

ASSIGNMENT 4

Team ID	PNT2022TMID13365
Project Name	Skill and Job Recommender Application

DOCKER DESKTOP (Kubernetes)

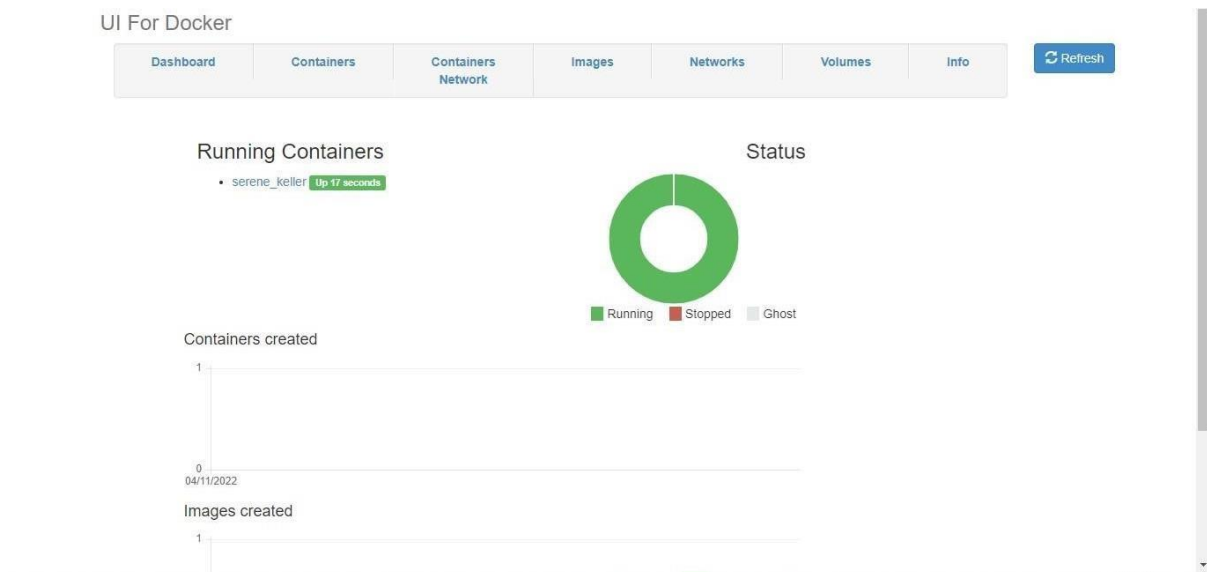
Question 1:

Pull an image from docker hub and run it on docker playground.

docker pull registry

docker run -d -p 9000:9000 --privileged -v
/var/run/docker.sock:/var/run/docker.sock registry

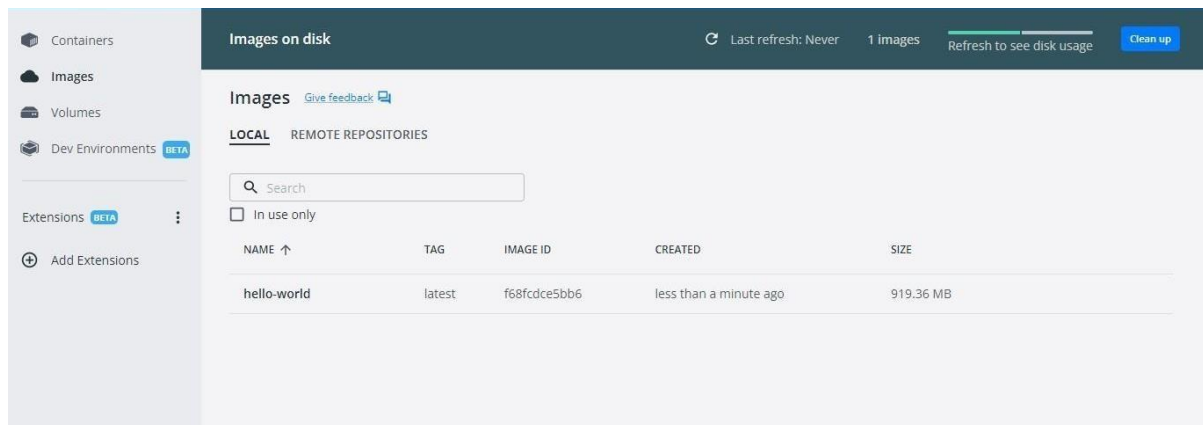
The screenshot shows the Docker Desktop interface. On the left, there's a sidebar with a clock showing 03:38:03, a 'CLOSE SESSION' button, and a list of instances. One instance is visible: '192.168.0.28' with the name 'node1'. The main area displays details for the selected container 'cdiuhke3_cdiuofm0qau000fq8s20'. It shows the IP address '192.168.0.28', an 'OPEN PORT' button for port '9000', and resource usage: 'Memory 2.29% (91.5MiB / 3.90GiB)' and 'CPU 0.68%'. Below this, the SSH command is shown: 'ssh ip172-18-0-8-cdiuhke3tccg008jlpdg@direct.labs.play-wit content_copy'. There are 'DELETE' and 'insert_04' buttons. At the bottom, a terminal window shows the execution of the commands: 'docker pull registry' and 'docker run -d -p 9000:9000 --privileged -v /var/run/docker.sock:/var/run/docker.sock registry'. The terminal output shows the image being pulled from Docker Hub and the container being started successfully. An 'Activate Windows' watermark is visible in the bottom right corner of the terminal window.



Question 2:

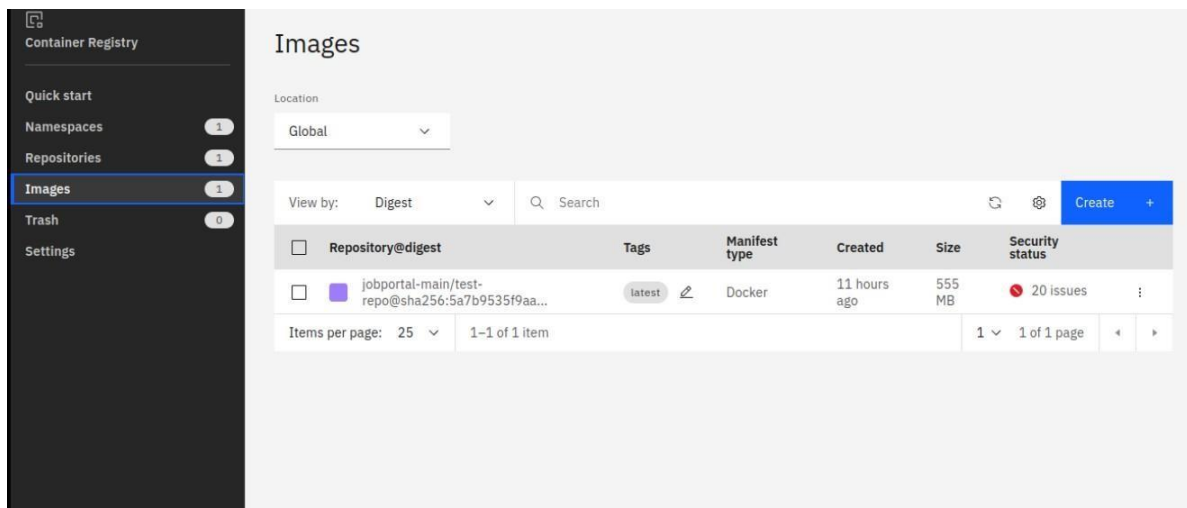
Create a docker file for the job portal app or hello world app and deploy it in docker desktop app.

```
docker - Notepad
File Edit Format View Help
FROM python:3.8
WORKDIR /app
ADD . /app
COPY requirements.txt /app
RUN python3 -m pip install -r requirements.txt
EXPOSE 5000
CMD ["python", "app.py"]
```



Question 3:

Create an IBM container registry and deploy helloworld app or job portal app.



Question 4:

Create a kubernetes cluster in IBM cloud and deploy helloworld image or job portal image and also expose the same app to run in nodeport.

apiVersion:

v1kind:

Service

metadata:

name: hello-world-

deploymentspec: ports:

- port: 5000 targetPort:

5000selector: app:

hello-world

apiVersion:

apps/v1kind:

Deployment metadata:

name: hello-world-

deploymentspec:

replic as: 1

select or:

matchLabels: app:

hello-

worldtemplate:

meta

da

ta

:

la

be

ls

:

app: hello-

worldspec:

containers:

- name: hello-world image: au.icr.io/hello-world-app/hello-worldimagePullPolicy: Always ports:

- containerPort: 5000

Clusters /

mycluster-free

Normal

Expires in 29 days

Add tags

Help

Kubernetes dashboard

Actions...

Overview

Worker nodes

Worker pools

DevOps New

Expires in 29 days:

Be sure to back up your data, your cluster will be deleted in 29 days. To access the full capabilities of the service, try out a [standard cluster](#).

Node status

1 of 1

Normal

Details

Add-on status

0 of 0

Normal

Details

Master status

Normal

Docs

Ingress status

Unknown

Docs

Details

Cluster ID

cdi1j33f0a6mchav5kiq

Version

1.24.7_1542

Infrastructure

Classic

Zones

Milan 01

Created

04/11/2022, 01:12

Resource group

Default

Image security enforcement

Enable

kubernetes

default

Search

Workloads > Pods > hello-world-deployment-6c75b9c898-p4ntv > Logs

Workloads N

Cron Jobs

Daemon Sets

Deployments

Jobs

Pods

Replica Sets

Replication Controllers

Stateful Sets

Service

Ingresses N

Ingress Classes

Services N

Logs from hello-world in hello-world-dep...

```
* Serving Flask app 'app'
* Debug mode: off
WARNING: This is a development server. Do not use it in a production deployment. Use a production WSGI server instead.
* Running on all addresses (0.0.0.0)
* Running on http://127.0.0.1:5000
* Running on http://172.30.82.142:5000
Press CTRL+C to quit
```