

Assignment-4

DOCKER AND KUBERNETES

Assignment Date	22 November 2022
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Maximum Marks	2 Marks

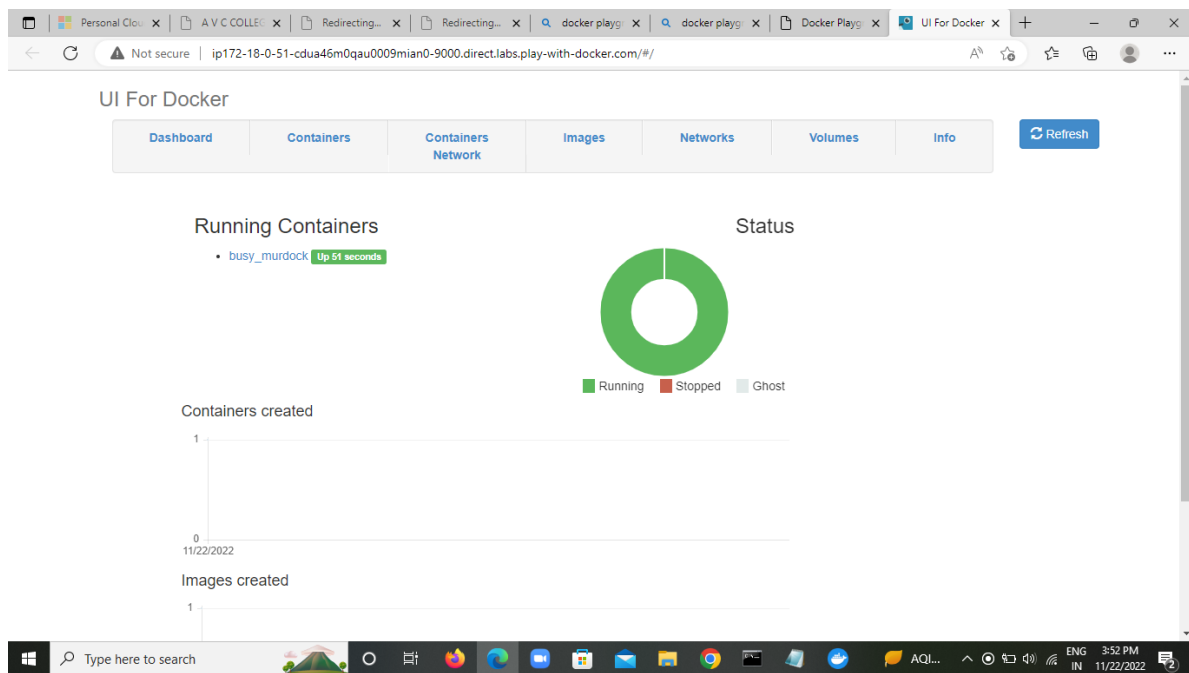
Question-1:

Pull an Image from docker hub and run it in docker playground.

The screenshot shows the Docker Hub repository page for 'uifd/ui-for-docker'. The page includes the Docker Hub logo, a search bar, and navigation links. The repository name 'uifd/ui-for-docker' is highlighted, along with the number of pulls (10M+). A note states: 'This repo is deprecated. Development continues at: portainer/portainer'. A 'chat on gitter' button is present. The 'Overview' tab is selected, showing a description: 'UI For Docker is a web interface for the Docker Remote API. The goal is to provide a pure client side implementation so it is effortless to connect and manage docker.' A 'Goals' section is also visible. On the right, a 'Docker Pull Command' box shows the command: `docker pull uifd/ui-for-docker`.

The screenshot shows the Docker Playground interface. On the left, there's a sidebar with a timer (03:56:23), a 'CLOSE SESSION' button, and a list of instances. The main area displays the details of a container named 'cdua46m0_cdua4an91rrg008mn520'. It shows the IP address (192.168.0.28), memory usage, CPU usage, and an SSH command: `ssh ip172-18-0-51-cdua46m0qau0009mian0@direct.labs.pl`. Below this, there's a terminal window showing 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@192.168.0.28 ~
$ docker pull uifd/ui-for-docker
Using default tag: latest
latest: Pulling from uifd/ui-for-docker
841194d080c8: Pull complete
Digest: sha256:fe371ff5a69549269b24073a5ab1244d4c0b834cbadef244870572150b1cb749
Status: Downloaded newer image for uifd/ui-for-docker:latest
docker.io/uifd/ui-for-docker:latest
[node1] (local) root@192.168.0.28 ~
$ docker run -d -p 9000:9000 --privileged -v /var/run/docker.sock:/var/run/docker.sock uifd/ui-for-docker
2e88ace8349db8e7732ff3e8be90066d8e18926624ec5e8de66b0b883e39d0c6
[node1] (local) root@192.168.0.28 ~
$
```



Question-2:

Create a docker file for the job portal application and deploy it in Docker desktop application.

```
1 FROM helloworld:latest
2 WORKDIR ~/Desktop/
3 ADD . helloworld/
4 WORKDIR ~/Desktop/htmlfile
5 RUN pip install -r requirements
6 RUN chmod +x app.sh
7 CMD ["/bin/sh", "app.sh"]
```

Question-3:

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

```
Command Prompt
Microsoft Windows [Version 10.0.19044.2251]
(c) Microsoft Corporation. All rights reserved.

C:\Users\Compro>docker push docker.io/testcontainers/helloworld
Using default tag: latest
The push refers to repository [docker.io/testcontainers/helloworld]
An image does not exist locally with the tag: testcontainers/helloworld

C:\Users\Compro>docker pull testcontainers/helloworld
Using default tag: latest
latest: Pulling from testcontainers/helloworld
df20fa9351a1: Pull complete
7d694ce25b07: Pull complete
99f5116afd5: Pull complete
Digest: sha256:4ee5a832ef6ee533df7224b80d4cceb9ab219599014f408d0b69690be94c396
Status: Downloaded newer image for testcontainers/helloworld:latest
docker.io/testcontainers/helloworld:latest

C:\Users\Compro>docker push docker.io/testcontainers/helloworld
Using default tag: latest
The push refers to repository [docker.io/testcontainers/helloworld]
802cca11a560: Layer already exists
80b7fe966245: Layer already exists
50644c29ef5a: Layer already exists
errors:
denied: requested access to the resource is denied
unauthorized: authentication required

C:\Users\Compro>
```

Question-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 node port.

