

Assignment - 4

Assignment Date	5 November 2022
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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 03:57:32, a 'CLOSE SESSION' button, and an 'Instances' section with a '+ ADD NEW INSTANCE' button. Below that, a card shows '192.168.0.8 (root)'. The main area displays the instance 'cddvksm0_cddvkvm0qau000a07j5g' with IP '192.168.0.8', Memory '1.24% (49.52MB / 3.906GB)', and CPU '0.31%'. It includes an 'OPEN PORT' button and an 'ssh' command: 'ssh ip172-18-0-22-cddvksm0qau000a07j5g@directlabs.plx'. Below this are 'DELETE' and 'EDITOR' buttons. The terminal window shows the following commands and 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 PwD team.

[root@localhost ~]# docker pull hello-world
Using default tag: latest
latest: Pulling from library/hello-world
cddvksm0_cddvkvm0qau000a07j5g: Pull complete
Digest: sha256:c8b96a77aef4a647a071ab1e1e0a5a1447c9f3a0603d454e7
Status: Downloaded newer image for hello-world:latest
[root@localhost ~]# docker run hello-world
```

An 'Activate Windows' watermark is visible in the bottom right corner of the terminal window.

The screenshot shows the Docker Playground interface at 03:57:05. The instance 'cddvksm0_cddvkvm0qau000a07j5g' is shown with IP '192.168.0.8', Memory '1.26% (50.45MB / 3.906GB)', and CPU '0.39%'. The 'ssh' command is the same as in the previous screenshot. The terminal window displays the following text:

```
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/

[root@localhost ~]#
```

An 'Activate Windows' watermark is visible in the bottom right corner of the terminal window.

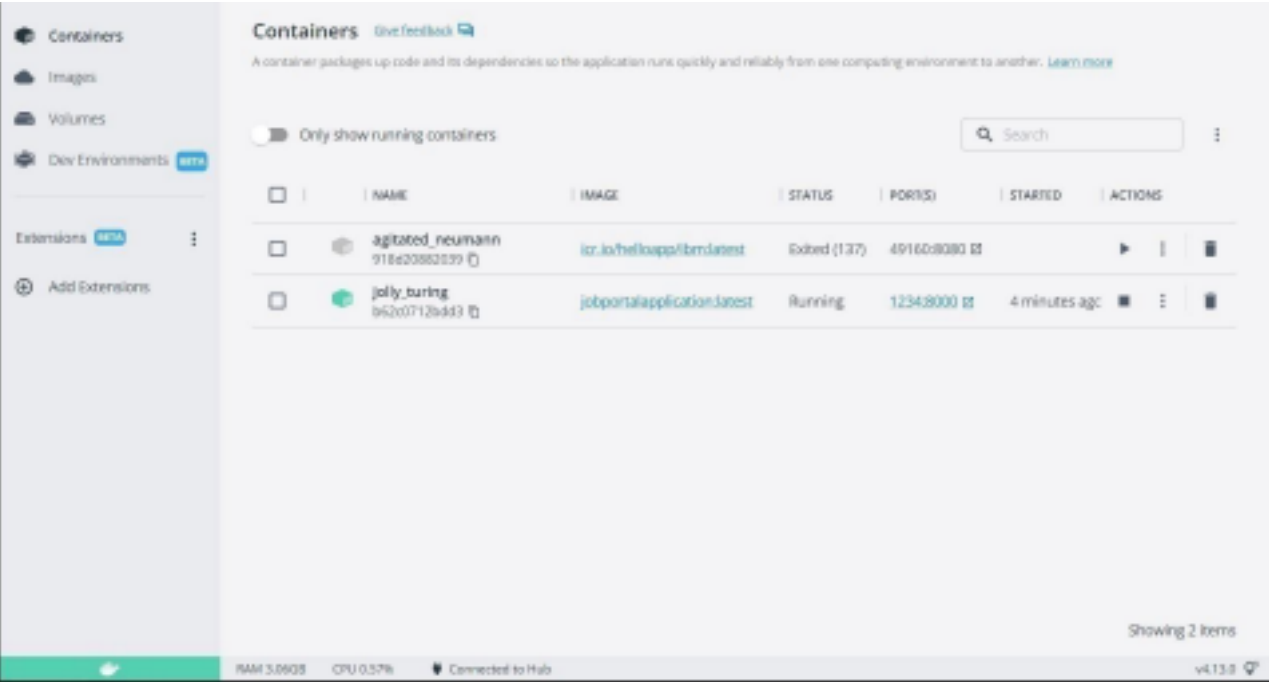
Question 2:

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

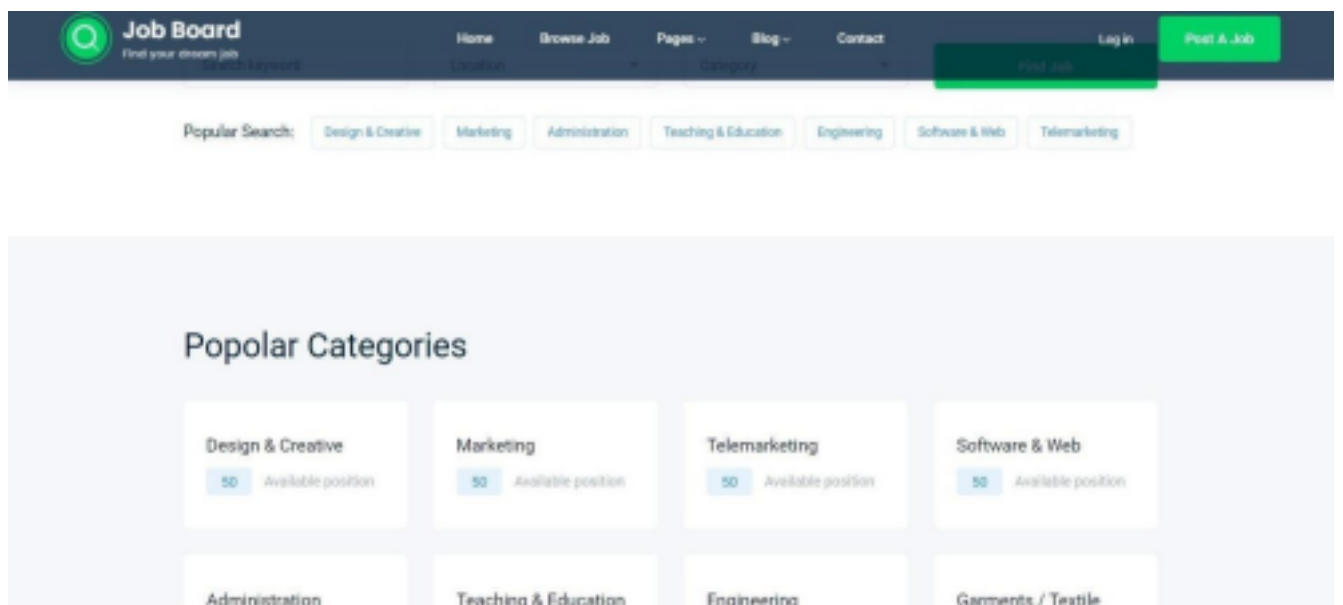
DOCKER FILE:

```
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 JOB PORTAL APPLICATION:



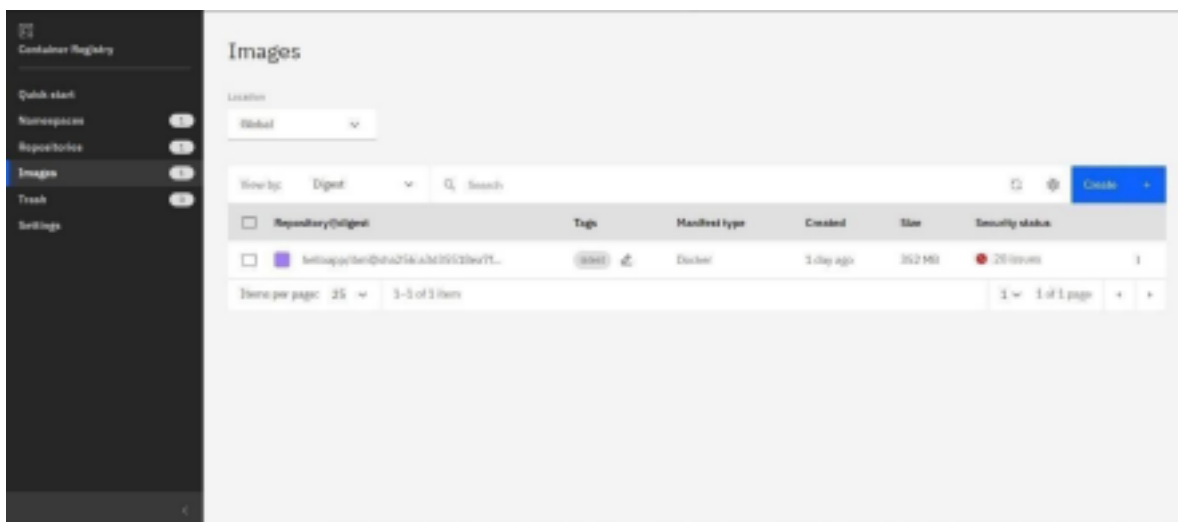
OUTPUT:



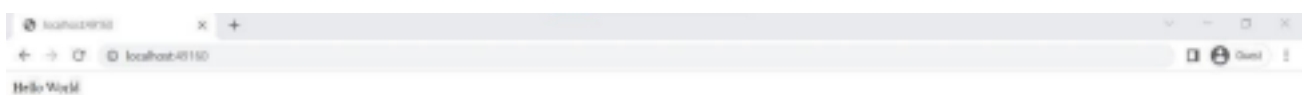
Question 3:

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

app.**IBM CONTAINER REGISTRY DEPLOYMENT:**



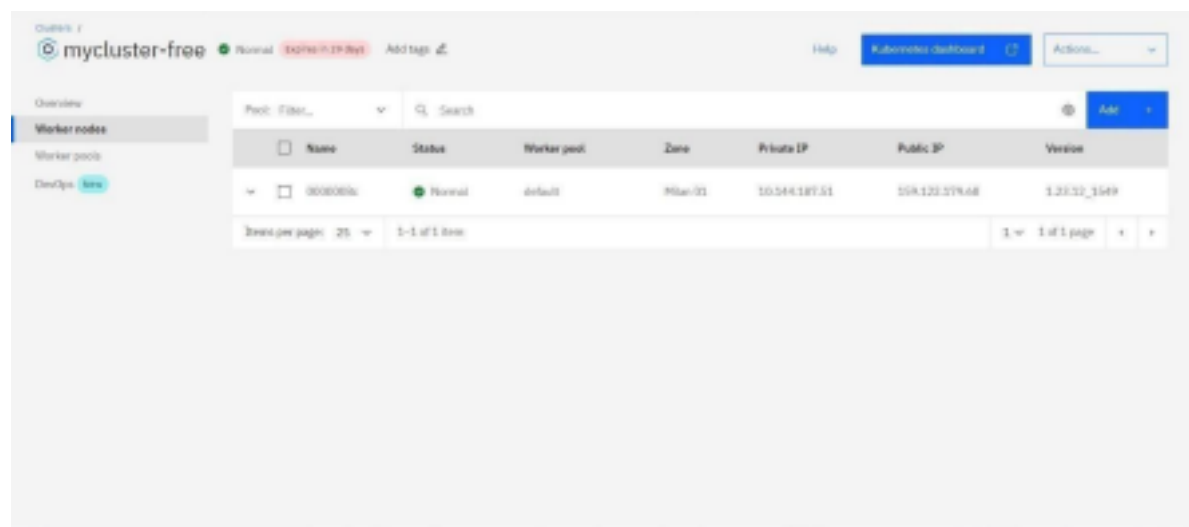
OUTPUT:



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:

