

ASSIGNMENT-4

| | |
|---------------------|--------------|
| Student Name | Vignesh R |
| Student Roll Number | 310619106318 |
| Maximum Marks | 2 Marks |

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_cddvkm0qau000a07j5g

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_cddvkm0qau000a07j5g

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 jobportal application and deploy it in Dockerdesktop application.

DOCKERFILE:

```
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"/> | agitated_neumann 918d20882039 | icr.io/helloapp/libm:latest | Exited (137) | 49160:8080 | | |
| <input type="checkbox"/> | jolly_turing b62c0712bdd3 | jobportalapplication:latest | Running | 1234:8000 | 4 minutes ago | |

Showing 2 items

RAM 3.06GB CPU 0.57%

Connected to Hub

v4.13.0

OUTPUT:

Find Jobs

Web Developer
Web Developer at Motive Company.
[Apply](#)

Android Developer
Android Developer at Believe Company.
[Apply](#)

iOS Developer
iOS Developer at Norway P&L Company.
[Apply](#)

Pen Tester
Pen Tester at AGC company.
[Apply](#)

Computer & Information Research Scientist
Computer & Information Research Scientist at GPSM company.
[Apply](#)

Computer & Information Systems Manager (CISM)
Computer & Information Systems Manager (CISM) at HYT company.
[Apply](#)

Computer Hardware Engineer
Computer Hardware Engineer at 7Tech company.
[Apply](#)

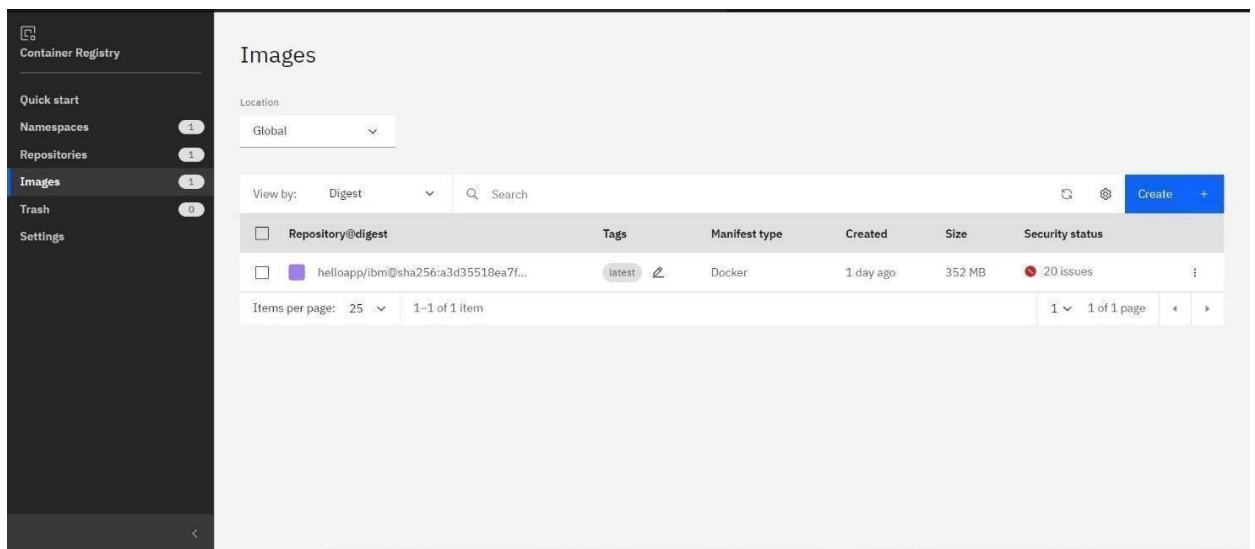
Big Data Engineer
Big Data Engineer at SMTG company.
[Apply](#)

Question 3:

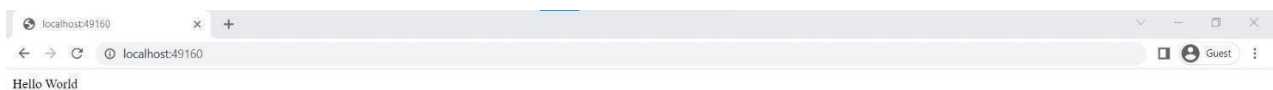
Create a IBM container registry and deploy helloworld app

or jobportapp.IBM CONTAINER REGISTRY

DEPLOYMENT:

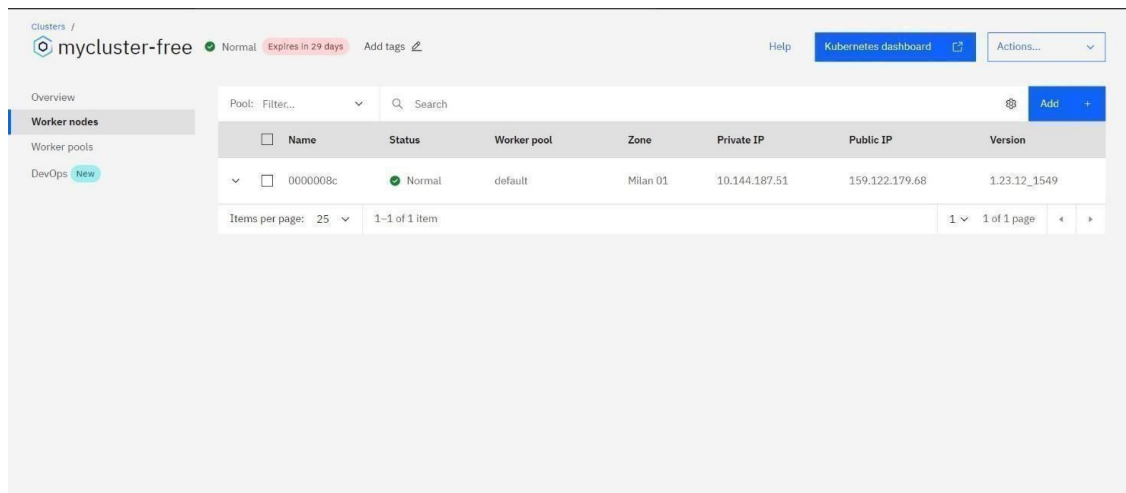


OUTPUT :



Question 4:

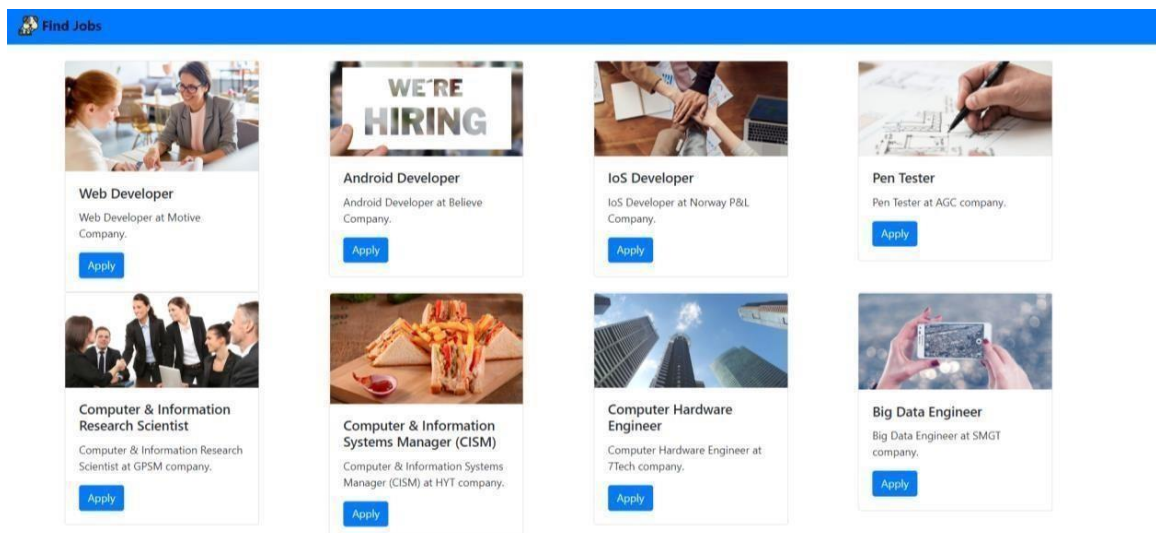
Create a Kubernetes cluster in IBM cloud and deploy helloworld image or jobportal image and also expose the same app to run in nodeport.
CREATING KUBERNETES CLUSTER IN IBM CLOUD AND EXPOSING NODEPORT:



The screenshot shows the IBM Cloud Clusters dashboard for a cluster named 'mycluster-free'. The cluster is in a 'Normal' state and expires in 29 days. The 'Worker nodes' tab is selected, displaying a table with one worker node.

| Name | Status | Worker pool | Zone | Private IP | Public IP | Version |
|----------|--------|-------------|----------|---------------|----------------|--------------|
| 0000008c | Normal | default | Milan 01 | 10.144.187.51 | 159.122.179.68 | 1.23.12_1549 |

OUTPUT:



The screenshot shows a job portal website with a blue header 'Find Jobs'. Below the header, there are eight job listings arranged in a 2x4 grid. Each listing includes a title, a brief description, and an 'Apply' button.

| Job Title | Company |
|---|---|
| Web Developer | Web Developer at Motive Company. |
| Android Developer | Android Developer at Believe Company. |
| IoT Developer | IoT Developer at Norway P&L Company. |
| Pen Tester | Pen Tester at AGC company. |
| Computer & Information Research Scientist | Computer & Information Research Scientist at GPSM company. |
| Computer & Information Systems Manager (CISM) | Computer & Information Systems Manager (CISM) at HYT company. |
| Computer Hardware Engineer | Computer Hardware Engineer at 7Tech company. |
| Big Data Engineer | Big Data Engineer at SMGT company. |