

## ASSIGNMENT 4

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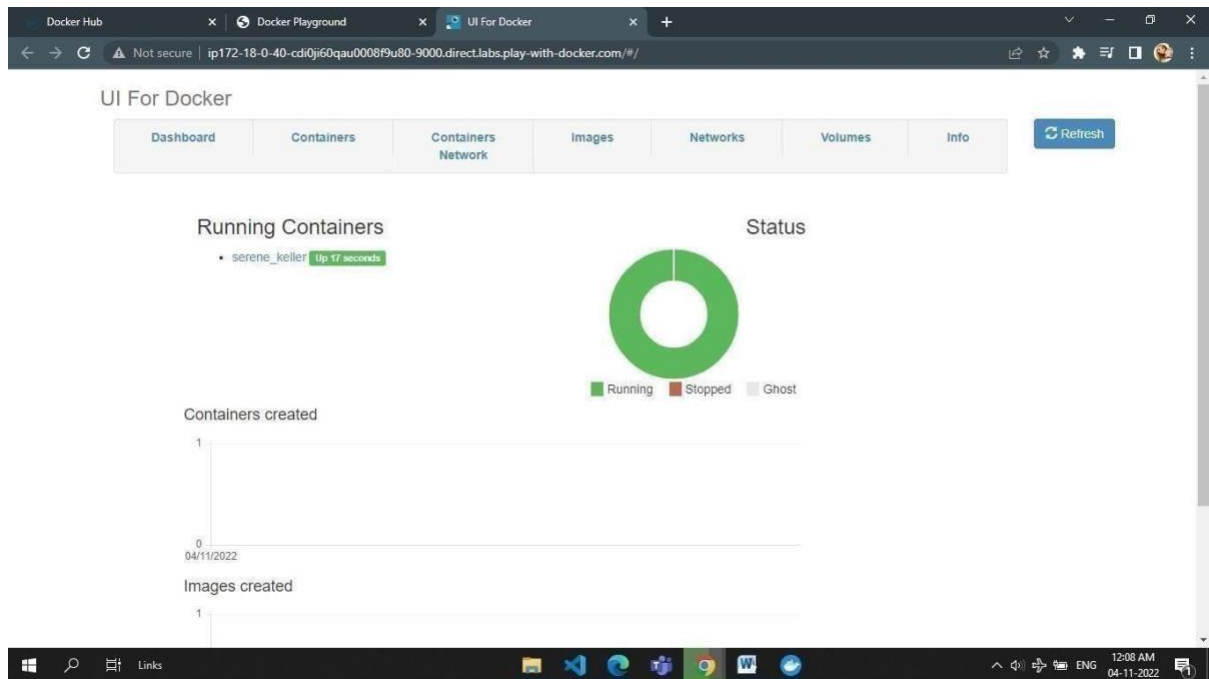
### 1. Pull an image from docker hub and run it on docker playground.

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. The main area shows details for a container named 'cdi0ji60\_cdi0jpe0qau0008f9u8g'. It includes fields for IP (192.168.0.13), Memory (1.59% / 63.77MiB / 3.906GiB), and CPU (0.45%). Below these are buttons for 'OPEN PORT' (set to 9000), 'DELETE', and 'EDITOR'. The terminal window at the bottom shows the following commands and output:

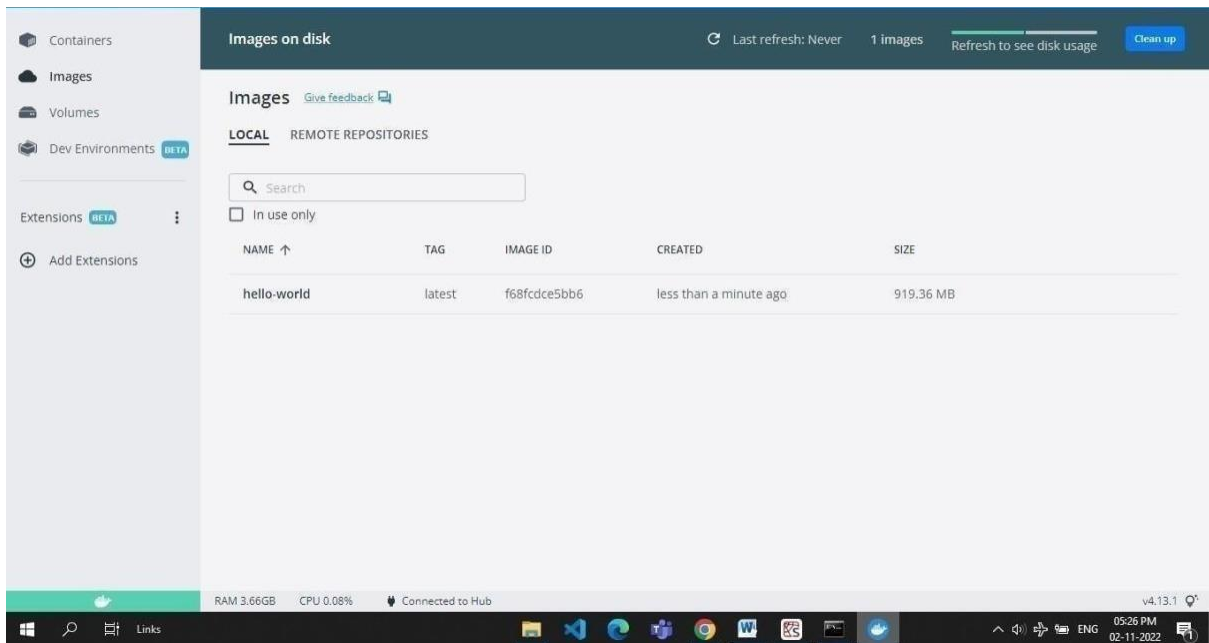
```
# This is a sandbox environment. Using personal credentials  
# is HIGHLY discouraged. Any consequences of doing so are  
# completely the user's responsibilities.  
#  
# The FWD team.  
#####  
[node1] (local) root@192.168.0.13 ~  
$ docker pull uifd/ui-for-docker  
Using default tag: latest  
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.**

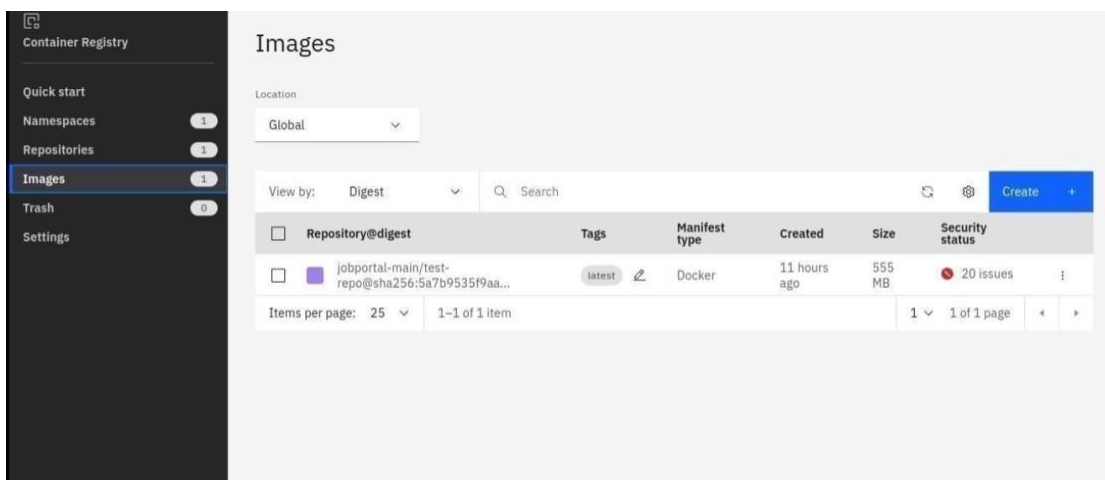
### Docker file

```
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 hello world app or job portal app.

**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 hello world image or job portal image and also expose the same app to run in nodeport.**

```
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 selector:
    matchLabels: app:
      helloworld
  template:
    meta data
    :
    la be
    ls :
      app:    hello-
world spec:
  containers:
    - name: hello-world image: au.icr.io/hello-worldapp/helloworldimagePullPolicy:
      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	Version	Infrastructure	Zones
cd11j33f9a6mchavskig	1.24.7_1542	Classic	Milan 01
Created	Resource group	Image security enforcement	
04/11/2022, 01:12	Default	<input type="button" value="Enable"/>	

Windows taskbar: 01:37 PM 04-11-2022

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

[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

Windows taskbar: 03:49 PM 04-11-2022