

## ASSIGNMENT 4

Team ID	PNT2022TMID13254
Project Name	Customer Care Registry

### DOCKER DESKTOP (Kubernetes)

#### Question 1:

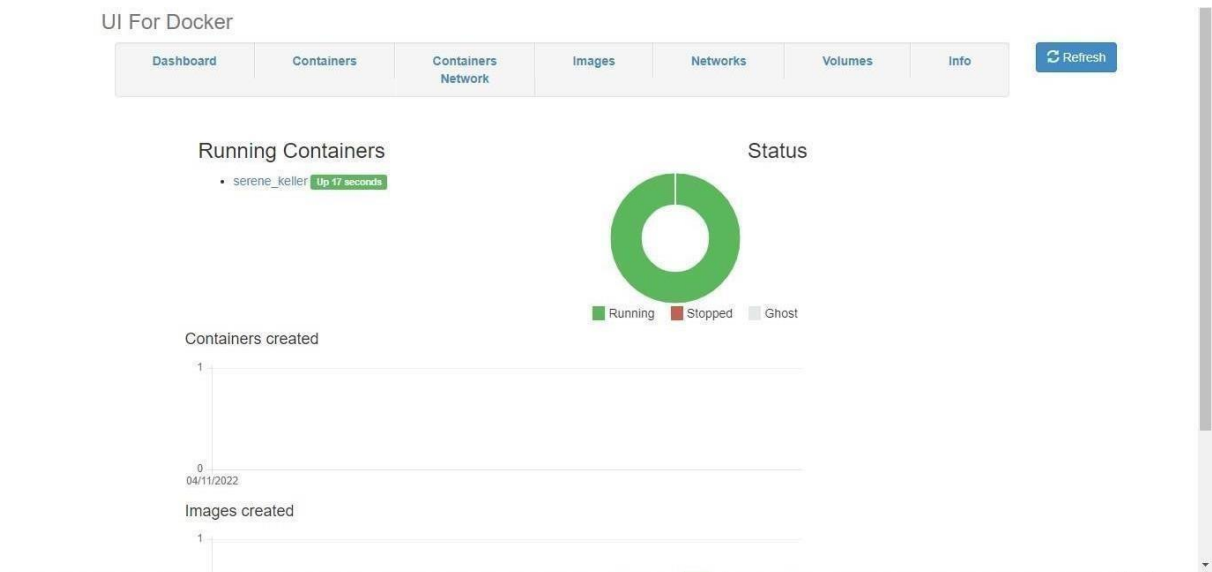
**Pull an image from docker hub and run it on docker playground.**

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 listed: '192.168.0.28' with the name 'node1'. The main area displays details for the selected instance 'cdiuhke3\_cdiuofm0qau000fq8s20'. It shows the IP address '192.168.0.28', memory usage '2.29% (91.5MiB / 3.906GiB)', and CPU usage '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' buttons. At the bottom, a terminal window shows the execution of '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. A Windows watermark is visible in the bottom right corner of the terminal area.

```
# The FWD team. #
#####
[node1] (local) root@192.168.0.28 ~
$ docker pull registry
Using default tag: latest
latest: Pulling from library/registry
213ec9aee27d: Pull complete
4583459ba037: Pull complete
6f6a6c5733af: Pull complete
b136d5c19b1d: Pull complete
fd4a5435f342: Pull complete
Digest: sha256:2e830e8b682d73a1b70cac4343a6a541a87d5271617841d87eeb67a824a5b3f2
Status: Downloaded newer image for registry:latest
docker.io/library/registry:latest
[node1] (local) root@192.168.0.28 ~
$ docker run -d -p 9000:9000 --privileged -v /var/run/docker.sock:/var/run/docker.sock registry
7a5d897c6b6fbac91b8c46b3bb8e45510584a8ea2a26388cd65e9d5e295d2001
[node1] (local) root@192.168.0.28 ~
$
```



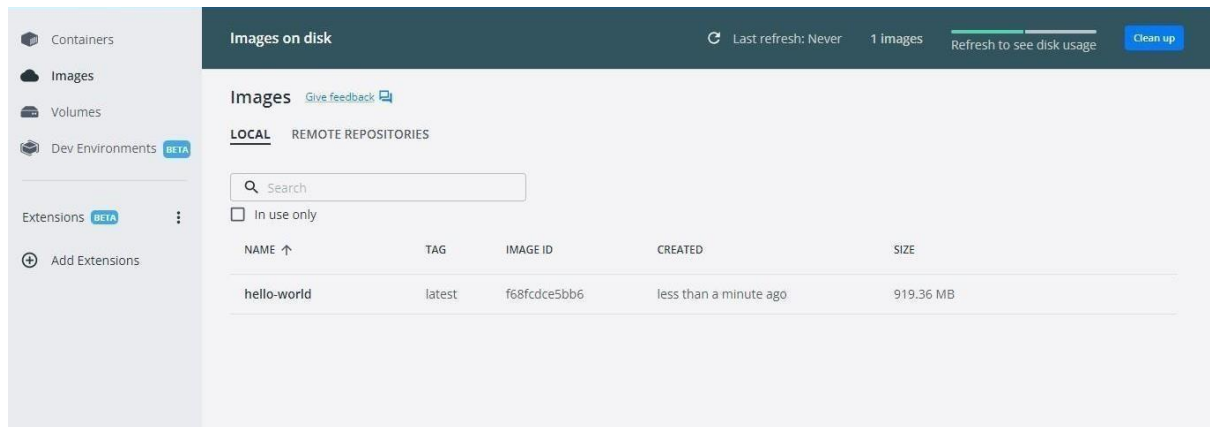
## Question 2:

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

docker - Notepad

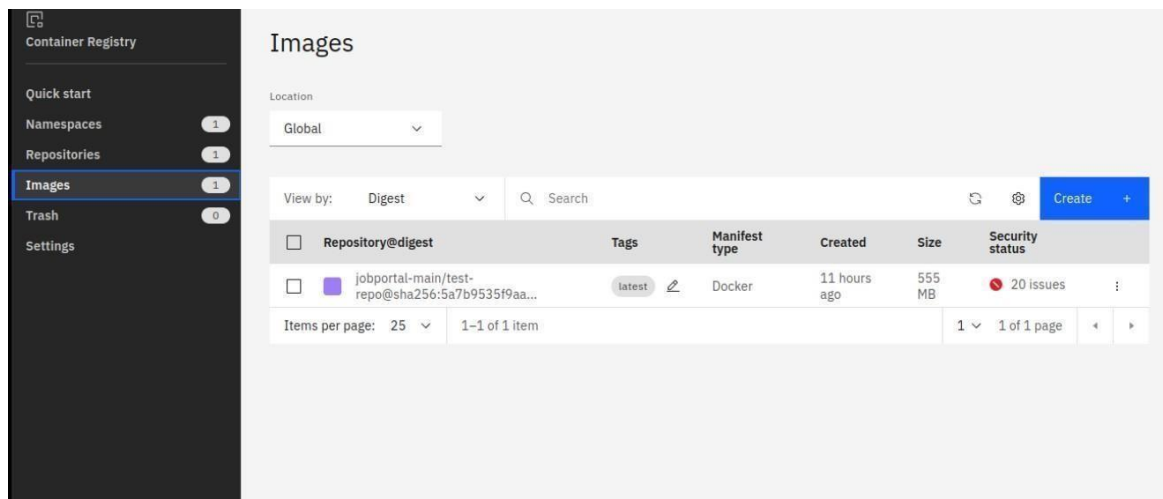
File Edit Format View Help

```
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](#).

<b>Node status</b> 1 of 1 <span>Normal</span> <a href="#">Details</a>	<b>Add-on status</b> 0 of 0 <span>Normal</span> <a href="#">Details</a>	<b>Master status</b> Normal <span>✓</span> <a href="#">Docs</a>	<b>Ingress status</b> Unknown — <a href="#">Docs</a>
--	--	--	---

**Details**

<b>Cluster ID</b> cd11j33f9a6mchav6kig <a href="#">Copy</a>	<b>Version</b> 1.24.7_1542	<b>Infrastructure</b> Classic	<b>Zones</b> Milan 01
<b>Created</b> 04/11/2022, 01:12	<b>Resource group</b> Default	<b>Image security enforcement</b> <a href="#">Enable</a>	

 **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
```