

## ASSIGNMENT -4 : DOCKER DESKTOP (Kubernetes)

Assignment date	04 November 2022
Team Id	PNT2022TMID51969
Maximum Marks	2 Marks

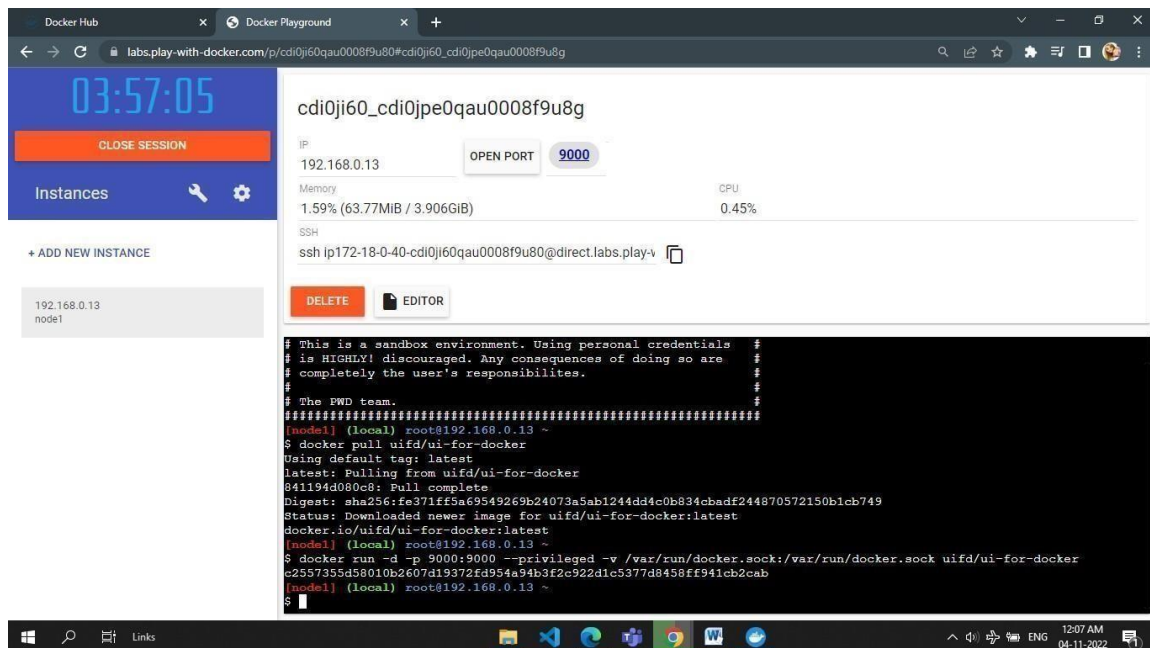
### Question 1:

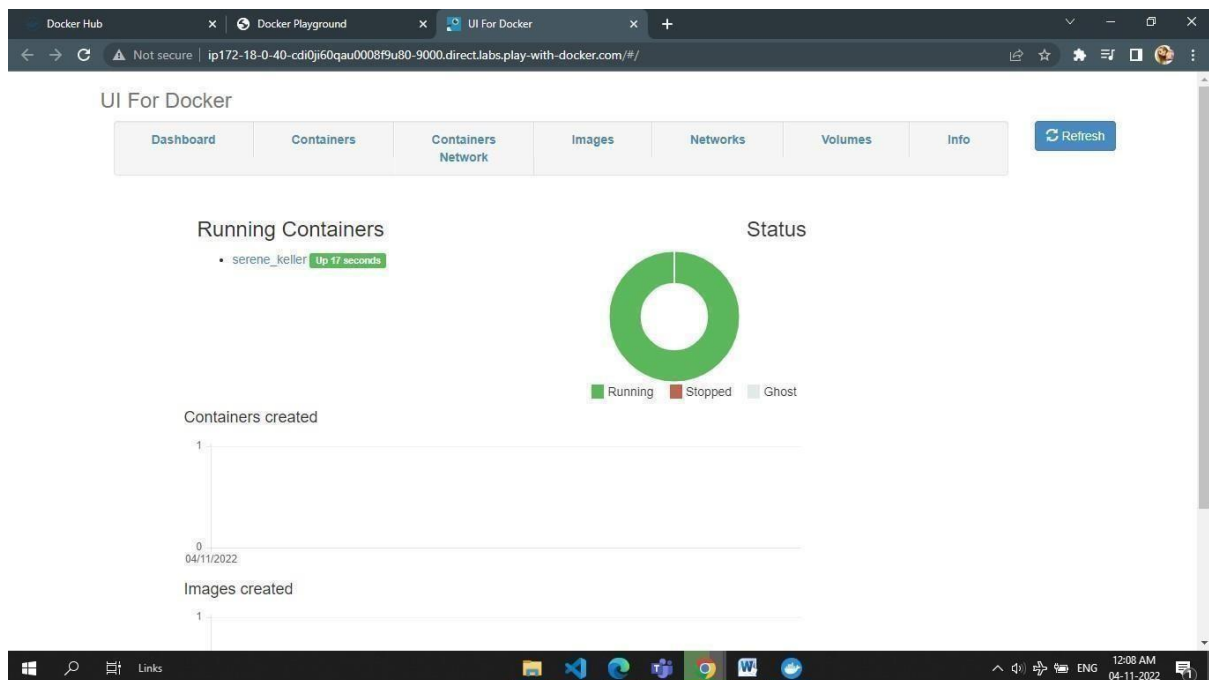
Pull an image from docker hub and run it on docker playground.

### Solution 1:

`docker pull uifd/ui-for-docker`

`docker run -d -p 9000:9000 --privileged -v /var/run/docker.sock:/var/run/docker.sock uifd/ui-for-docker`



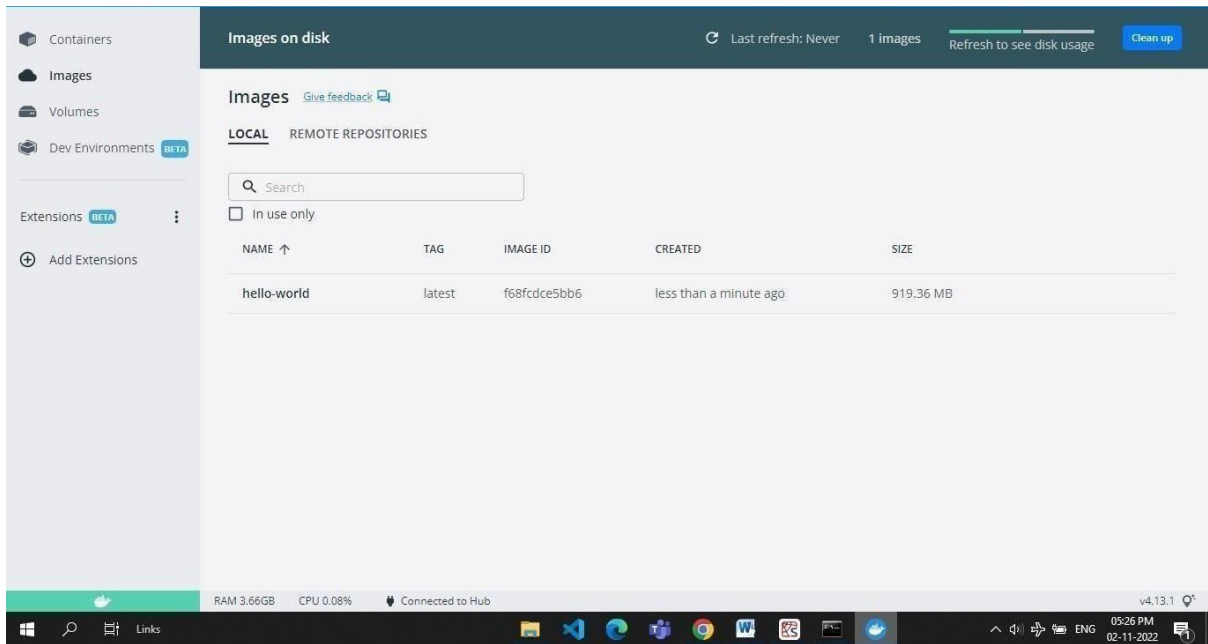


## Question 2:

Create a docker file for the job portal app or hello world app and deploy it in docker desktop app. **Solution 2:**

