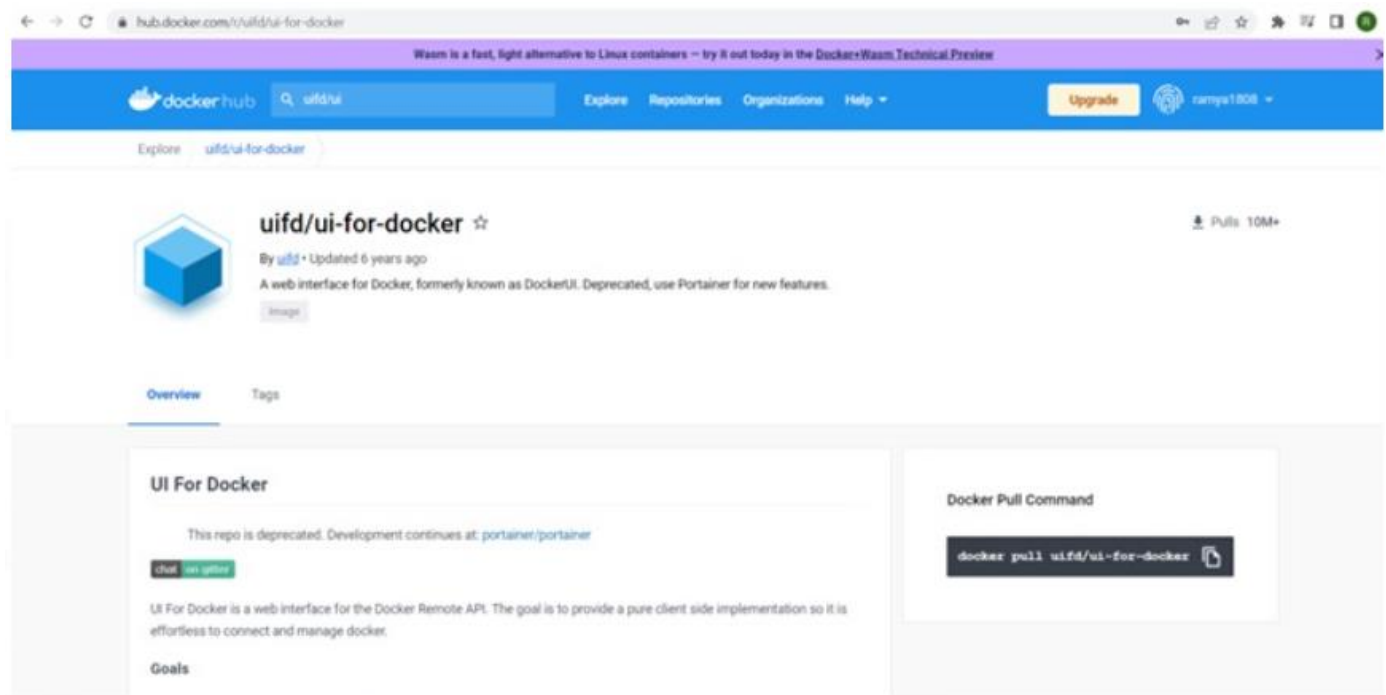


Assignment 4 – Docker and Kubernetes

| | |
|---------------------|-----------------|
| Assignment Date | 2 November 2022 |
| Student Name | Nithinrhaj S |
| Student Roll Number | 2019115062 |
| Maximum Marks | 2 Marks |

Question 1:

Pull an image from docker hub and run it in docker playground.



03:45:35

CLOSE SESSION

Instances

+ ADD NEW INSTANCE

192.168.0.8
node1

cdj2c363_cdj2cm63tccg008jltk0

IP
192.168.0.8

OPEN PORT

Memory
1.44% (57.59MiB / 3.906GiB)

CPU
0.11%

SSH

ssh ip172-18-0-23-cdj2c363tccg008jltfg@direct.labs.play-wi

DELETE

EDITOR

```
# The FWD team.
#####
(node1) (local) root@192.168.0.8 ~
$ docker version --help

Usage: docker version [OPTIONS]

Show the Docker version information

Options:
  -f, --format string      Format the output using the given Go template
  --kubeconfig string      Kubernetes config file
(node1) (local) root@192.168.0.8 ~
$ docker pull uifd/ui-for-docker
Using default tag: latest
latest: Pulling from uifd/ui-for-docker
841194d080c8: Pull complete
Digest: sha256:fe371ff5a69549269b24073a5ab1244dd4c0b834cbadf244870572150b1cb749
Status: Downloaded newer image for uifd/ui-for-docker:latest
docker.io/uifd/ui-for-docker:latest
(node1) (local) root@192.168.0.8 ~
$
```

03:40:04

CLOSE SESSION

Instances

+ ADD NEW INSTANCE

192.168.0.8
node1

cdj2c363_cdj2cm63tccg008jltk0

IP
192.168.0.8

OPEN PORT

9000

Memory
1.64% (65.67MiB / 3.906GiB)

CPU
0.06%

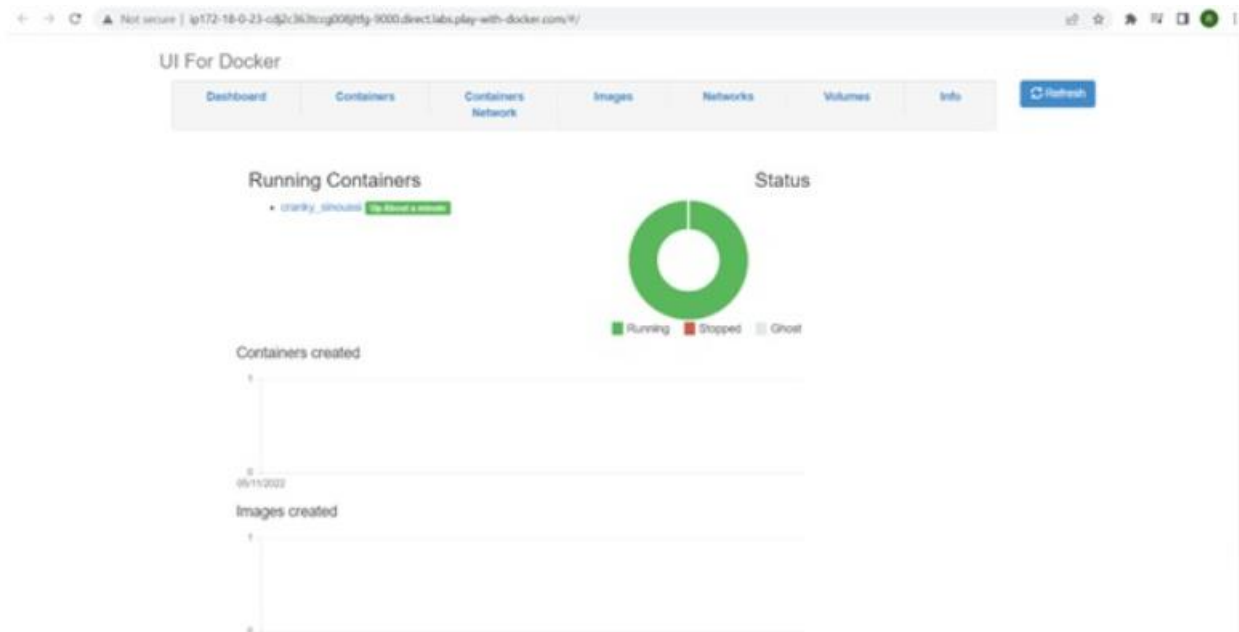
SSH

ssh ip172-18-0-23-cdj2c363tccg008jltfg@direct.labs.play-wi

DELETE

EDITOR

```
(node1) (local) root@192.168.0.8 ~
$ docker run -d -p 9000:9000 --privileged -v /var/run/docker.sock:/var/run/docker.sock uifd/ui-for-docker
2a44bda08563b465440b29ec45e905d45b425850bc495b5e9cbb8a3cafd5f1f
(node1) (local) root@192.168.0.8 ~
$
```



Question 2:

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

DOCKER FILE:

```
1 FROM python:3.8-buster
2
3 WORKDIR /app
4
5 COPY requirements.txt /app/
6
7 RUN pip install -r requirements.txt
8
9 COPY . /app/
10
11 RUN cp .env.dev.sample .env
12
13 EXPOSE 8000
14
15 RUN chmod +x entrypoint.sh
16
17 CMD ["sh", "entrypoint.sh"]
```

