

## ASSIGNMENT-4

ASSIGNMENT DATE	5 <sup>th</sup> NOVEMBER
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TEAM NAME	Syntax Squids
MARKS	2 marks

### Question 1:

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

The screenshot shows the Docker Playground interface. On the left, there's a sidebar with a clock showing 03:51:49, a 'CLOSE SESSION' button, and a list of instances. The main area displays the details of an instance named 'cdmh0v79\_cdmh2c63tccg009qdfd0'. It shows the IP address 192.168.0.13, memory usage (1.24% / 49.78MiB), and CPU usage (0.19%). Below this, there's a terminal window with the following output:

```
##### WARNING!!!! #####
# This is a sandbox environment. Using personal credentials #
# is HIGHLY! discouraged. Any consequences of doing so are #
# completely the user's responsibilities. #
# #
# The FWD team. #
#####
(node1) (local) root@192.168.0.13 ~
$ docker pull hello-world
Using default tag: latest
latest: Pulling from library/hello-world
2db29710123e: Pull complete
Digest: sha256:faa03e786c97f07ef34423fcccceec2398ec8a5759259f94d99078f264e9d7af
Status: Downloaded newer image for hello-world:latest
docker.io/library/hello-world:latest
(node1) (local) root@192.168.0.13 ~
$ docker run hello-world

Hello from Docker!
This message shows that your installation appears to be working correctly.

To generate this message, Docker took the following steps:
 1. The Docker client contacted the Docker daemon.
 2. The Docker daemon pulled the "hello-world" image from the Docker Hub.
```

The screenshot shows the labs.play-with-docker.com interface. On the left, there's a sidebar with a clock showing 03:49:20, a 'CLOSE SESSION' button, and a list of instances. The main area displays details for a container named 'cdmh0v79\_cdmh2c63tccg009qdfd0'. It shows the IP address 192.168.0.13, memory usage (1.22% / 48.7MiB / 3.906GiB), and CPU usage (0.13%). Below this, there's an SSH command: 'ssh ip172-18-0-3-cdmh0v791rrg009jd2d0@direct.labs.play-w'. There are 'DELETE' and 'EDITOR' buttons. The terminal output shows the command '\$ docker run hello-world' and its output, which includes a welcome message and instructions for using Docker.

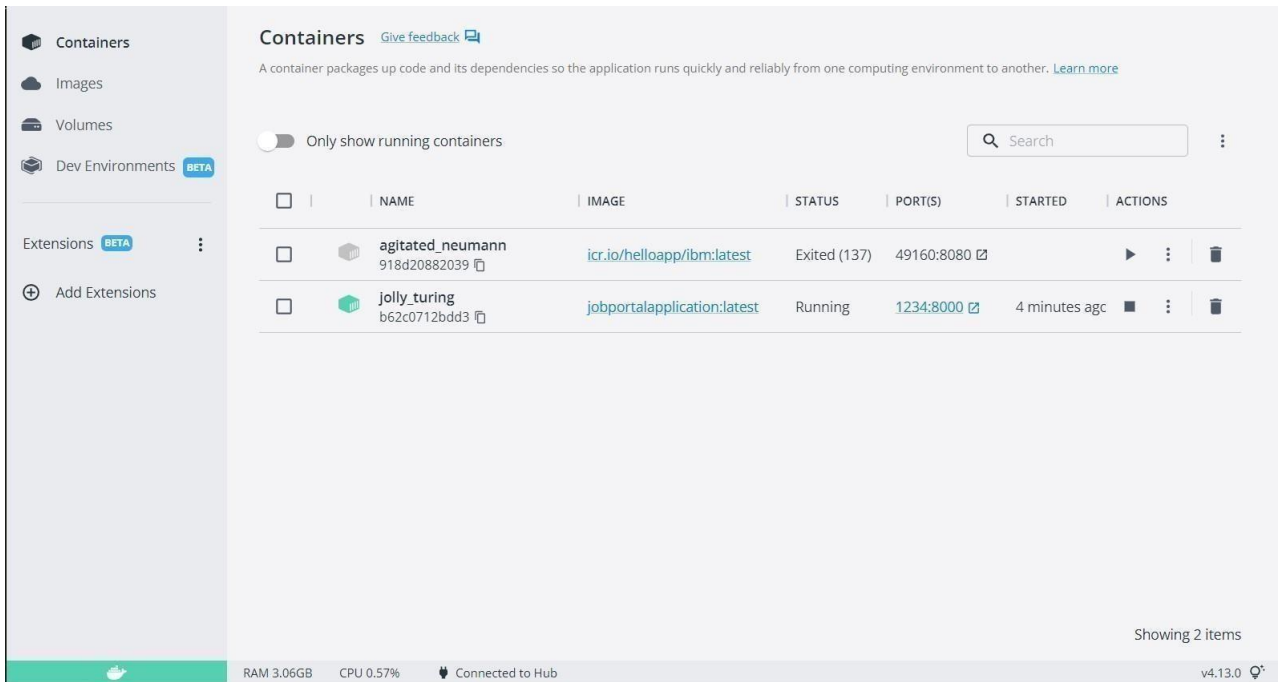
## Question 2:

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

### DOCKER FILE:

```
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:

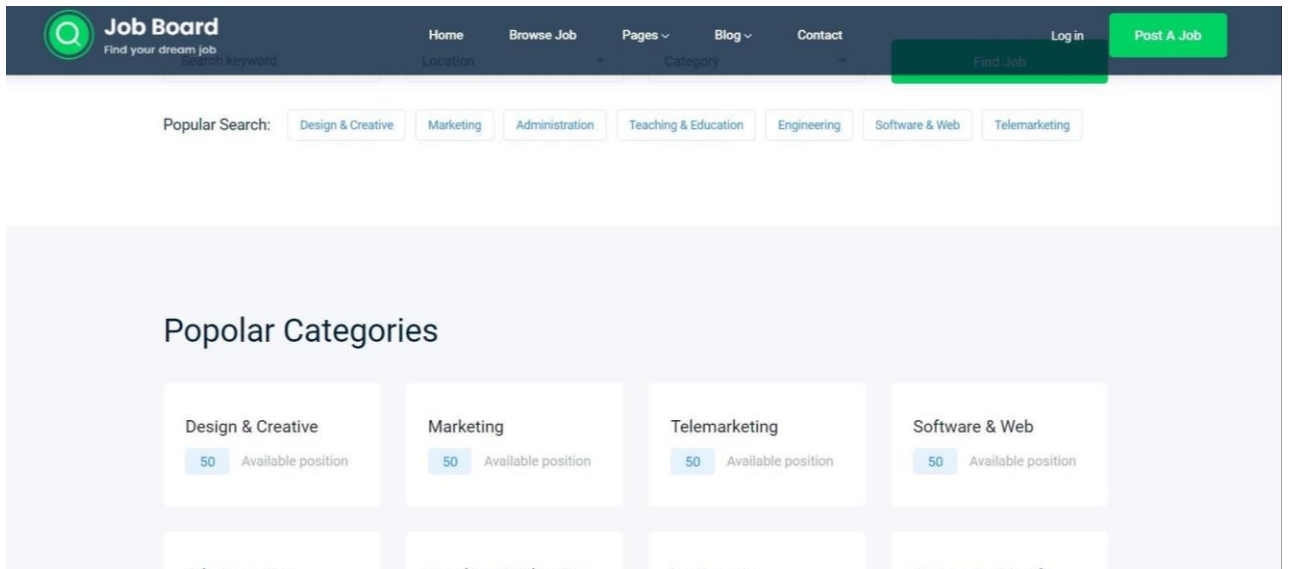


The screenshot shows the Docker Desktop interface. On the left is a sidebar with navigation options: Containers, Images, Volumes, Dev Environments (marked BETA), Extensions (marked BETA), and Add Extensions. The main area is titled 'Containers' with a 'Give feedback' link. Below the title is a description: 'A container packages up code and its dependencies so the application runs quickly and reliably from one computing environment to another. [Learn more](#)'. There is a toggle switch for 'Only show running containers' and a search bar. A table lists the containers:

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

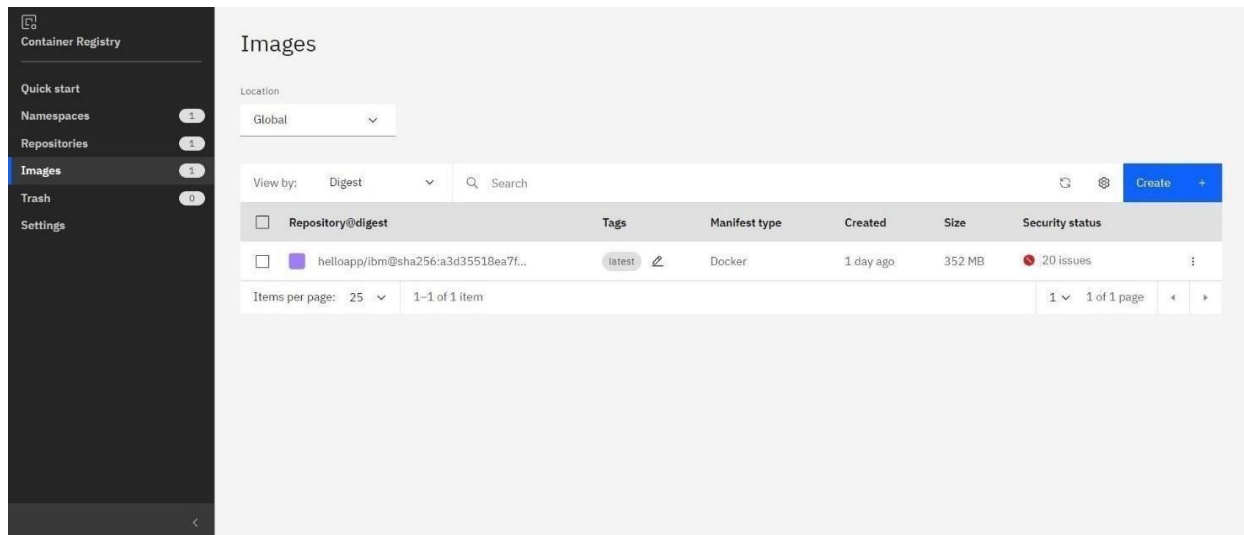


The screenshot shows the output of the Job Board application. The header is dark blue with the 'Job Board' logo and tagline 'Find your dream job'. Navigation links include Home, Browse Job, Pages, Blog, and Contact. There are 'Log in' and 'Post A Job' buttons. A search bar is present with a 'Find Job' button. Below the header, there's a 'Popular Search:' section with buttons for Design & Creative, Marketing, Administration, Teaching & Education, Engineering, Software & Web, and Telemarketing. The main content area is titled 'Poplar Categories' (note the typo) 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'. The visible categories are Design & Creative, Marketing, Telemarketing, Software & Web, Administration, Teaching & Education, Engineering, and Ceramics / Textile.

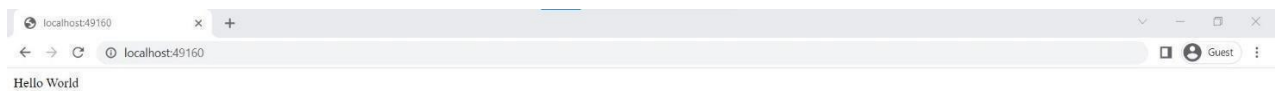
### Question 3:

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 hello world image or job portal image and also expose the same app to run in node port.

## Creating Kubernetes cluster in IBM cloud and exposing node port:

Clusters /

mycluster-free

Normal

Expires in 29 days

Add tags

Help

Kubernetes dashboard

Actions...

Overview

Worker nodes

Worker pools

DevOps New

Pool: Filter...

Search

⚙️

Add

<input type="checkbox"/>	Name	Status	Worker pool	Zone	Private IP	Public IP	Version
<div> <div>▼</div> <input type="checkbox"/> </div>	0000008c	<div> <div>✔️</div> <div>Normal</div> </div>	default	Milan 01	10.144.187.51	159.122.179.68	1.23.12_1549

Items per page: 25

1-1 of 1 item

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1 of 1 page

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**OUTPUT:**