

Assignment-4

Plasma Donor Application

Team ID : PNT2022TMID38490

Team Leader : DineshRaj S

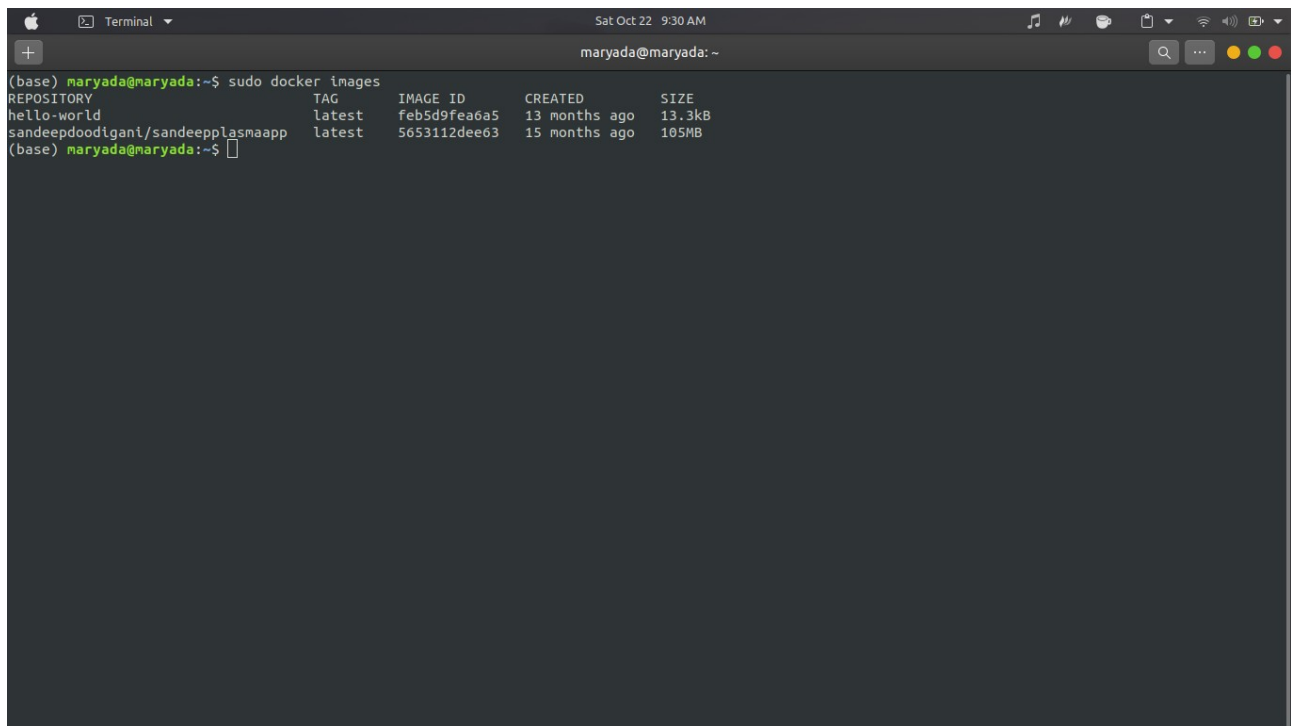
Team member : JayaSuriya J

Team member : MilanRash M

Team member : Ragul T

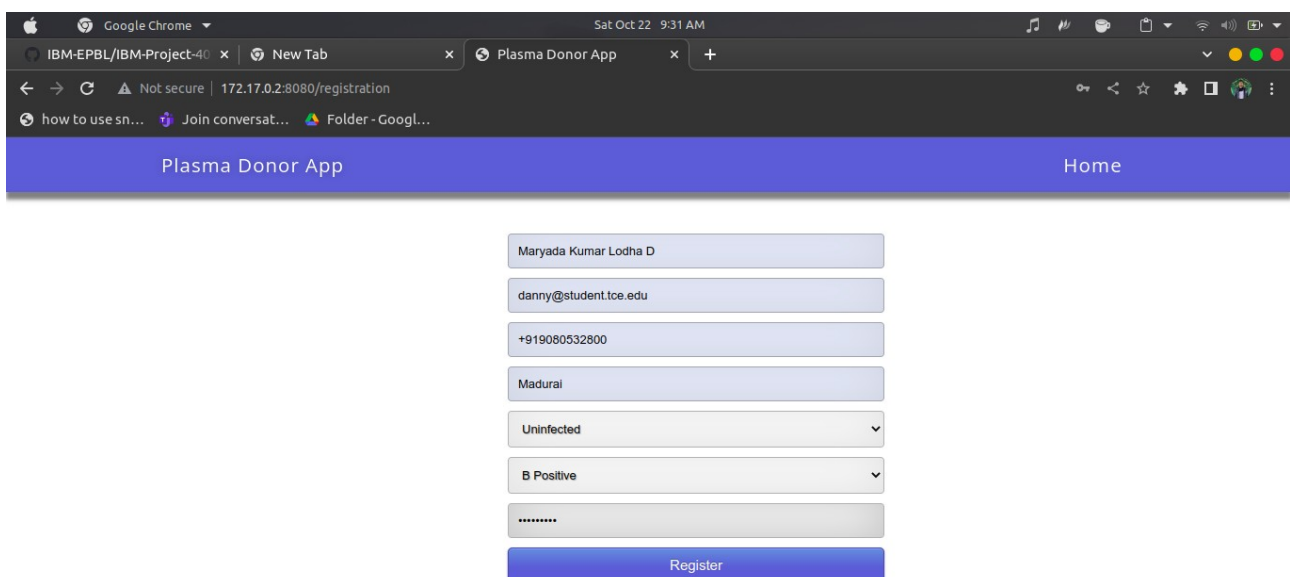
1. Pull an Image from docker hub and run it in docker playground.

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 command 'sudo docker images' has been executed, displaying a table of Docker images. The table has five columns: REPOSITORY, TAG, IMAGE ID, CREATED, and SIZE. It lists two images: 'hello-world' with tag 'latest', image ID 'feb5d9fea6a5', created '13 months ago', and size '13.3kB'; and 'sandeepdoodigani/sandeepplasmaapp' with tag 'latest', image ID '5653112dee63', created '15 months ago', and size '105MB'.

```
(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:~$
```

```
Terminal
Sat Oct 22 9:31 AM
maryada@maryada: ~
(base) maryada@maryada:~$ sudo docker run -p 8080:8080 sandeepdoodigani/sandeeplasmaapp
* 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

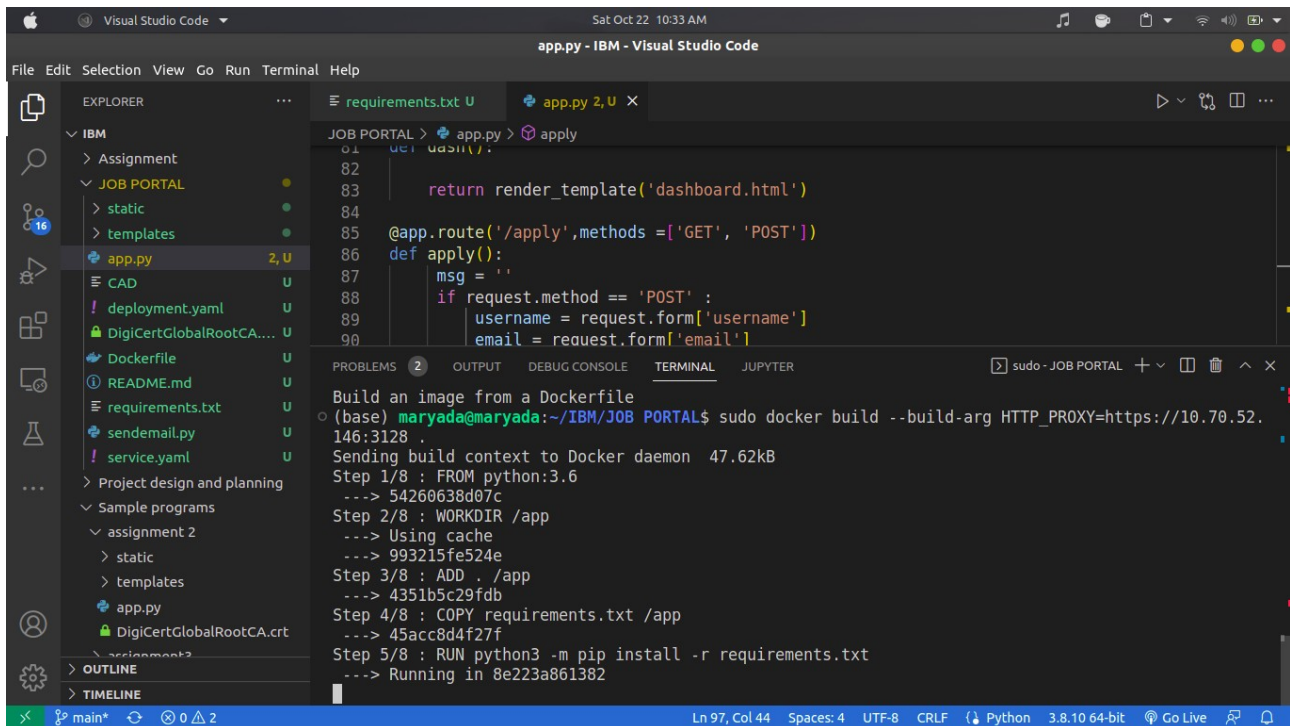
COPY requirements.txt /app

RUN python3 -m pip install -r requirements.txt

RUN python3 -m pip install ibm_db

EXPOSE 5000

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

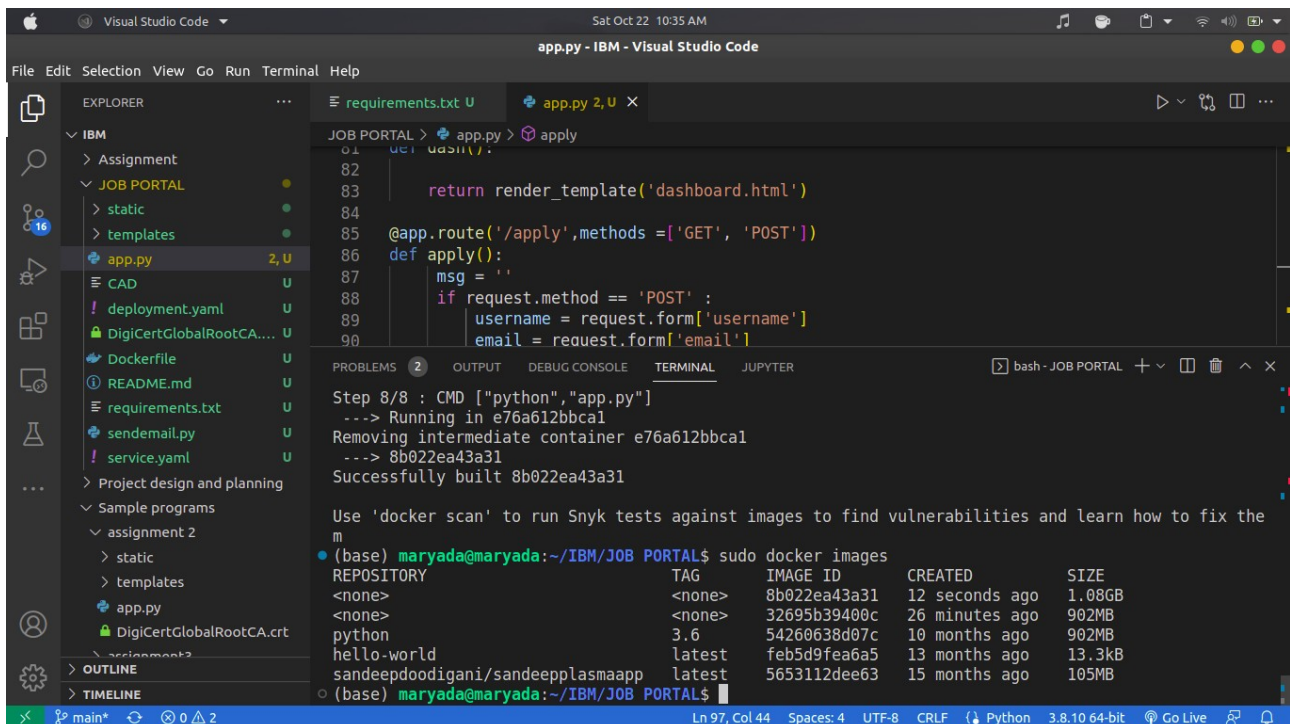


The screenshot shows the Visual Studio Code interface with the Explorer sidebar on the left displaying a project structure. The main editor shows the `app.py` file with the following code:

```
1 def dash():
2     return render_template('dashboard.html')
3
4 @app.route('/apply', methods=['GET', 'POST'])
5 def apply():
6     msg = ''
7     if request.method == 'POST':
8         username = request.form['username']
9         email = request.form['email']
```

The TERMINAL panel at the bottom shows the output of the `sudo docker build` command:

```
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
```



The screenshot shows the Visual Studio Code interface with the same project structure. The main editor shows the `app.py` file with the following code:

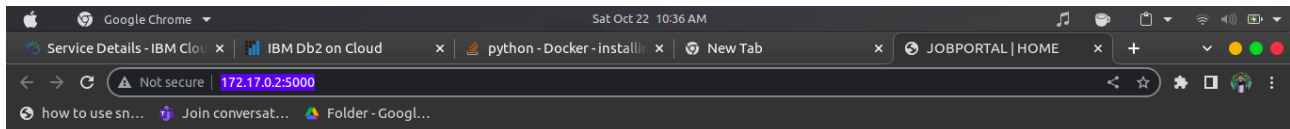
```
1 def dash():
2     return render_template('dashboard.html')
3
4 @app.route('/apply', methods=['GET', 'POST'])
5 def apply():
6     msg = ''
7     if request.method == 'POST':
8         username = request.form['username']
9         email = request.form['email']
```

The TERMINAL panel at the bottom shows the output of the `sudo docker images` command:

```
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

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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

