Assignment 4

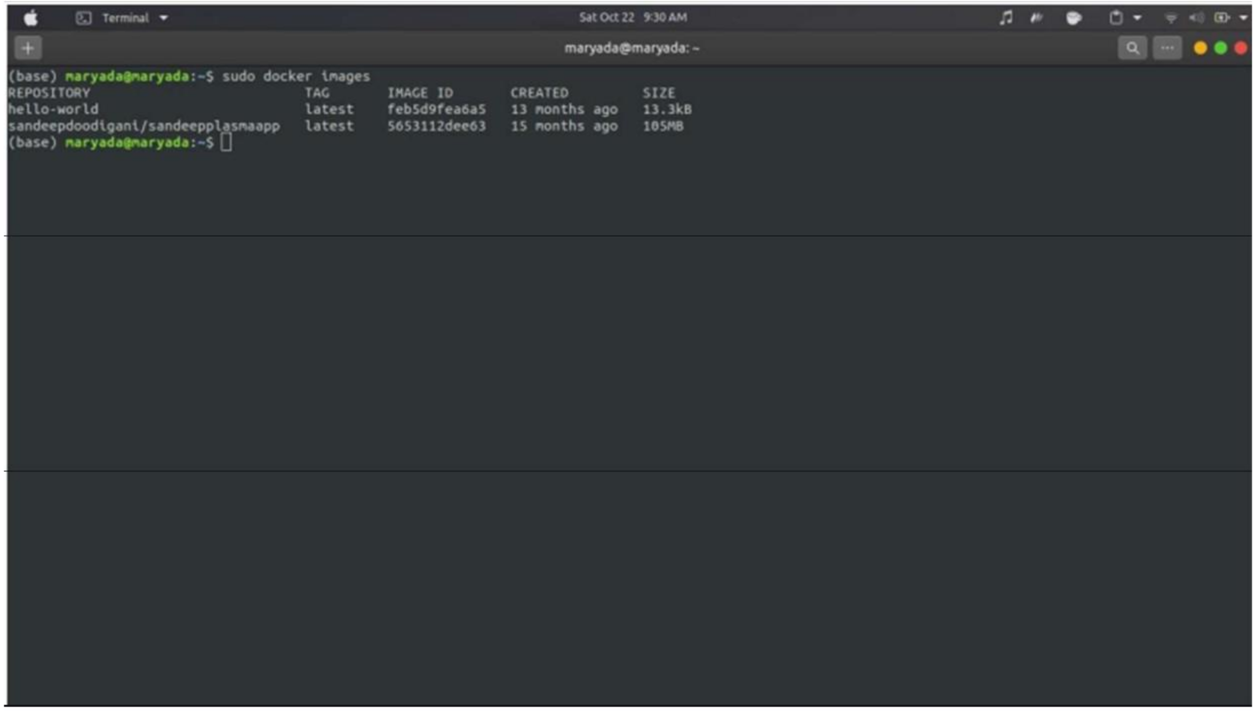
Kubernetes / Docker

Inventory Management For Retailers:

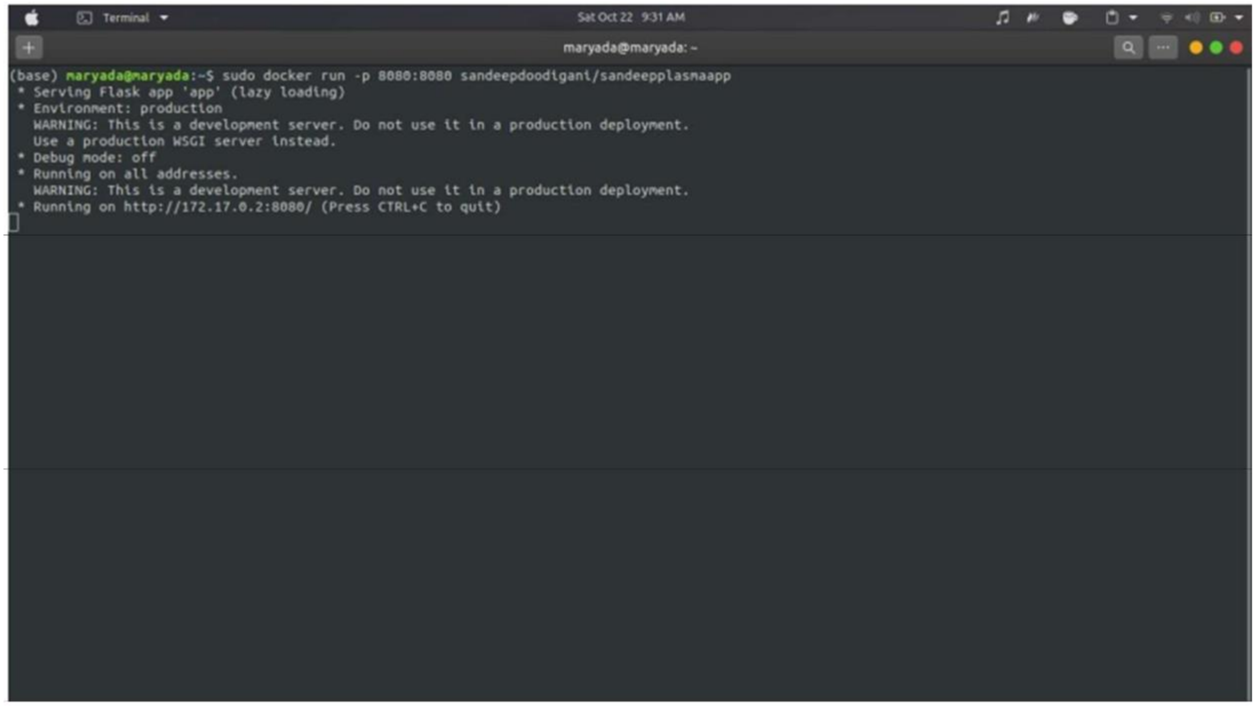
Team ID : PNT2022TMID05614

Name : Ganeshkumar M

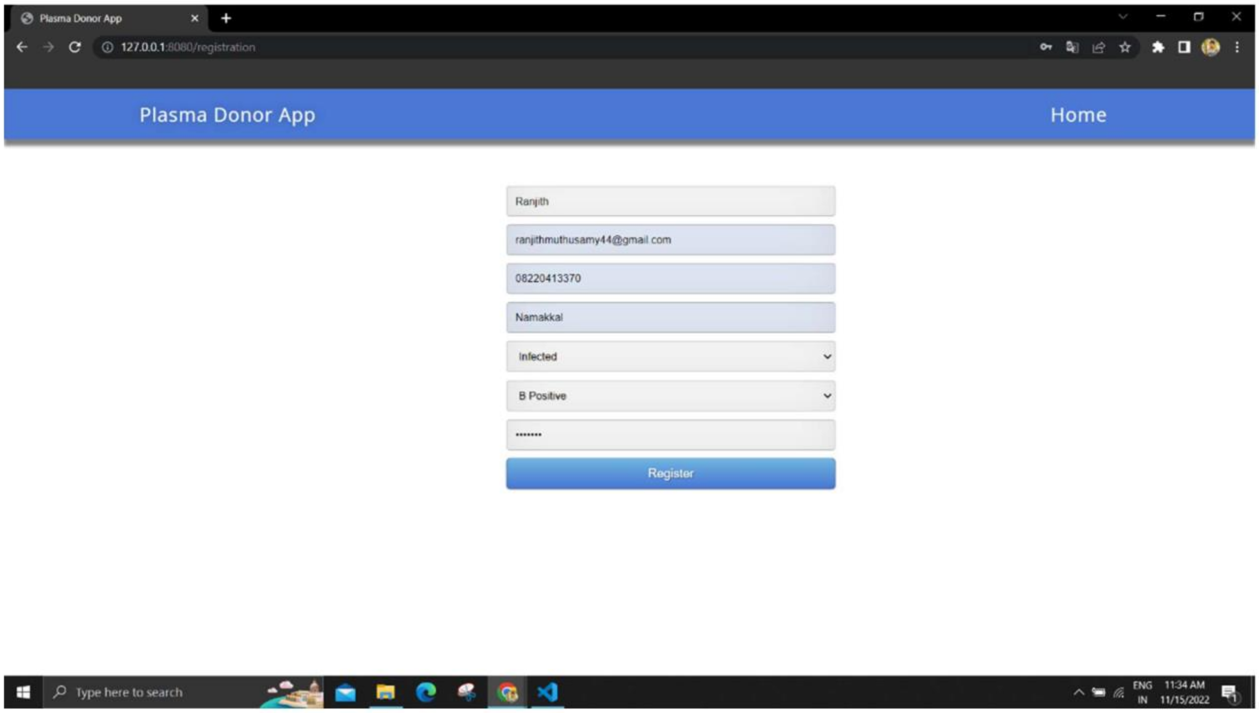
1.Pull an Image from docker hub and run it in docker playground.



```
(base) maryada@maryada:~$ 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) maryada@maryada:~$ 
```



```
(base) maryada@maryada:~$ sudo docker run -p 8080:8080 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://172.17.0.2:8080/ (Press CTRL+C to quit)
```



Ranjith

ranjithmuthusamy44@gmail.com

08220413370

Namakkal

Infected

B Positive

•••••••

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

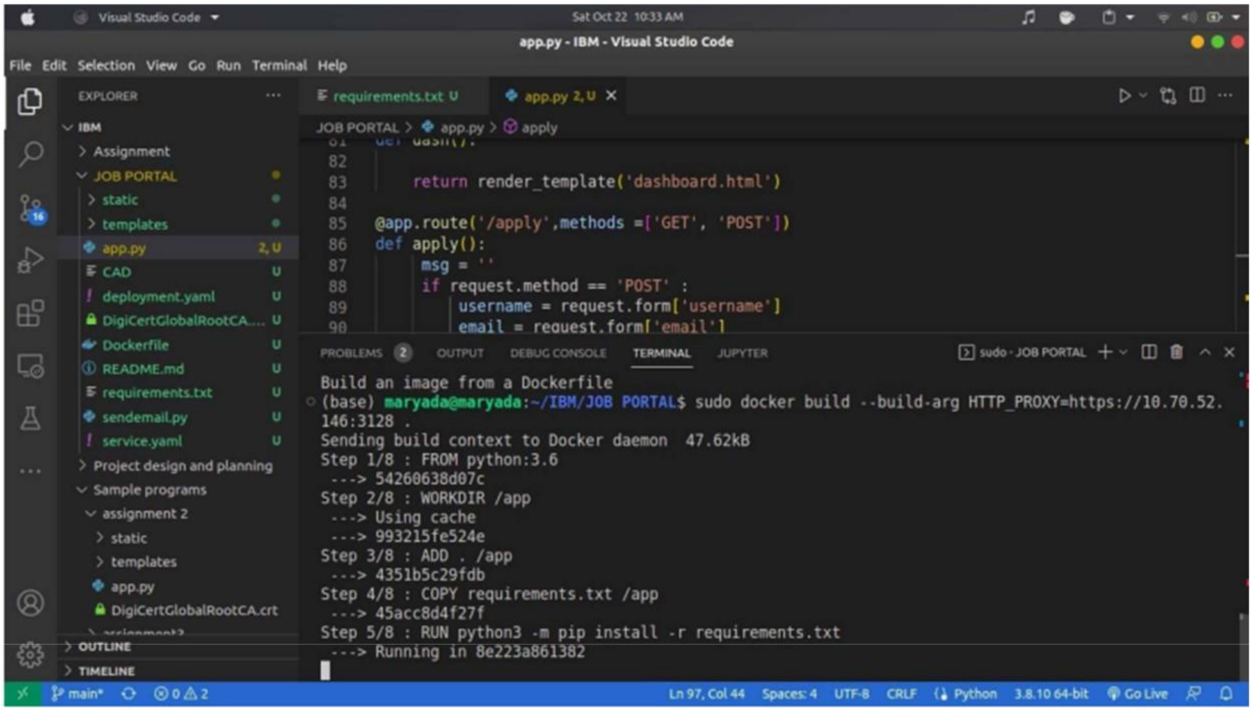
COPY requirements.txt /app

RUN python3 -m pip install -r requirements.txt

RUN python3 -m pip install ibm_db

EXPOSE 5000

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

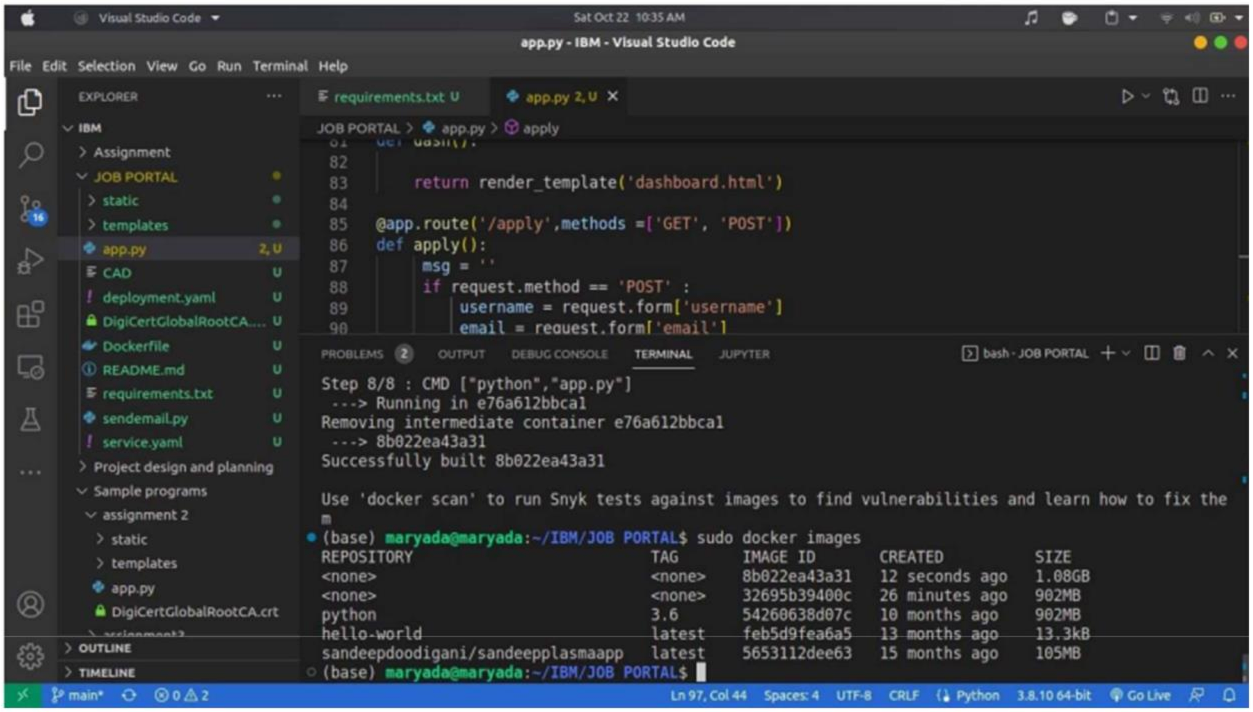


```
def dash():

    return render_template('dashboard.html')

@app.route('/apply',methods =['GET', 'POST'])
def apply():
        msg = ''
        if request.method == 'POST' :
            username = request.form['username']
            email = request.form['email']
```

```
Build an image from a Dockerfile
(base) maryada@maryada:~/IBM/JOB PORTAL$ sudo docker build --build-arg HTTP_PROXY=https://10.70.52.
146:3128 .
Sending build context to Docker daemon  47.62kB
Step 1/8 : FROM python:3.6
 ---> 54260638d07c
Step 2/8 : WORKDIR /app
 ---> Using cache
 ---> 993215fe524e
Step 3/8 : ADD . /app
 ---> 4351b5c29fdb
Step 4/8 : COPY requirements.txt /app
 ---> 45acc8d4f27f
Step 5/8 : RUN python3 -m pip install -r requirements.txt
 ---> Running in 8e223a861382
```



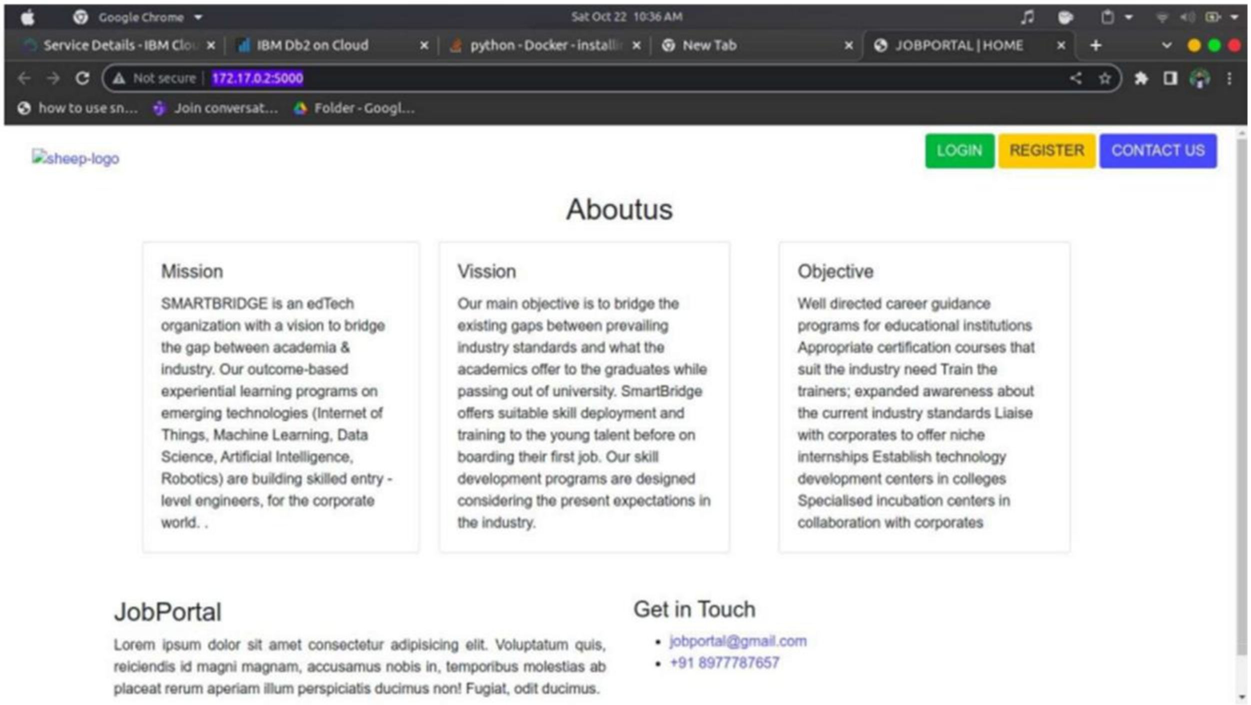
```python

    return render_template('dashboard.html')

@app.route('/apply',methods =['GET', 'POST'])
def apply():
    msg = ''
    if request.method == 'POST' :
        username = request.form['username']
        email = request.form['email']
```

```
Step 8/8 : CMD ["python","app.py"]
 ---> Running in e76a612bbca1
Removing intermediate container e76a612bbca1
 ---> 8b022ea43a31
Successfully built 8b022ea43a31

Use 'docker scan' to run Snyk tests against images to find vulnerabilities and learn how to fix the
m
(base) maryada@maryada:~/IBM/JOB PORTAL$ sudo docker images
REPOSITORY                          TAG       IMAGE ID       CREATED          SIZE
<none>                              <none>    8b022ea43a31   12 seconds ago   1.08GB
<none>                              <none>    32695b39400c   26 minutes ago   902MB
python                              3.6       54260638d07c   10 months ago    902MB
hello-world                         latest    feb5d9fea6a5   13 months ago    13.3kB
sandeepdoodigani/sandeepplasmaapp   latest    5653112dee63   15 months ago    105MB
(base) maryada@maryada:~/IBM/JOB PORTAL$
```



Aboutus

Mission

SMARTBRIDGE is an edTech organization with a vision to bridge the gap between academia & industry. Our outcome-based experiential learning programs on emerging technologies (Internet of Things, Machine Learning, Data Science, Artificial Intelligence, Robotics) are building skilled entry - level engineers, for the corporate world. .

Vission

Our main objective is to bridge the existing gaps between prevailing industry standards and what the academics offer to the graduates while passing out of university. SmartBridge offers suitable skill deployment and training to the young talent before on boarding their first job. Our skill development programs are designed considering the present expectations in the industry.

Objective

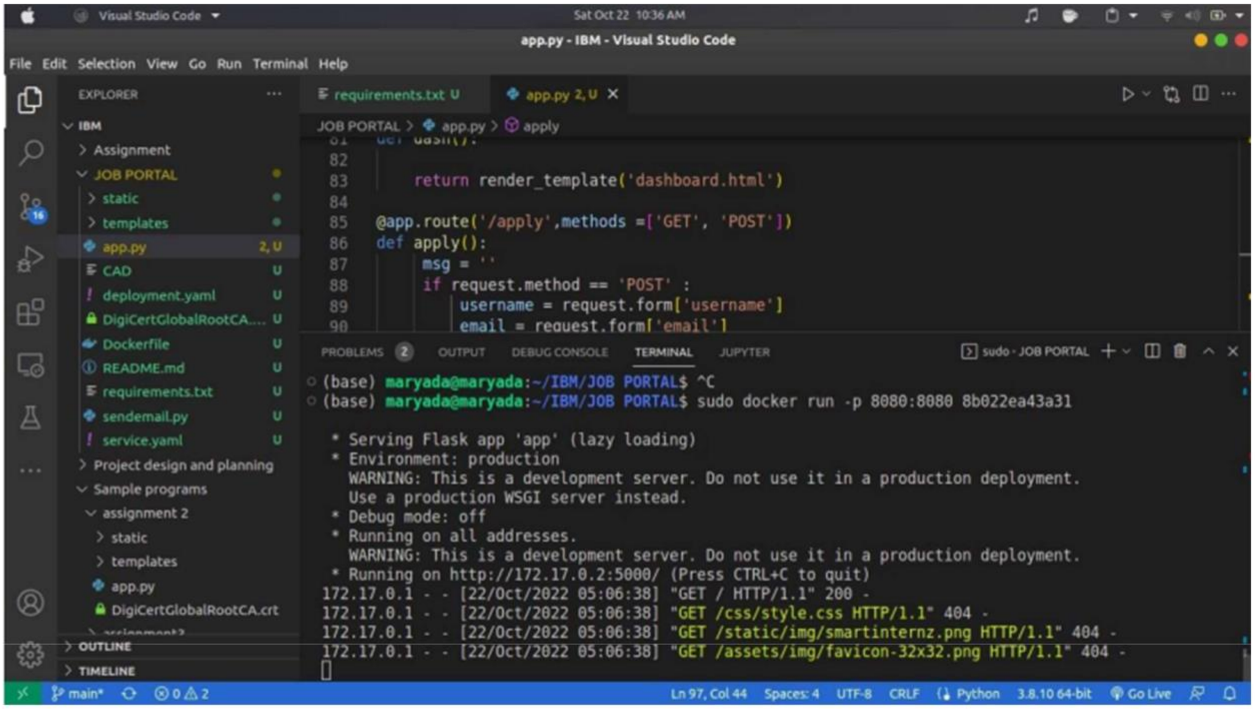
Well directed career guidance programs for educational institutions Appropriate certification courses that suit the industry need Train the trainers; expanded awareness about the current industry standards Liaise with corporates to offer niche internships Establish technology development centers in colleges Specialised incubation centers in collaboration with corporates

JobPortal

Lorem ipsum dolor sit amet consectetur adipisicing elit. Voluptatum quis, reiciendis id magni magnam, accusamus nobis in, temporibus molestias ab placeat rerum aperiam illum perspiciatis ducimus non! Fugiat, odit ducimus.

Get in Touch

- jobportal@gmail.com
- +91 8977787657



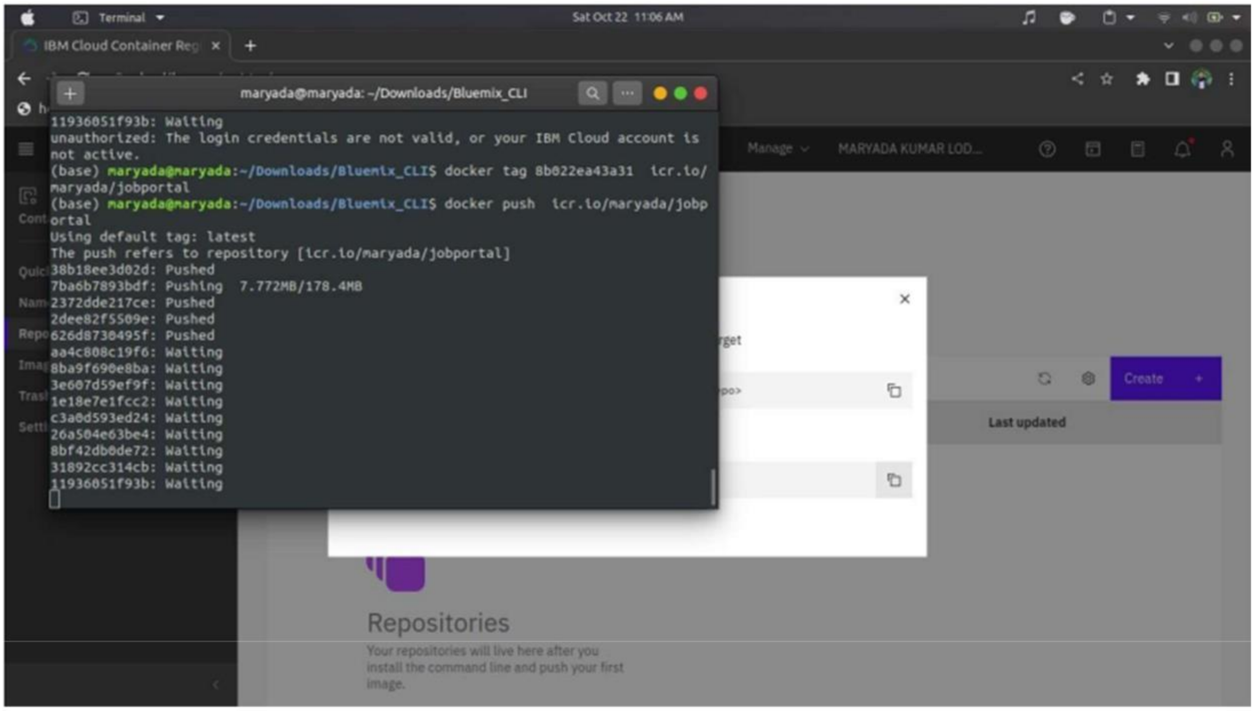
```
    return render_template('dashboard.html')

@app.route('/apply',methods =['GET', 'POST'])
def apply():
    msg = ''
    if request.method == 'POST' :
        username = request.form['username']
        email = request.form['email']
```

```
(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 -
```

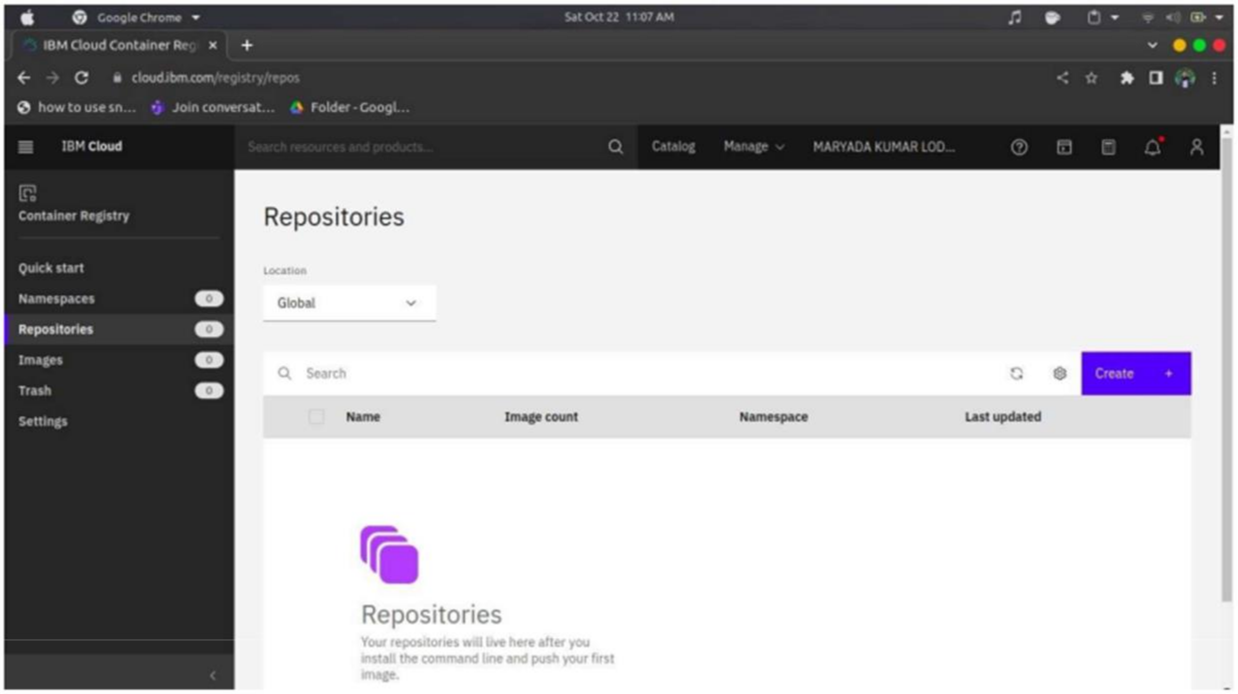
3.Create a IBM container registry and deploy helloworld app or jobportalapp.



```
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/jobp
ortal
Using default tag: latest
The push refers to repository [icr.io/maryada/jobportal]
38b18ee3d02d: Pushed
7ba6b7893bdf: Pushing  7.772MB/178.4MB
2372dde217ce: Pushed
2dee82f5509e: Pushed
626d8730495f: Pushed
aa4c808c19f6: Waiting
8ba9f690e8ba: Waiting
3e607d59ef9f: Waiting
1e18e7e1fcc2: Waiting
c3a0d593ed24: Waiting
26a504e63be4: Waiting
8bf42db0de72: Waiting
31892cc314cb: Waiting
11936051f93b: Waiting
```

Repositories

Your repositories will live here after you install the command line and push your first image.

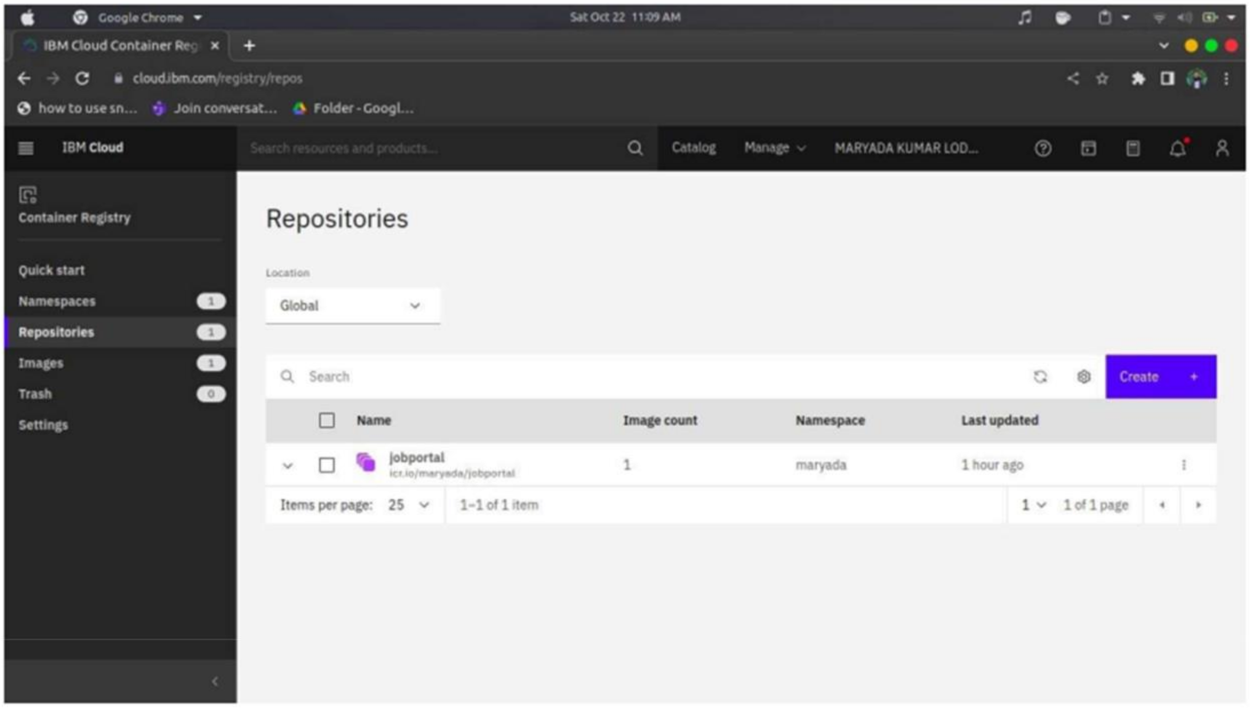


Repositories

Name	Image count	Namespace	Last updated

Repositories

Your repositories will live here after you install the command line and push your first image.

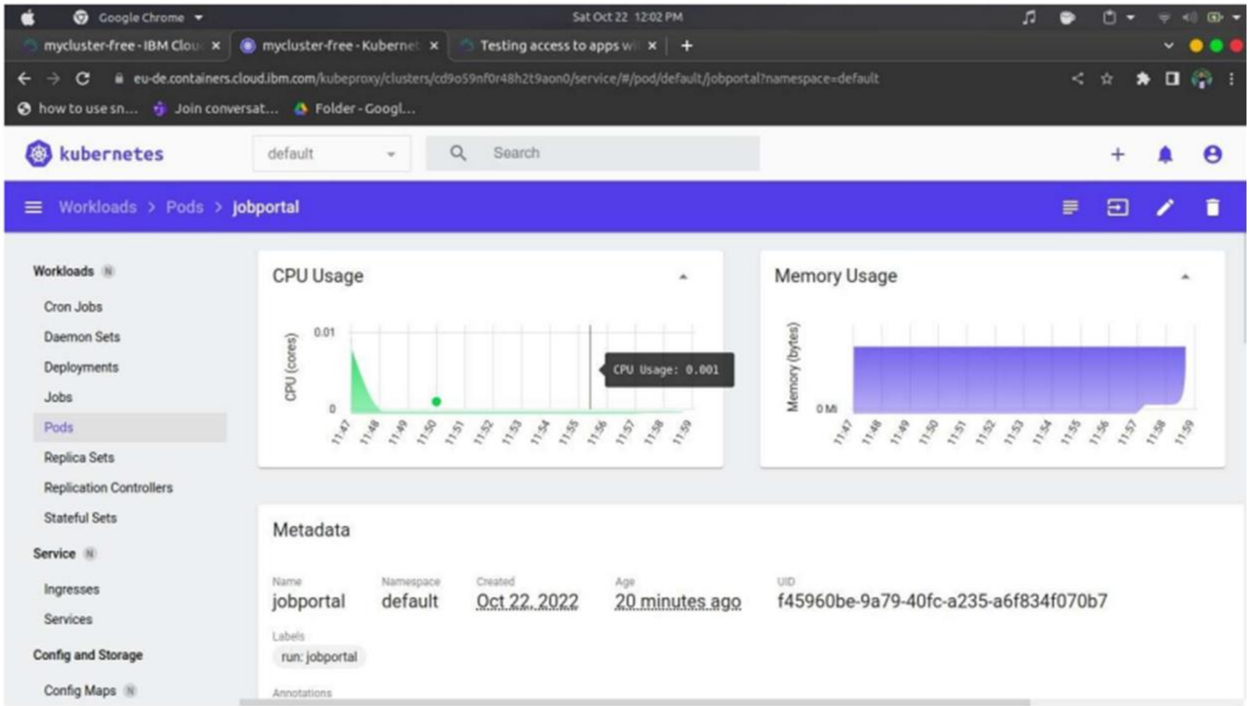


Repositories

□	Name	Image count	Namespace	Last updated
□	jobportal icr.io/maryada/jobportal	1	maryada	1 hour ago

Items per page: 25 | 1–1 of 1 item | 1 | 1 of 1 page

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.

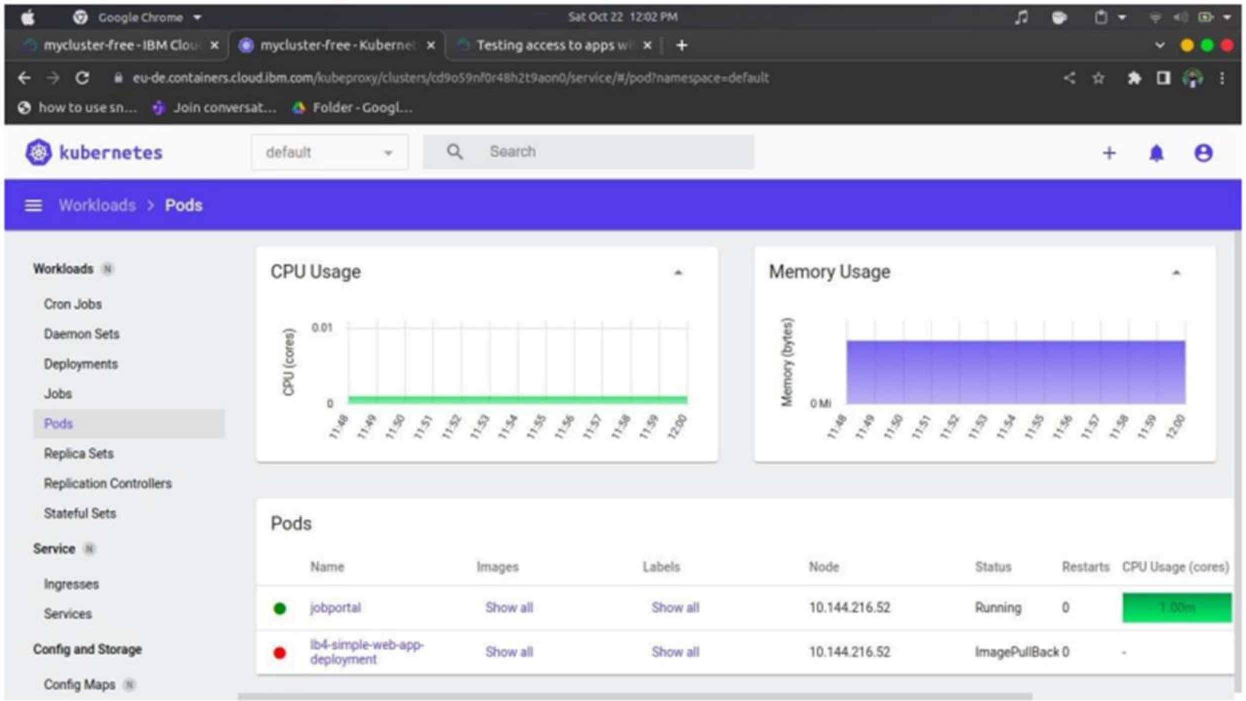


Metadata

Name: jobportal
Namespace: default
Created: Oct 22, 2022
Age: 20 minutes ago
UID: f45960be-9a79-40fc-a235-a6f834f070b7

Labels: run: jobportal

Annotations



Pods

	Name	Images	Labels	Node	Status	Restarts	CPU Usage (cores)
●	jobportal	Show all	Show all	10.144.216.52	Running	0	1.00m
●	lb4-simple-web-app-deployment	Show all	Show all	10.144.216.52	ImagePullBack	0	-