ASSIGNMENT 4

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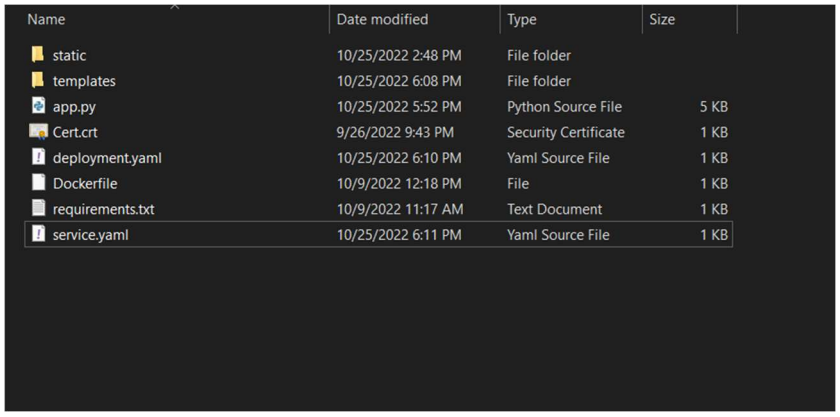
1.Create a dockerfile for the jobportal application and deploy it in Docker desktop application.

=>Jobportal Working directory:



Name	Date modified	Type	Size
static	10/25/2022 2:48 PM	File folder	
templates	10/25/2022 6:08 PM	File folder	
app.py	10/25/2022 5:52 PM	Python Source File	5 KB
Cert.crt	9/26/2022 9:43 PM	Security Certificate	1 KB
deployment.yaml	10/25/2022 6:10 PM	Yaml Source File	1 KB
Dockerfile	10/9/2022 12:18 PM	File	1 KB
requirements.txt	10/9/2022 11:17 AM	Text Document	1 KB
service.yaml	10/25/2022 6:11 PM	Yaml Source File	1 KB

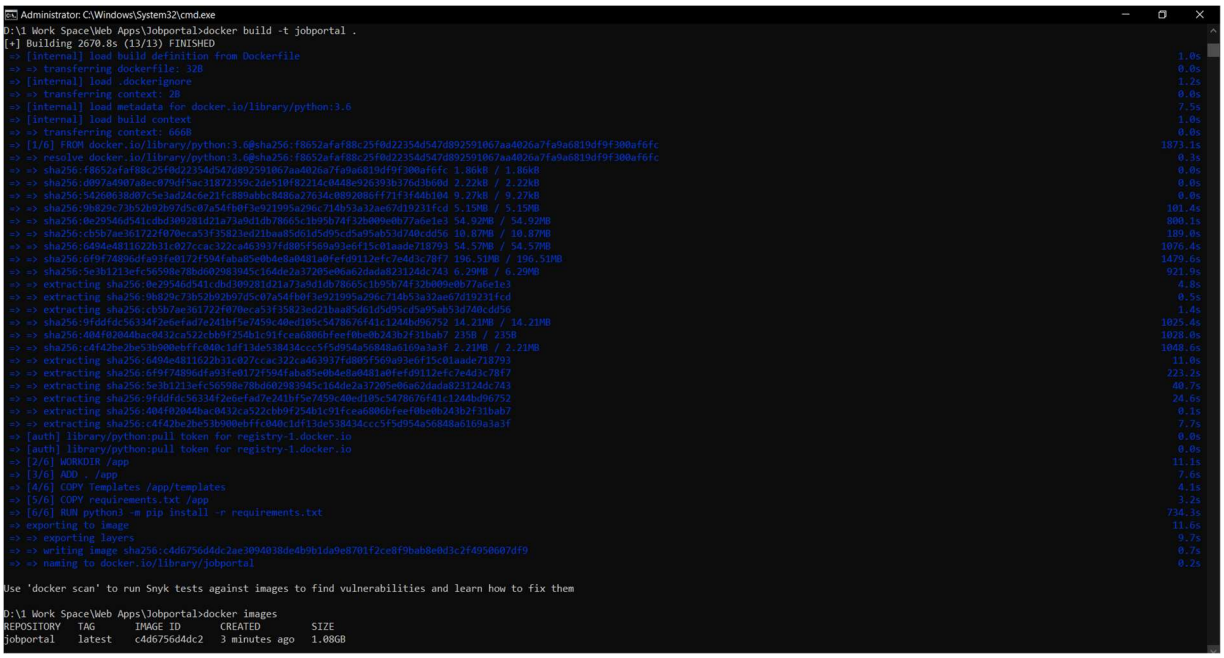
=>Dockerfile:

Dockerfile - Notepad

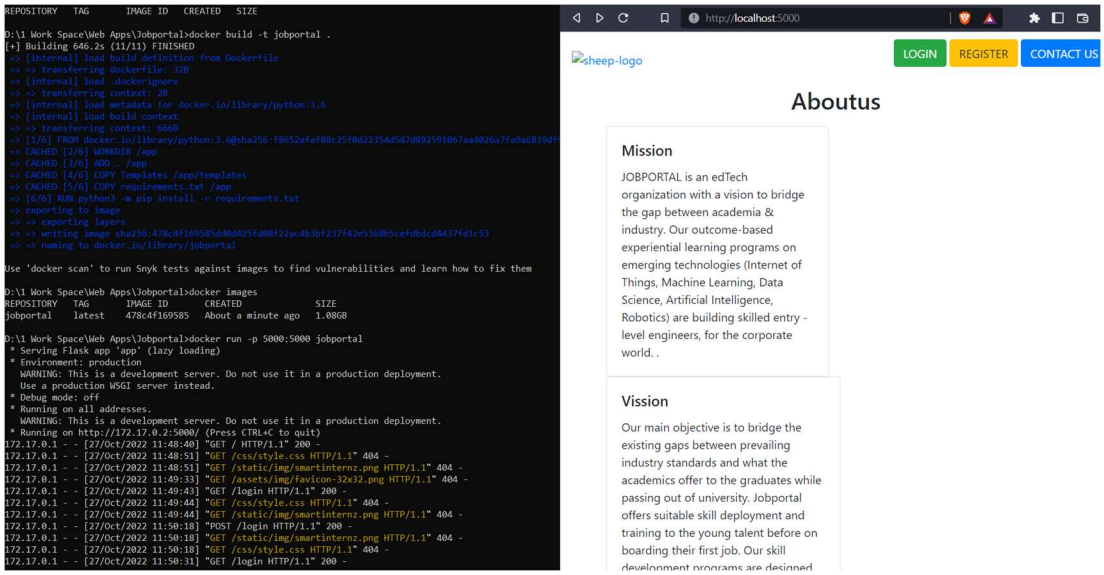
File Edit Format View Help

```
FROM python:3.6
WORKDIR /app
ADD . /app
COPY Templates /app/templates
COPY requirements.txt /app
RUN python3 -m pip install -r requirements.txt
EXPOSE 5000
CMD ["python","app.py"]
```

=>Deploy jobportal application to docker desktop:

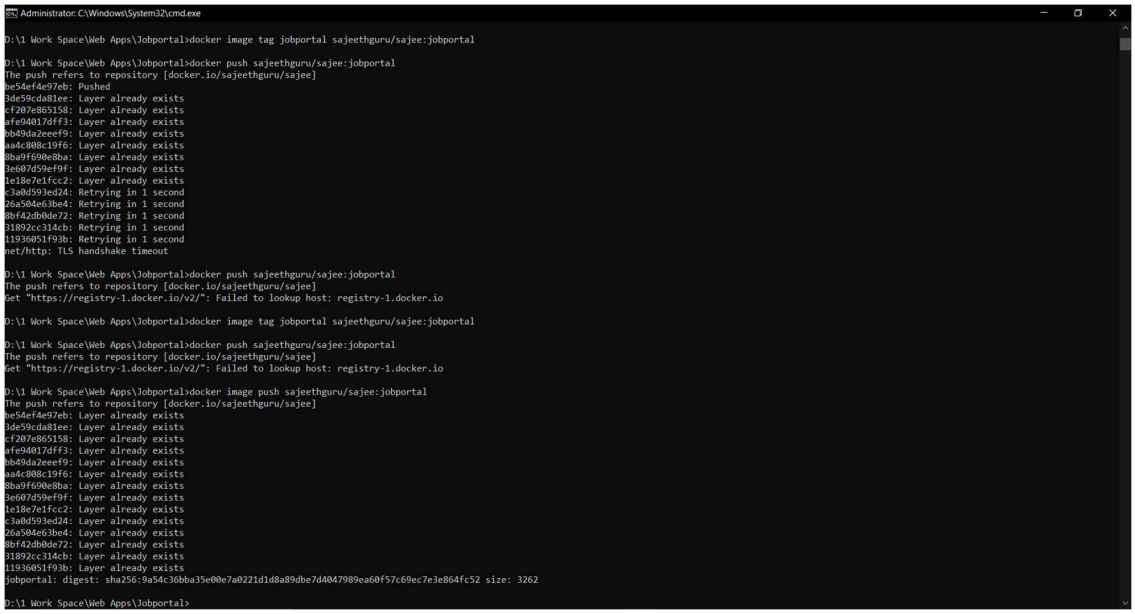


=>running the image from docker desktop:

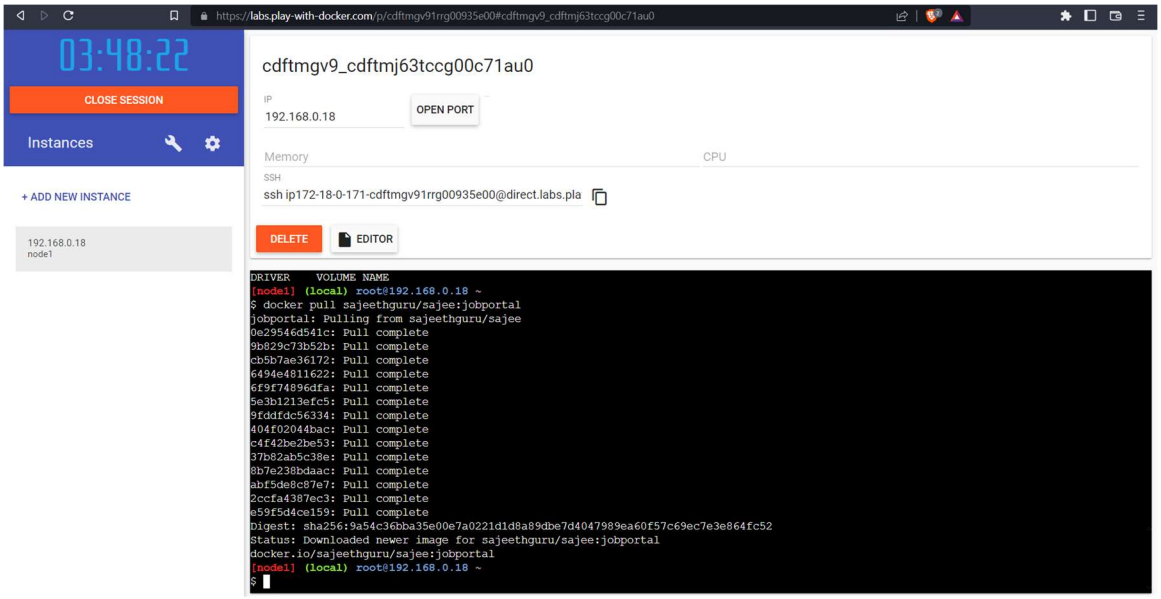


2.Pull an Image from docker hub and run it in docker playground.

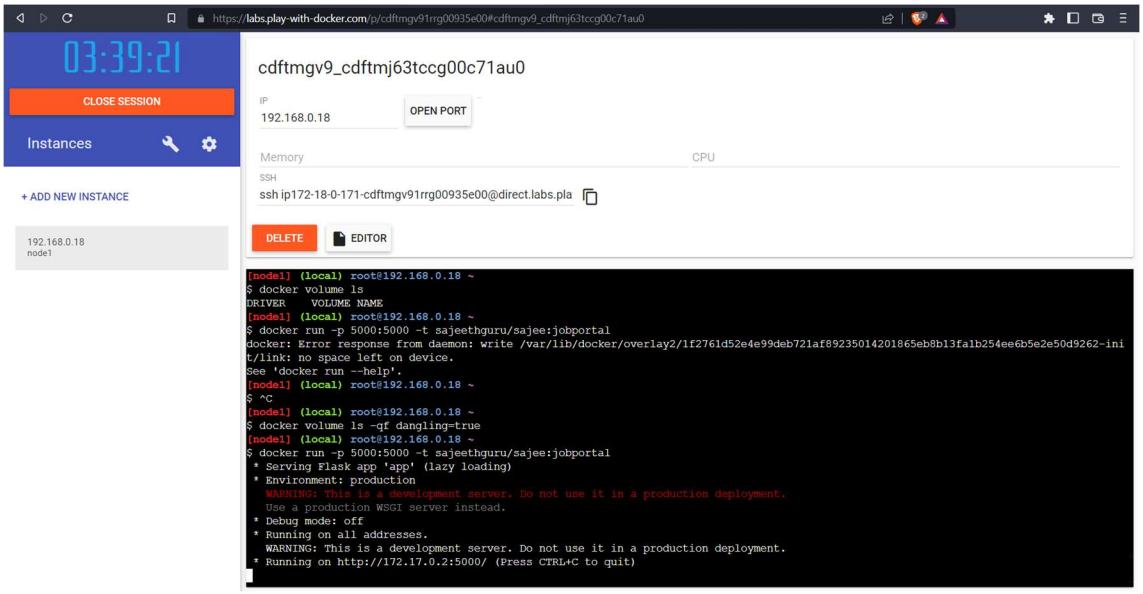
=>Pushing image to docker hub

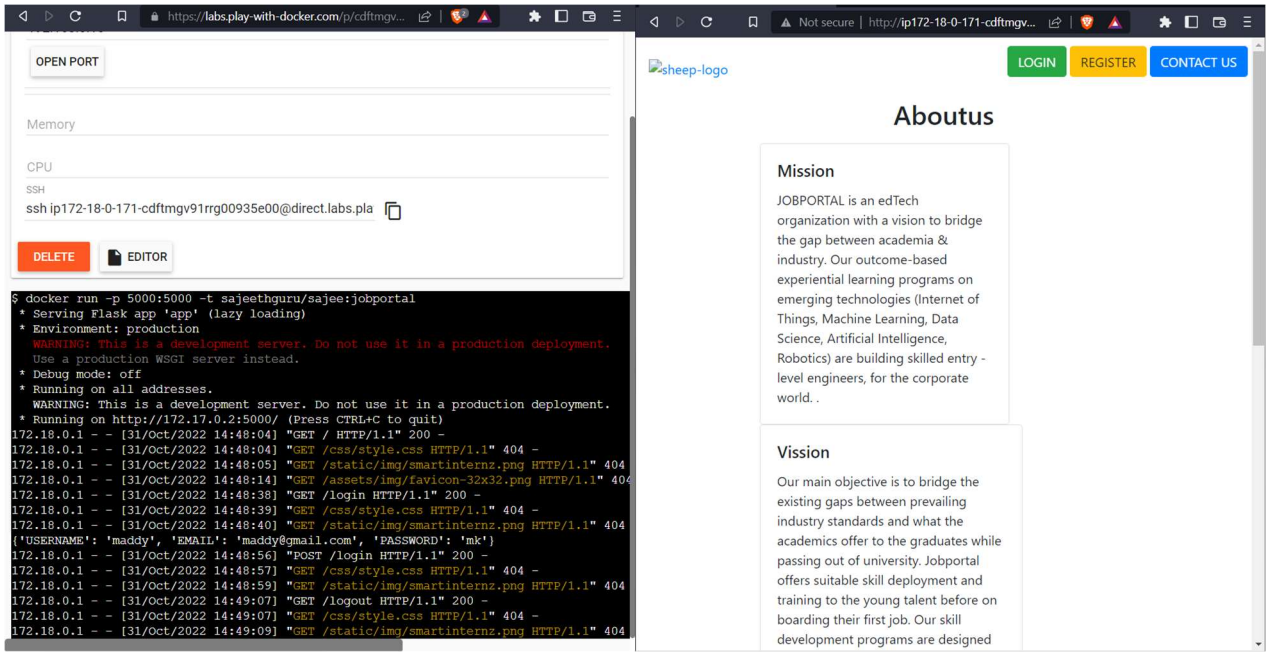


=>Pulling the jobportal image from docker hub in docker playground:



=> Running the pulled image:



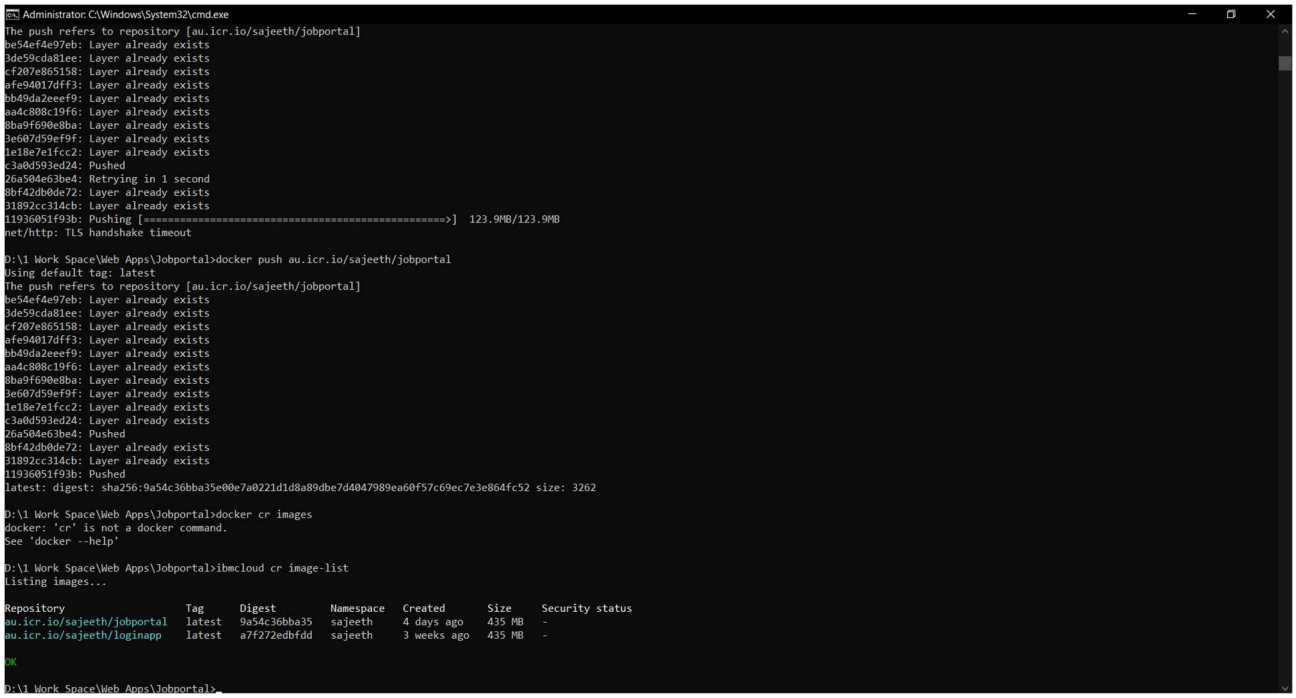


3.Create a IBM Container Registry and deploy jobportal app:

=>Pushing image to Container registry:

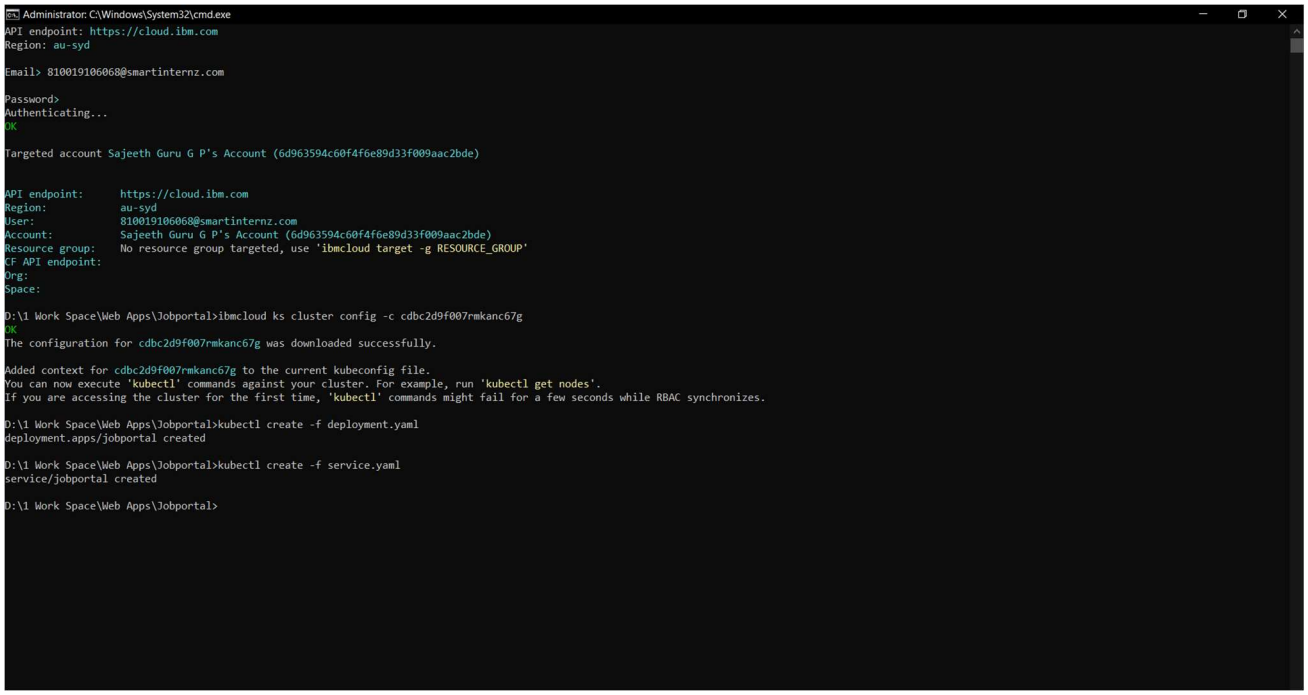
```
Administrator: C:\Windows\System32\cmd.exe
D:\1 Work Space\Web Apps\Jobportal>ibmcloud login -a https://cloud.ibm.com
API endpoint: https://cloud.ibm.com

Email> 810019106068@smartinternz.com

Password>
Authenticating...
OK

Targeted account Sajeeth Guru G P's Account (6d963594c60f4f6e89d33f009aac2bde)


Select a region (or press enter to skip):
1. au-syd
2. in-che
3. jp-osa
4. jp-tok
5. kr-seo
6. eu-de
7. eu-gb
8. ca-tor
9. us-south
10. us-east
11. br-sao
Enter a number> 1
Targeted region au-syd


API endpoint:      https://cloud.ibm.com
Region:            au-syd
User:              810019106068@smartinternz.com
Account:           Sajeeth Guru G P's Account (6d963594c60f4f6e89d33f009aac2bde)
Resource group:    No resource group targeted, use 'ibmcloud target -g RESOURCE_GROUP'
CF API endpoint:
Org:
Space:
```

```
D:\1 Work Space\Web Apps\Jobportal>ibmcloud cr region-set ap-south
The region is set to 'ap-south', the registry is 'au.icr.io'.

OK

D:\1 Work Space\Web Apps\Jobportal>ibmcloud cr login
Logging 'docker' in to 'au.icr.io'...
Logged in to 'au.icr.io'.

OK

D:\1 Work Space\Web Apps\Jobportal>ibmcloud cr image-list
Listing images...

Repository                  Tag      Digest         Namespace   Created       Size     Security status
au.icr.io/sajeeth/loginapp  latest   a7f272edbfdd   sajeeth     3 weeks ago   435 MB   -

OK

D:\1 Work Space\Web Apps\Jobportal>docker tag jobportal au.icr.io/sajeeth/jobportal

D:\1 Work Space\Web Apps\Jobportal>docker push au.icr.io/sajeeth/jobportal
Using default tag: latest
The push refers to repository [au.icr.io/sajeeth/jobportal]
be54ef4e97eb: Retrying in 1 second
3de59cda81ee: Retrying in 1 second
cf207e865158: Pushing [==================================================>]  41.98kB
afe94017dff3: Retrying in 1 second
bb49da2eeef9: Retrying in 1 second
aa4c808c19f6: Retrying in 10 seconds
8ba9f690e8ba: Retrying in 1 second
3e607d59ef9f: Retrying in 10 seconds
1e18e7e1fcc2: Retrying in 1 second
c3a0d593ed24: Retrying in 14 seconds
26a504e63be4: Retrying in 14 seconds
8bf42db0de72: Waiting
31892cc314cb: Waiting
11936051f93b: Waiting
Failed to lookup host: au.icr.io

D:\1 Work Space\Web Apps\Jobportal>
```

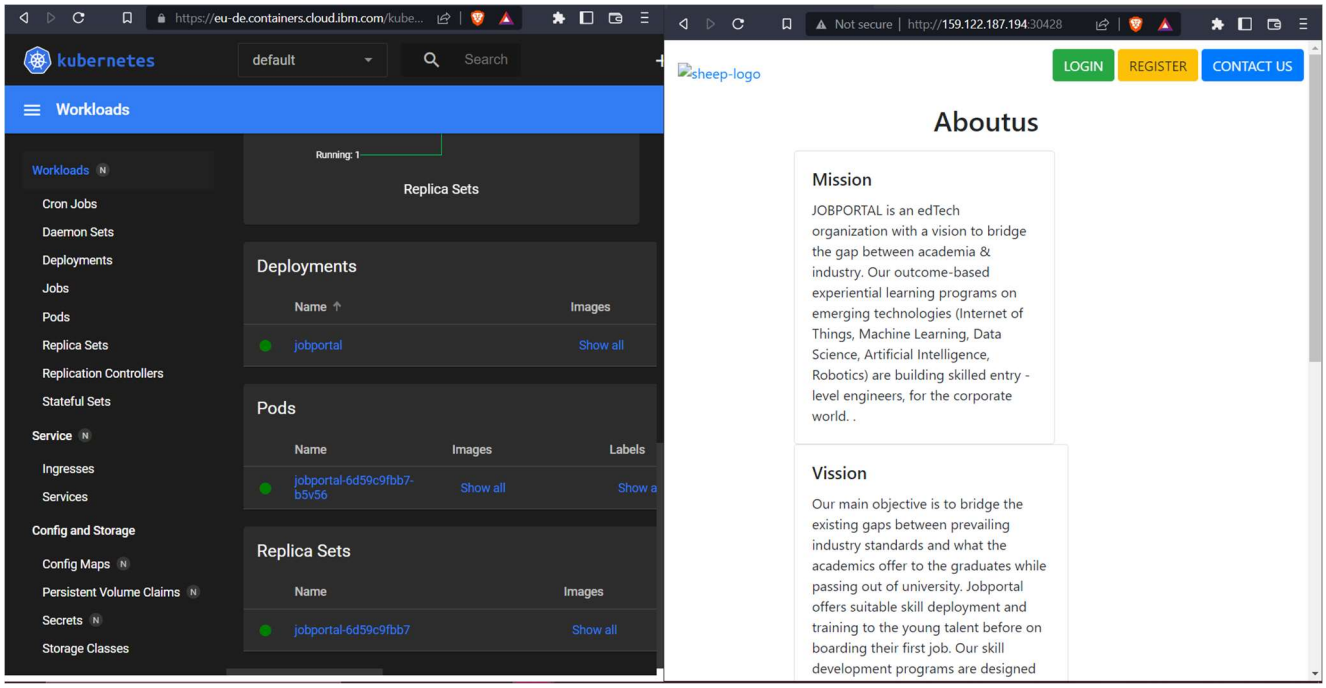

Administrator: C:\Windows\System32\cmd.exe
The push refers to repository [au.icr.io/sajeeth/jobportal]
be54ef4e97eb: Layer already exists
3de59cda81ee: Layer already exists
cf207e865158: Layer already exists
afe94017dff3: Layer already exists
bb49da2eeef9: Layer already exists
aa4c808c19f6: Layer already exists
8ba9f690e8ba: Layer already exists
3e607d59ef9f: Layer already exists
1e18e7e1fcc2: Layer already exists
c3a0d593ed24: Pushed
26a504e63be4: Retrying in 1 second
8bf42db0de72: Layer already exists
31892cc314cb: Layer already exists
11936051f93b: Pushing [==>] 123.9MB/123.9MB
net/http: TLS handshake timeout
D:\1 Work Space\Web Apps\Jobportal>docker push au.icr.io/sajeeth/jobportal
Using default tag: latest
The push refers to repository [au.icr.io/sajeeth/jobportal]
be54ef4e97eb: Layer already exists
3de59cda81ee: Layer already exists
cf207e865158: Layer already exists
afe94017dff3: Layer already exists
bb49da2eeef9: Layer already exists
aa4c808c19f6: Layer already exists
8ba9f690e8ba: Layer already exists
3e607d59ef9f: Layer already exists
1e18e7e1fcc2: Layer already exists
c3a0d593ed24: Layer already exists
26a504e63be4: Pushed
8bf42db0de72: Layer already exists
31892cc314cb: Layer already exists
11936051f93b: Pushed
latest: digest: sha256:9a54c36bba35e00e7a0221d1d8a89dbe7d4047989ea60f57c69ec7e3e864fc52 size: 3262
D:\1 Work Space\Web Apps\Jobportal>docker cr images
docker: 'cr' is not a docker command.
See 'docker --help'
D:\1 Work Space\Web Apps\Jobportal>ibmcloud cr image-list
Listing images...
Repository Tag Digest Namespace Created Size Security status
au.icr.io/sajeeth/jobportal latest 9a54c36bba35 sajeeth 4 days ago 435 MB -
au.icr.io/sajeeth/loginapp latest a7f272edbfdd sajeeth 3 weeks ago 435 MB -
OK
D:\1 Work Space\Web Apps\Jobportal>

4.Create a Kubernetes cluster in IBM cloud and deploy jobportal image and also expose the same app to run in nodeportal:

=> deploying and exposing jobportal image into kubernetes cluster:



=>Running the app in nodeport:


https://eu-de.containers.cloud.ibm.com/kube...
kubernetes
default
Search
Workloads
Workloads
Cron Jobs
Daemon Sets
Deployments
Jobs
Pods
Replica Sets
Replication Controllers
Stateful Sets
Service
Ingresses
Services
Config and Storage
Config Maps
Persistent Volume Claims
Secrets
Storage Classes
Running: 1
Replica Sets
Deployments
Name
Images
jobportal
Show all
Pods
Name
Images
Labels
jobportal-6d59c9fbb7-b5v56
Show all
Show a
Replica Sets
Name
Images
jobportal-6d59c9fbb7
Show all
Not secure | http://159.122.187.194:30428
sheep-logo
LOGIN
REGISTER
CONTACT US
Aboutus
Mission
JOBPORTAL 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. Jobportal offers suitable skill deployment and training to the young talent before on boarding their first job. Our skill development programs are designed