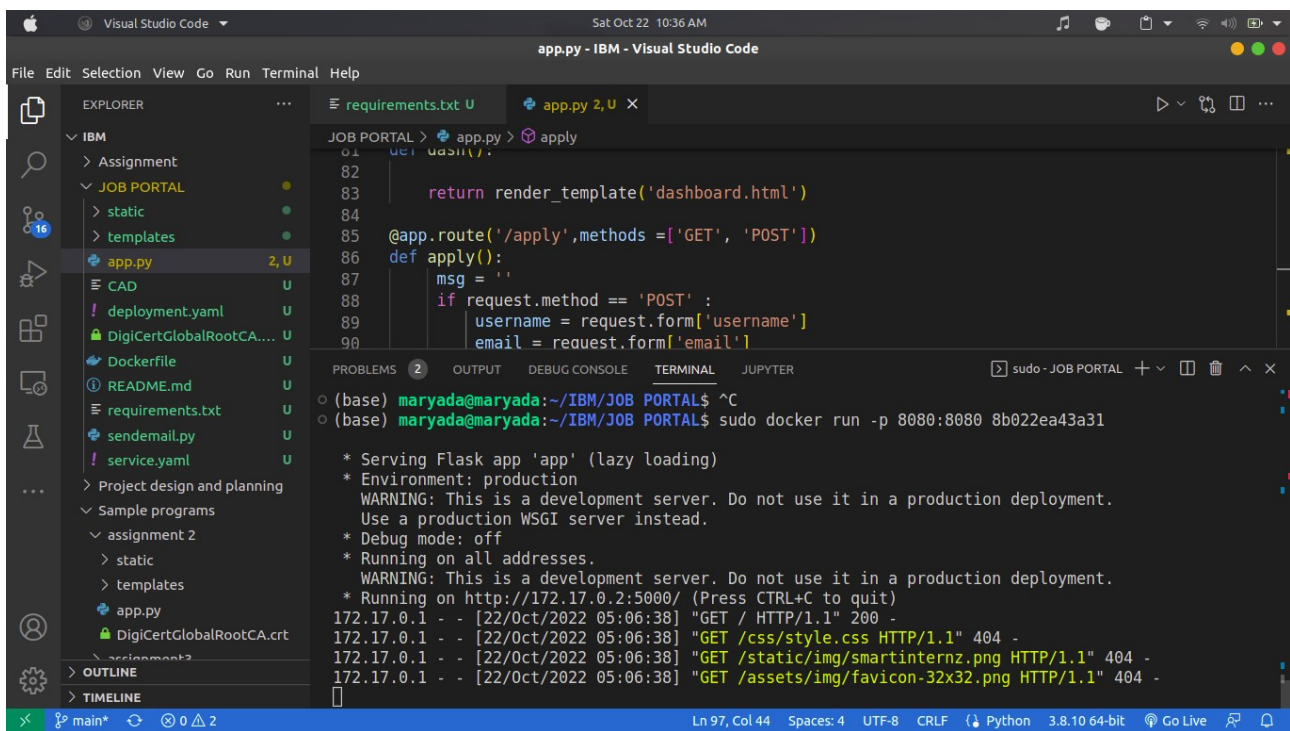
Well directed career guidance programs for educational institutions
Appropriate certification courses that suit the industry need
Train the trainers; expanded awareness about the current industry standards
Liaise with corporates to offer niche internships
Establish technology development centers in colleges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

JobPortal

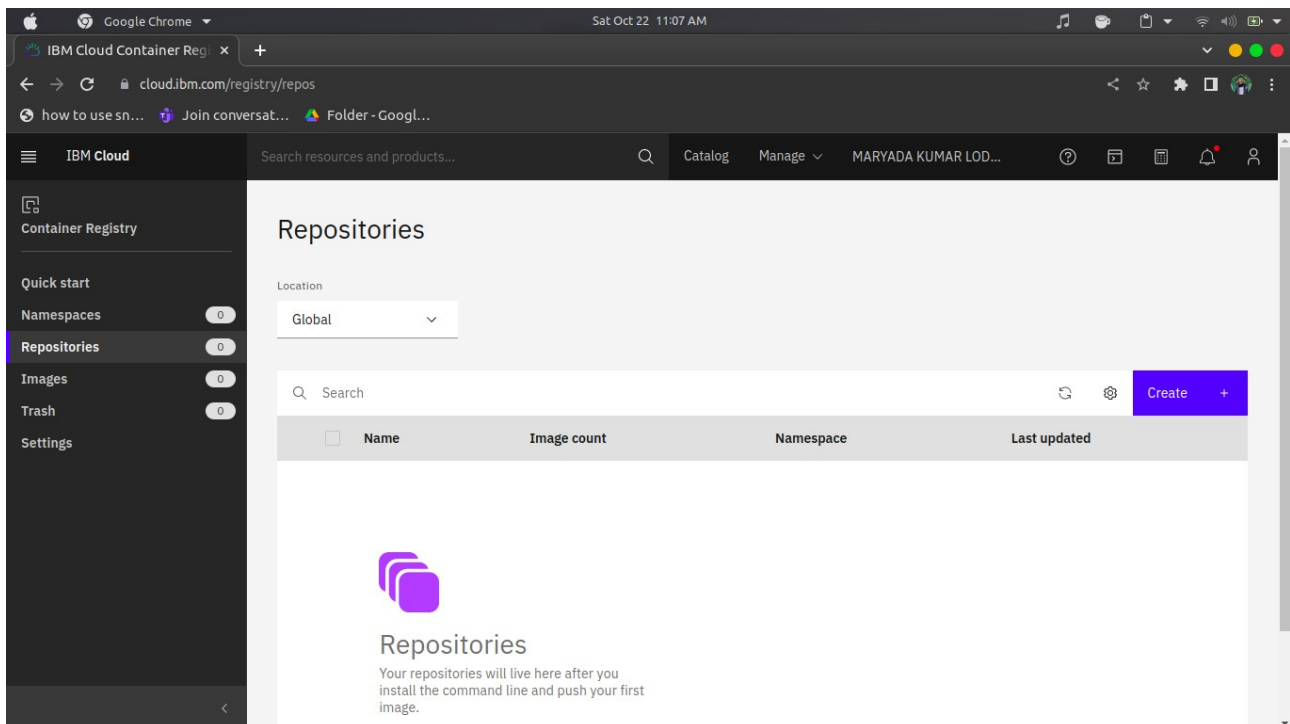
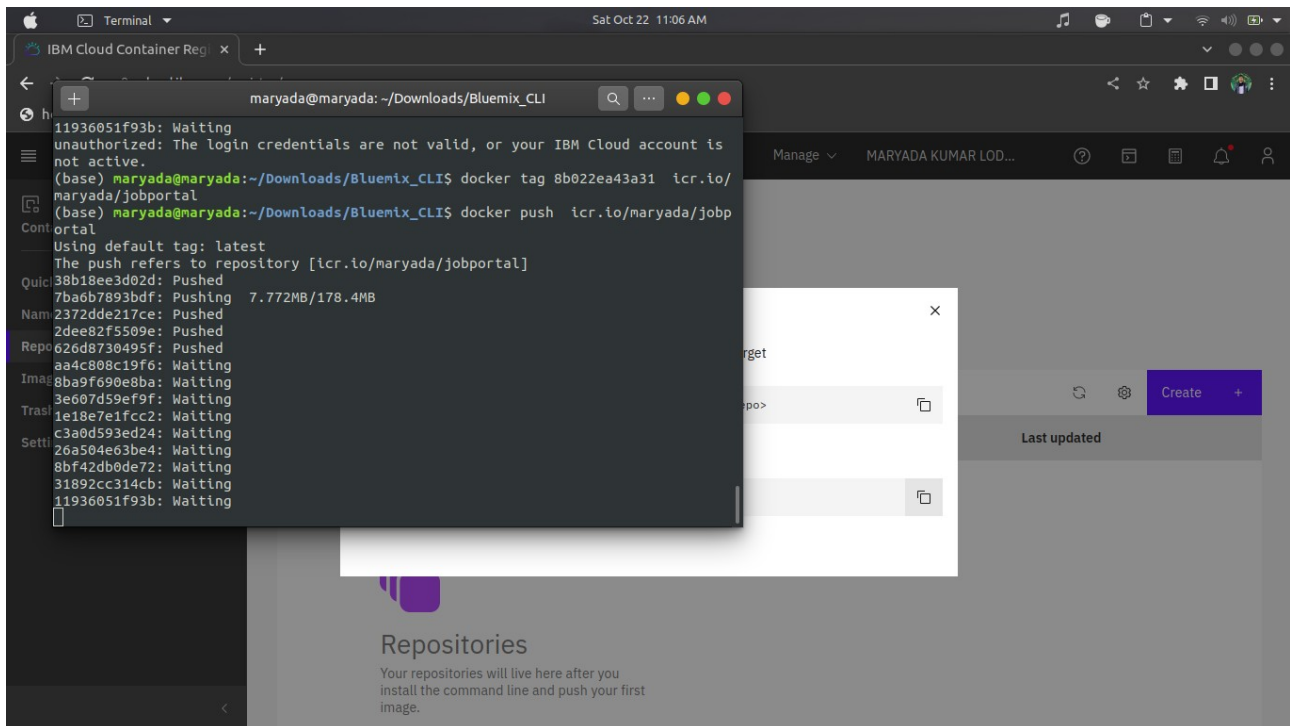
Lorem ipsum dolor sit amet consectetur adipisicing elit. Voluptatum quis, reiciendis id magni magnam, accusamus nobis in, temporibus molestias ab placeat rerum aperiam illum perspiciatis ducimus non! Fugiat, odit ducimus.

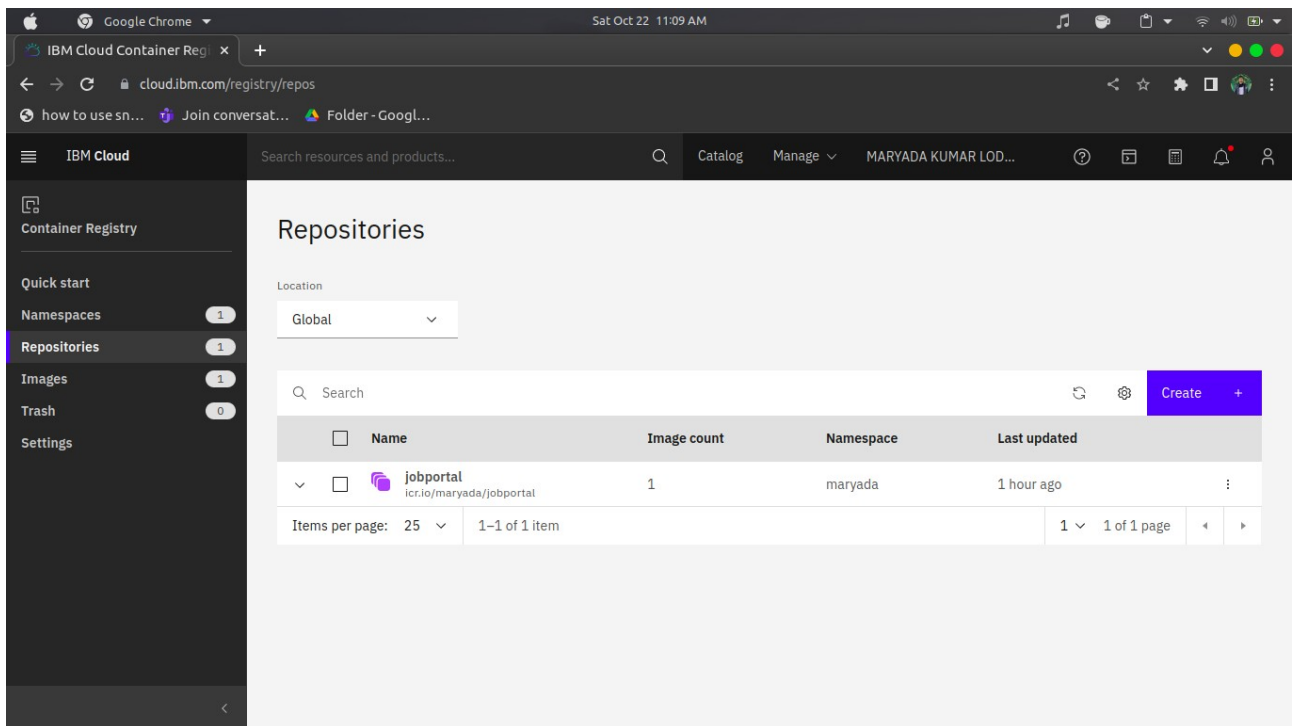
Get in Touch

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

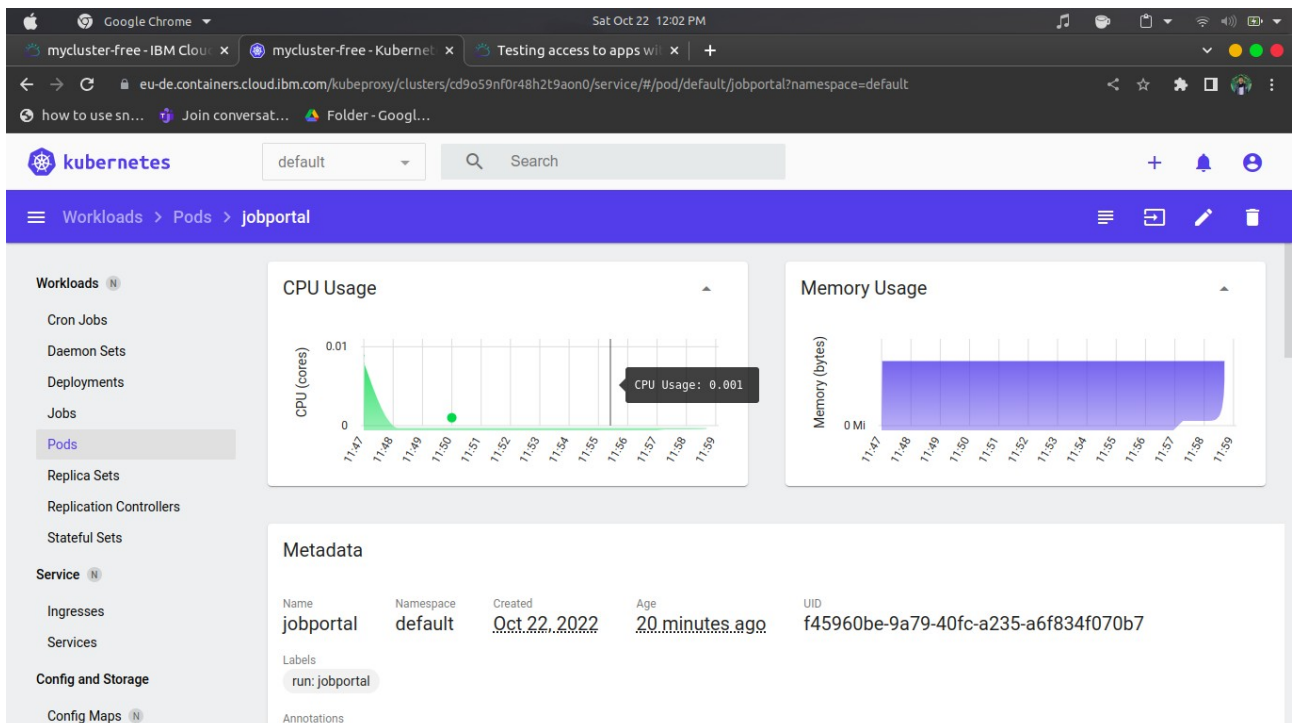


3. Create a IBM container registry and deploy helloworld app or jobportalapp.





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

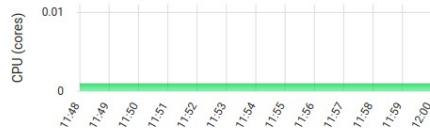
Service

- Ingresses
- Services

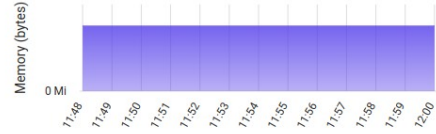
Config and Storage

- Config Maps

CPU Usage



Memory Usage



Pods

| | Name | Images | Labels | Node | Status | Restarts | CPU Usage (cores) |
|---|-------------------------------|--------------------------|--------------------------|---------------|-----------------|----------|-------------------|
| ● | jobportal | 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 | - | - |