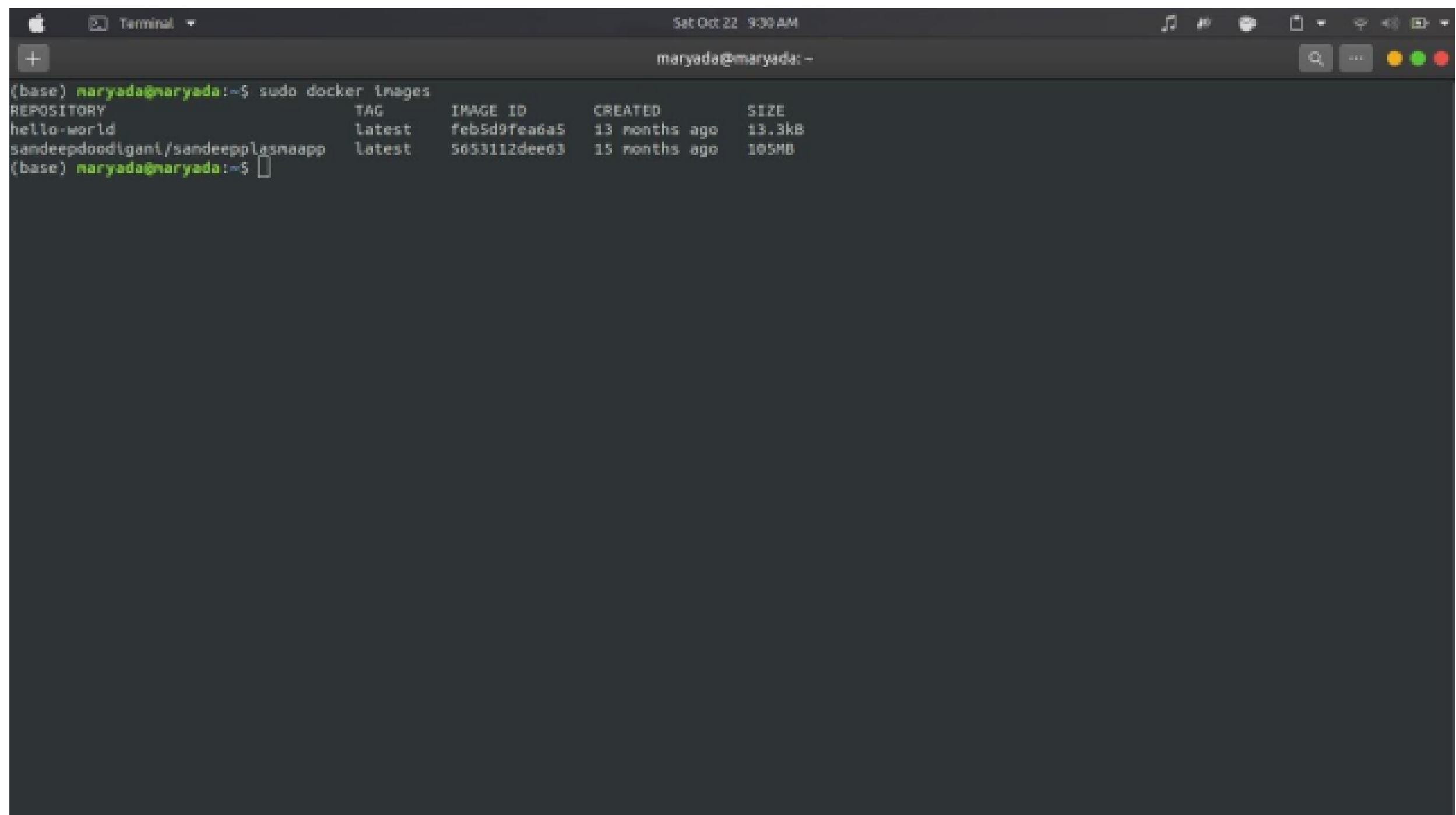


## ASSIGNMENT-4

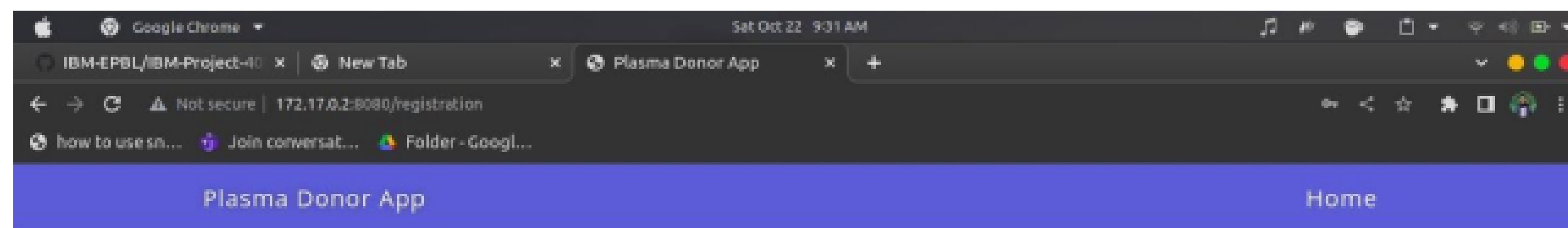
Student Name	Nithyashree K
Student Roll Number	6113191031062
Maximum Marks	

**1.Pull an Image from docker hub and run it in docker playground. Pulled sandeepdoodigani/plasmaapplication and running in docker:**

A screenshot of a macOS Terminal window. The title bar shows 'Terminal' and the time 'Sat Oct 22 9:30 AM'. The terminal content shows a user running the command 'sudo docker images'. The output is a table with columns: REPOSITORY, TAG, IMAGE ID, CREATED, and SIZE. The data rows are 'hello-world latest feb5d9fea6a5 13 months ago 13.3kB' and 'sandeepdoodigani/sandeepplasmaapp latest 5653112dee63 15 months ago 105MB'. The prompt '(base) naryada@naryada:~\$' is visible at the end of the output.

```
(base) naryada@naryada:~$ sudo docker images
REPOSITORY              TAG         IMAGE ID      CREATED       SIZE
hello-world              latest      feb5d9fea6a5  13 months ago 13.3kB
sandeepdoodigani/sandeepplasmaapp latest      5653112dee63  15 months ago 105MB
(base) naryada@naryada:~$
```

```
Terminal
Sat Oct 22 9:31 AM
maryada@maryada: ~
(base) maryada@maryada:~$ sudo docker run -p 8888:8888 sandeepdoodigani/sandeepplasmaapp
* Serving Flask app 'app' (lazy loading)
* Environment: production
  WARNING: This is a development server. Do not use it in a production deployment.
  Use a production WSGI server instead.
* Debug mode: off
* Running on all addresses.
  WARNING: This is a development server. Do not use it in a production deployment.
* Running on http://172.17.0.2:8888/ (Press CTRL+C to quit)
```



Maryada Kumar Lodha D

danny@student.ice.edu

+919050332800

Madurai

Uninfected

Positive

Register

**2.Create a docker file for the jobportal application and deploy it in Docker desktop application. Dockerfile:**

**FROM python:3.6**

**WORKDIR /app**

**ADD . /app**

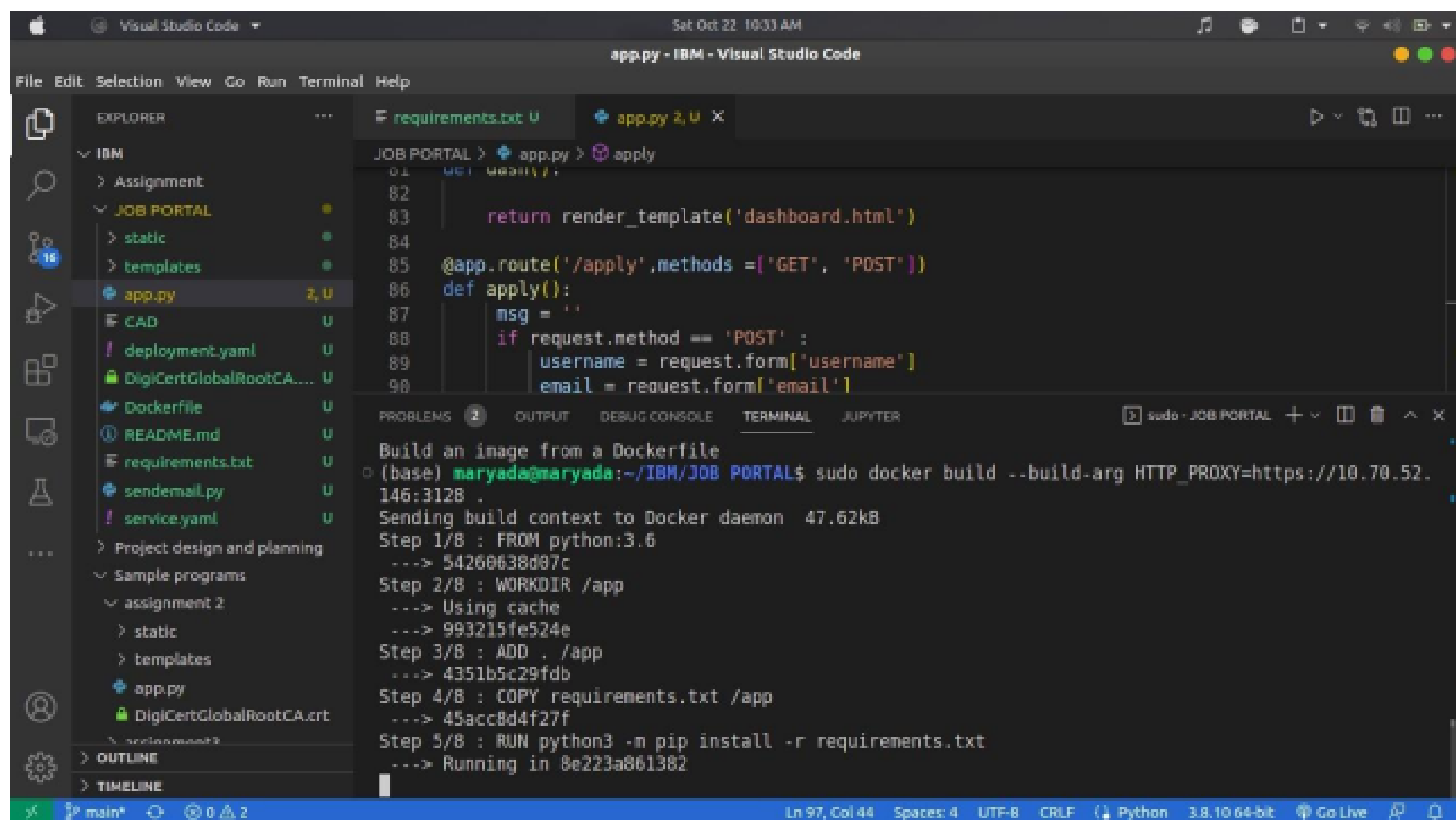
**COPY requirements.txt /app**

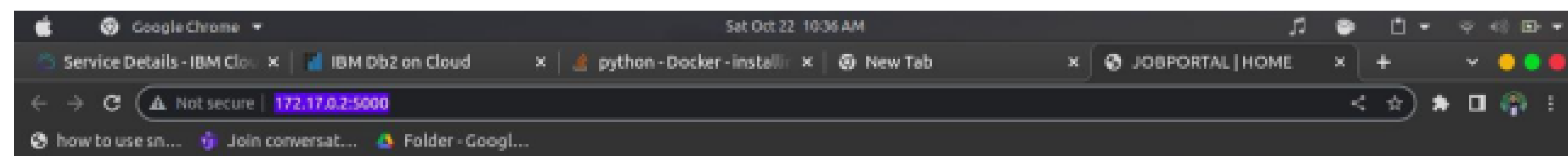
**RUN python3 -m pip install -r requirements.txt**

**RUN python3 -m pip install ibm\_db**

**EXPOSE 5000**

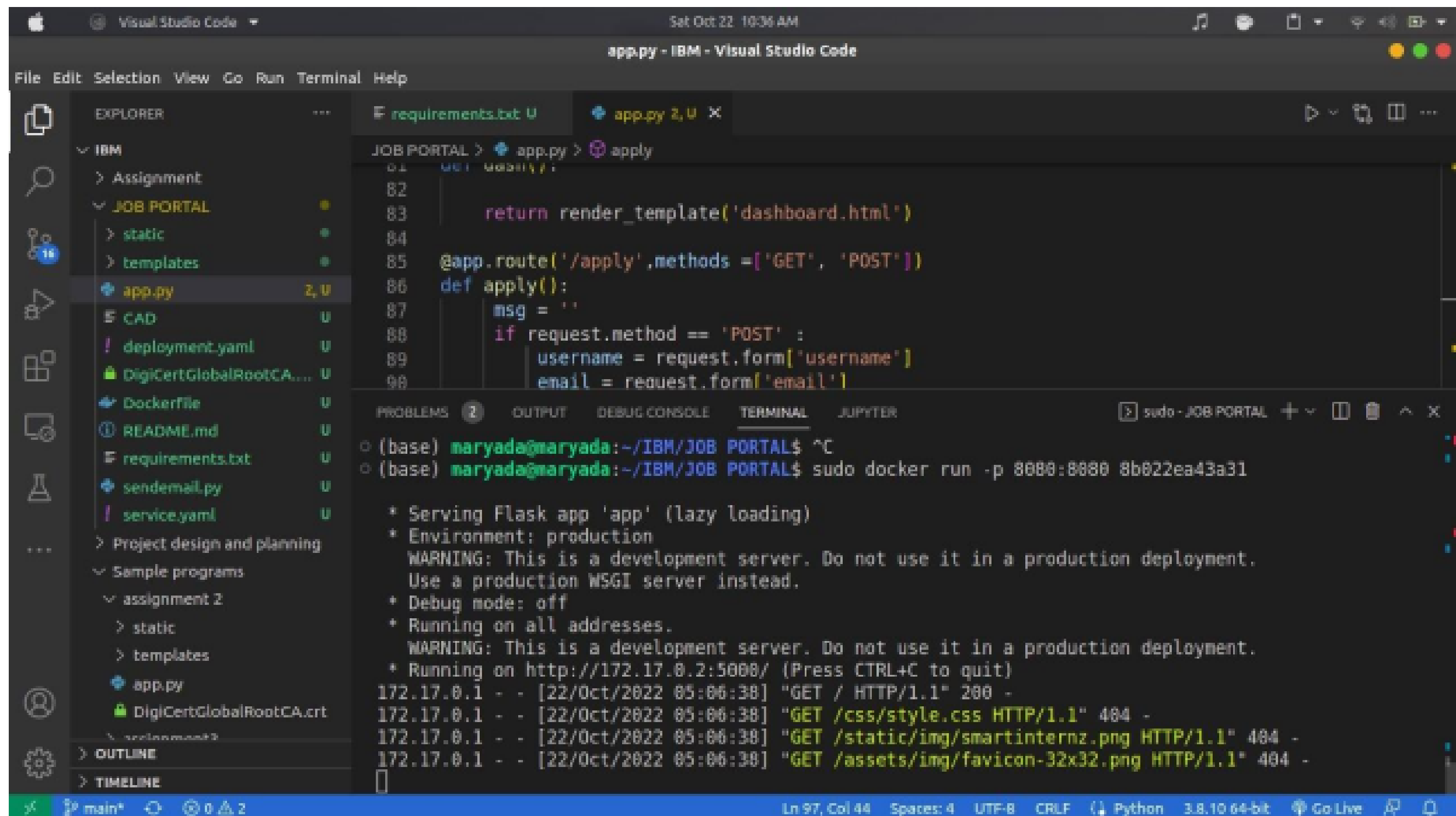
**CMD ["python","app.py"]**





The screenshot shows the Visual Studio Code editor. The title bar indicates the active file is 'app.py' within a workspace named 'IBM'. The Explorer sidebar on the left shows a project structure with a folder named 'IBM' containing a sub-folder 'Assignment'. The main editor area displays a file named 'requirements.txt' with the following content:

```
JOB PORTAL > app.py > apply
0.1
82
```



