

ASSIGNMENT-4

ASSIGNMENT DATE	5 th NOVEMBER
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MARKS	2 marks

Question 1:

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

The screenshot shows a web browser window with the URL `labs.play-with-docker.com/p/cdmh1mm3tccg009qdfag#cdmh1mm3_cdmh1ou0qau000cumn30`. The interface displays a sidebar on the left with a timer at 03:46:43, a 'CLOSE SESSION' button, and a list of instances including '192.168.0.28 node1'. The main panel shows details for the container 'cdmh1mm3_cdmh1ou0qau000cumn30', including its IP (192.168.0.28), memory usage (1.14%), CPU usage (0.68%), and an SSH link. Below this, a terminal window shows the following commands and output:

```
[node1] (local) root@192.168.0.28 ~
$ docker pull hello-world
Using default tag: latest
latest: Pulling from library/hello-world
2db29710123e: Pull complete
Digest: sha256:faa03e786c97f07ef34423fccceec2398ec8a5759259f94d99078f264e9d7af
Status: Downloaded newer image for hello-world:latest
docker.io/library/hello-world:latest
[node1] (local) root@192.168.0.28 ~
$ 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.
```

The bottom of the image shows a Windows taskbar with the search bar, task view button, and several application icons. The system tray on the right indicates the time is 20:38 on 10-11-2022, with language set to ENG.

The screenshot shows a web browser window with the URL `labs.play-with-docker.com/p/cdmh1mm3tccg009qdfag#cdmh1mm3_cdmh1ou0qau000cumn30`. The interface includes a sidebar on the left with a timer (03:46:06), a 'CLOSE SESSION' button, and a list of instances (192.168.0.28, node1). The main panel displays the container's details: IP (192.168.0.28), Memory (1.15% (45.99MiB / 3.906GiB)), CPU (0.18%), and an SSH command: `ssh ip172-18-0-85-cdmh1mm3tccg009qdfag@direct.labs.pl`. Below this is a terminal window showing the following text:

```
(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@192.168.0.28 ~
$ docker run hello-world
```

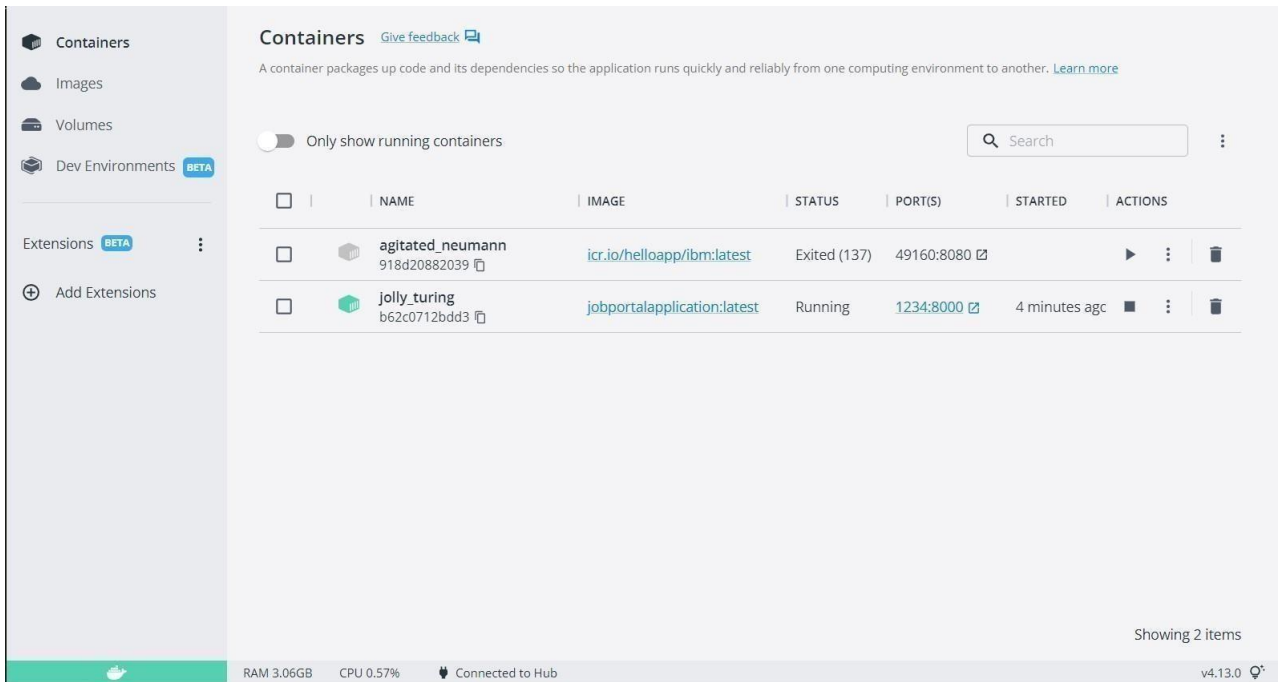
Question 2:

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:

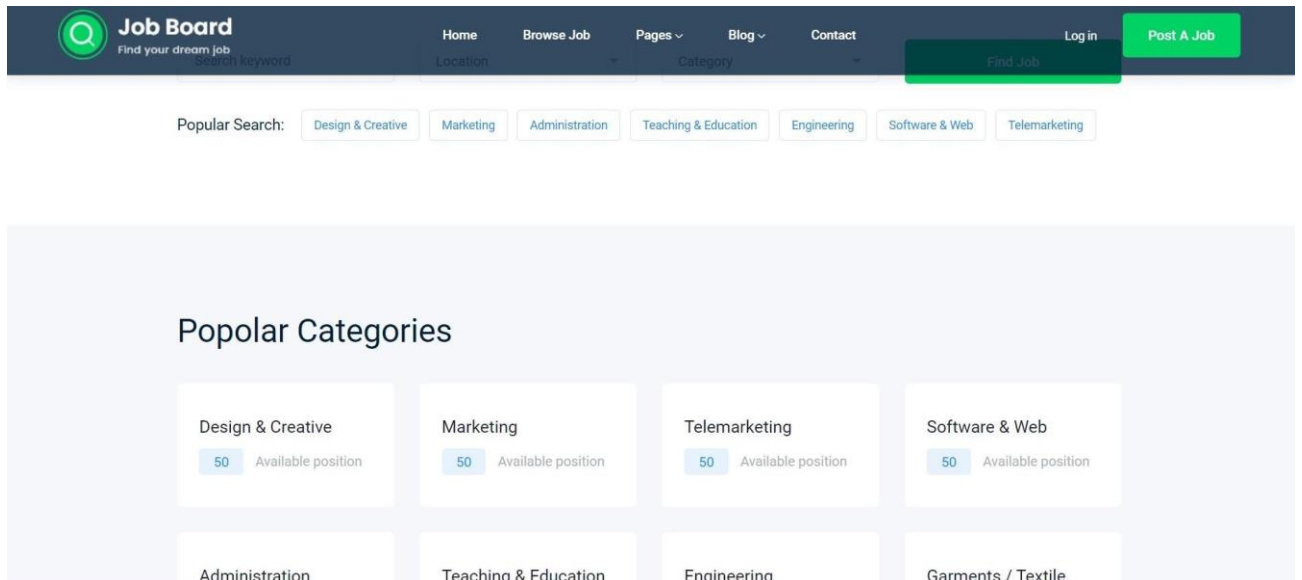


The screenshot shows the Docker Desktop interface. On the left is a sidebar with navigation options: Containers, Images, Volumes, Dev Environments (marked BETA), Extensions (marked BETA), and Add Extensions. The main area is titled 'Containers' and includes a toggle for 'Only show running containers'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

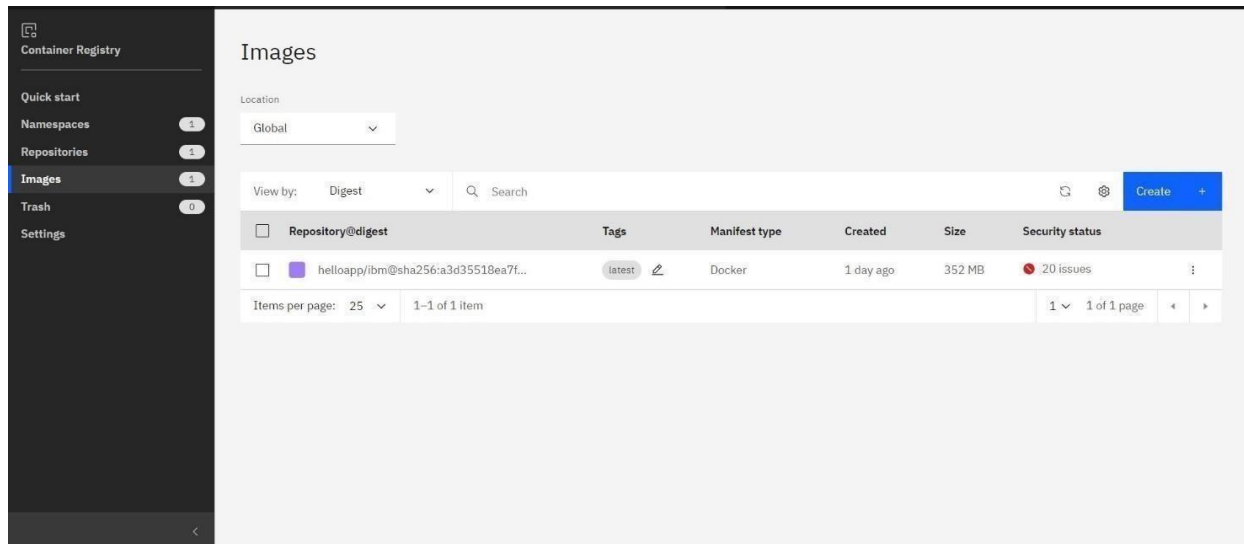


The screenshot shows the output of the Job Board application. The top navigation bar includes a 'Job Board' logo, a search bar, and links for Home, Browse Job, Pages, Blog, and Contact. There are also 'Log in' and 'Post A Job' buttons. Below the navigation bar is a 'Popular Search' section with buttons for Design & Creative, Marketing, Administration, Teaching & Education, Engineering, Software & Web, and Telemarketing. The main content area is titled '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 categories shown are Design & Creative, Marketing, Telemarketing, Software & Web, Administration, Teaching & Education, Engineering, and Garments / Textile.

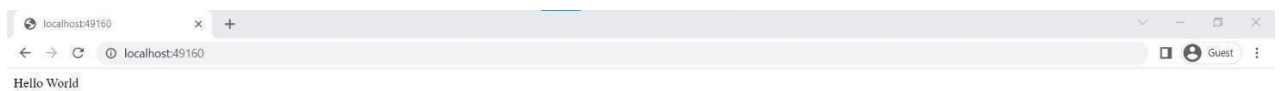
Question 3:

Create a IBM container registry and deploy hello-world app or job port app. IBM

CONTAINER REGISTRY DEPLOYMENT:



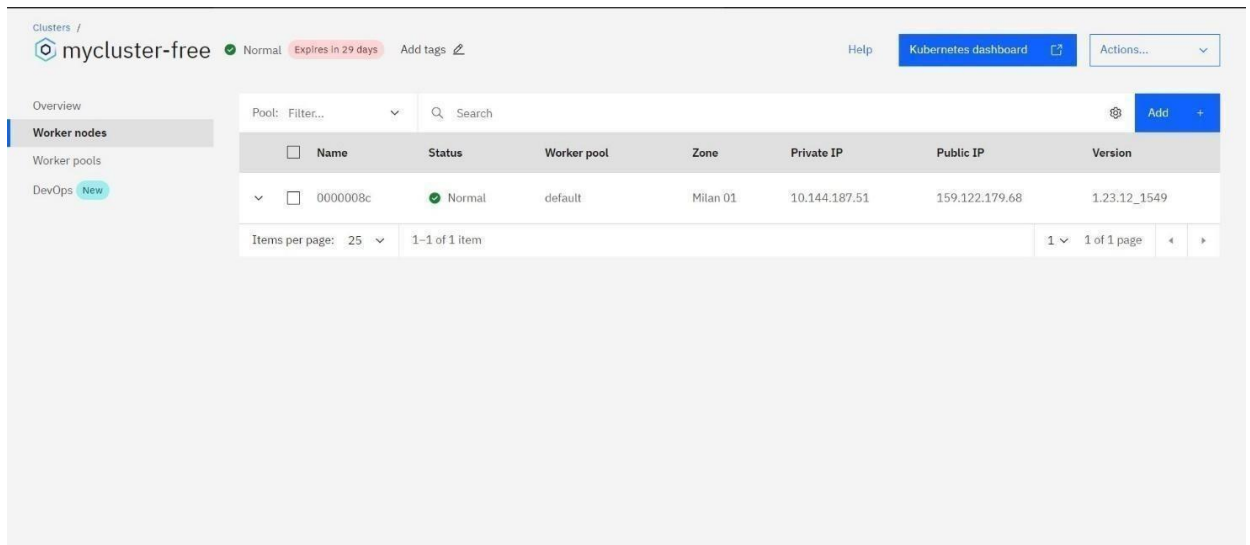
OUTPUT:



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:



OUTPUT:

