

## ASSIGNMENT - 4

|             |                  |
|-------------|------------------|
| Name        | KALAIYARASAN V   |
| Team Id     | PNT2022TMID44963 |
| Roll number | 811219104007     |

1: pull an image from docker hub and run it on docker playground.

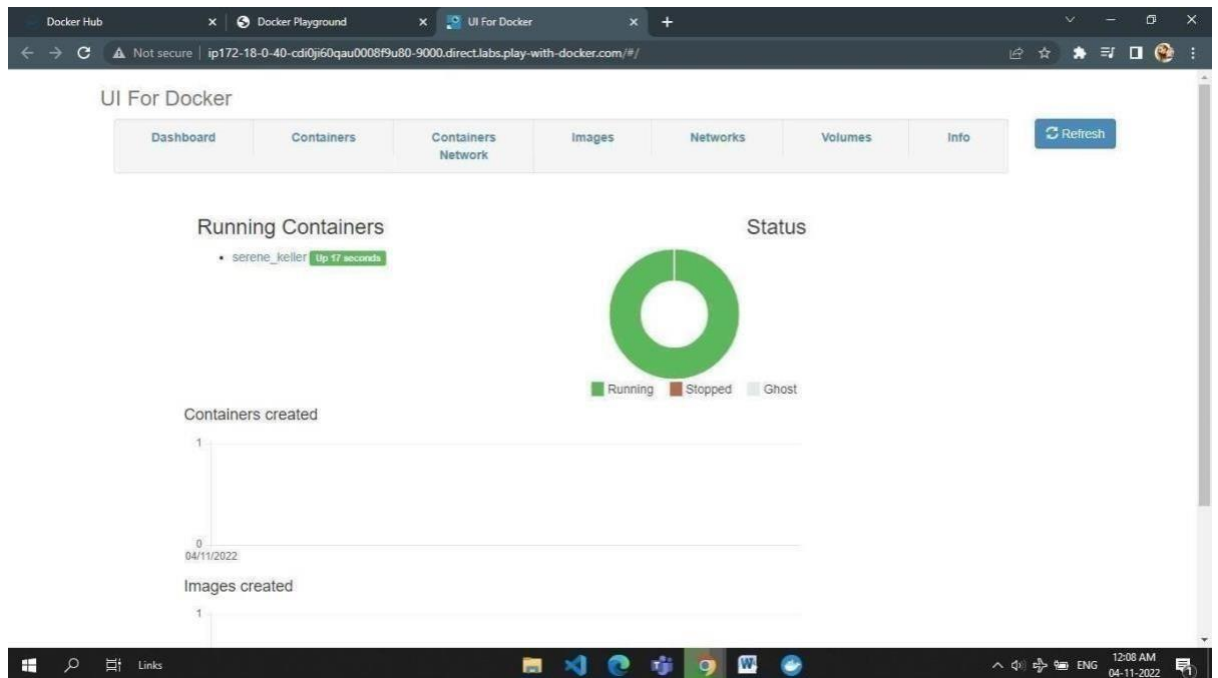
### Solution 1:

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

The screenshot displays the Docker Playground interface. On the left, there's a sidebar with a clock showing 03:57:05, a 'CLOSE SESSION' button, and a list of instances including '192.168.0.13 node1'. The main area shows details for a container named 'cdi0ji60\_cdi0jpe0qau0008f9u8g'. It lists the IP as 192.168.0.13, memory usage as 1.59% (63.77MiB / 3.906GiB), and CPU usage as 0.45%. There's an 'OPEN PORT' button set to 9000 and an SSH command: 'ssh ip172-18-0-40-cdi0ji60qau0008f9u80@direct.labs.play-'. Below this are 'DELETE' and 'EDITOR' buttons. The terminal window at the bottom shows the following commands and output:

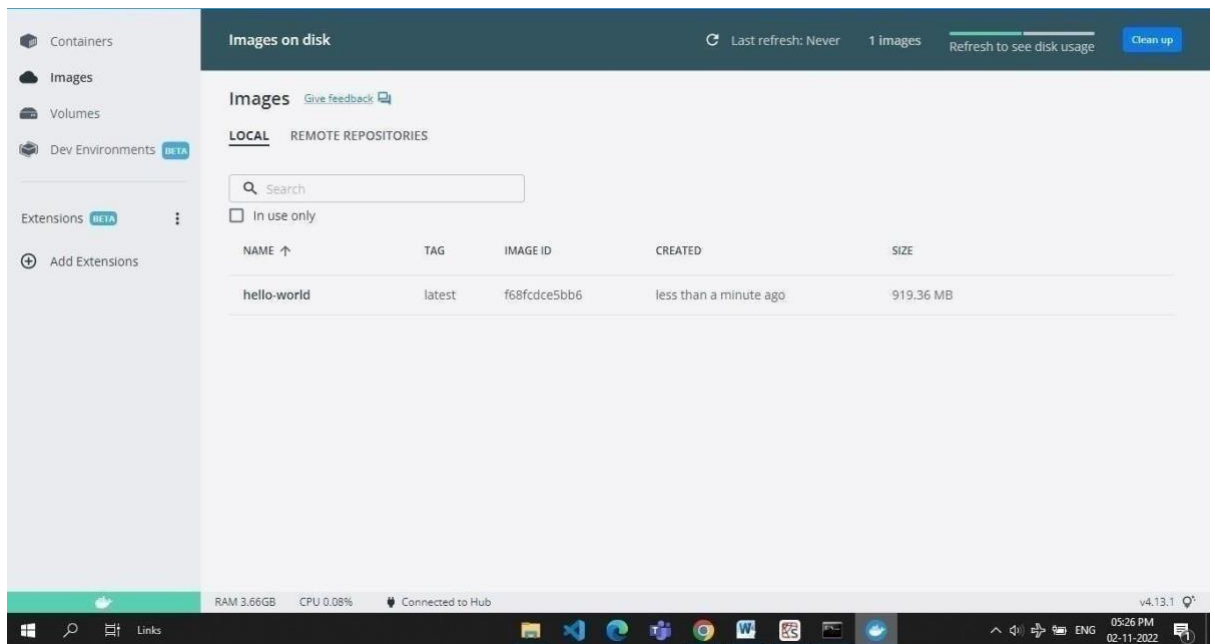
```
# This is a sandbox environment. Using personal credentials #
# is HIGHLY discouraged. Any consequences of doing so are #
# completely the user's responsibilities. #
#
# The FWD team. #
#####
[node1] (local) root@192.168.0.13 ~
$ docker pull uifd/ui-for-docker
Using default tag: latest
latest: Pulling from uifd/ui-for-docker
841194d080c8: Pull complete
Digest: sha256:fe371ff5a69549269b24073a5ab1244dd4c0b834cbadf244870572150b1cb749
Status: Downloaded newer image for uifd/ui-for-docker:latest
docker.io/uifd/ui-for-docker:latest
[node1] (local) root@192.168.0.13 ~
$ docker run -d -p 9000:9000 --privileged -v /var/run/docker.sock:/var/run/docker.sock uifd/ui-for-docker
c2557355d58010b2607d19372fd954a94b3f2c922d1c5377d8458ff941cb2cab
[node1] (local) root@192.168.0.13 ~
$
```



**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

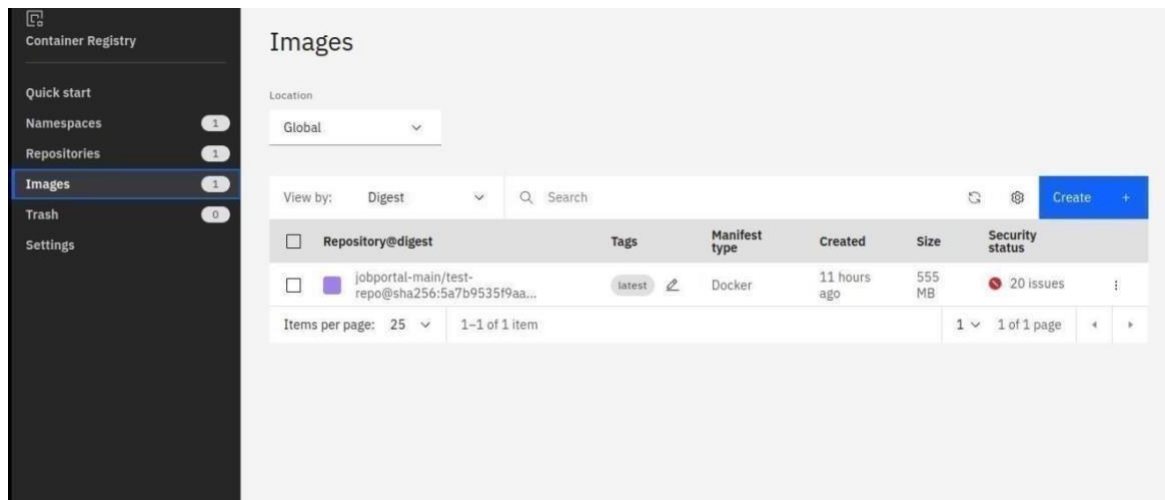
```
Dockerfile - Notepad
File Edit Format View Help
FROM python:3.8
WORKDIR /app
ADD . /app
COPY requirements.txt /app
RUN python3 -m pip install -r requirements.txt
EXPOSE 5000
CMD ["python", "app.py"]
```



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)



**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: helloworld- 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/helloworldapp/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](#).

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<br>cd11j33f0a6mchav5kig | Version<br>1.24.7_1542    | Infrastructure<br>Classic   | Zones<br>Milan 01 |
| Created<br>04/11/2022, 01:12       | Resource group<br>Default | Image security enforcement<br><input type="button" value="Enable"/> |                   |

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

[Workloads](#) > [Pods](#) > [hello-world-deployment-6c75b9c898-p4ntv](#) > [Logs](#)

**Workloads**

- Cron Jobs
- Daemon Sets
- Deployments
- Jobs
- Pods
- Replica Sets
- Replication Controllers
- Stateful Sets

**Service**

- Ingresses
- Ingress Classes
- Services

**Config and Storage**

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
```

Logs from Nov 4, 2022 to Nov 4, 2022 UTC