

# Assignment-4

Team ID : PNT2022TMID40878

Team Leader : Chandru M

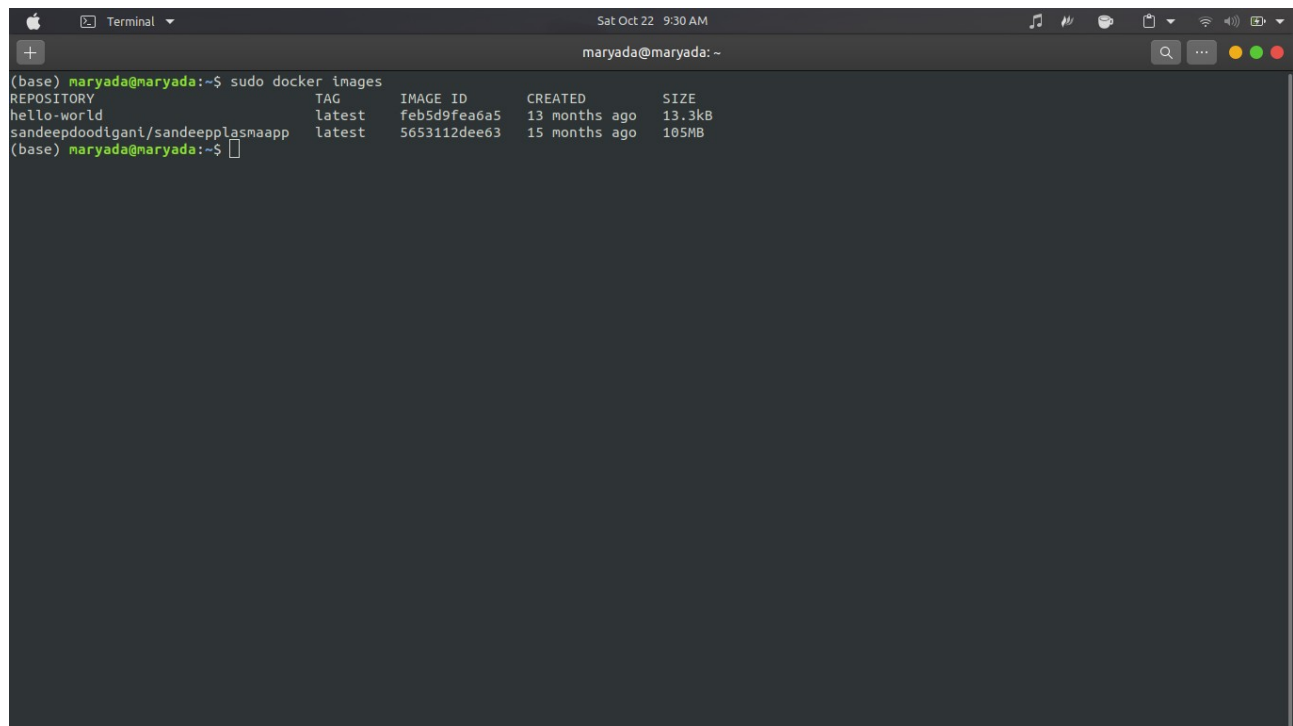
Team member 1 : Vignesh kanna S

Team member 2 : Aravindh S

Team member 3 : Elangkavi M

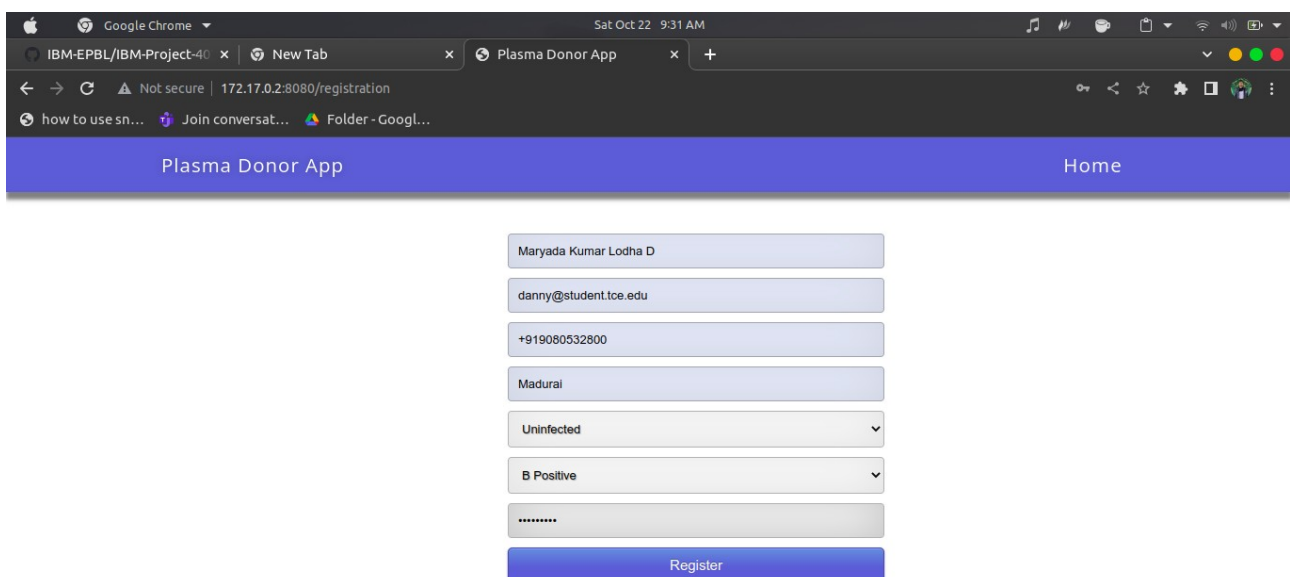
1. Pull an Image from docker hub and run it in docker playground.

Pulled sandeepdoodigani/plasmaapplication and running in docker:

A screenshot of a macOS Terminal window. The title bar shows 'Terminal' and the date 'Sat Oct 22 9:30 AM'. The prompt is 'maryada@maryada: ~'. The user has entered 'sudo docker images', which has resulted in the following output:

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

```
Terminal
Sat Oct 22 9:31 AM
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)
```



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

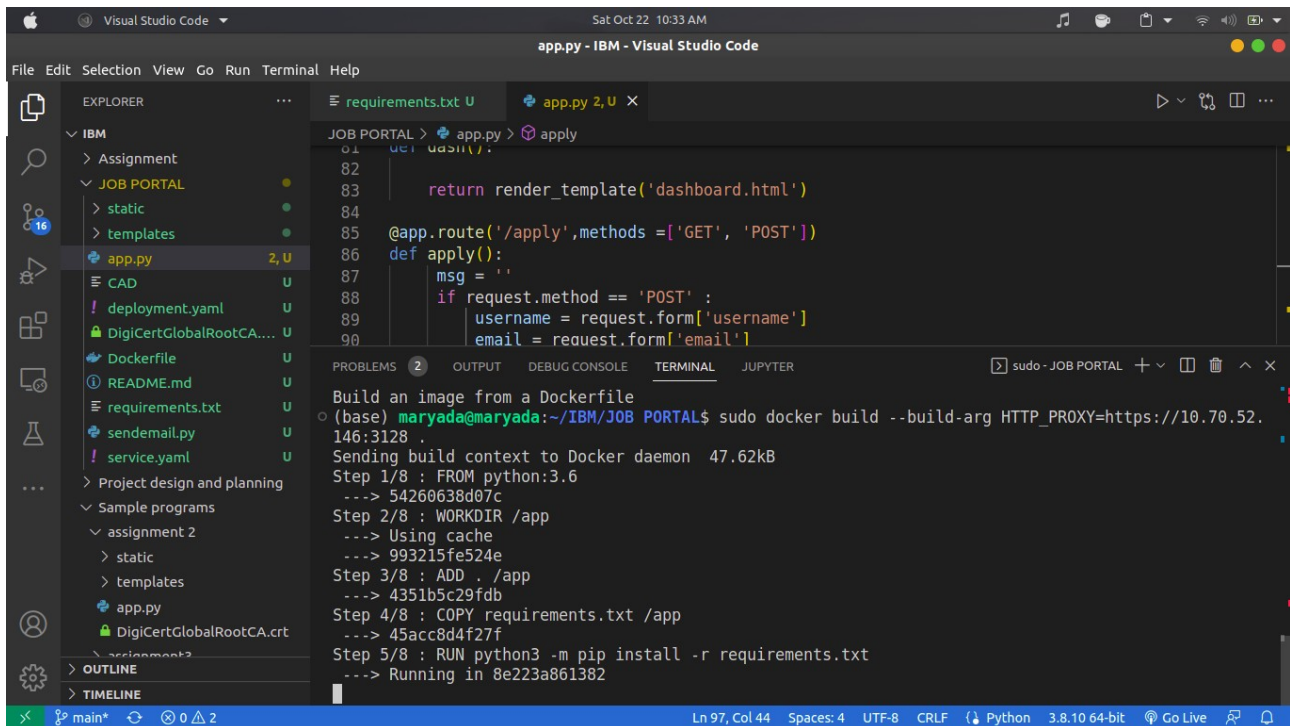
COPY requirements.txt /app

RUN python3 -m pip install -r requirements.txt

RUN python3 -m pip install ibm\_db

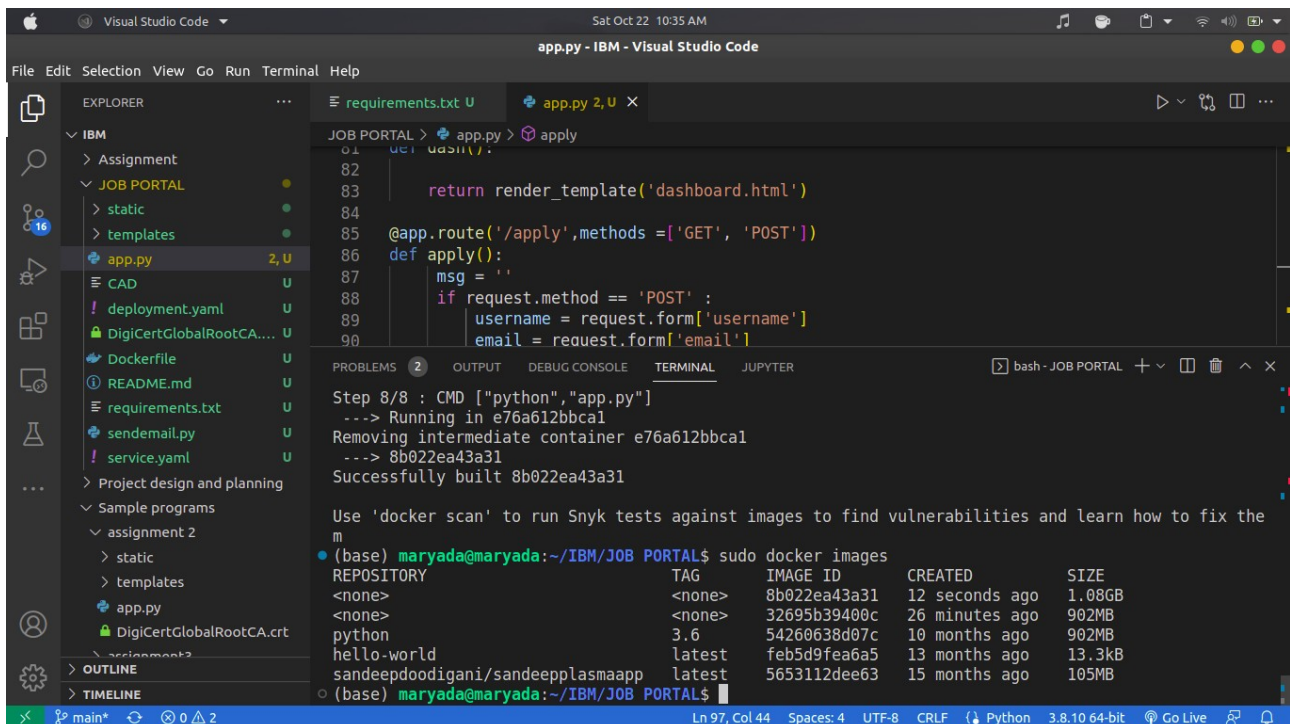
EXPOSE 5000

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



The screenshot shows the Visual Studio Code interface with a project named 'JOB PORTAL'. The Explorer sidebar on the left shows the file structure, including 'app.py' which is selected. The main editor displays the code for 'app.py', which includes a Flask application with a route for '/apply'. The TERMINAL panel at the bottom shows the output of a Docker build command. The build process includes steps for creating the Docker image, sending the build context, and running the application. The status bar at the bottom indicates the current file is 'main\*' and the terminal is running 'python' on a 64-bit system.

```
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
```

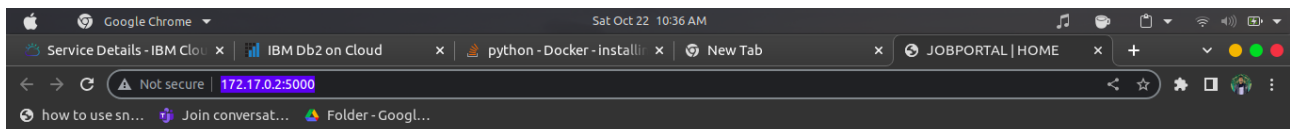


This screenshot shows the same Visual Studio Code interface, but the terminal output has progressed further. It shows the completion of the build process, including the removal of intermediate containers and the successful build of the image. The terminal then displays the output of the 'docker images' command, which lists the built image and other available images on the system. The status bar at the bottom remains the same, indicating the terminal is still running 'python'.

```
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$
```



sheep-logo

LOGIN

REGISTER

CONTACT US

## 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

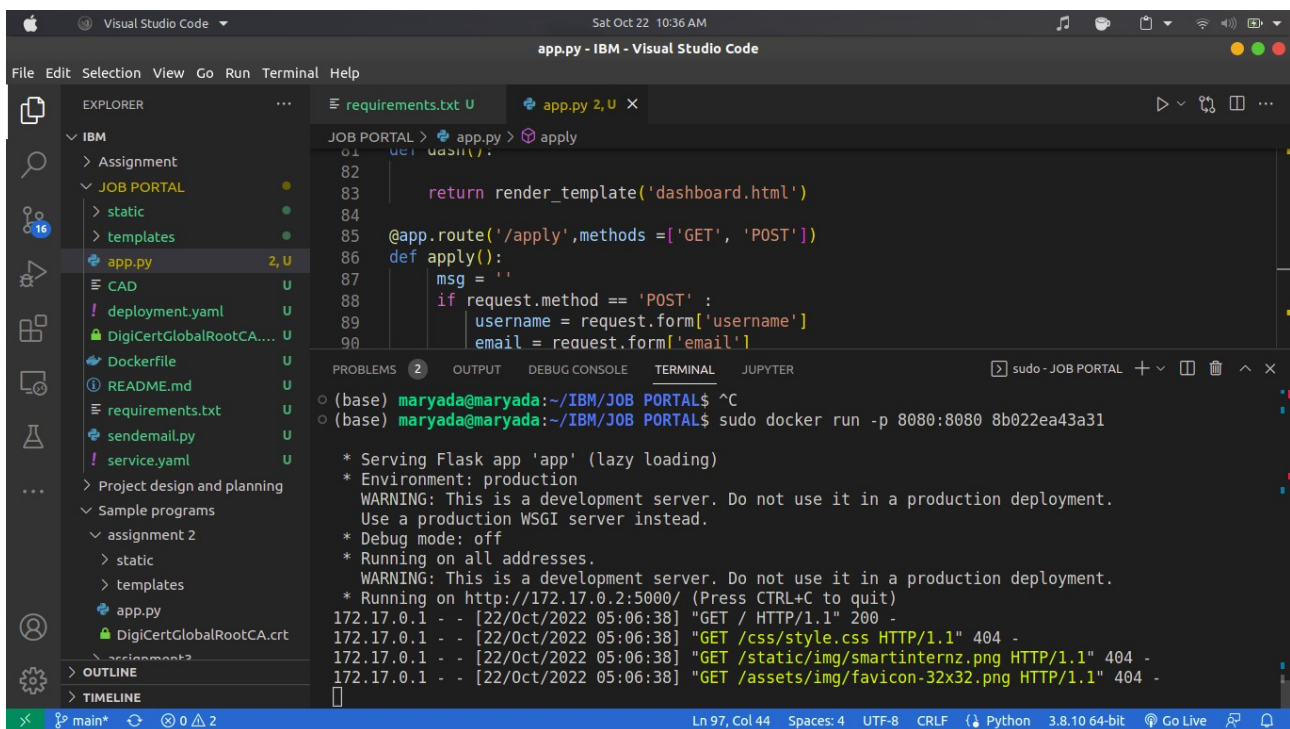
Well directed career guidance programs for educational institutions  
Appropriate certification courses that suit the industry need  
Train the trainers; expanded awareness about the current industry standards  
Liaise with corporates to offer niche internships  
Establish technology development centers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

## JobPortal

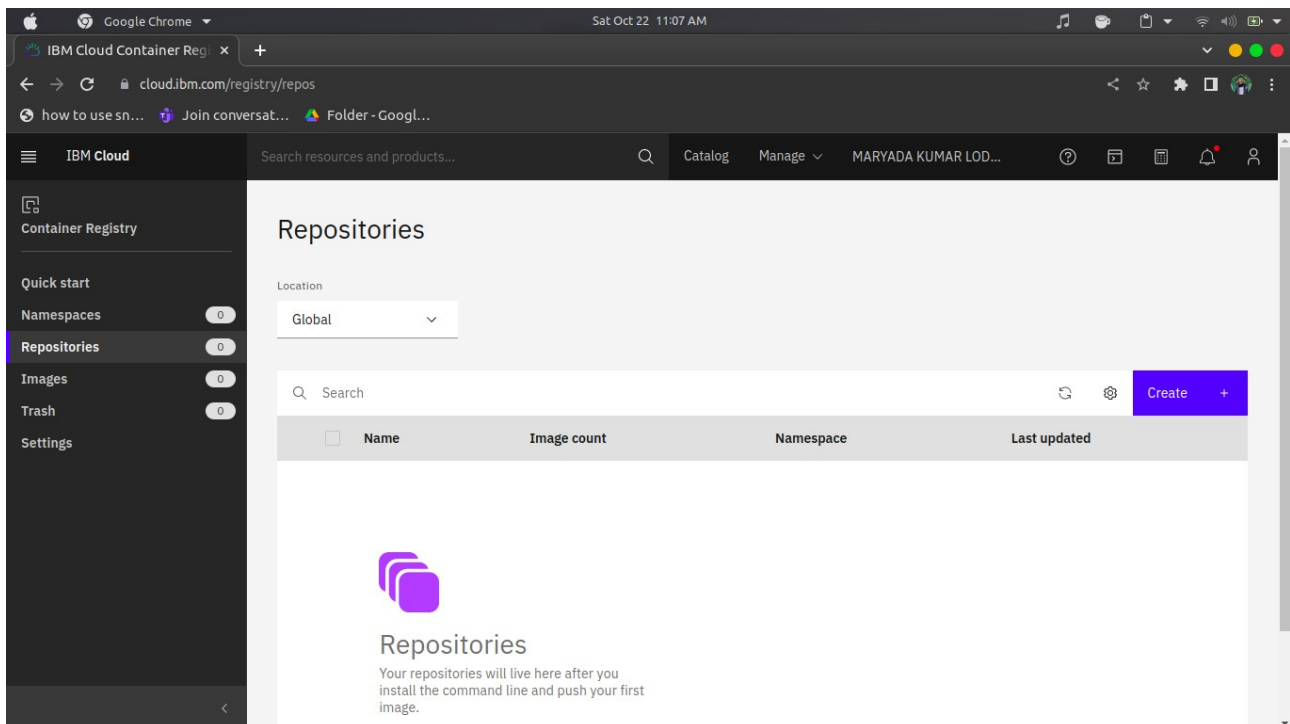
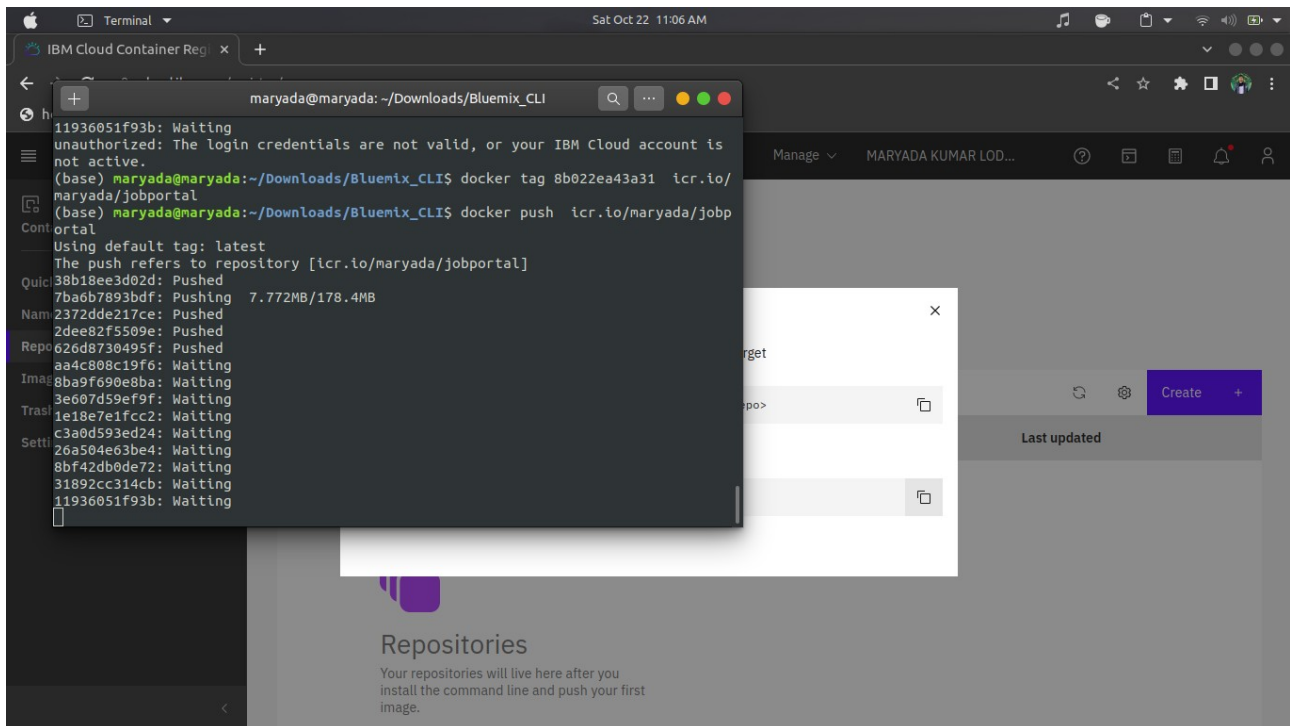
Lorem ipsum dolor sit amet consectetur adipisicing elit. Voluptatum quis, reiciendis id magni magnam, accusamus nobis in, temporibus molestias ab placeat rerum aperiam illum perspiciatis ducimus non! Fugiat, odit ducimus.

## Get in Touch

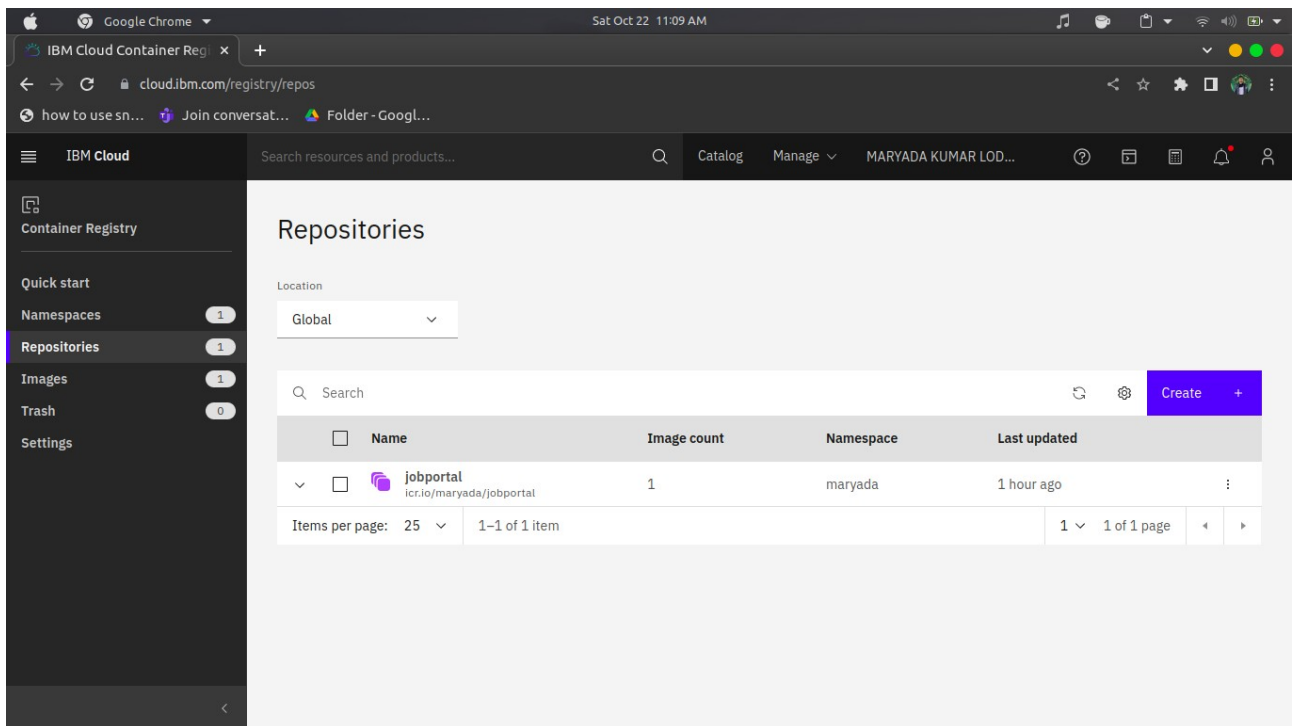
- [jobportal@gmail.com](mailto:jobportal@gmail.com)
- [+91 8977787657](tel:+918977787657)



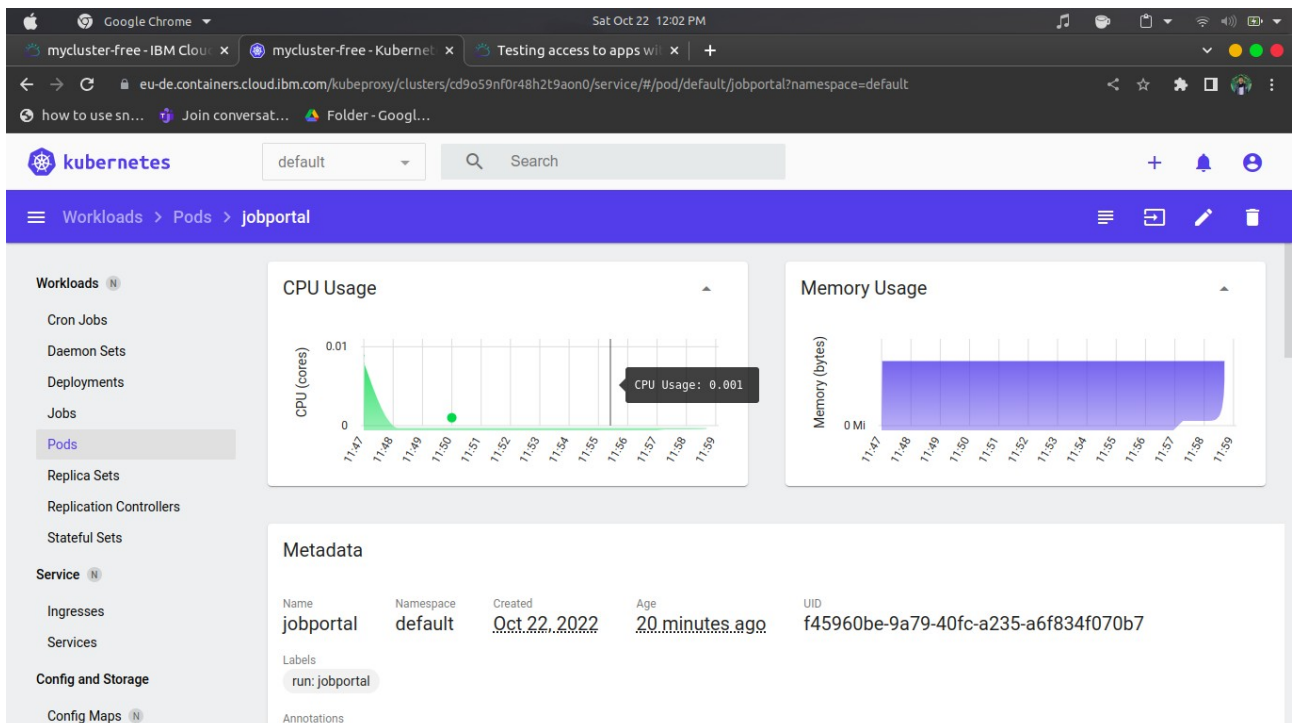
### 3. Create a IBM container registry and deploy helloworld app or jobportalapp.







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.



Workloads

- Cron Jobs
- Daemon Sets
- Deployments
- Jobs
- Pods**
- Replica Sets
- Replication Controllers
- Stateful Sets

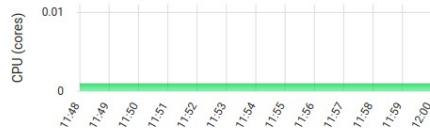
Service

- Ingresses
- Services

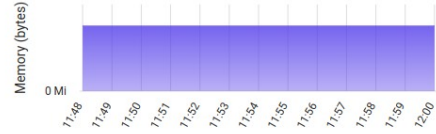
Config and Storage

- Config Maps

CPU Usage



Memory Usage



Pods

Name	Images	Labels	Node	Status	Restarts	CPU Usage (cores)
jobportal	<a href="#">Show all</a>	<a href="#">Show all</a>	10.144.216.52	Running	0	1.00m
lb4-simple-web-app-deployment	<a href="#">Show all</a>	<a href="#">Show all</a>	10.144.216.52	ImagePullBack 0	-	-