

ASSIGNMENT 4

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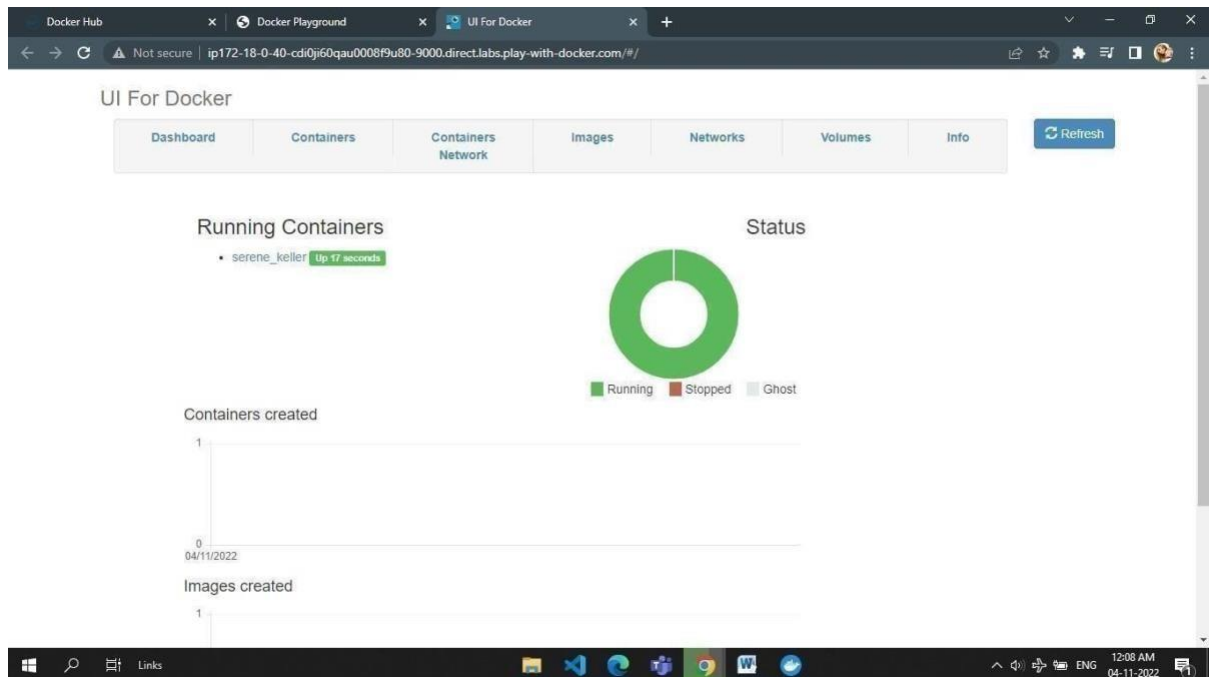
1. Pull an image from docker hub and run it on docker playground.

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 in a web browser. On the left, a sidebar shows a digital clock at 03:57:05, a 'CLOSE SESSION' button, and a list of instances including 'node1' with IP 192.168.0.13. The main panel shows details for a container named 'cdi0jj60_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%. An 'OPEN PORT' button is set to 9000. Below this, an SSH command is provided: 'ssh ip172-18-0-40-cdi0jj60qau0008f9u80@direct.labs.play-'. At the bottom, a terminal window shows the following commands and output:

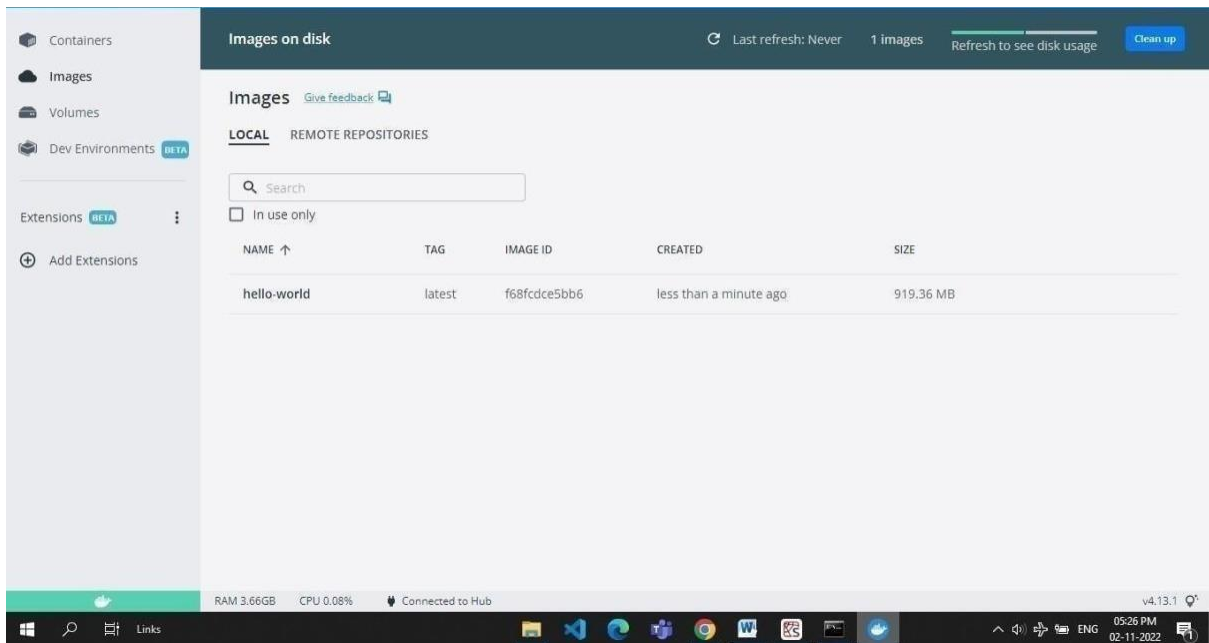
```
# This is a sandbox environment. Using personal credentials
# is HIGHLY discouraged. Any consequences of doing so are
# completely the user's responsibilities.
#
# The PWD team.
#####
[node1] (local) root@192.168.0.13 ~
$ docker pull uifd/ui-for-docker
Using default tag: latest
latest: Pulling from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

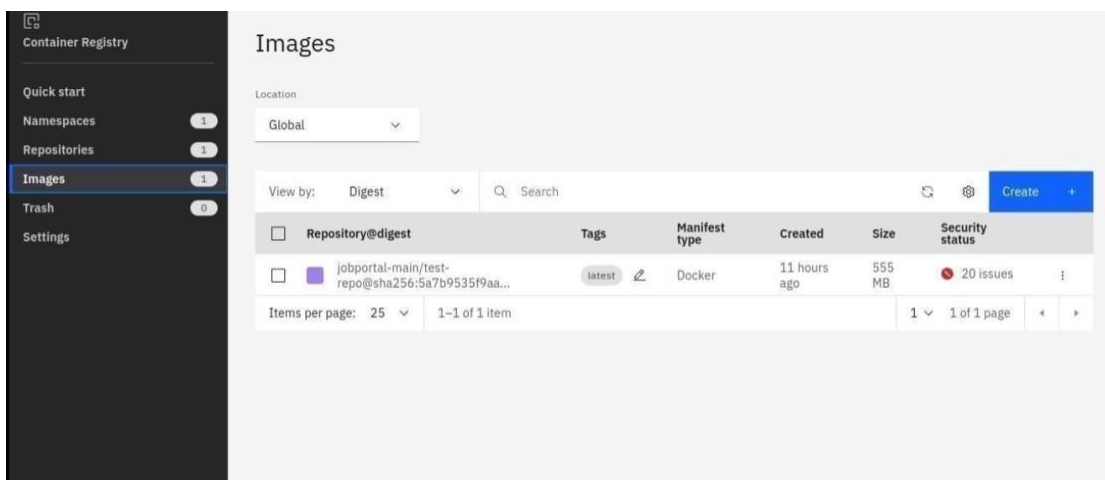
Docker file

```
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



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
cd11j33f9a6mchav5kig	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