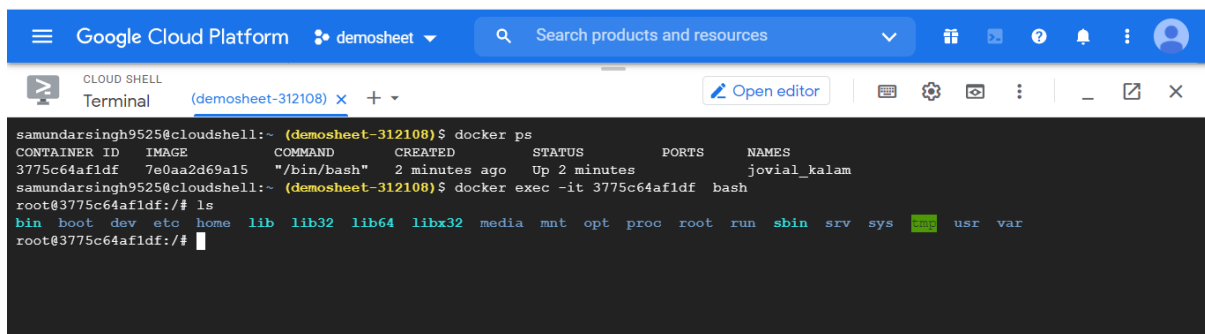## Cmd: $ docker exec -it <container id>bash
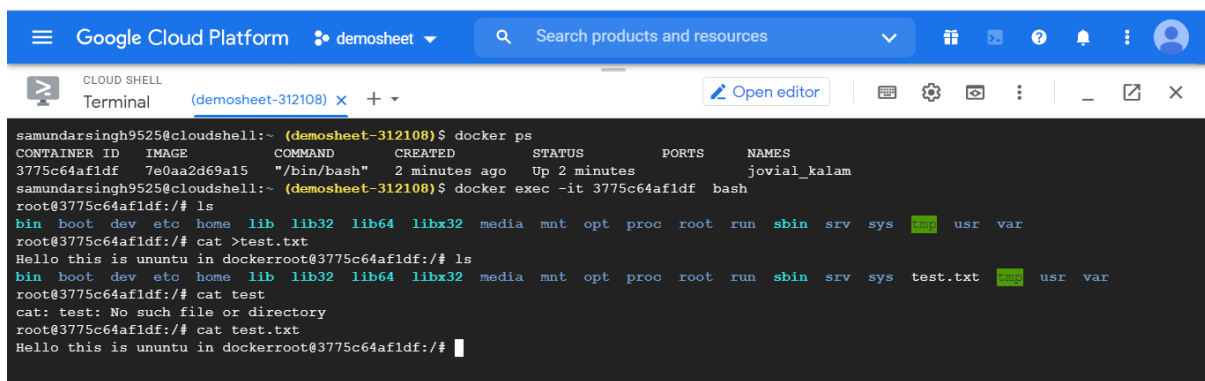
As we can see that a linux is running in docker we can see that the terminal name is changed

Testing :

I simply create a text file using Cat command and store some sentence on it ang again fetched the data.

b.)   Creating ngnix container:

To install the nginx image

Cmd: $ docker pull nginx

To launch the container of ngnix

Cmd: $ docker run -it -d   image id of nginx

To deploy the server of ngnix:

Cmd: $ docker run -p 8000:80 nginx

As we can see the server is listening on port 8000

Choose the Change port option
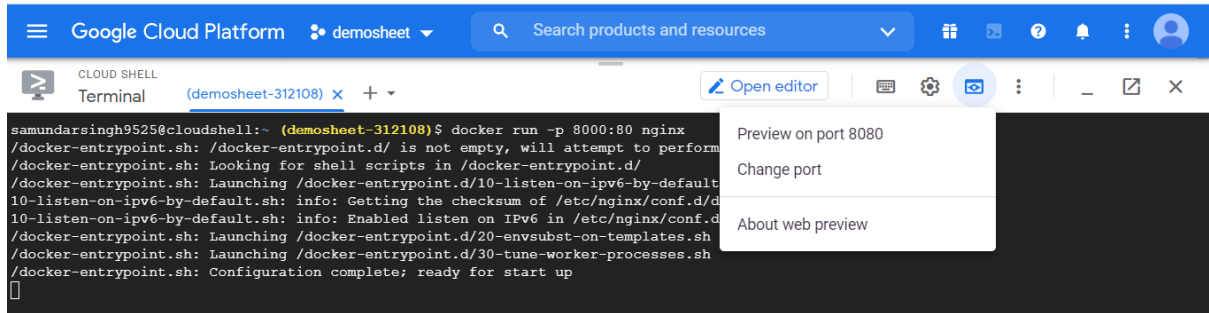
Select port 8000
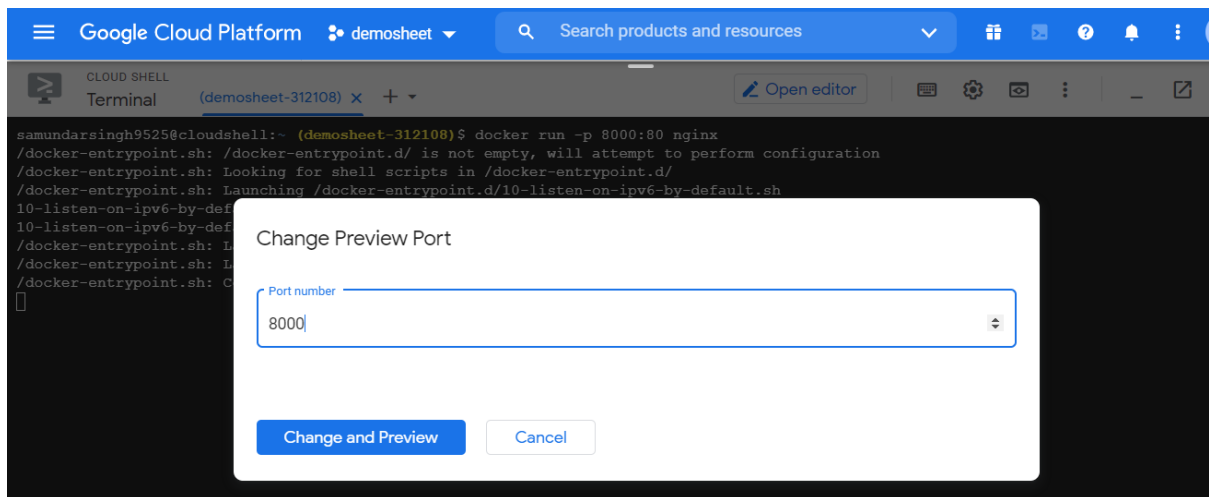
Click on change and Preview