### Docker file

```
Dockerfile - 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"]
```

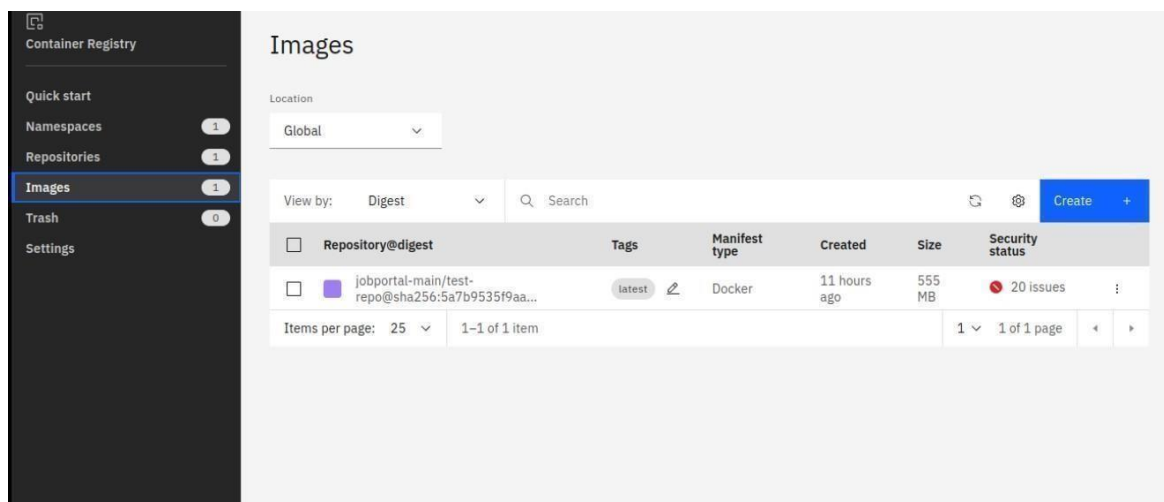


### Question 3:

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

Solution 3:

**My image link:** [au.icr.io/hello-world-app/hello-world](https://au.icr.io/hello-world-app/hello-world)



#### 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.

#### Solution 4:

```
apiVersion: v1 kind:
Service metadata:
  name: hello-world-
deployment spec:
  ports: - port:
    5000 targetPort:
5000 selector: app:
hello-world ---
apiVersion: apps/v1
kind: Deployment
metadata: name:
hello-world-
deployment spec:
  replic as: 1 select
or:
  matchLabels: app:
    helloworld
template:
  meta da
  ta :
  la be
  ls :
    app: hello-
world spec:
  containers:
    - name: hello-world image: au.icr.io/hello-worldapp/helloworld
      imagePullPolicy: 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>Docs</span>	<b>Ingress status</b> Unknown <a href="#">Docs</a>
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**Details**

<b>Cluster ID</b> cd11j33f0a6mchav5k1g <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> <input type="button" value="Enable"/>	

kubernetes default  [+](#) [🔔](#) [👤](#)

[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

**Config and Storage**

Logs from hello-world in hello-world-dep... [Download](#)

```
* 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
```

Logs from Nov 4, 2022 to Nov 4, 2022 UTC [<](#) [>](#)

eu-de.containers.cloud.ibm.com/kubeproxy/clusters/cd11j33f0a6mchav5k1g/ser...