The screenshot shows the Visual Studio Code interface with a project named 'JOB PORTAL'. The Explorer sidebar on the left shows the project structure, including files like 'app.py', 'requirements.txt', 'Dockerfile', and 'service.yaml'. The main editor displays the 'app.py' file, which contains a Flask application. The terminal window at the bottom shows the command 'sudo docker run -p 8080:8080 8b022ea43a31' being executed, followed by the output of the application running on http://172.17.0.2:5000/.

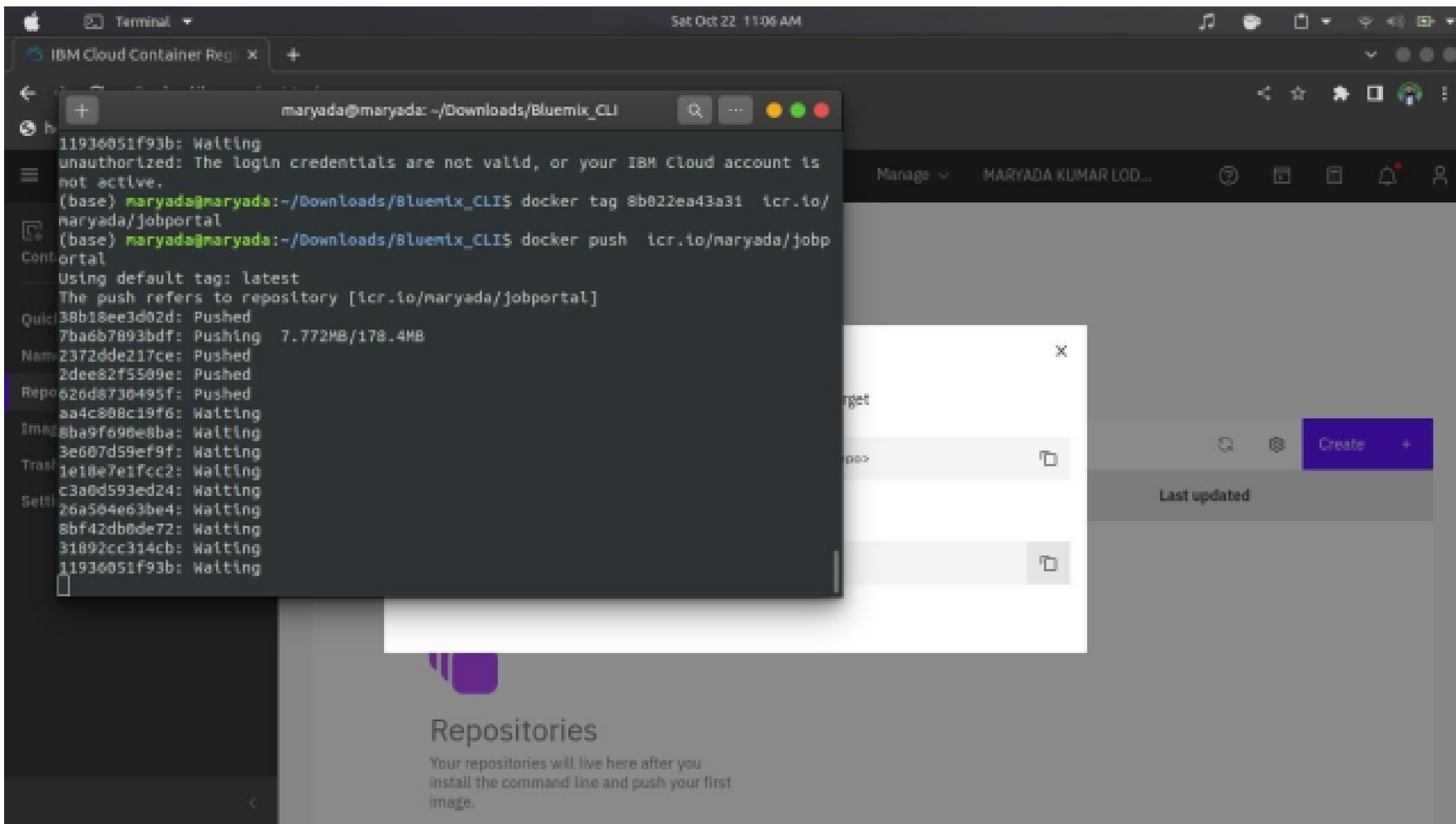
```
app.py - IBM - Visual Studio Code
File Edit Selection View Go Run Terminal Help

EXPLORER
IBM
  > Assignment
  > JOB PORTAL
    > static
    > templates
    + app.py 2, U
    + CAD U
    + deployment.yaml U
    + DigiCertGlobalRootCA... U
    + Dockerfile U
    + README.md U
    + requirements.txt U
    + sendemail.py U
    + service.yaml U
  > Project design and planning
  > Sample programs
    > assignment 2
      > static
      > templates
      + app.py
      + DigiCertGlobalRootCA.crt
  > OUTLINE
  > TIMELINE

JOB PORTAL > app.py > apply
82
83     return render_template('dashboard.html')
84
85 @app.route('/apply', methods=['GET', 'POST'])
86 def apply():
87     msg = ''
88     if request.method == 'POST':
89         username = request.form['username']
90         email = request.form['email']

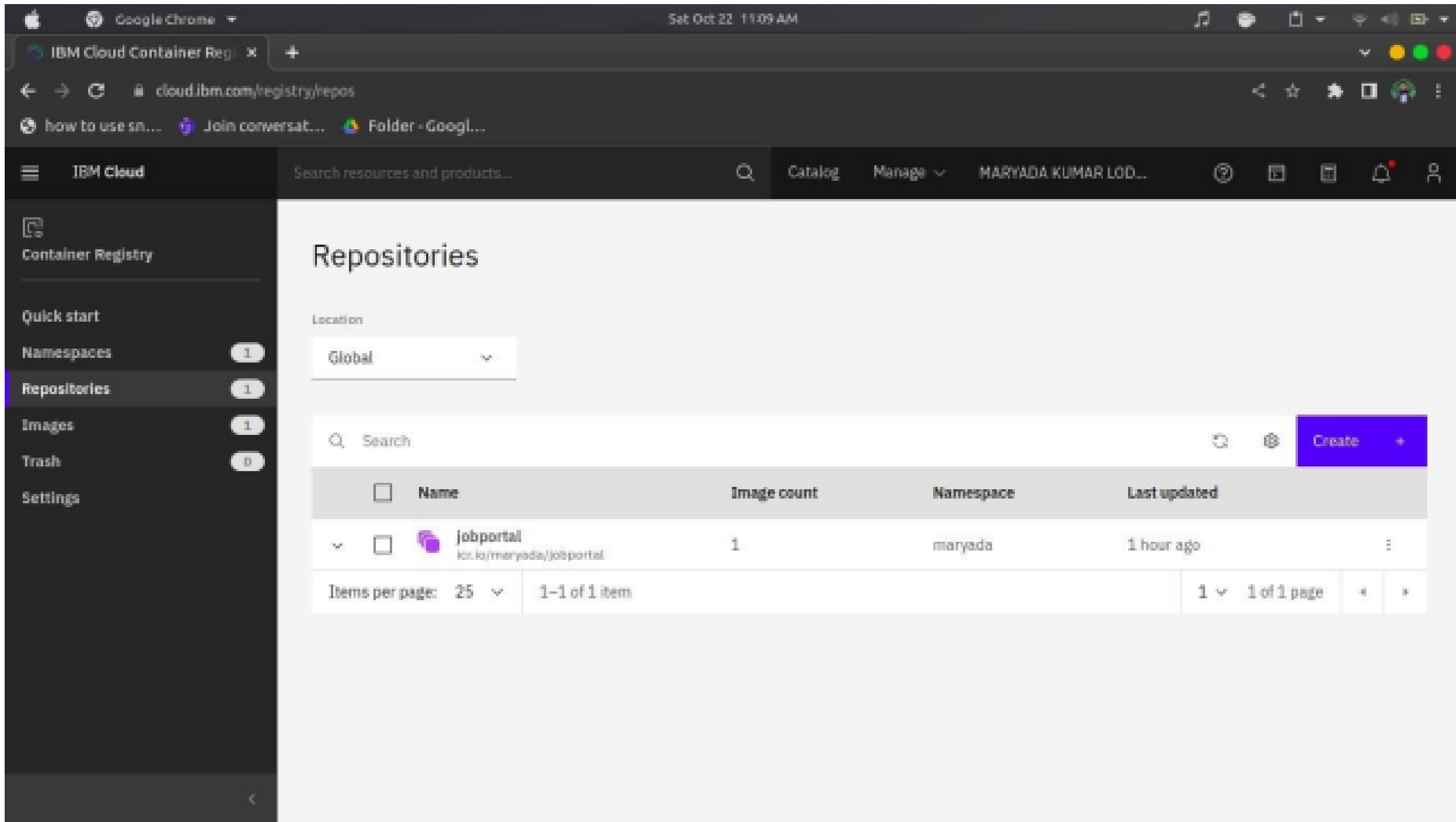
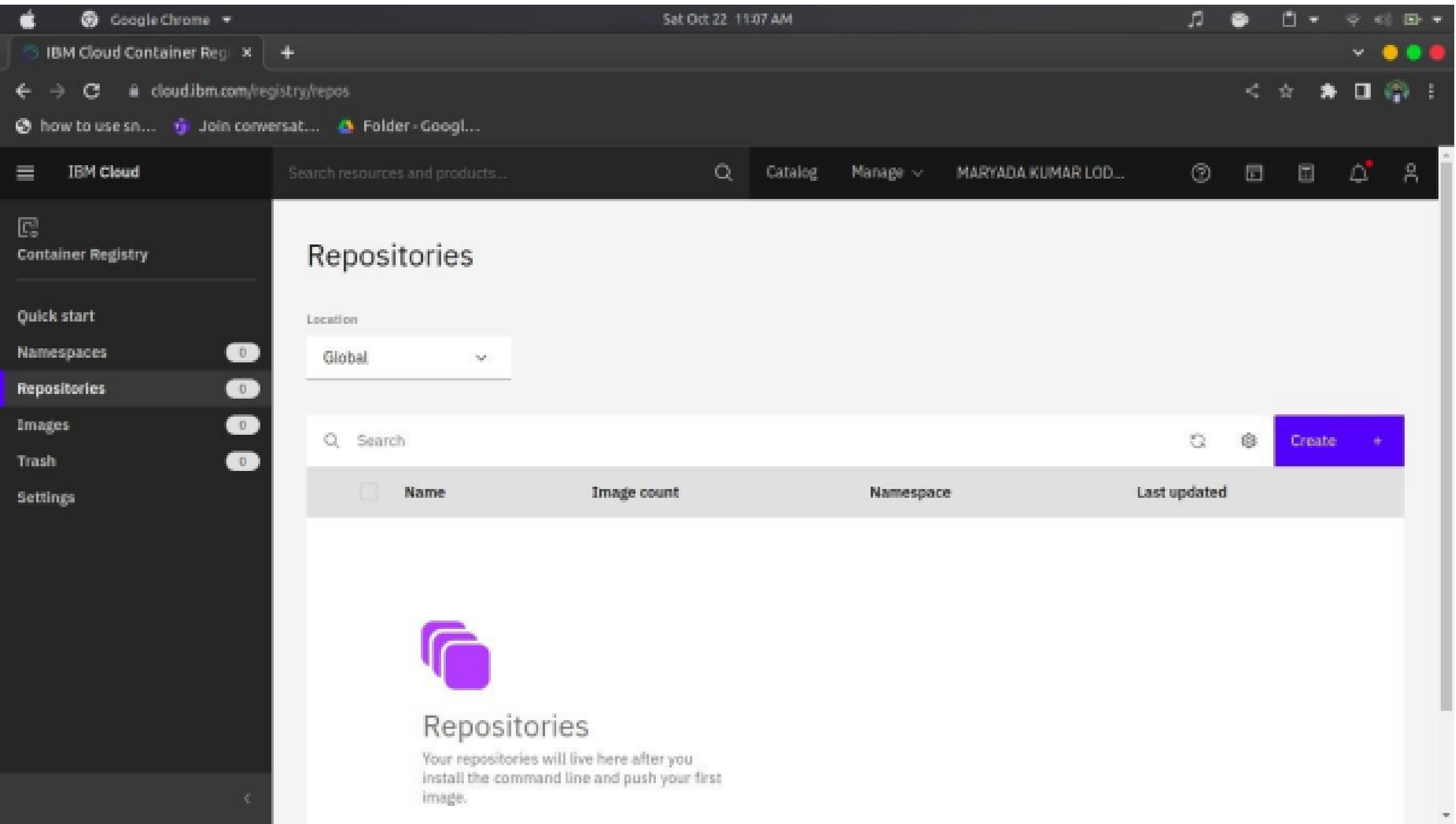
TERMINAL
sudo - JOB PORTAL
(base) maryada@maryada:~/IBM/JOB PORTAL$ ^C
(base) maryada@maryada:~/IBM/JOB PORTAL$ sudo docker run -p 8080:8080 8b022ea43a31
* Serving Flask app 'app' (lazy loading)
* Environment: production
  WARNING: This is a development server. Do not use it in a production deployment.
  Use a production WSGI server instead.
* Debug mode: off
* Running on all addresses.
  WARNING: This is a development server. Do not use it in a production deployment.
* Running on http://172.17.0.2:5000/ (Press CTRL+C to quit)
172.17.0.1 - - [22/Oct/2022 05:06:38] "GET / HTTP/1.1" 200 -
172.17.0.1 - - [22/Oct/2022 05:06:38] "GET /css/style.css HTTP/1.1" 404 -
172.17.0.1 - - [22/Oct/2022 05:06:38] "GET /static/img/smartinternz.png HTTP/1.1" 404 -
172.17.0.1 - - [22/Oct/2022 05:06:38] "GET /assets/img/favicon-32x32.png HTTP/1.1" 404 -
```

3.Create a IBM container registry and deploy helloworld app or jobportalapp.



The screenshot shows a terminal window with the following commands and output:

```
maryada@maryada: ~/Downloads/Bluemix_CLI
11936051f93b: Waiting
unauthorized: The login credentials are not valid, or your IBM Cloud account is not active.
(base) maryada@maryada:~/Downloads/Bluemix_CLI$ docker tag 8b022ea43a31 icr.io/maryada/jobportal
(base) maryada@maryada:~/Downloads/Bluemix_CLI$ docker push icr.io/maryada/jobportal
Using default tag: latest
The push refers to repository [icr.io/maryada/jobportal]
Pushing 7.772MB/178.4MB
38b18ee3d02d: Pushed
7ba6b7893bdf: Pushed
2372d0e217ce: Pushed
2dee82f5509e: Pushed
620d8730495f: Pushed
aa4c888c19f6: Waiting
8ba9f090e0ba: Waiting
3e007d59ef9f: Waiting
1e18e7e1fcc2: Waiting
c3a0d593ed24: Waiting
26a504e63be4: Waiting
8bf42db0de72: Waiting
31892cc314cb: Waiting
11936051f93b: Waiting
```



## 4. Create a Kubernetes cluster in IBM cloud and deploy helloworld image or jobportal image and also expose the same app to run in nodeport.

