

Assignment - 4

STUDENT NAME	GOKUL M
STUDENT ROLL NUMBER	710719104034
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_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_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.

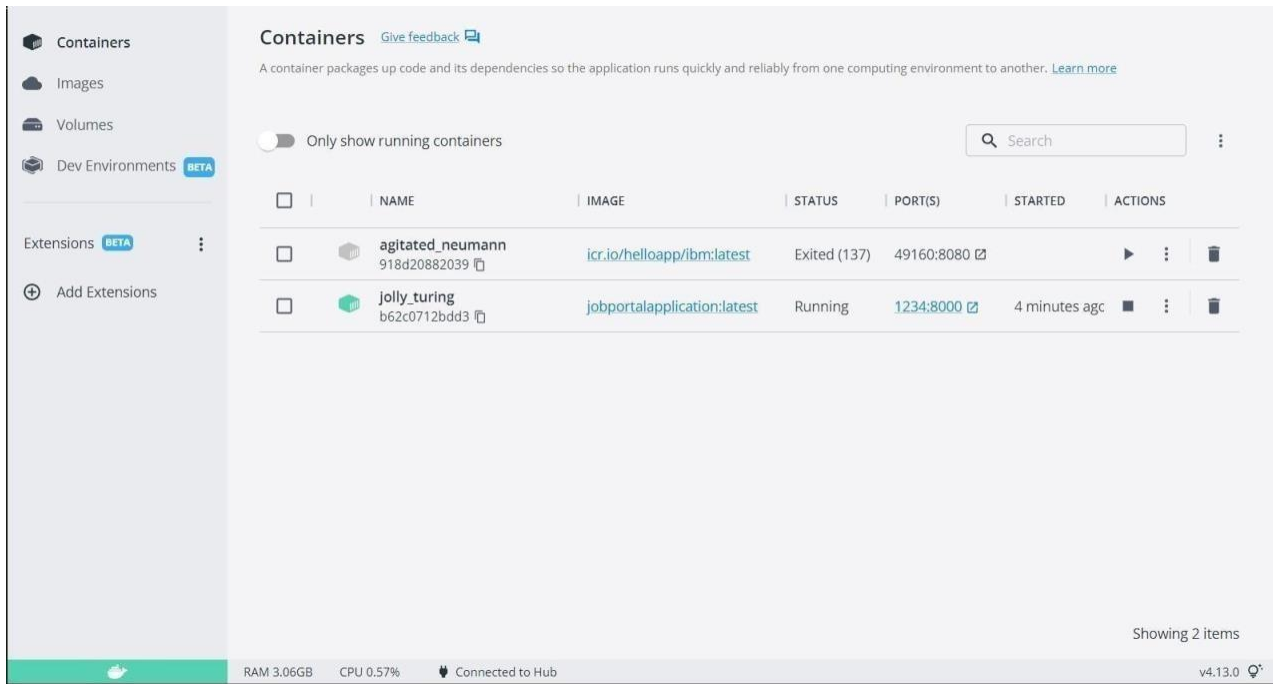
Question 2:

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:

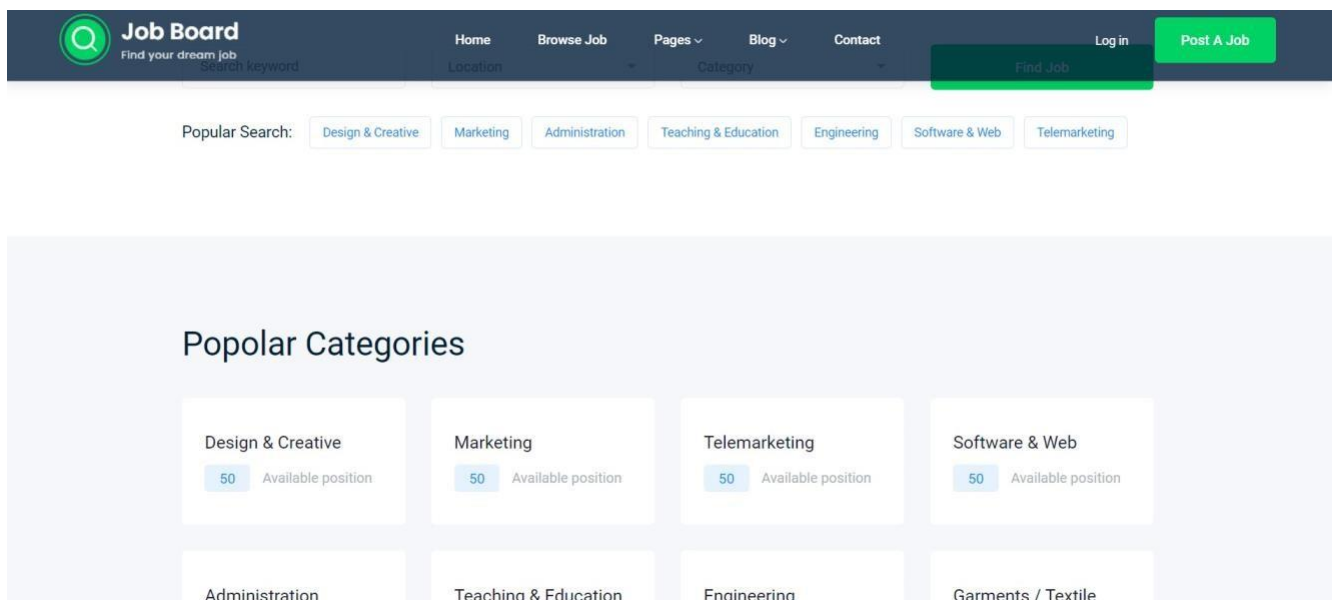


The screenshot shows the Docker Desktop interface. On the left is a sidebar with navigation options: Containers, Images, Volumes, Dev Environments (marked BETA), Extensions (marked BETA), and Add Extensions. The main area is titled 'Containers' and includes a toggle for 'Only show running containers'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

	NAME	IMAGE	STATUS	PORT(S)	STARTED	ACTIONS
<input type="checkbox"/>	agitated_neumann 918d20882039	icr.io/helloapp/ibm:latest	Exited (137)	49160:8080		
<input type="checkbox"/>	jolly_turing b62c0712bdd3	jobportalapplication:latest	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 logo, 'Job Board', a search bar, and links for Home, Browse Job, Pages, Blog, Contact, Log in, and Post A Job. 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 'Popolar Categories' and displays a grid of category cards. Each card shows the category name, a blue box with the number '50', and the text 'Available position'.

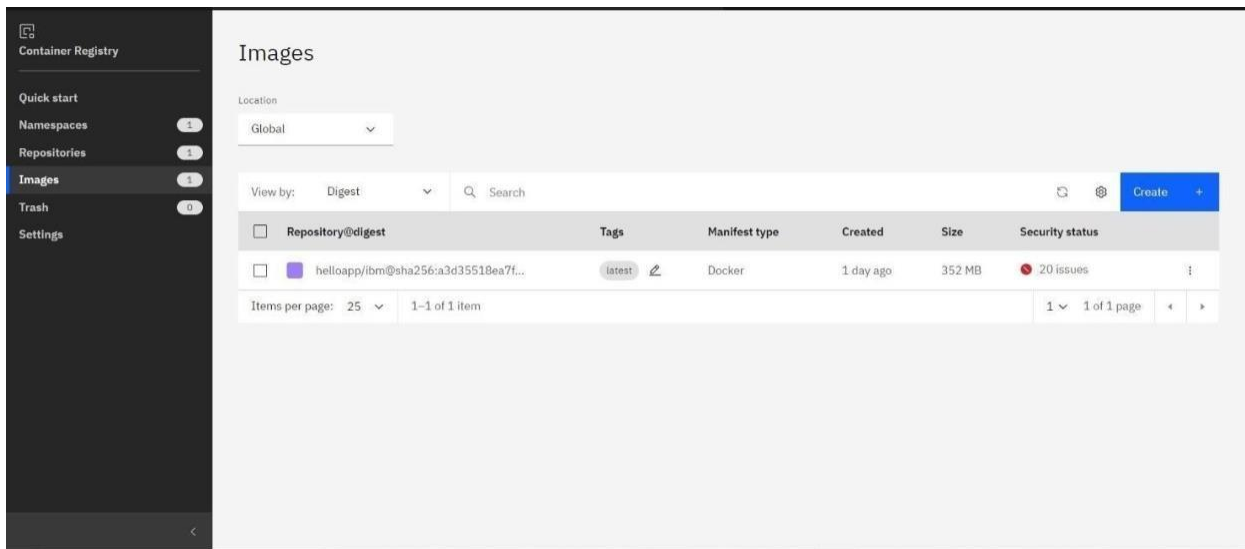
Design & Creative	Marketing	Telemarketing	Software & Web
50 Available position	50 Available position	50 Available position	50 Available position

Below this grid, there are more category buttons: Administration, Teaching & Education, Engineering, and Garments / Textile.

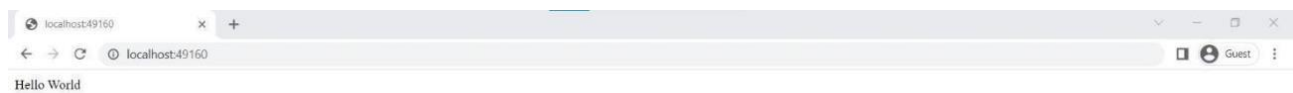
Question 3:

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:

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 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 displays the 'Job Board' application interface. It features a dark navigation bar with links for Home, Browse Job, Pages, Blog, and Contact. A search bar is present with a 'Find Job' button. Below the navigation bar, there are 'Popular Search' tags for various job categories. The main content area is titled 'Popular Categories' and shows a grid of category cards, each with a count of available positions.

Popular Search: Design & Creative, Marketing, Administration, Teaching & Education, Engineering, Software & Web, Telemarketing

Popular Categories:

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