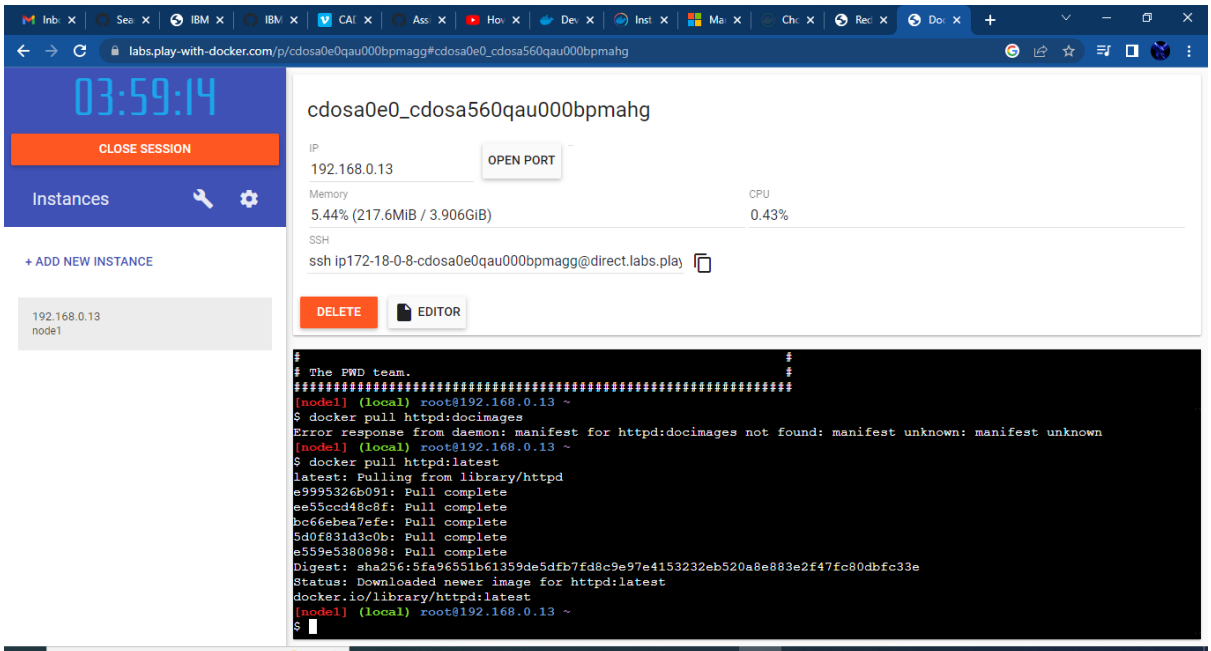
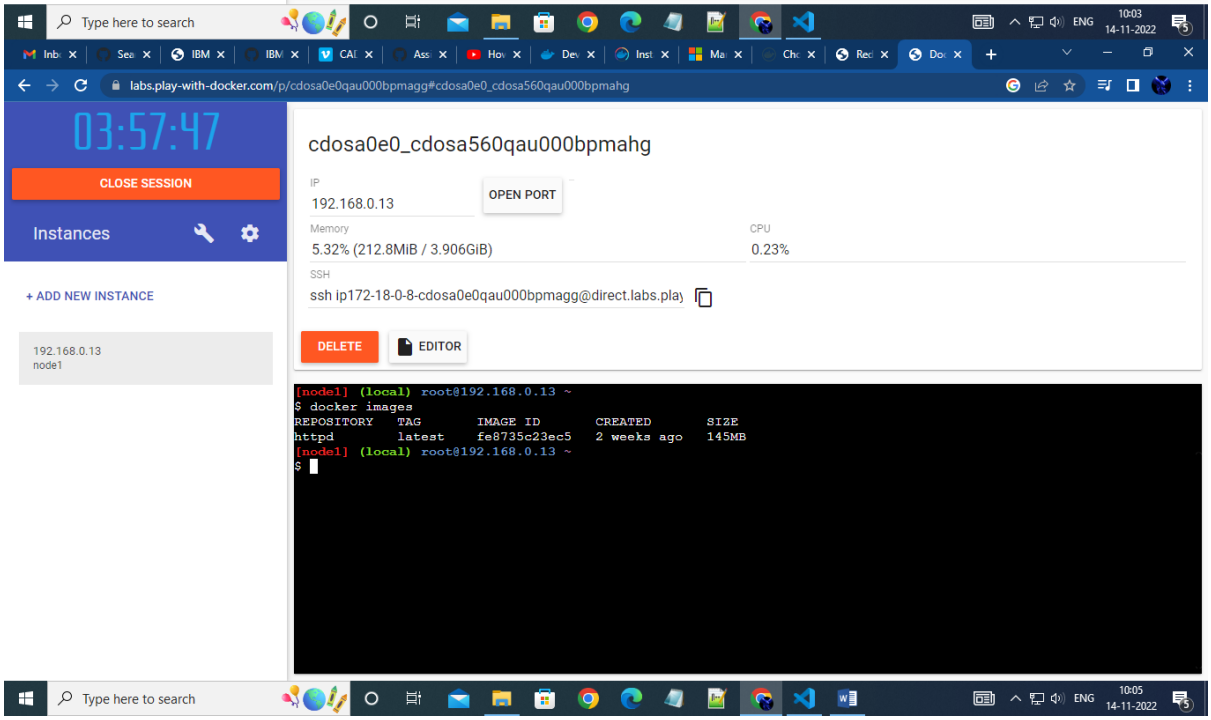
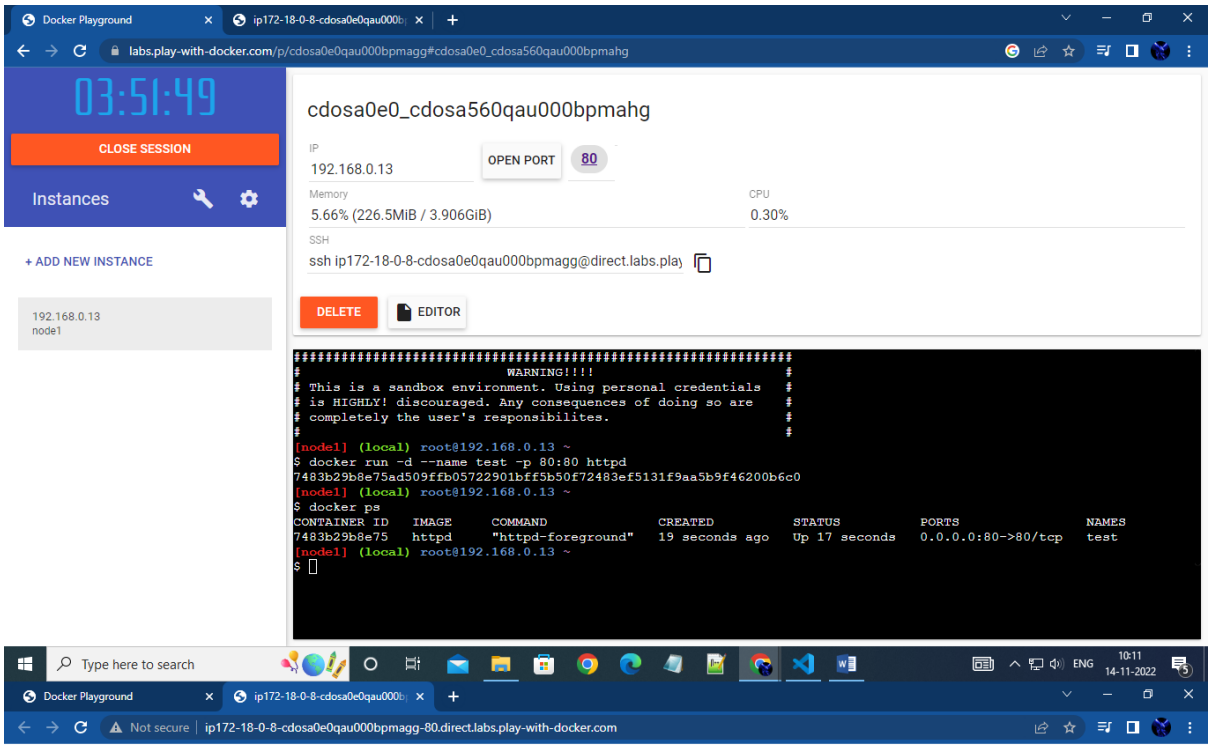
Assignment -4

Assignment Date	14 November 2022
Student Name	Rohini S
Student Roll Number	AC19UIT041
Maximum Marks	2 Marks

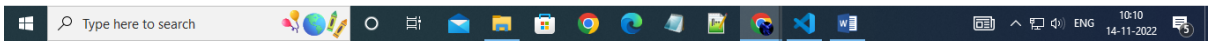
1. Pull an Image from docker hub and run it in docker playground





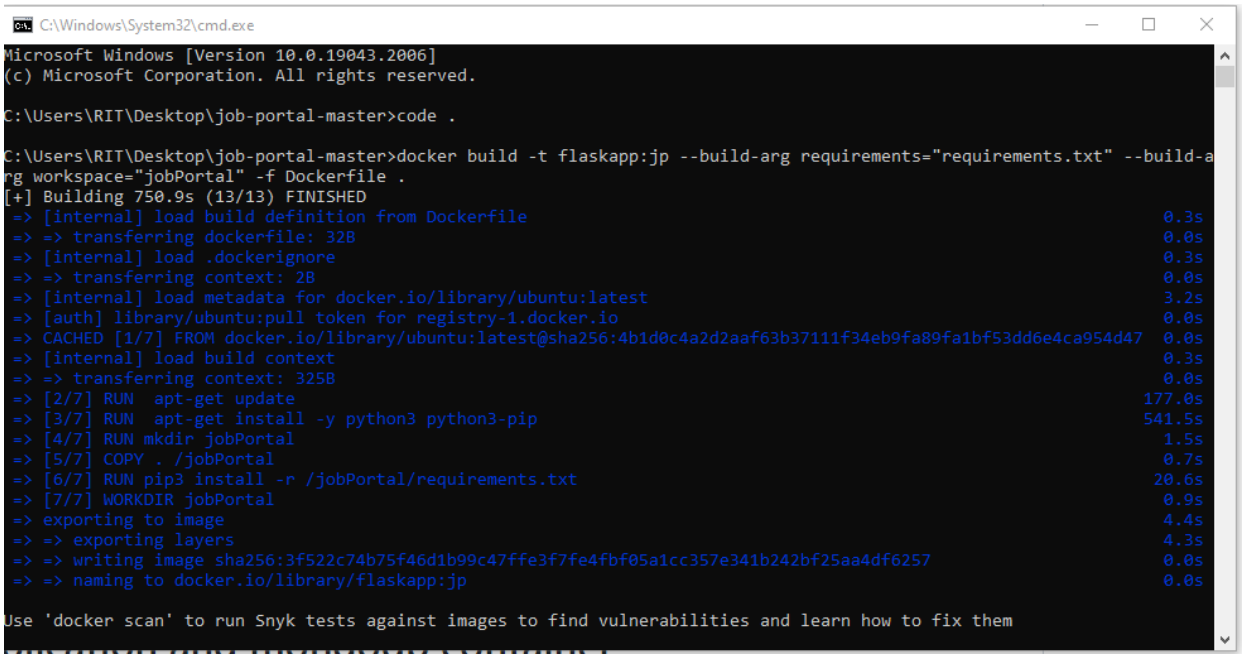


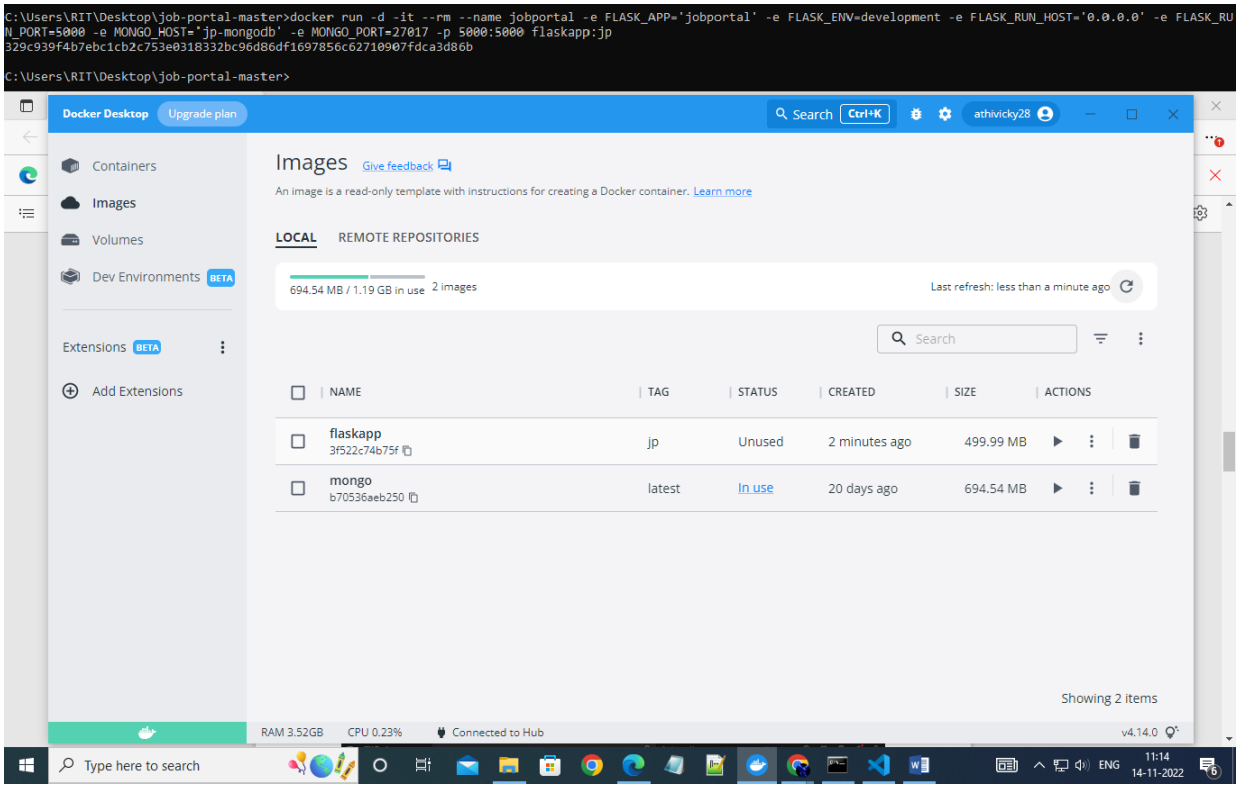
It works!



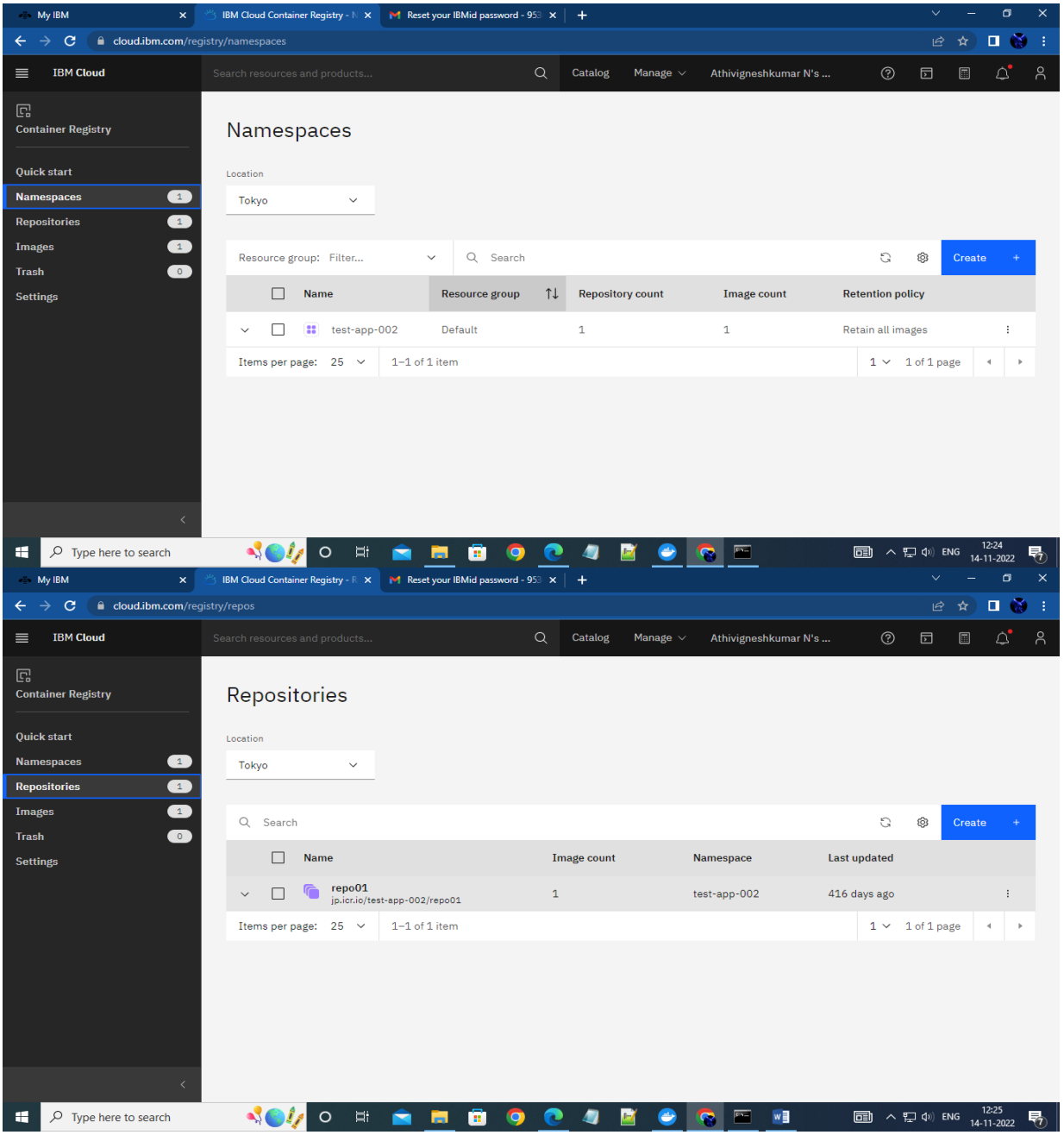
2. Job portal application and deploy it in Docker desktop application.

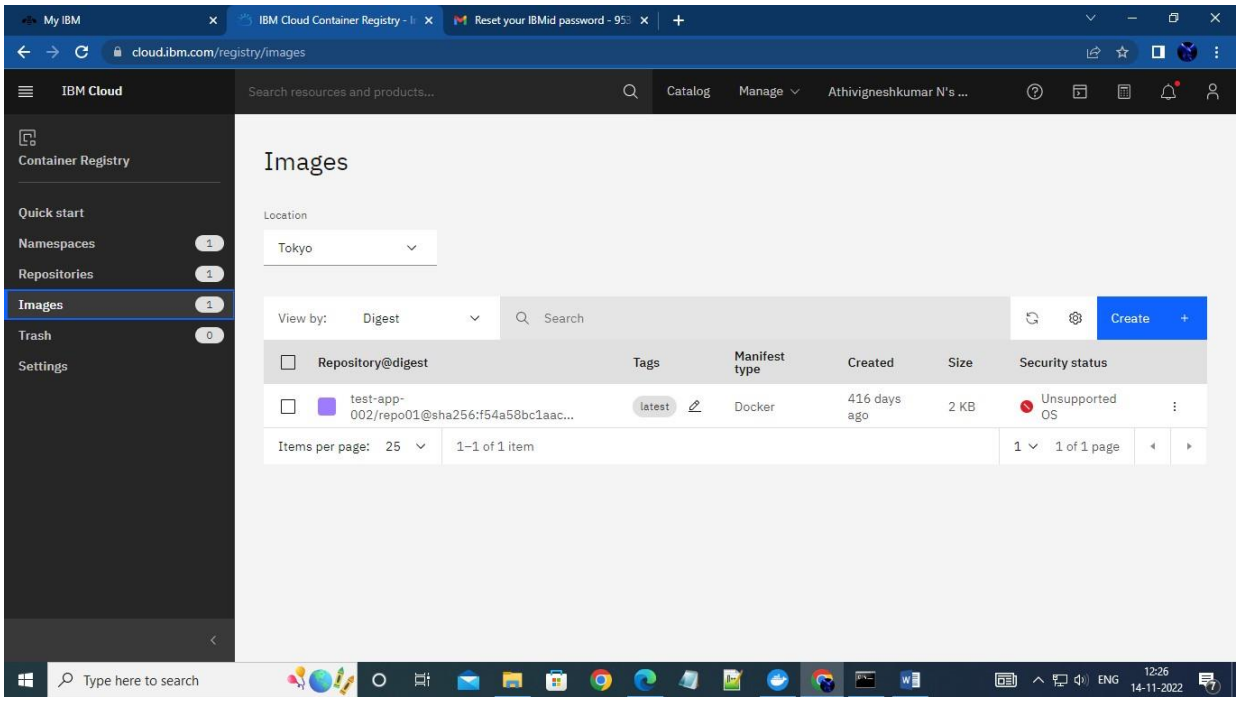
```
PS C:\Users\RIT\Desktop\job-portal-master> docker run -d -it --rm --name jp-mongodb -p 27017:27017 -e MONGO_INITDB_ROOT_USERNAME="root" -e MONGO_I
NITDB_ROOT_PASSWORD="root-rusteez" mongo
Unable to find image 'mongo:latest' locally
latest: Pulling from library/mongo
eaead16dc43b: Pull complete
8a00eb9f68a0: Pull complete
f683956749c5: Pull complete
b33b2f05ea20: Pull complete
3a342bea915a: Pull complete
fa956ab1c2f0: Pull complete
138a8542a624: Pull complete
acab179a7f07: Pull complete
f88335710e84: Pull complete
Digest: sha256:71a63fc2438e45714f6c8a2505968ee0beeb94ec77a88ef12190f7cee9b95f32
Status: Downloaded newer image for mongo:latest
01adeb5492af8323e5d62299c7a1372f34e2583891bdefae268f95f74a76a80c
```


C:\Windows\System32\cmd.exe
Microsoft Windows [Version 10.0.19043.2006]
(c) Microsoft Corporation. All rights reserved.
C:\Users\RIT\Desktop\job-portal-master>code .
C:\Users\RIT\Desktop\job-portal-master>docker build -t flaskapp:jp --build-arg requirements="requirements.txt" --build-arg workspace="jobPortal" -f Dockerfile .
[+] Building 750.9s (13/13) FINISHED
=> [internal] load build definition from Dockerfile 0.3s
=> => transferring dockerfile: 32B 0.0s
=> [internal] load .dockerignore 0.3s
=> => transferring context: 2B 0.0s
=> [internal] load metadata for docker.io/library/ubuntu:latest 3.2s
=> [auth] library/ubuntu:pull token for registry-1.docker.io 0.0s
=> CACHED [1/7] FROM docker.io/library/ubuntu:latest@sha256:4b1d0c4a2d2aaf63b37111f34eb9fa89fa1bf53dd6e4ca954d47 0.0s
=> [internal] load build context 0.3s
=> => transferring context: 325B 0.0s
=> [2/7] RUN apt-get update 177.0s
=> [3/7] RUN apt-get install -y python3 python3-pip 541.5s
=> [4/7] RUN mkdir jobPortal 1.5s
=> [5/7] COPY . /jobPortal 0.7s
=> [6/7] RUN pip3 install -r /jobPortal/requirements.txt 20.6s
=> [7/7] WORKDIR jobPortal 0.9s
=> exporting to image 4.4s
=> => exporting layers 4.3s
=> => writing image sha256:3f522c74b75f46d1b99c47ffe3f7fe4fbf05a1cc357e341b242bf25aa4df6257 0.0s
=> => naming to docker.io/library/flaskapp:jp 0.0s
Use 'docker scan' to run Snyk tests against images to find vulnerabilities and learn how to fix them


C:\Users\RIT\Desktop\job-portal-master>docker run -d -it --rm --name jobportal -e FLASK_APP='jobportal' -e FLASK_ENV=development -e FLASK_RUN_HOST='0.0.0.0' -e FLASK_RUN_PORT=5000 -e MONGO_HOST='jp-mongodb' -e MONGO_PORT=27017 -p 5000:5000 flaskapp:jp
329c939f4b7ebc1cb2c753e0318332bc96d86df1697856c62710907fdca3d86b
C:\Users\RIT\Desktop\job-portal-master>
Docker Desktop
Upgrade plan
Search Ctrl+K
athivicky28
Containers
Images
Volumes
Dev Environments BETA
Extensions BETA
Add Extensions
Images
Give feedback
An image is a read-only template with instructions for creating a Docker container. Learn more
LOCAL
REMOTE REPOSITORIES
694.54 MB / 1.19 GB in use
2 images
Last refresh: less than a minute ago
Search
NAME
TAG
STATUS
CREATED
SIZE
ACTIONS
flaskapp
3f522c74b75f
jp
Unused
2 minutes ago
499.99 MB
mongo
b70536aeb250
latest
In use
20 days ago
694.54 MB
Showing 2 items
RAM 3.52GB
CPU 0.23%
Connected to Hub
v4.14.0
Type here to search
ENG
11:14
14-11-2022

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






```
C:\Users\RIT>ibmcloud login
API endpoint: https://cloud.ibm.com
Region: jp-tok

Email> 953619104006

Password>
C:\Users\RIT>ibmcloud login
API endpoint: https://cloud.ibm.com
Region: jp-tok

Email> 953619104006@ritrjpm.ac.in

Password>
Authenticating...
OK

Targeted account Athivigneshkumar N's Account (331b915ecbfc4e7290278776aa39995b)


API endpoint:      https://cloud.ibm.com
Region:            jp-tok
User:              953619104006@ritrjpm.ac.in
Account:           Athivigneshkumar N's Account (331b915ecbfc4e7290278776aa39995b)
Resource group:    No resource group targeted, use 'ibmcloud target -g RESOURCE_GROUP'
CF API endpoint:
Org:
Space:

C:\Users\RIT>ibmcloud target -g Default
C:\Users\RIT>ibmcloud cr login --client docker
Logging 'docker' in to 'jp.icr.io'...
Logged in to 'jp.icr.io'.

OK

C:\Users\RIT>docker push jp.icr.io/test-app-002/repo01
Using default tag: latest
The push refers to repository [jp.icr.io/test-app-002/repo01]
e07ee1baac5f: Pushed
latest: digest: sha256:f54a58bc1aac5ea1a25d796ae155dc228b3f0e11d046ae276b39c4bf2f13d8c4 size: 525

C:\Users\RIT>ibmcloud cr image-list
Listing images...

Repository                      Tag      Digest         Namespace      Created      Size     Security status
jp.icr.io/test-app-002/repo01   latest   f54a58bc1aac   test-app-002   1 year ago   2.5 kB   -

OK

C:\Users\RIT>
```

4.Create a Kubernetes cluster in IBM cloud and deploy helloworld image orjobportal image and also expose the same app to run in node