DEPLOYMENT OF JOBPORTAL APPLICATION:

Containers

Images

Volumes

Dev Environments BETA

Extensions BETA

Add Extensions

Containers Give feedback

A container packages up code and its dependencies so the application runs quickly and reliably from one computing environment to another. [Learn more](#)

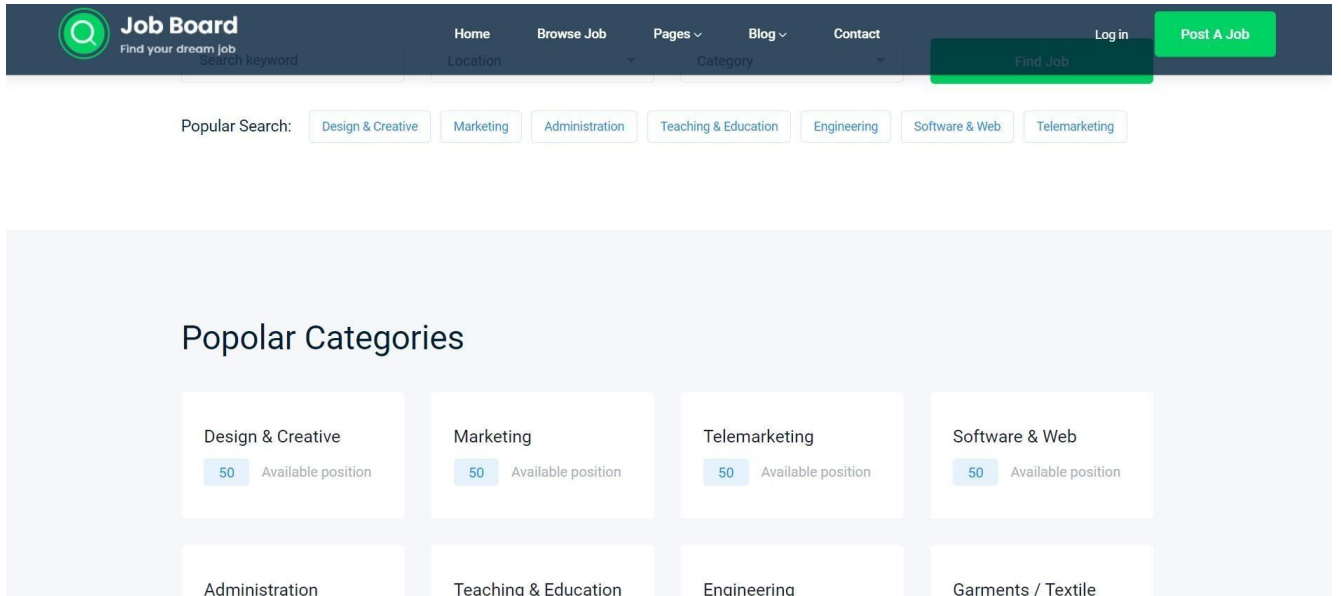
☐ Only show running containers

| <input type="checkbox"/> | NAME | IMAGE | STATUS | PORT(S) | STARTED | ACTIONS |
|--------------------------|---|---|--------------|---------------------------|---------------|--|
| <input type="checkbox"/> | <div>agitated_neumann</div> <div>918d20882039</div> | icr.io/helloapp/ibm:latest | Exited (137) | 49160:8080 | | <div><div></div><div></div><div></div></div> |
| <input type="checkbox"/> | <div>jolly_turing</div> <div>b62c0712bdd3</div> | jobportalapplication:latest | Running | 1234:8000 | 4 minutes ago | <div><div></div><div></div><div></div></div> |

Showing 2 items

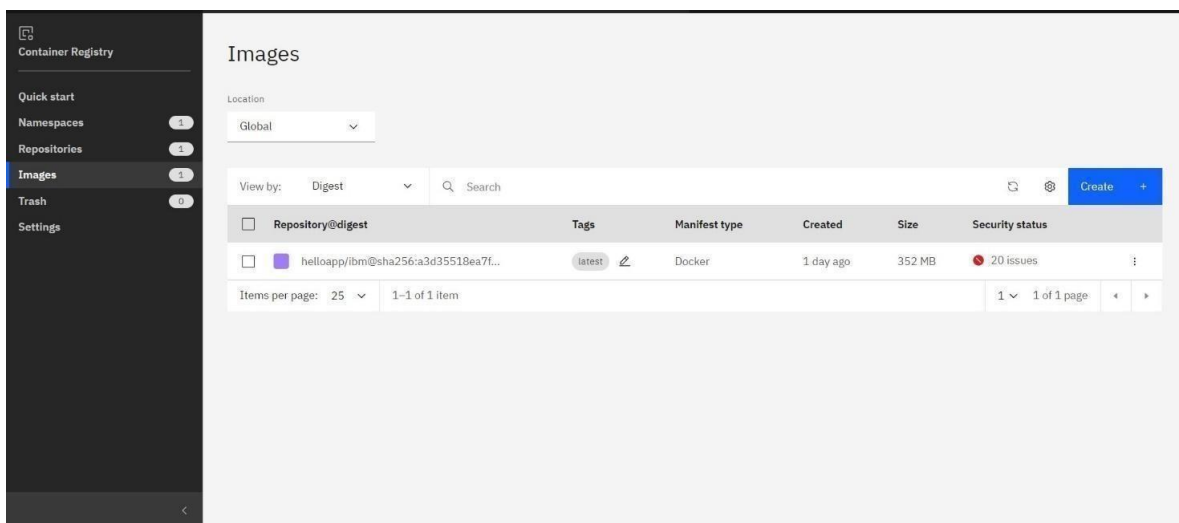
RAM 3.06GB CPU 0.57% Connected to Hub v4.13.0

OUTPUT:

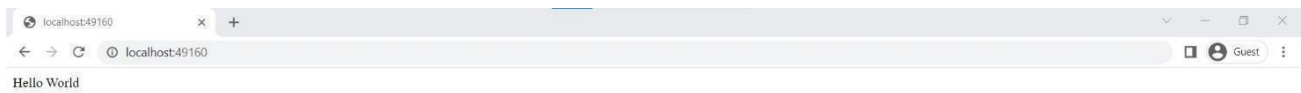


Question 3:

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



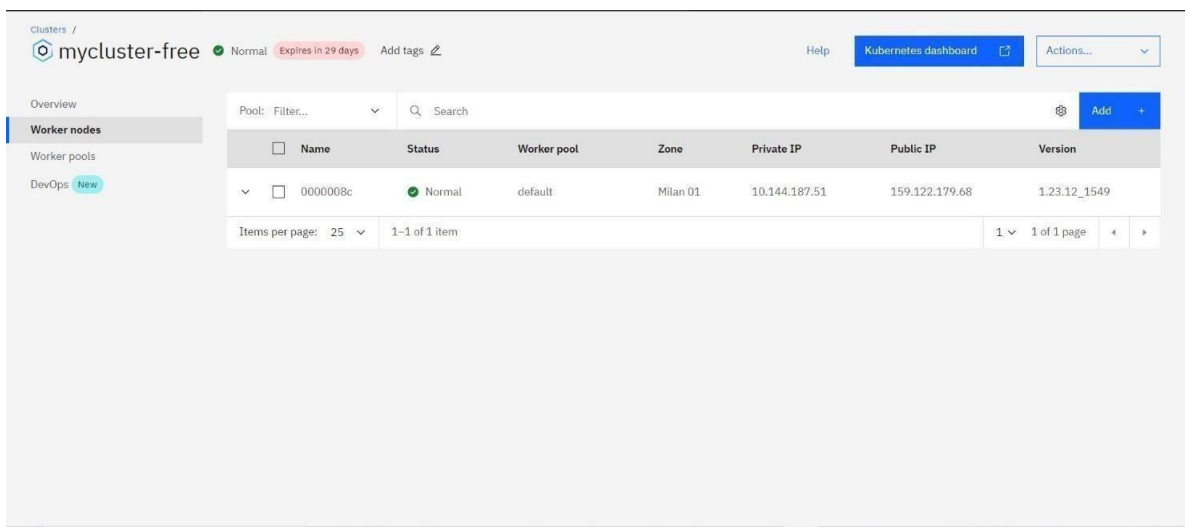
OUTPUT:



Question 4:

Create a Kubernetes cluster in IBM cloud and deploy hello world image or job portal image and also expose the same app to run in node port.

Creating Kubernetes cluster in IBM cloud and exposing node port:



Output:

