

TEAM ID : PNT2022TMID26762

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 and a list of instances including '192.168.0.8 root'. The main panel displays the instance 'cddvksm0_cddvkvm0qau000a07j5g' with IP '192.168.0.8', memory usage '1.24% (49.52MiB / 3.906GiB)', and CPU usage '0.31%'. Below this, there's an 'SSH' button and a 'DELETE' button. 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 PMD Team.
=====
[root@] (local) root@192.168.0.8 ~
$ docker pull hello-world
Using default tag: latest
latest: Pulling from library/hello-world
1db29718121e: Pull complete
Digest: sha256:c181ba77aefabed47a671ab3ec3ed85414477c951ab1a6f352a86974245fe7
Status: Downloaded newer image for hello-world:latest
docker.io/library/hello-world:latest
[root@] (local) root@192.168.0.8 ~
$ 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 with the same instance 'cddvksm0_cddvkvm0qau000a07j5g'. The memory usage is now '1.26% (50.45MiB / 3.906GiB)' and CPU usage is '0.39%'. 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@] (local) root@192.168.0.8 ~
$
```

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

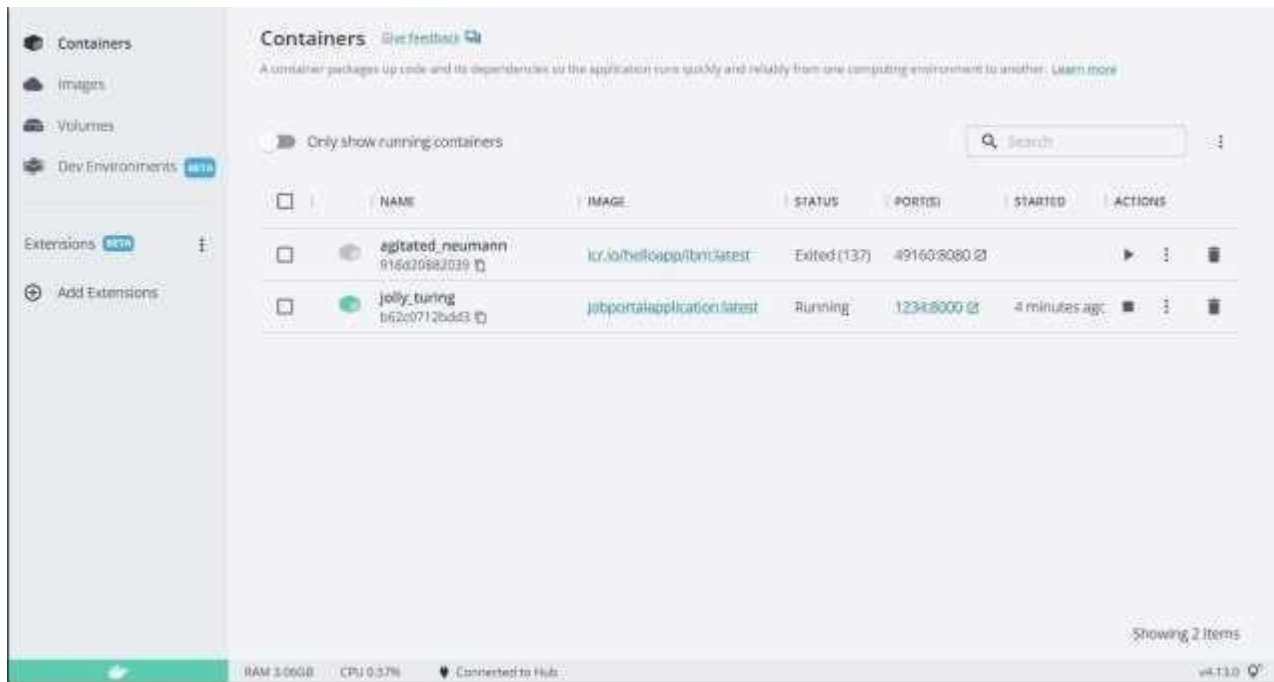
Question 2:

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

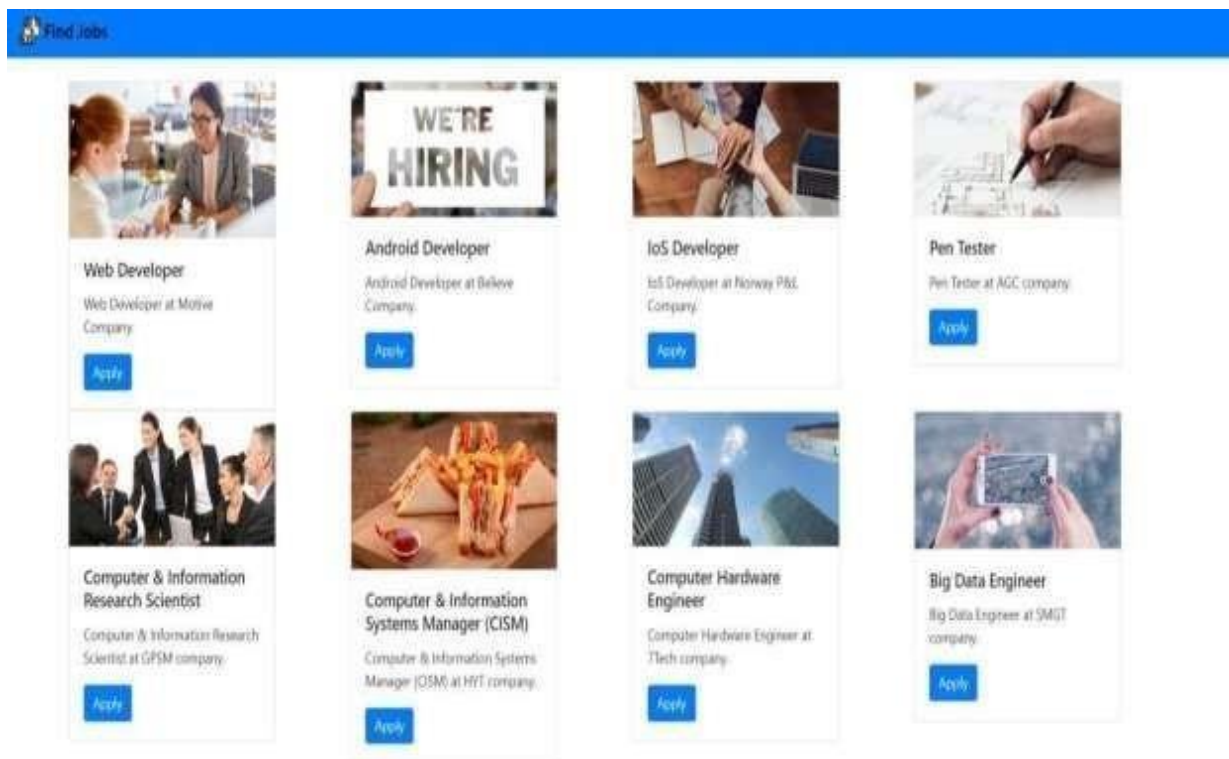
DOCKERFILE:

```
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:



OUTPUT:

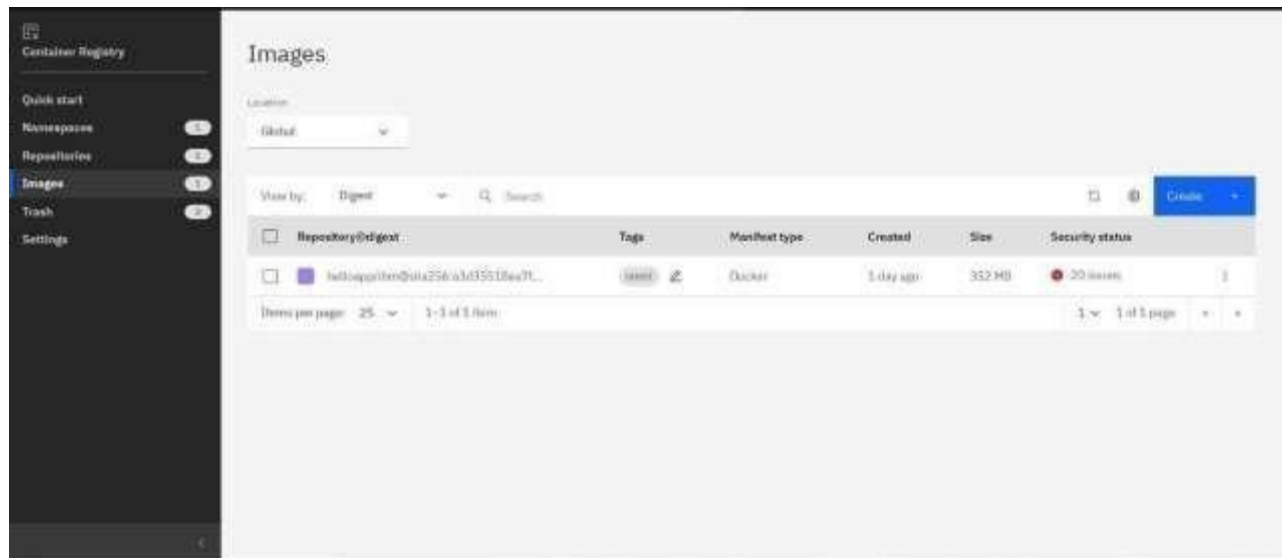


Question 3:

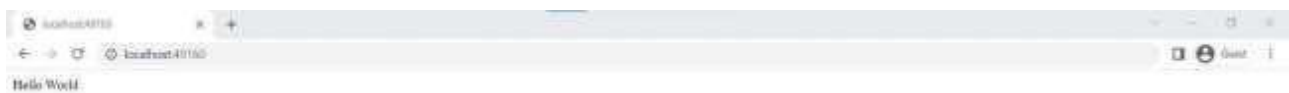
Create a IBM container registry and deploy hello world

appor jobportapp.IBM CONTAINER REGISTRY

DEPLOYMENT:

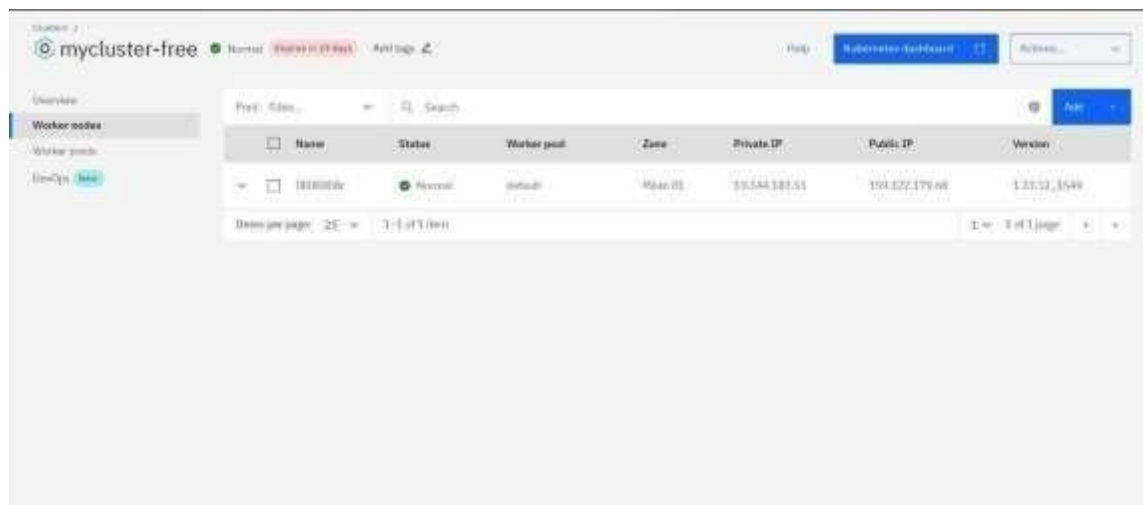


OUTPUT:



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:

