

## ASSIGNMENT-4

Student Name	Bharath M
Student Roll Number	310619106301
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:e18f0a777aefab047a671ab3ec3eed05414477c951ab1a6f352a06974245fe7  
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** [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

Search

	NAME	IMAGE	STATUS	PORT(S)	STARTED	ACTIONS
<input type="checkbox"/>	agitated_neumann 918d20882039	icr.io/helloapp/libm:latest	Exited (137)	49160:8080		<a href="#">▶</a> <a href="#">⋮</a> <a href="#">🗑️</a>
<input type="checkbox"/>	jolly_turing b62c0712bdd3	jobportalapplication:latest	Running	1234:8000	4 minutes ago	<a href="#">■</a> <a href="#">⋮</a> <a href="#">🗑️</a>

Showing 2 items

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

## OUTPUT:

**Find Jobs**

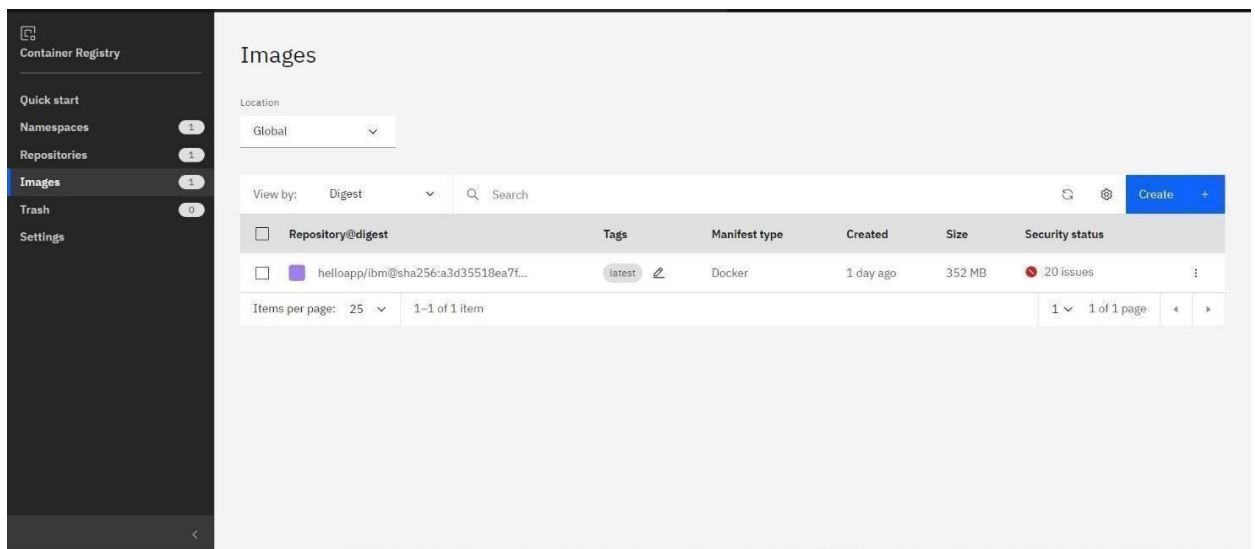
- Web Developer**  
Web Developer at Motive Company.  
[Apply](#)
- Android Developer**  
Android Developer at Believe Company.  
[Apply](#)
- iOS Developer**  
iOS Developer at Norway P&L Company.  
[Apply](#)
- Pen Tester**  
Pen Tester at AGC company.  
[Apply](#)
- Computer & Information Research 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 SMGT company.  
[Apply](#)

### Question 3:

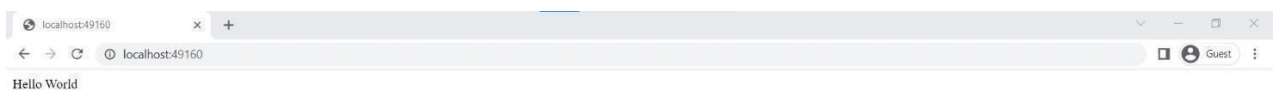
Create a IBM container registry and deploy helloworld app

or jobportapp.IBM CONTAINER REGISTRY

DEPLOYMENT:

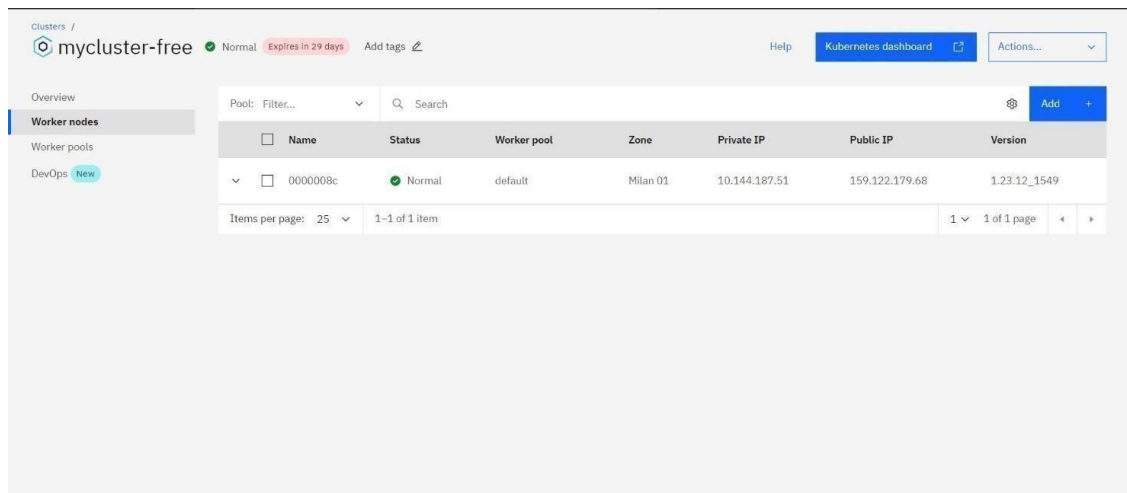


OUTPUT :



#### 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:

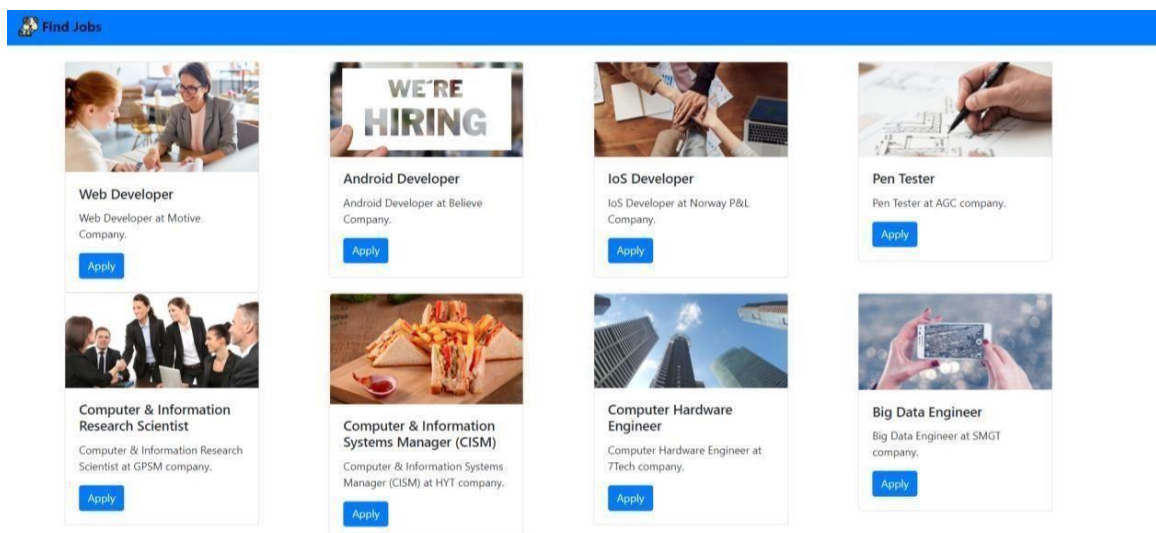


The screenshot shows the IBM Cloud Kubernetes Service dashboard. At the top, it displays 'Clusters / mycluster-free' with a status of 'Normal' and an expiration of 'Expires in 29 days'. Below this, there's a sidebar with 'Overview', 'Worker nodes', 'Worker pools', and 'DevOps'. The 'Worker nodes' section is active, showing a table with one node.

Pool	Name	Status	Worker pool	Zone	Private IP	Public IP	Version
Filter...	0000008c	Normal	default	Milan 01	10.144.187.51	159.122.179.68	1.23.12_1549

At the bottom of the table, it says 'Items per page: 25' and '1-1 of 1 item'.

#### OUTPUT:



The screenshot shows a 'Find Jobs' website with a blue header. 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	Motive
Android Developer	Believe
IoT Developer	Norway P&L
Pen Tester	AGC
Computer & Information Research Scientist	GPSM
Computer & Information Systems Manager (CISM)	HYT
Computer Hardware Engineer	7Tech
Big Data Engineer	SMGT