

## Assignment - 4

Student Name	ABISHEK R
Maximum Marks	2 Marks
Team ID	PNT2022TMID31299

### 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.

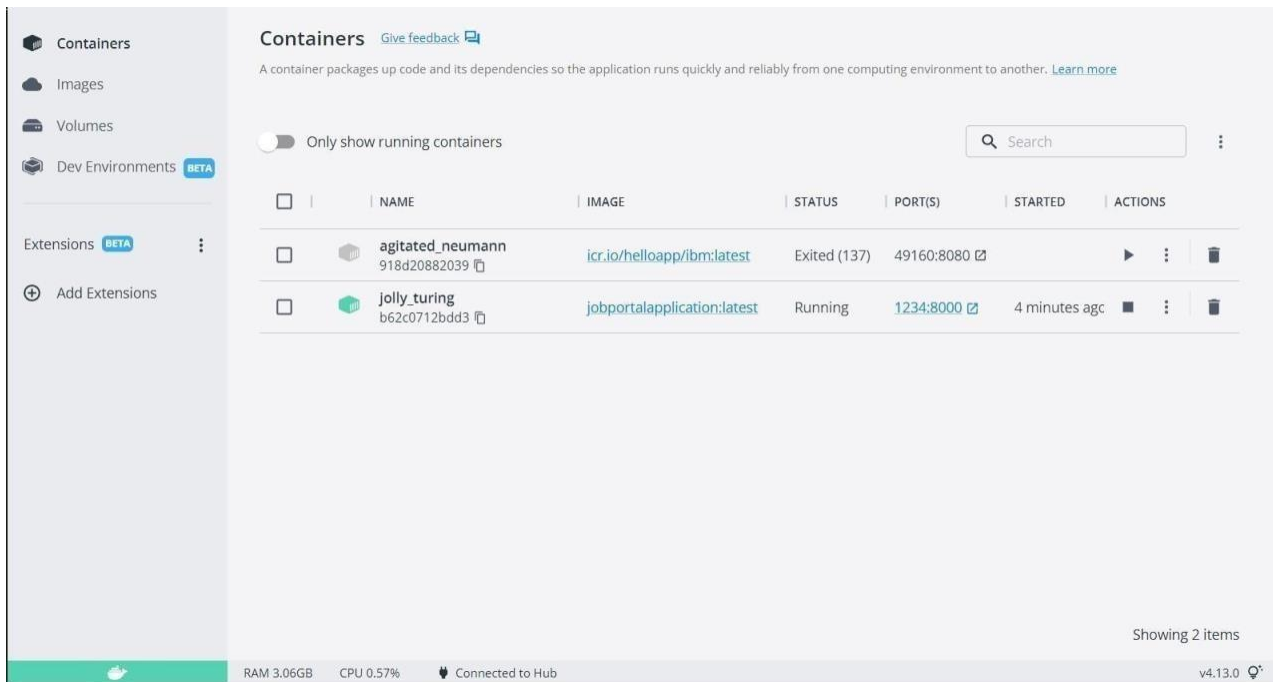
## Question 2:

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

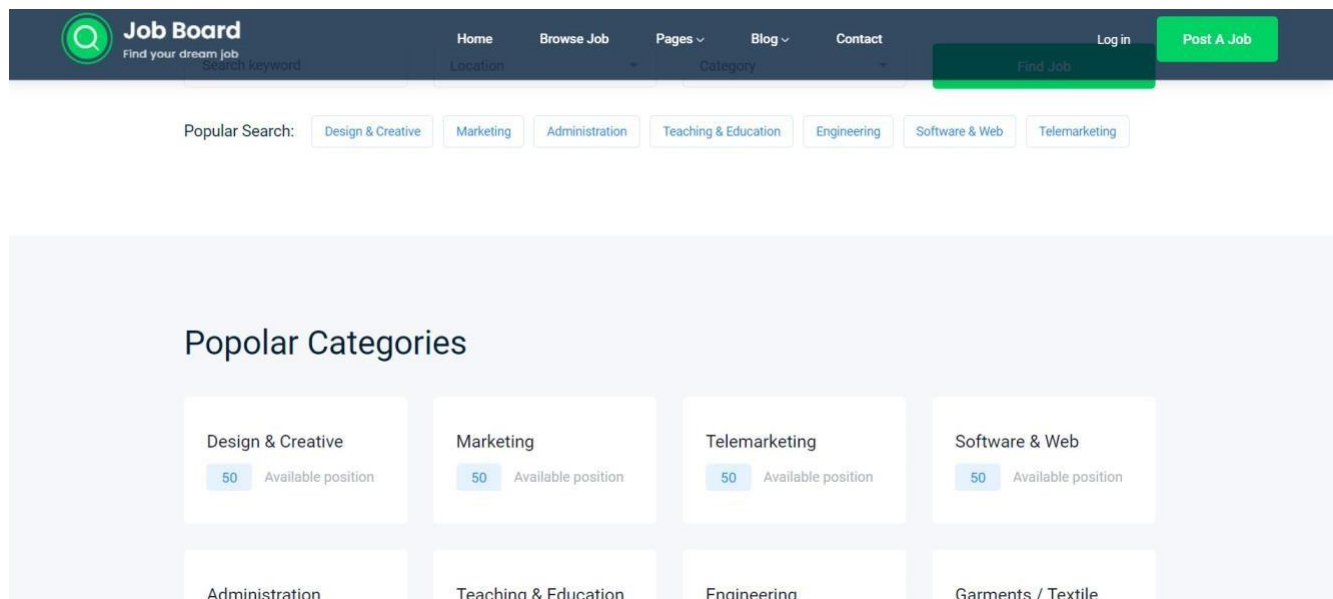


The screenshot shows the Docker Desktop interface. On the left is a sidebar with navigation options: Containers, Images, Volumes, Dev Environments (marked BETA), Extensions (marked BETA), and Add Extensions. The main area is titled 'Containers' and includes a toggle for 'Only show running containers' and a search bar. Below this is a table of containers:

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

At the bottom right, it says 'Showing 2 items'. The bottom status bar shows 'RAM 3.06GB', 'CPU 0.57%', 'Connected to Hub', and 'v4.13.0'.

## OUTPUT:



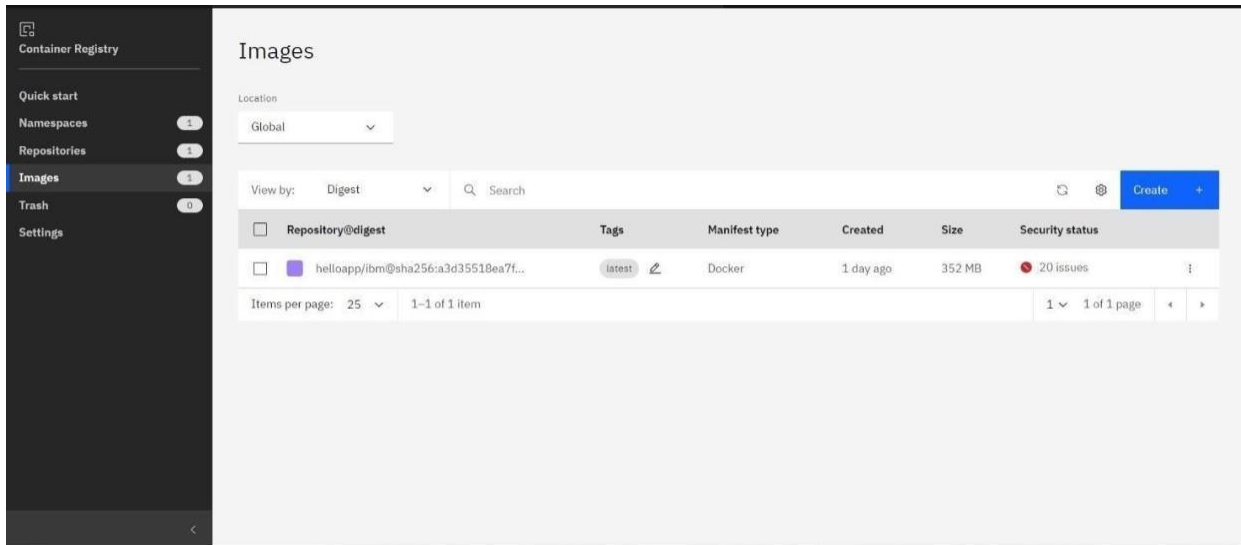
The screenshot shows the output of the Job Board application. The top navigation bar includes a search icon, 'Job Board' logo, and links for Home, Browse Job, Pages, Blog, and Contact. There are input fields for 'Search keyword', 'Location', and 'Category', along with 'Log in' and 'Post A Job' buttons. Below the navigation bar is a 'Popular Search' section with buttons for Design & Creative, Marketing, Administration, Teaching & Education, Engineering, Software & Web, and Telemarketing. The main content area is titled 'Popular Categories' and displays a grid of category cards. Each card shows the category name, a count of 50, and the text 'Available position'.

Category	Count	Status
Design & Creative	50	Available position
Marketing	50	Available position
Telemarketing	50	Available position
Software & Web	50	Available position
Administration		
Teaching & Education		
Engineering		
Garments / Textile		

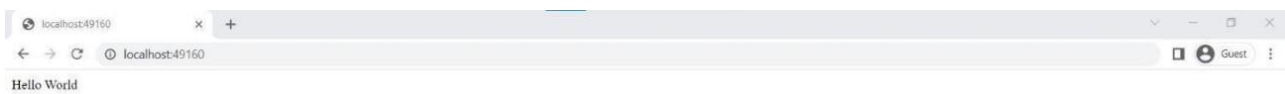
### Question 3:

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

#### CONTAINER REGISTRY DEPLOYMENT:



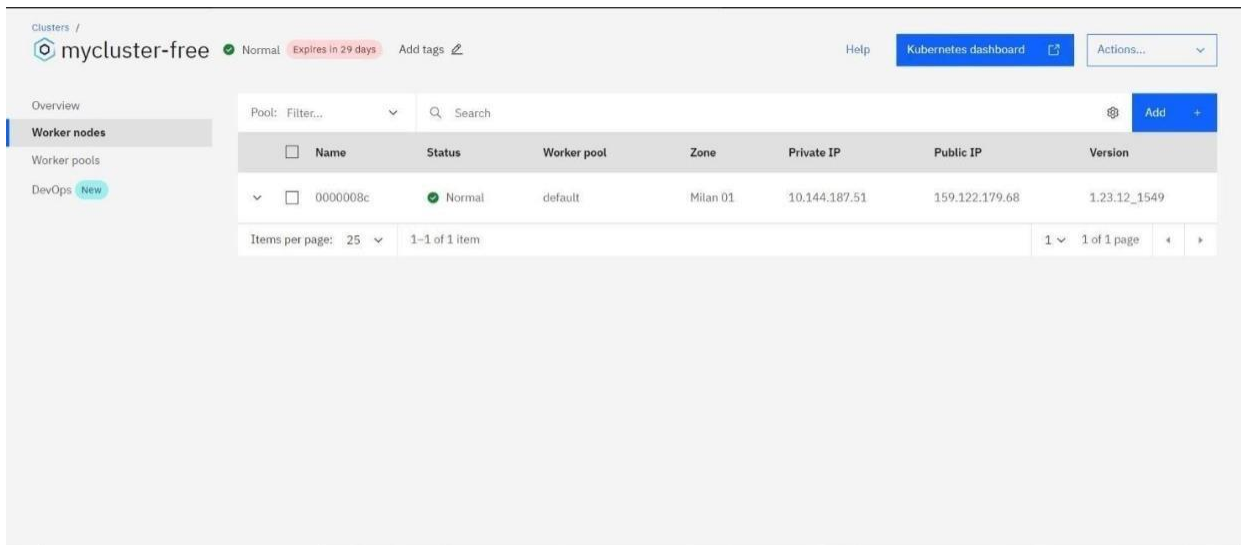
#### OUTPUT:



#### 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:



Output:

