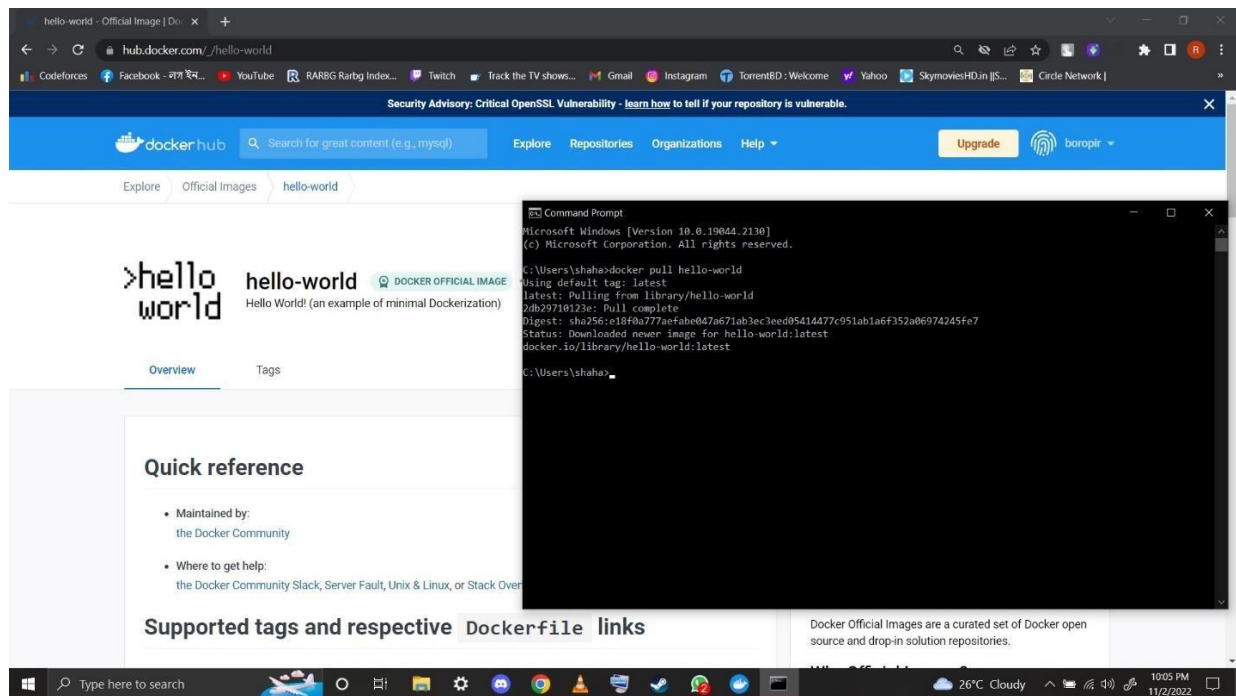
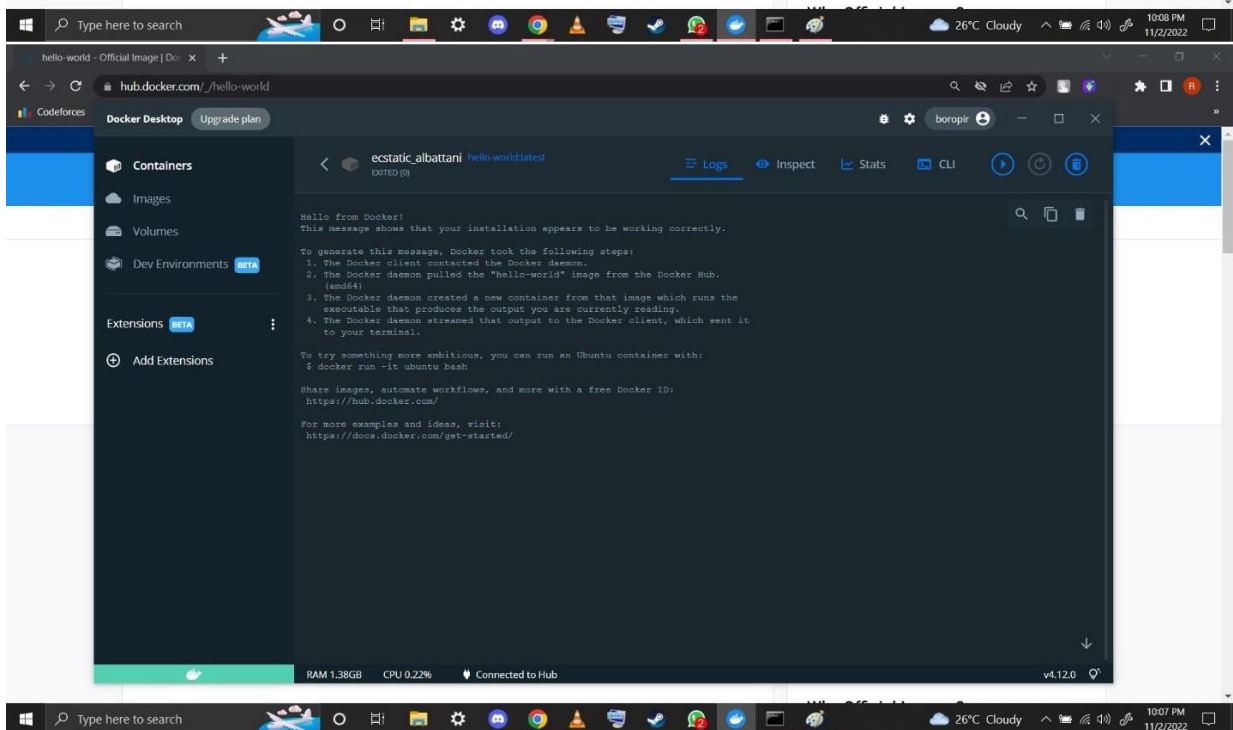
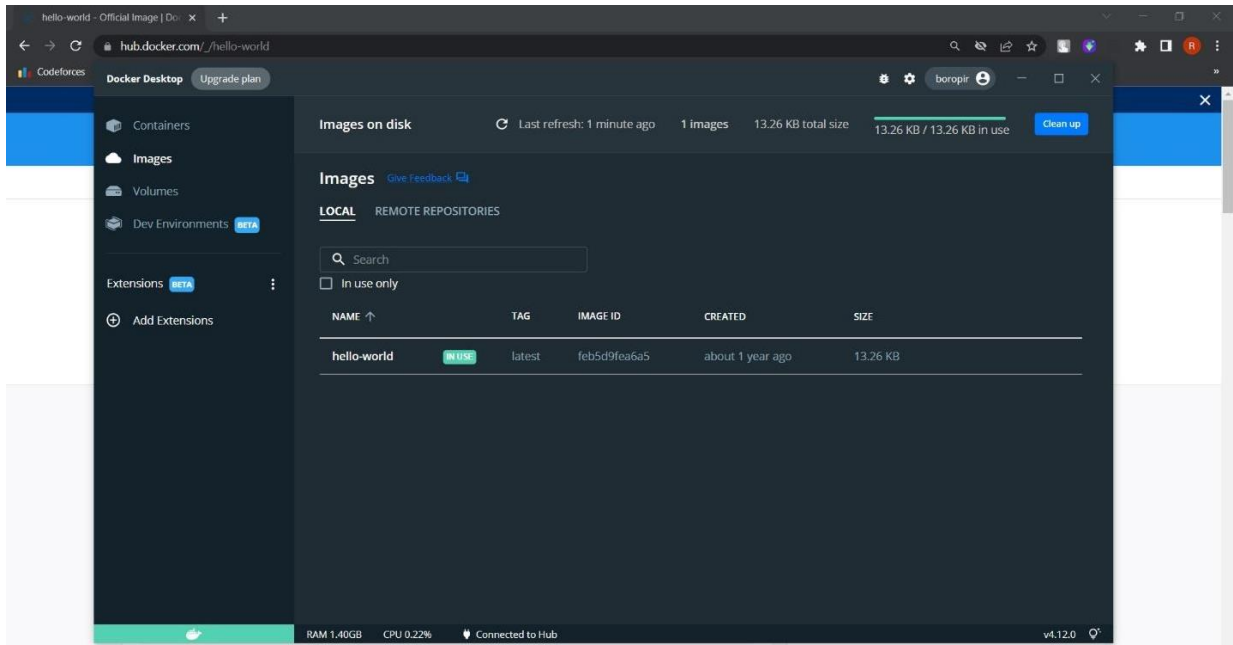


## Assignment -4

Assignment Date	27 October 2022
Student Name	BABIN MON B
Student Roll Number	211419104033
Maximum Marks	2 Marks

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





2. Create a docker file for the job portal application and deploy it in Docker desktop application.

Dockerfile:

FROM

python:3.6

WORKDIR

/app ADD.

/app

COPY requirements.txt /app

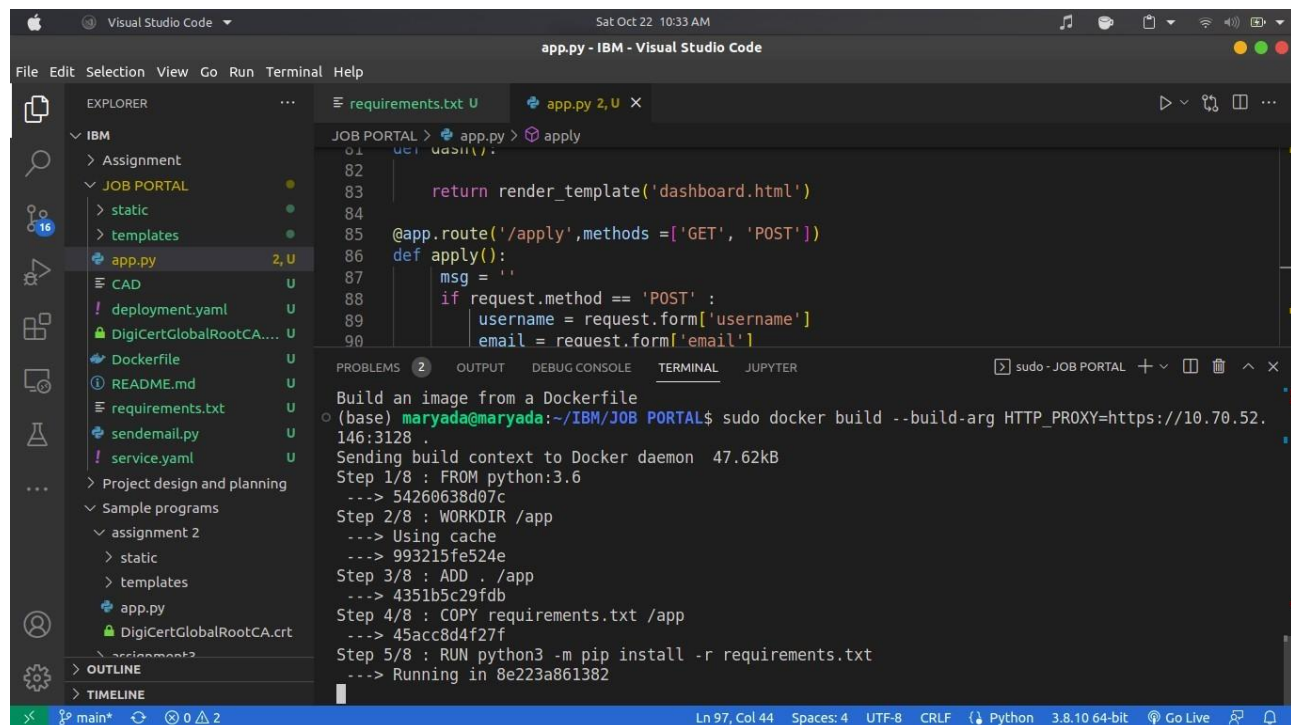
RUN python3 -m pip install -r

requirements.txtRUN 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 panel on the left shows the file structure, including 'app.py', 'requirements.txt', and 'Dockerfile'. The main editor displays the 'app.py' file with the following code:

```
82 def dash():
83     return render_template('dashboard.html')
84
85 @app.route('/apply', methods = ['GET', 'POST'])
86 def apply():
87     msg = ''
88     if request.method == 'POST':
89         username = request.form['username']
90         email = request.form['email']
```

The terminal at the bottom shows the command to build the Docker image:

```
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
```

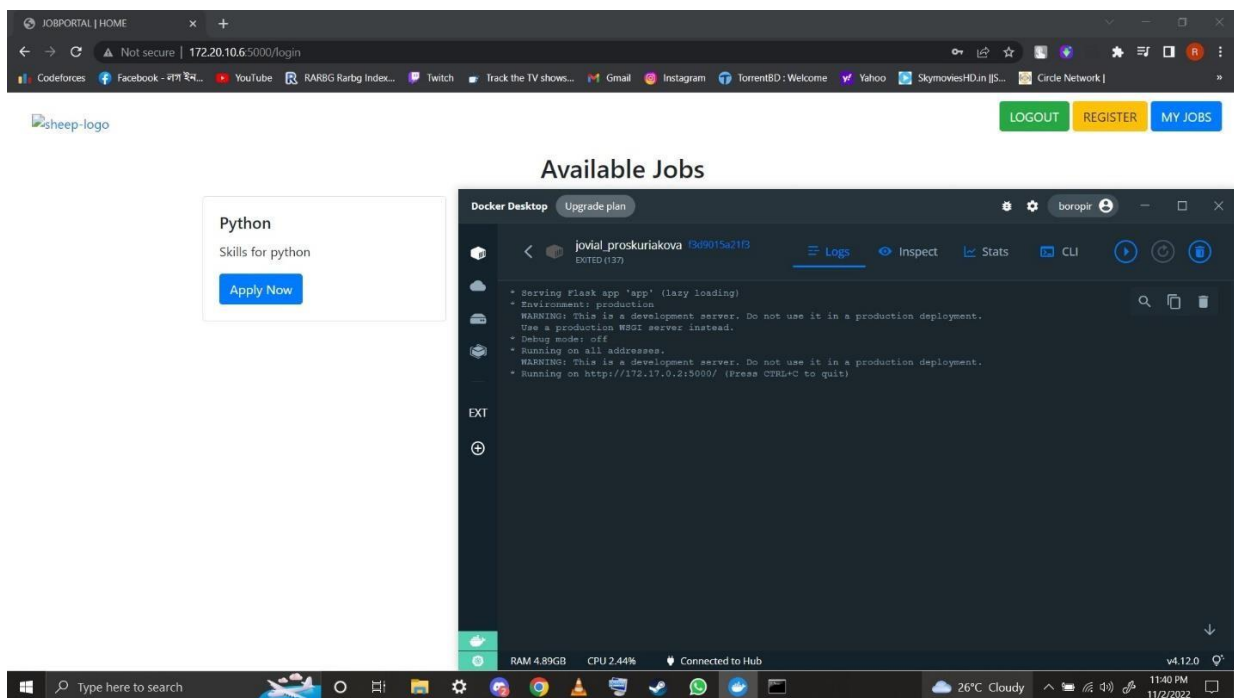
The screenshot shows the Visual Studio Code interface with a project named 'JOB PORTAL'. The Explorer sidebar on the left shows the file structure, including 'app.py', 'requirements.txt', 'Dockerfile', and 'deployment.yaml'. The main editor displays the 'app.py' file with the following code:

```
1 from flask import Flask
2
3 # Create the Flask application
4 app = Flask(__name__)
5
6 # Define the routes
7
8 @app.route('/')
9 def index():
10     return render_template('dashboard.html')
11
12 @app.route('/apply', methods = ['GET', 'POST'])
13 def apply():
14     msg = ''
15     if request.method == 'POST':
16         username = request.form['username']
17         email = request.form['email']
```

The TERMINAL pane at the bottom shows the execution of the application:

```
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$
```



### 3. Create a IBM container registry and deploy job portal app.

```
Command Prompt
Microsoft Windows [Version 10.0.19044.2130]
(c) Microsoft Corporation. All rights reserved.

C:\Users\shaha>ibmcloud login
API endpoint: https://cloud.ibm.com

Email> 410619104029@smartinternz.com

Password>
Authenticating...
OK

Targeted account Raad Chowdhury's Account (3828f847bb644584acc551e935d0e383)

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>

API endpoint: https://cloud.ibm.com
Region:
User: 410619104029@smartinternz.com
Account: Raad Chowdhury's Account (3828f847bb644584acc551e935d0e383)
Resource group: No resource group targeted, use 'ibmcloud target -g RESOURCE_GROUP'
CF API endpoint:
Org:
Space:

C:\Users\shaha>
```

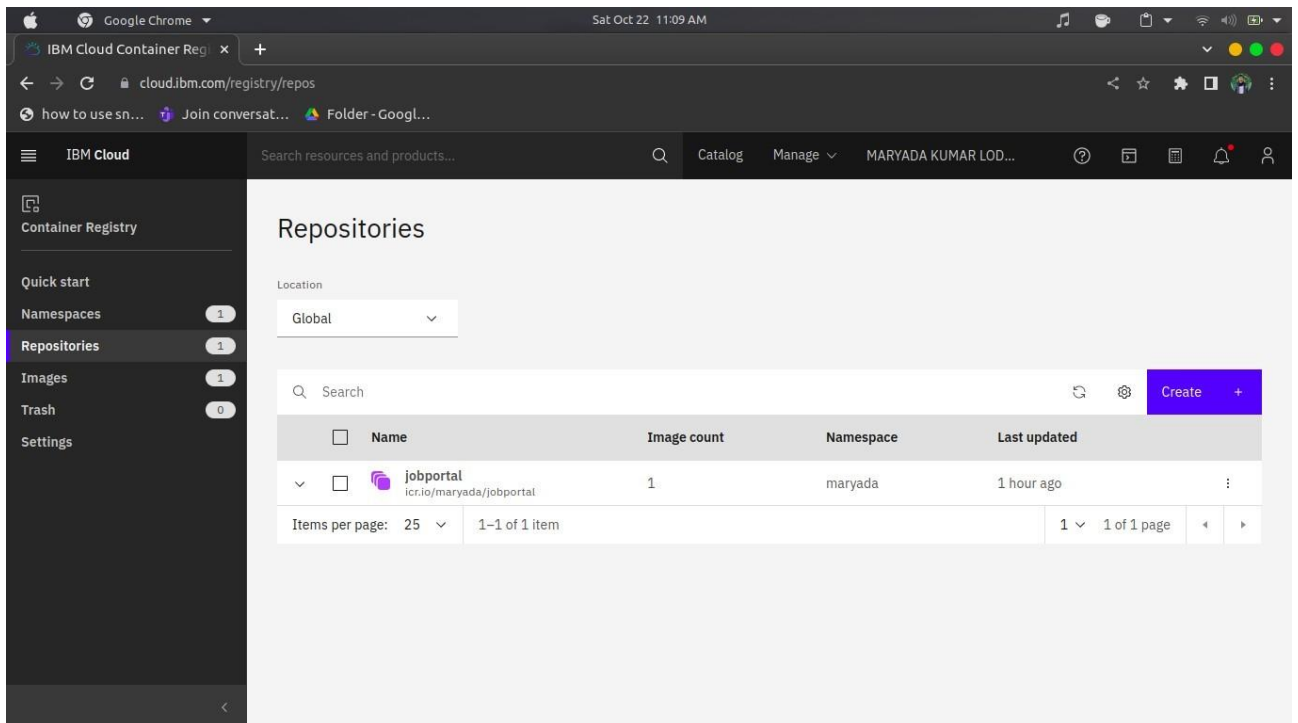
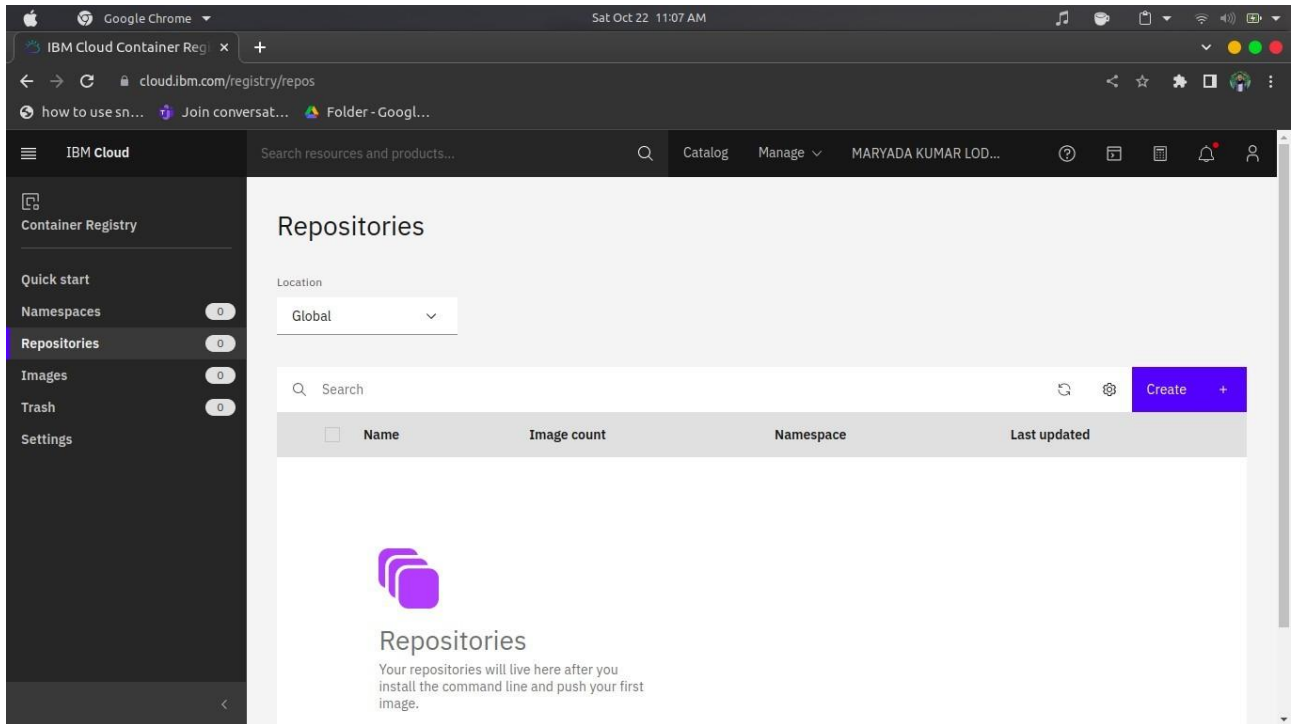
```
Command Prompt
C:\Users\shaha>ibmcloud cr login
Logging 'docker' in to 'icr.io'...
Logged in to 'icr.io'.

OK

C:\Users\shaha>docker tag f3d9015a21f3 icr.io/shahibhasan/jobportal

C:\Users\shaha>docker push icr.io/shahibhasan/jobportal
Using default tag: latest
The push refers to repository [icr.io/shahibhasan/jobportal]
21d8888e119b: Pushed
ef5059251a61: Pushed
ba5faf349894: Pushed
21a1dcfafa41: Pushed
4c702997ab0c: Pushed
aad4808c19f6: Pushed
8ba9f090e8ba: Pushed
3e607d59ef9f: Pushed
1e18e7e1fcc2: Pushed
c3a8d993ae74: Pushed
26a504e63be4: Pushed
8bf42db0de72: Pushed
31892cc314cb: Pushed
11936051f93b: Pushed
latest: digest: sha256:910c91f1fe2226ae9306e48d02426c6c513bf54cfad9b960a8cb07bcb0926143 size: 3260

C:\Users\shaha>
```



4. Create a Kubernetes cluster in IBM cloud and deploy job portal image and also expose the same app to run in nodeport.

