

ASSIGNMENT – 4

KUBERNETES, DOCKER

Assignment Date	28 October 2022
Student Name	Dharshini K S
Student Roll Number	962819104027

Question-1

Pull an image from Dockers hub and run it in Dockers playground.

Solution:

Step 1 : Login to Dockers hub and get an image

Step 2 : Open Dockers playground

Login with Dockers

Create new instance

Step 3 : In the command prompt run the following

\$docker pull hello-world

\$docker run hello-world

```
[model] (local) root@192.168.0.8 ~
$ docker pull hello-world
Using default tag: latest
latest: Pulling from library/hello-world
Digest: sha256:16a657d0cc1c7d0678a3fbee8b7eb4918bbe25968d3e1b0debf71caddbc346
Status: Image is up to date for hello-world:latest
docker.io/library/hello-world:latest
[model] (local) root@192.168.0.8 ~
$ 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.
    (and64)
 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/

[model] (local) root@192.168.0.8 ~
$
```

Question 2

Create A Dockers File And Deploy It In Dockers Desktop Application

Solution:

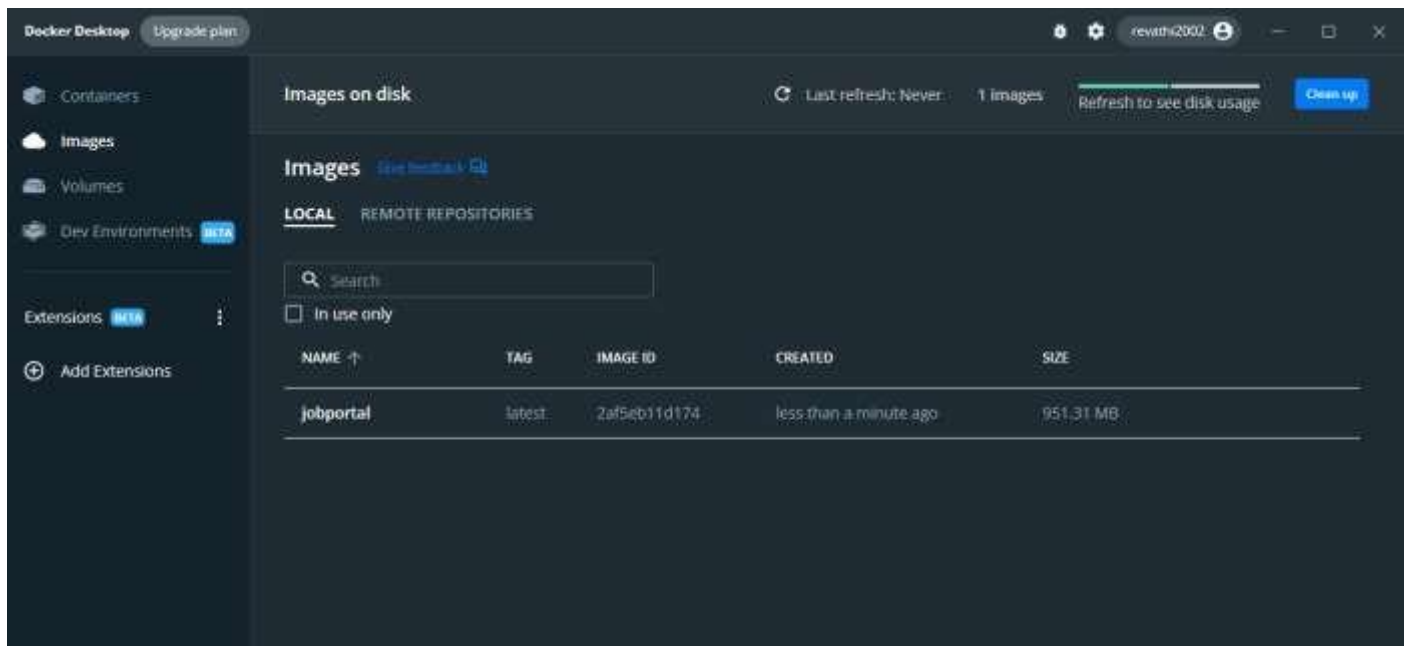
Step 1 : Create a flask application

Create a Dockerfile in the same folder

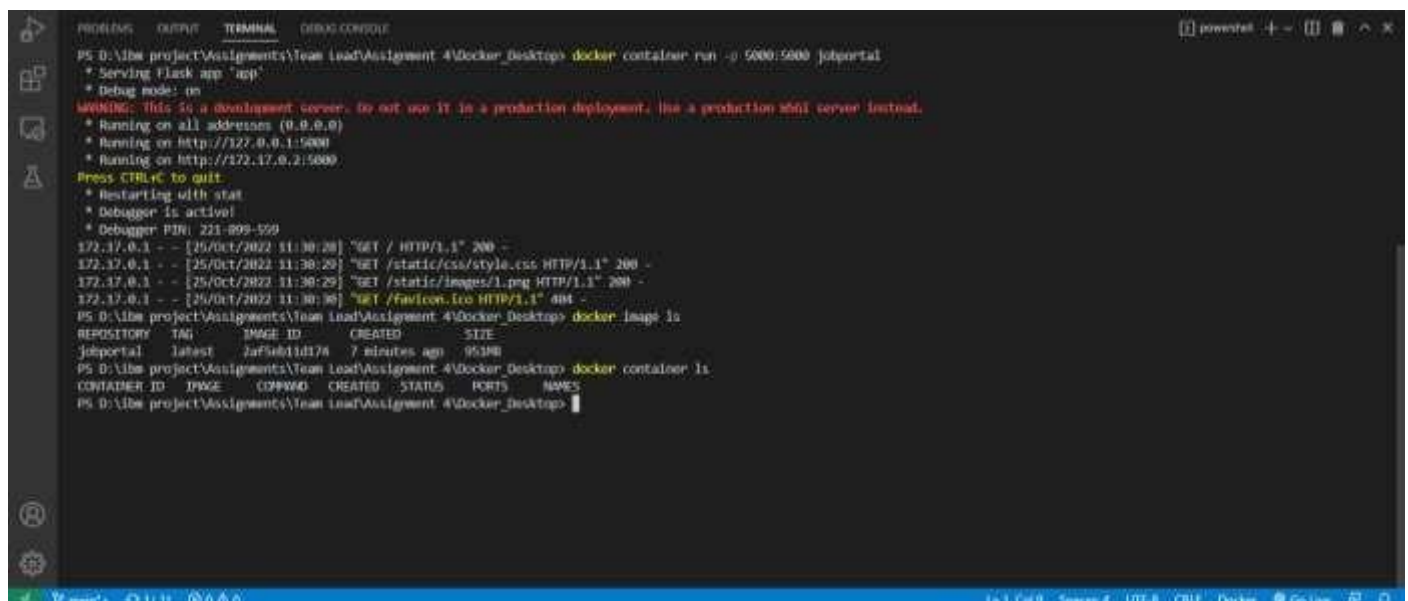
Step 2 : Run the following commands to deploy it in docker desktop

```
$docker build -t jobportal
```

```
$docker image ls
```

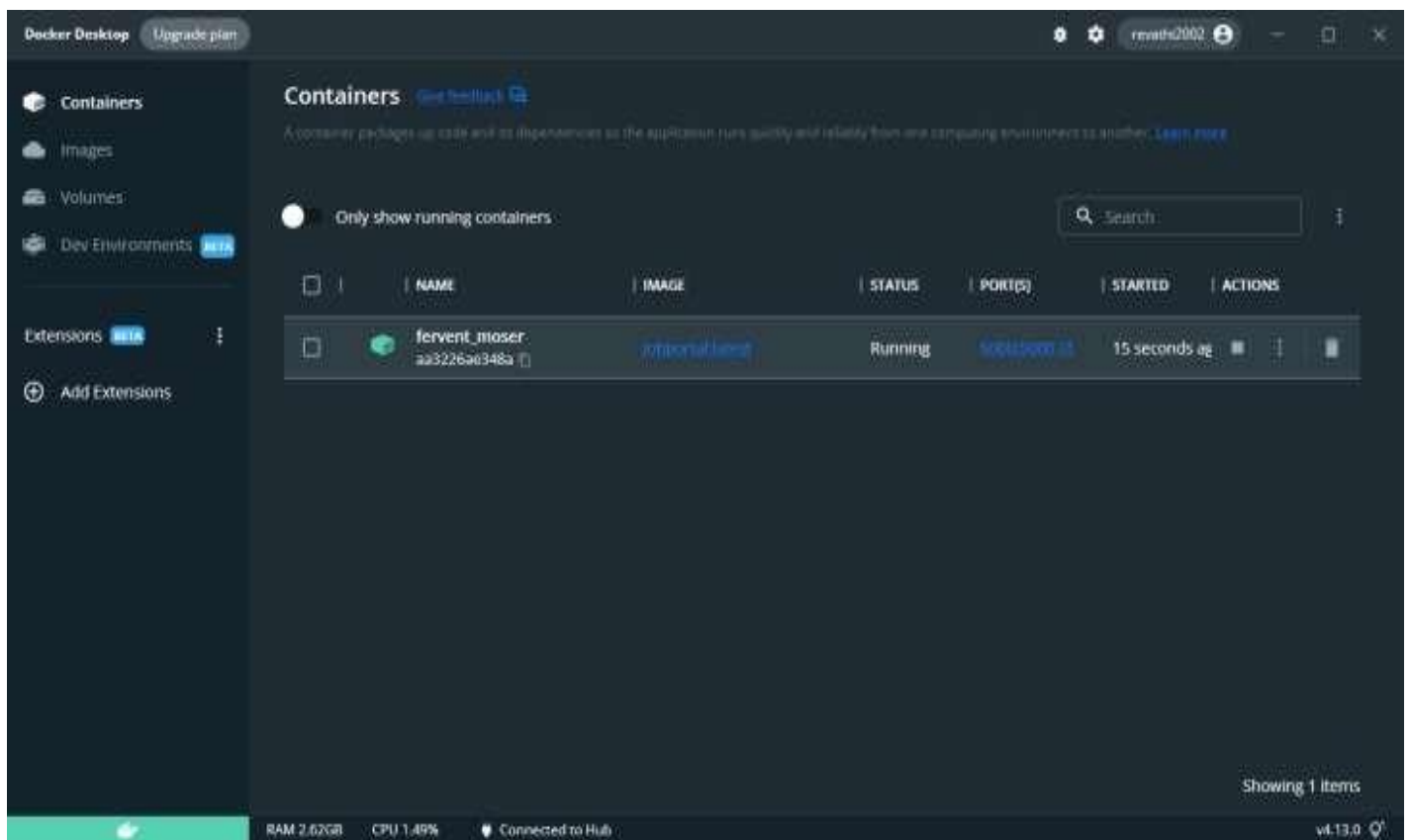


```
$ docker container run -p 5000:5000 jobportal
```



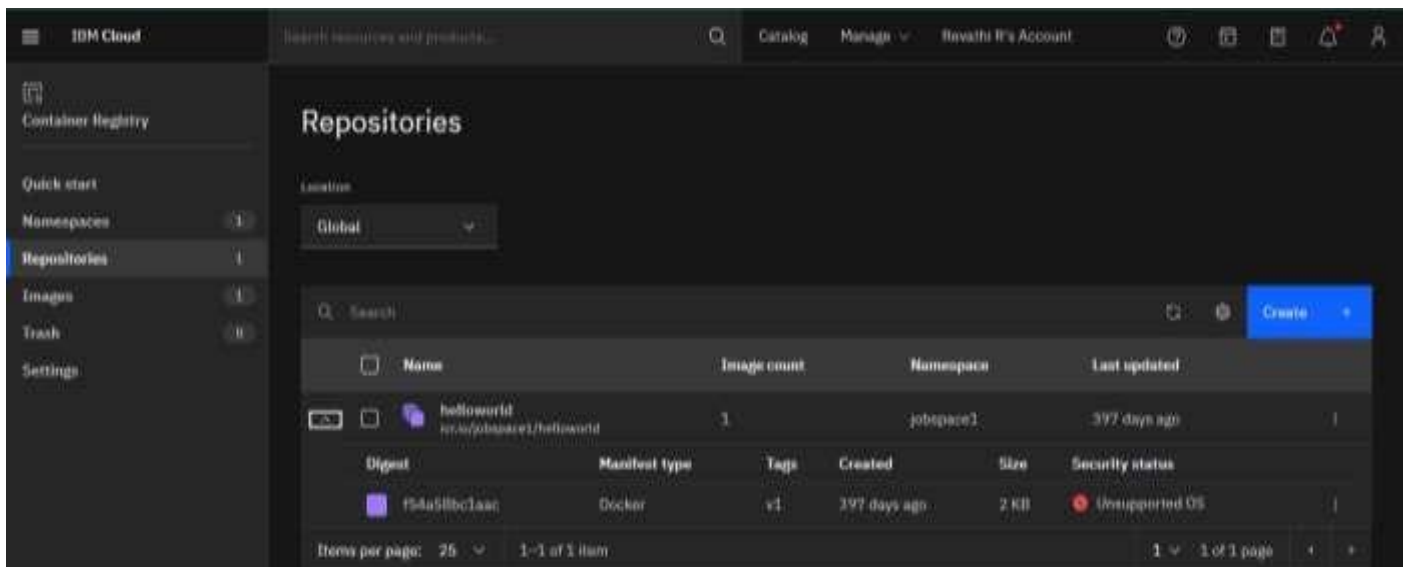


\$ docker container ls



Question 3:

Create an IBM container registry and deploy hello-world-app or job-portal-app



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.

