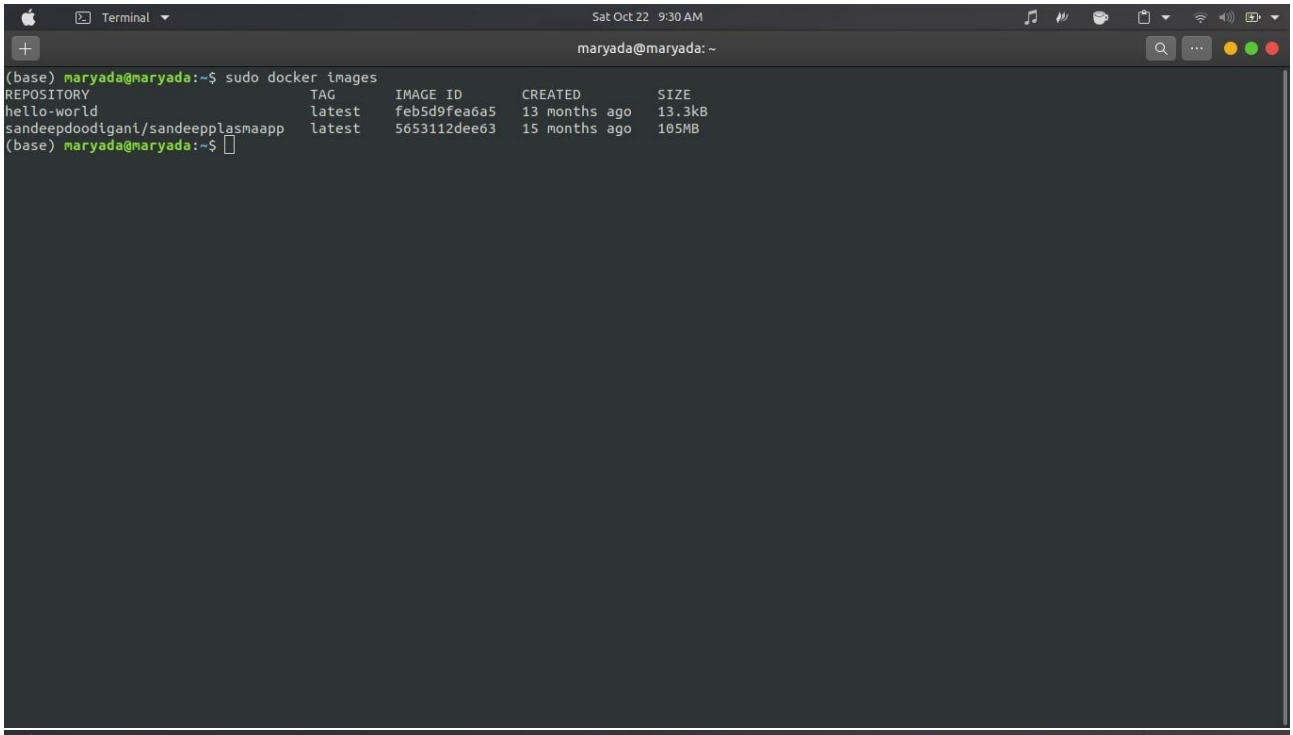
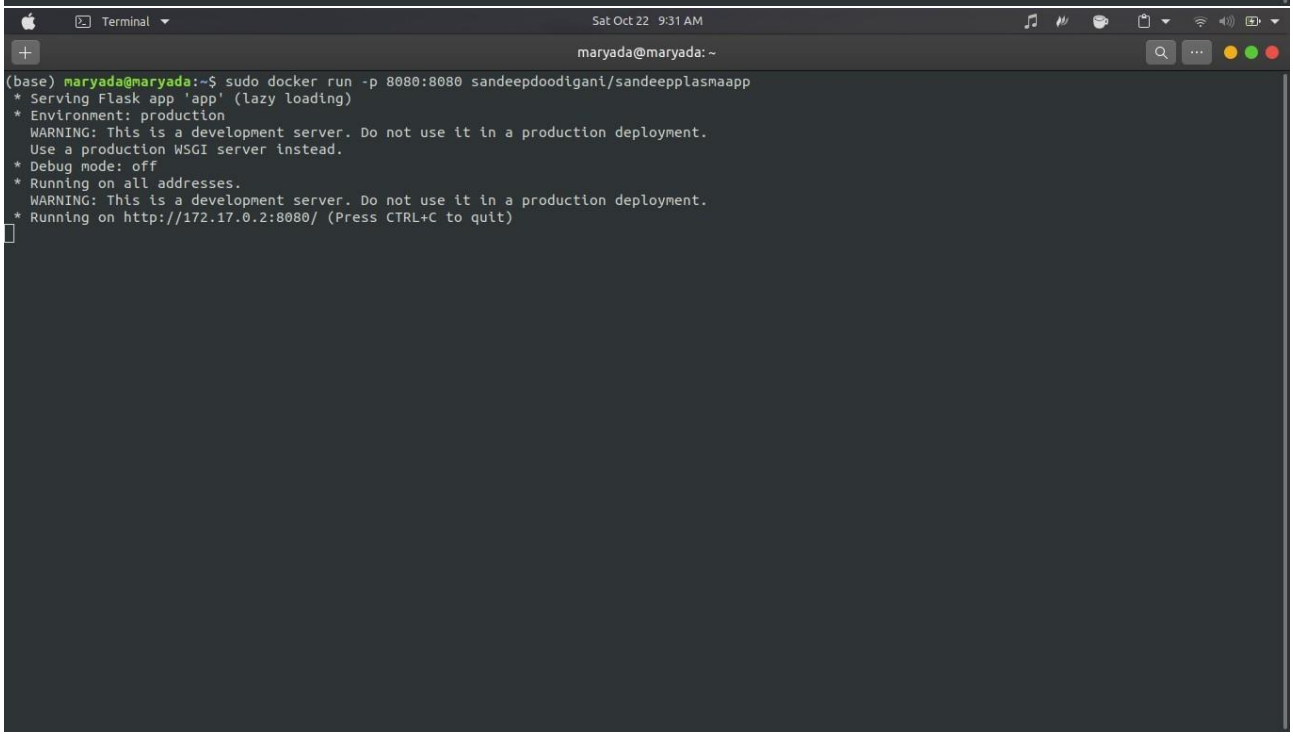
Assignment-4

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

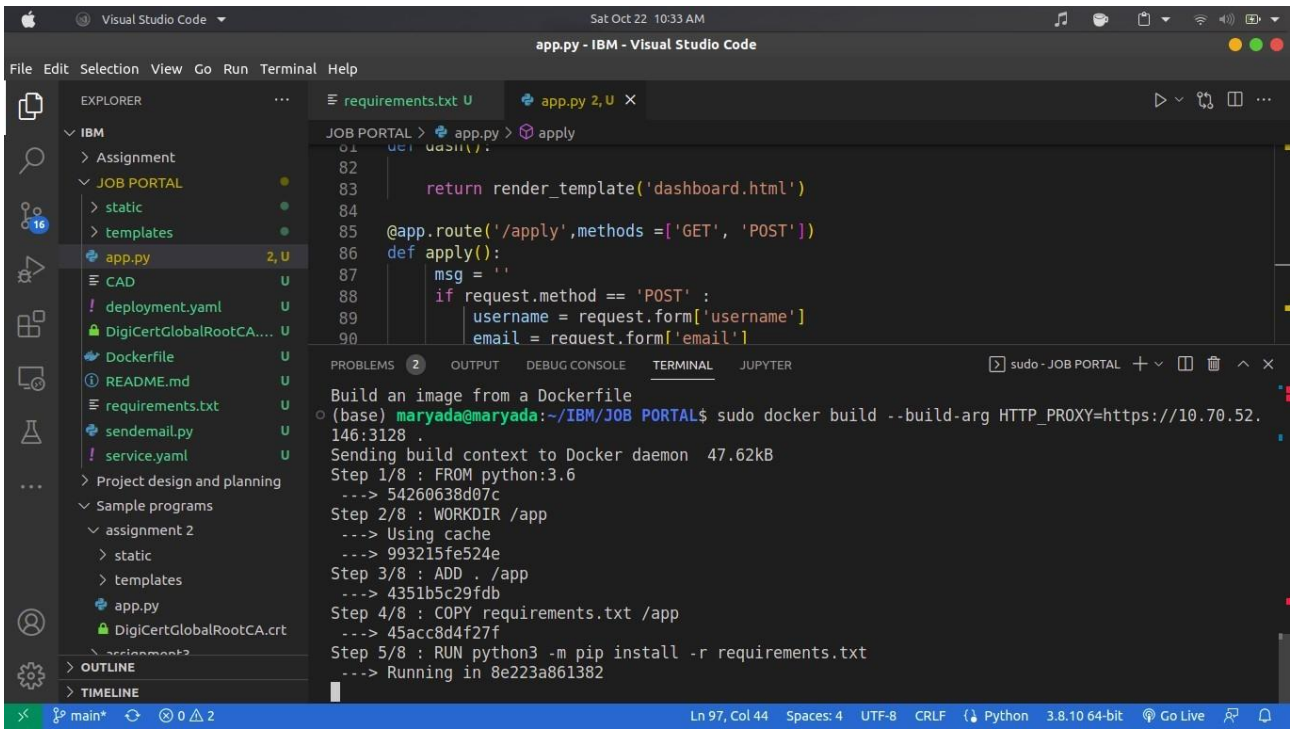


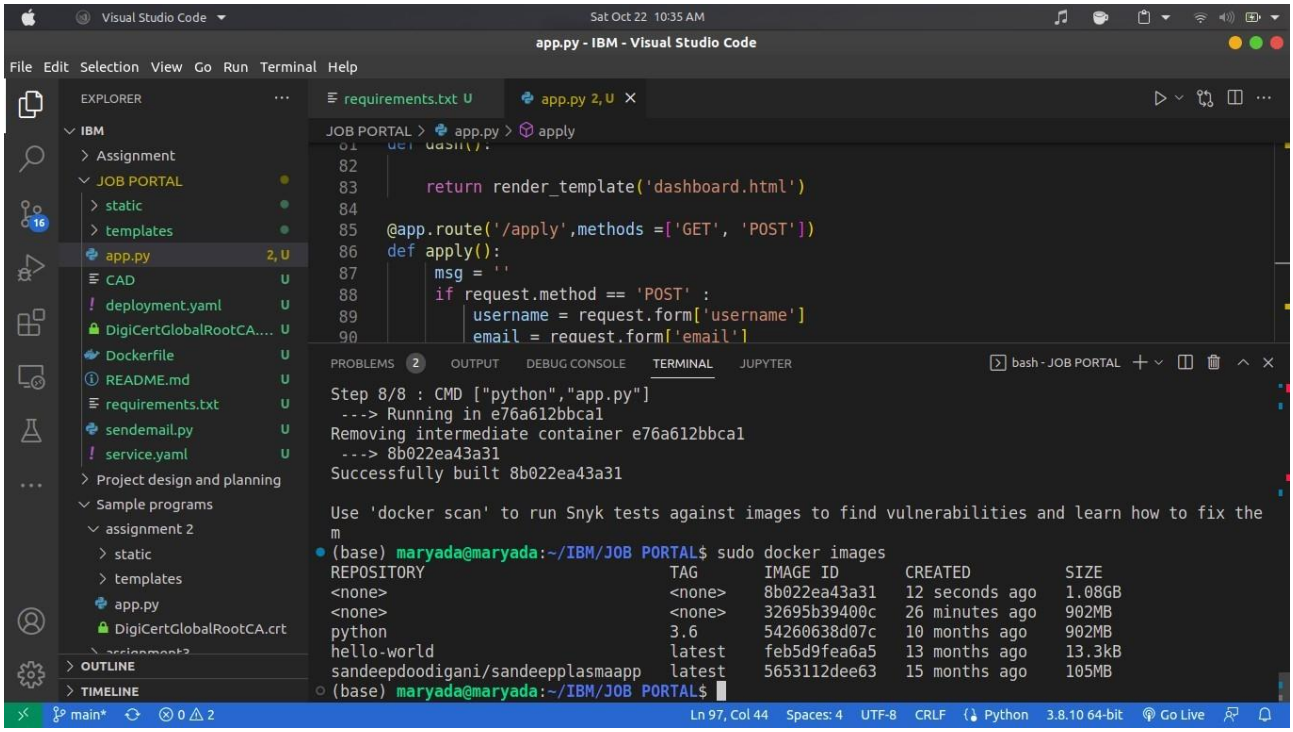


2. **Create a docker file for the jobportal application and deploy it in Docker desktop application.**

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"]
```


Visual Studio Code
Sat Oct 22 10:33 AM
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
requirements.txt U
app.py 2, U
JOB PORTAL > app.py > apply
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']
PROBLEMS 2 OUTPUT DEBUG CONSOLE TERMINAL JUPYTER
sudo - JOB PORTAL
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
main* 0 2
Ln 97, Col 44 Spaces: 4 UTF-8 CRLF Python 3.8.10 64-bit Go Live


Visual Studio Code
Sat Oct 22 10:35 AM
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
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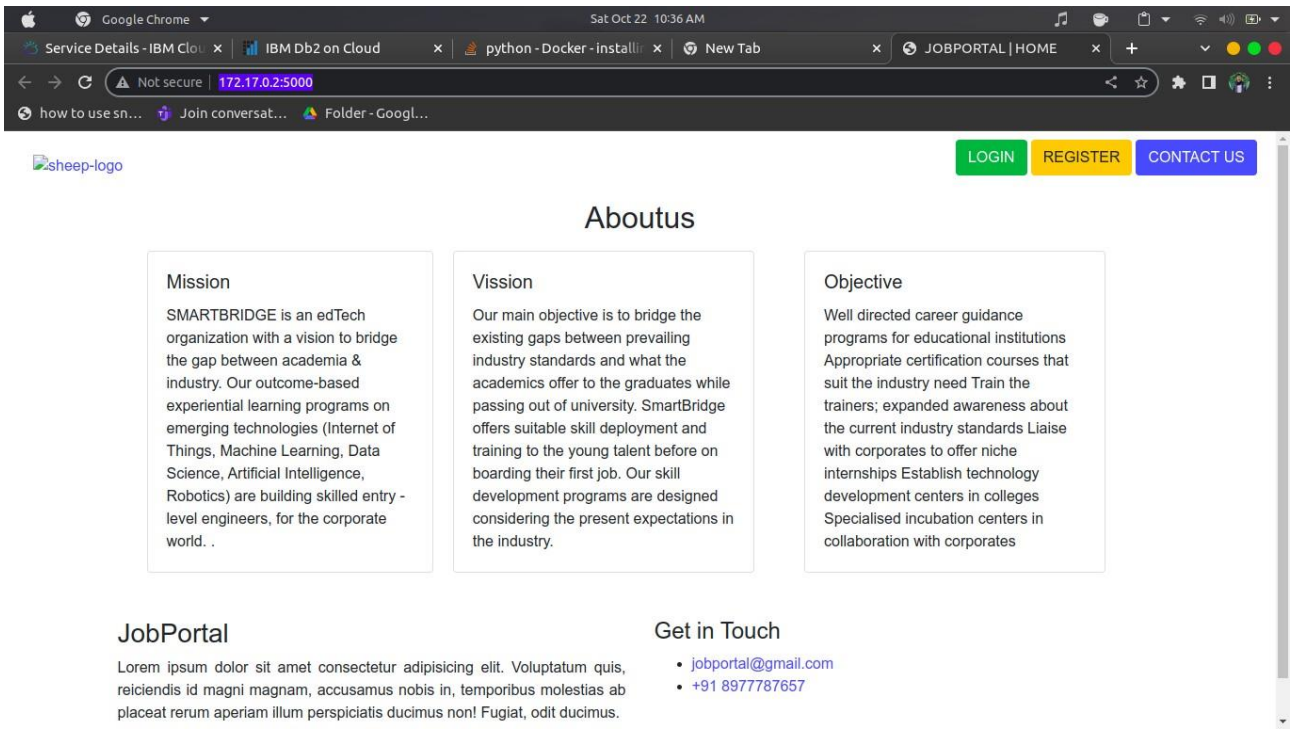
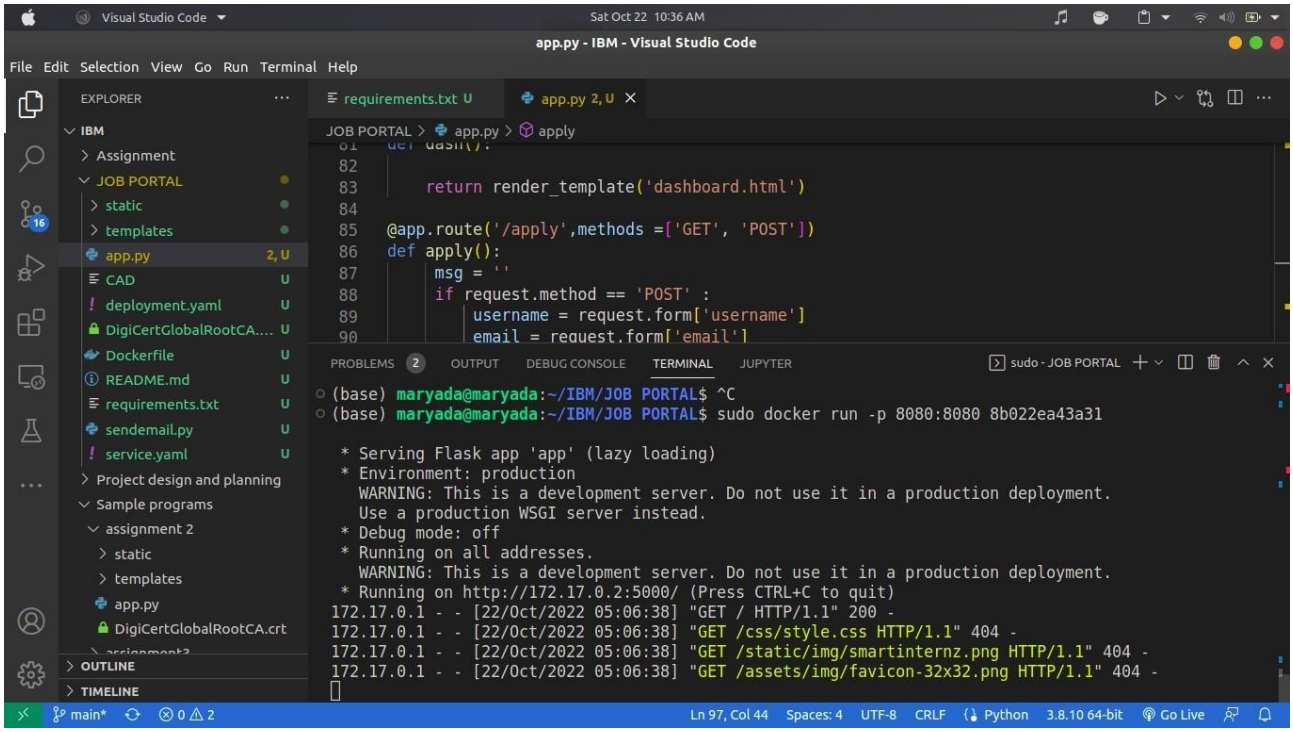
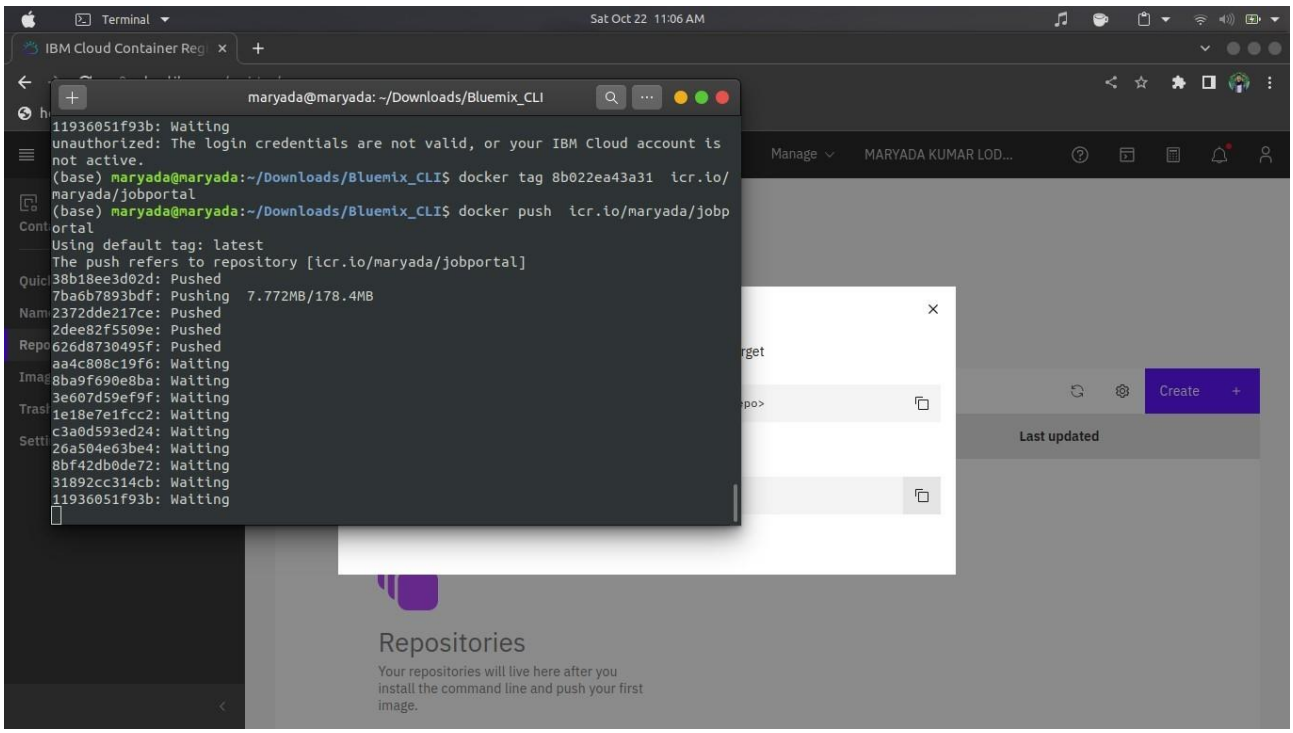
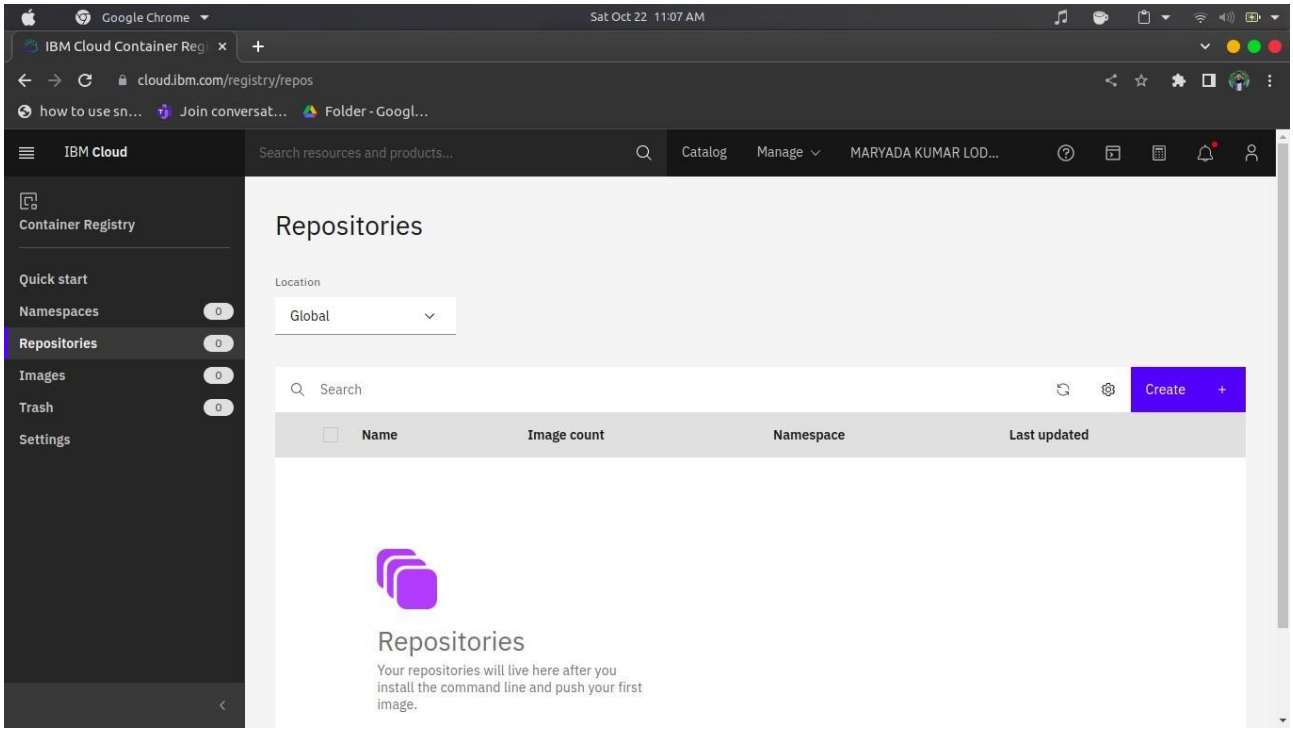
assignment 2
static
templates
app.py
DigiCertGlobalRootCA.crt
OUTLINE
TIMELINE
requirements.txt U
app.py 2, U
JOB PORTAL > app.py > apply
return render_template('dashboard.html')
@app.route('/apply',methods =['GET', 'POST'])
def apply():
msg = ''
if request.method == 'POST' :
username = request.form['username']
email = request.form['email']
PROBLEMS 2 OUTPUT DEBUG CONSOLE TERMINAL JUPYTER
bash - JOB PORTAL
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 them
(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$
main* 0 2
Ln 97, Col 44 Spaces: 4 UTF-8 CRLF Python 3.8.10 64-bit Go Live

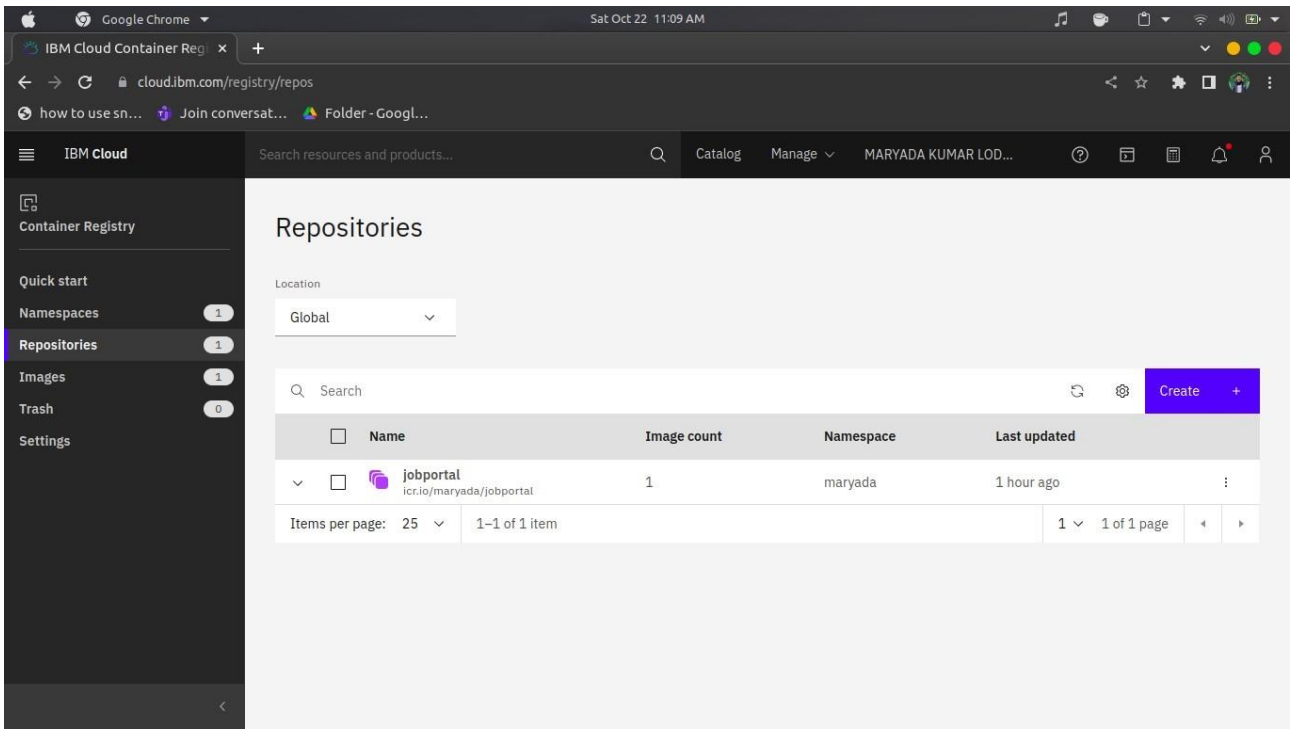




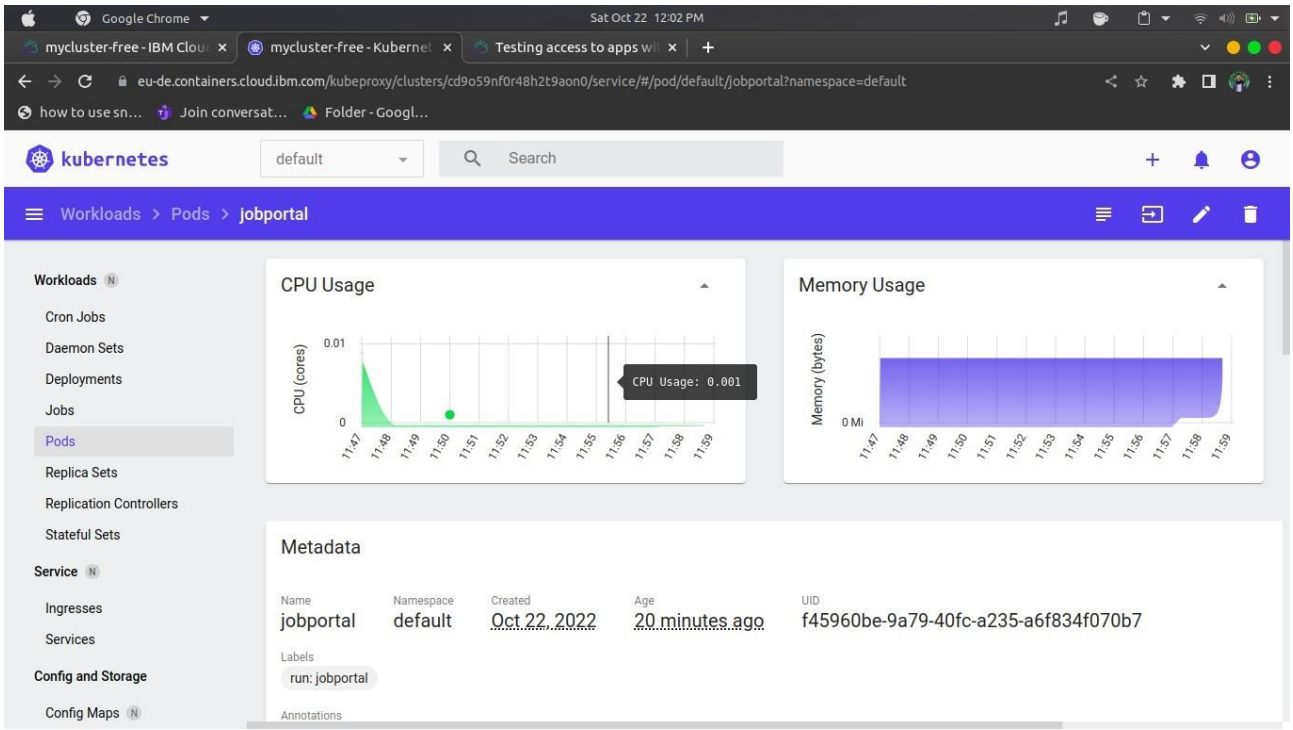
3. **Create a IBM container registry and deploy helloworld app or jobportalapp**.

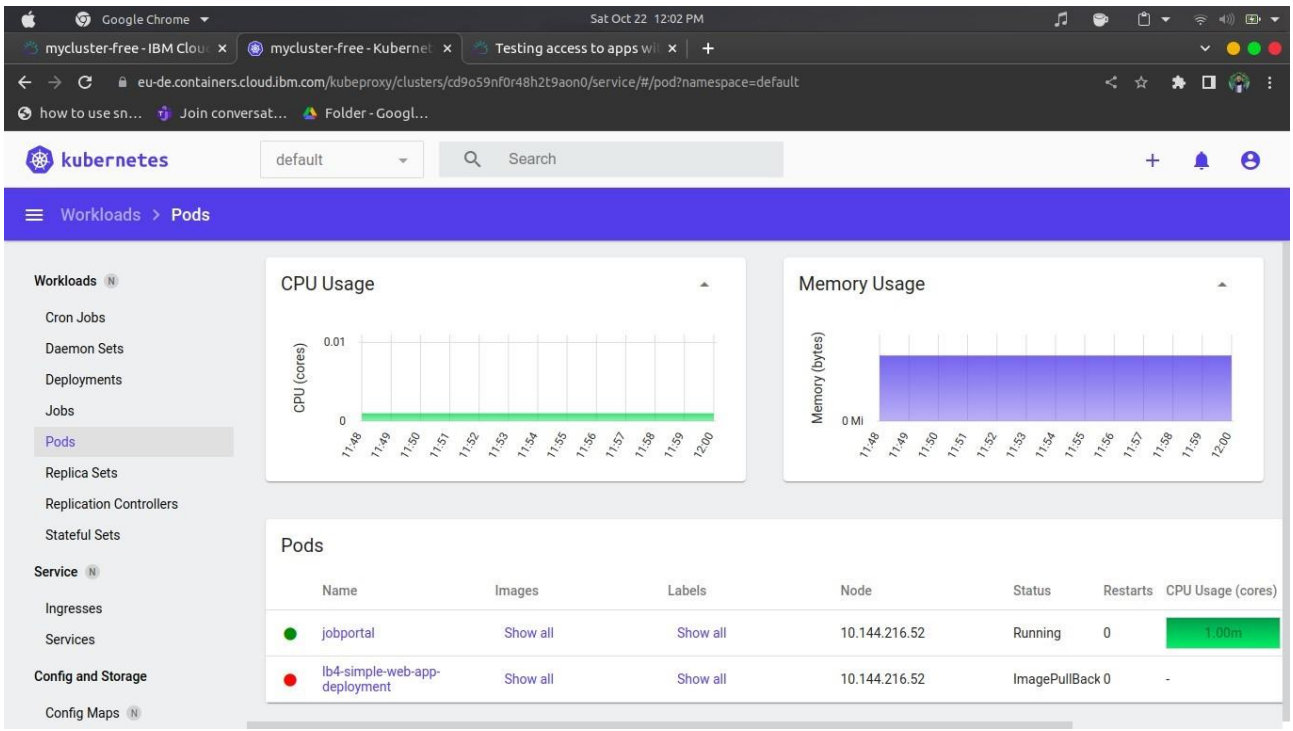

Terminal
Sat Oct 22 11:06 AM
IBM Cloud Container Reg
maryada@maryada: ~/Downloads/Bluemix_CLI
11936051f93b: Waiting
unauthorized: The login credentials are not valid, or your IBM Cloud account is not active.
(base) maryada@maryada:~/Downloads/Bluemix_CLI$ docker tag 8b022ea43a31 icr.io/maryada/jobportal
(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]
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
Manage
MARYADA KUMAR LOD...
Create
Last updated
Repositories
Your repositories will live here after you install the command line and push your first image.


Google Chrome
Sat Oct 22 11:07 AM
IBM Cloud Container Reg
cloud.ibm.com/registry/repos
how to use sn...
Join conversat...
Folder - Googl...
IBM Cloud
Search resources and products...
Catalog
Manage
MARYADA KUMAR LOD...
Container Registry
Quick start
Namespaces 0
Repositories 0
Images 0
Trash 0
Settings
Repositories
Location
Global
Search
Create
Name
Image count
Namespace
Last updated
Repositories
Your repositories will live here after you install the command line and push your first image.



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**.




Google Chrome
Sat Oct 22 12:02 PM
mycluster-free - IBM Clou
mycluster-free - Kubernet
Testing access to apps wi
eu-de.containers.cloud.ibm.com/kubeproxy/clusters/cd9o59nf0r48h2t9aon0/service/#/pod?namespace=default
how to use sn...
Join conversat...
Folder - Googl...
kubernetes
default
Search
Workloads > Pods
Workloads
Cron Jobs
Daemon Sets
Deployments
Jobs
Pods
Replica Sets
Replication Controllers
Stateful Sets
Service
Ingresses
Services
Config and Storage
Config Maps
CPU Usage
CPU (cores)
0.01
0
11:48 11:49 11:50 11:51 11:52 11:53 11:54 11:55 11:56 11:57 11:58 11:59 12:00
Memory Usage
Memory (bytes)
0 Mi
11:48 11:49 11:50 11:51 11:52 11:53 11:54 11:55 11:56 11:57 11:58 11:59 12:00
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
-