

Assignment - 4

| | |
|---------------------|--------------|
| Student Name | Rokesh A |
| Student Roll Number | 211419104225 |

Question 1:

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

03:57:32

CLOSE SESSION

Instances

+ ADD NEW INSTANCE

192.168.0.8
node1

cddvksm0_cddvkvm0qau000a07j5g

IP
192.168.0.8

OPEN PORT

Memory
1.24% (49.52MiB / 3.906GiB)

CPU
0.31%

SSH
ssh ip172-18-0-22-cddvksm0qau000a07j50@direct.labs.pla

DELETE

EDITOR

```
#####  
# WARNING!!!!  
# This is a sandbox environment. Using personal credentials  
# is HIGHLY! discouraged. Any consequences of doing so are  
# completely the user's responsibilities.  
#  
# The PWD team.  
#####  
[node1] (local) root@192.168.0.8 ~  
$ docker pull hello-world  
Using default tag: latest  
latest: Pulling from library/hello-world  
2db29710123e: Pull complete  
Digest: sha256:e18f0a777aefabe047a671ab3ec3eed05414477c951ab1a6f352a06974245fe7  
Status: Downloaded newer image for hello-world:latest  
docker.io/library/hello-world:latest  
[node1] (local) root@192.168.0.8 ~  
$ docker run hello-world
```

Activate Windows
Go to Settings to activate Windows.

03:57:05

CLOSE SESSION

Instances

+ ADD NEW INSTANCE

192.168.0.8
node1

cddvksm0_cddvkvm0qau000a07j5g

IP
192.168.0.8
OPEN PORT

Memory
1.26% (50.45MiB / 3.906GiB)

CPU
0.39%

SSH
ssh ip172-18-0-22-cddvksm0qau000a07j50@direct.labs.pla

DELETE EDITOR

2. The Docker daemon pulled the "hello-world" image from the Docker Hub. (amd64)

3. The Docker daemon created a new container from that image which runs the executable that produces the output you are currently reading.

4. The Docker daemon streamed that output to the Docker client, which sent it to your terminal.

To try something more ambitious, you can run an Ubuntu container with:

```
$ docker run -it ubuntu bash
```

Share images, automate workflows, and more with a free Docker ID:
<https://hub.docker.com/>

For more examples and ideas, visit:
<https://docs.docker.com/get-started/>

```
[node1] (local) root@192.168.0.8 ~  
$
```

Activate Windows
Go to Settings to activate Windows.

Question 2:

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

```
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

| | 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:

Browser: All jobs - Django Jobs
URL: localhost:1234/en/search/?position=&location=Bangladesh

Navigation: HOME JOBS CREATE RESUME CV ABOUT US REGISTER LOGIN LANGUAGE

FIND A JOB YOU WILL LOVE

POSITION:

LOCATION:

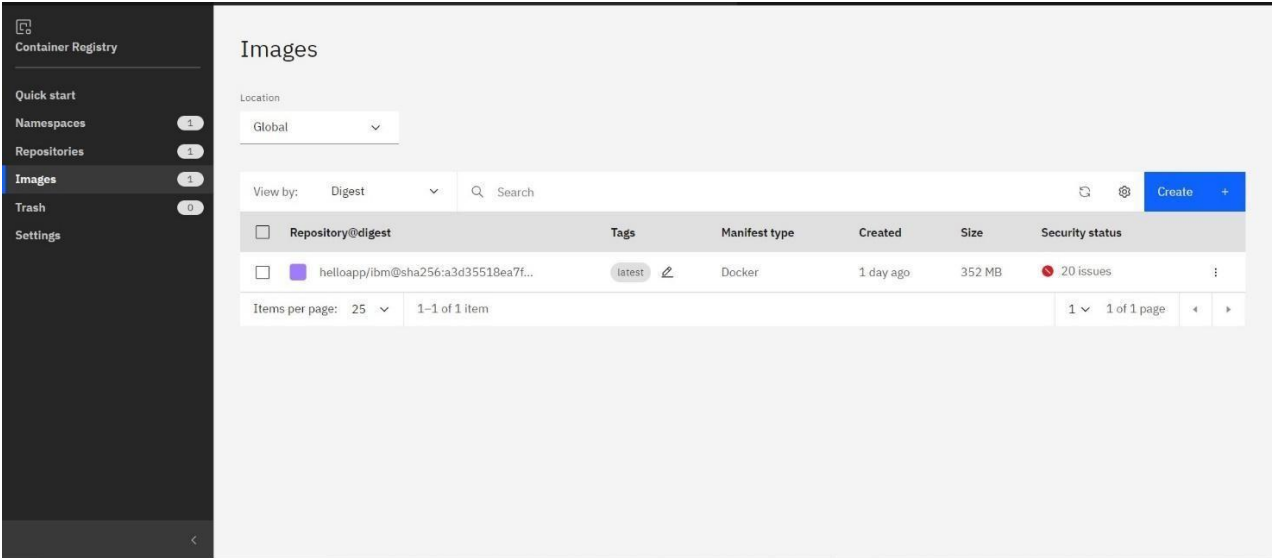
WE HAVE FOUND 10 JOBS

| | | | |
|---|--|---|--------------------------|
|  | LEARN LARAVEL WITH VUE2 ggnhfh |  Dhaka, Bangladesh | Posted 3 years, 6 months |
|  | SOFTWARE ENGINEER Reve System |  Dhaka, Bangladesh | Posted 3 years, 6 months |

Question 3:

Create a IBM container registry and deploy hello world app or job port app.

IBM CONTAINER REGISTRY DEPLOYMENT:



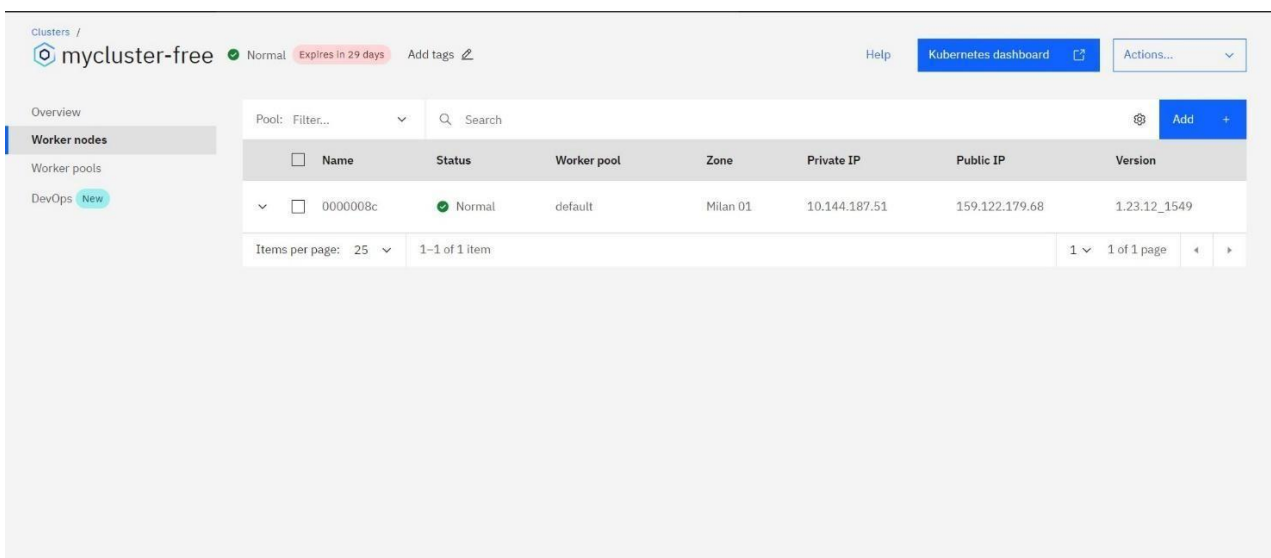
OUTPUT:



Question 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.

Creating kubernetes cluster in IBM cloud and exposing nodeport:



Output:

