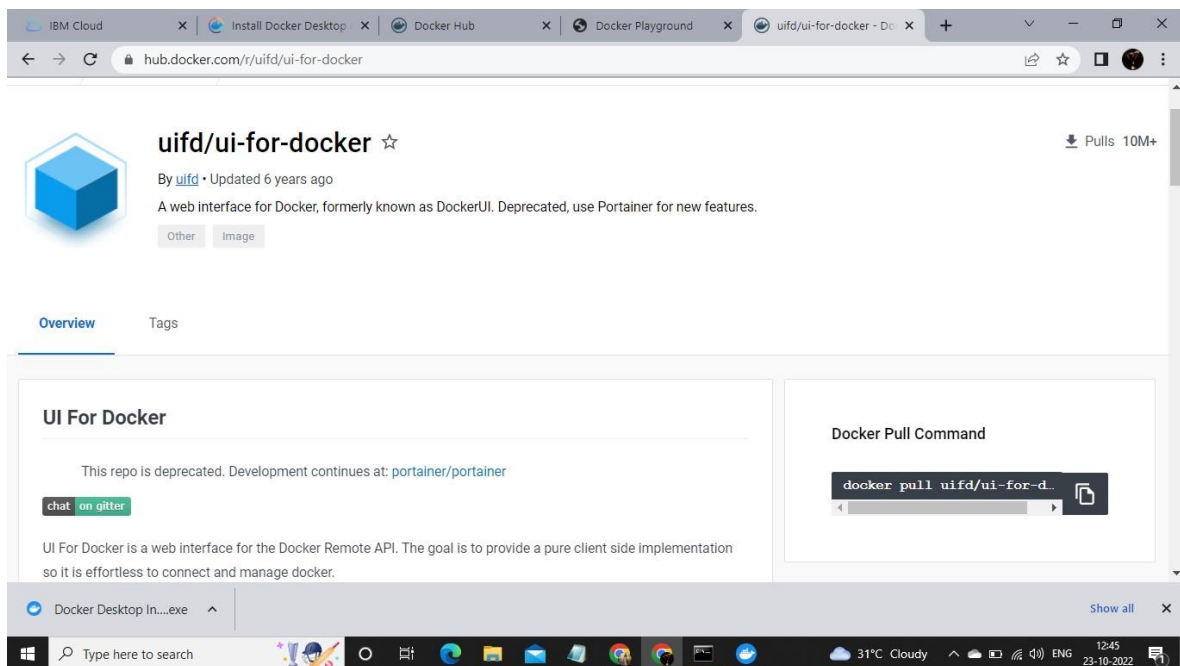


DOCKER AND KUBERNETES

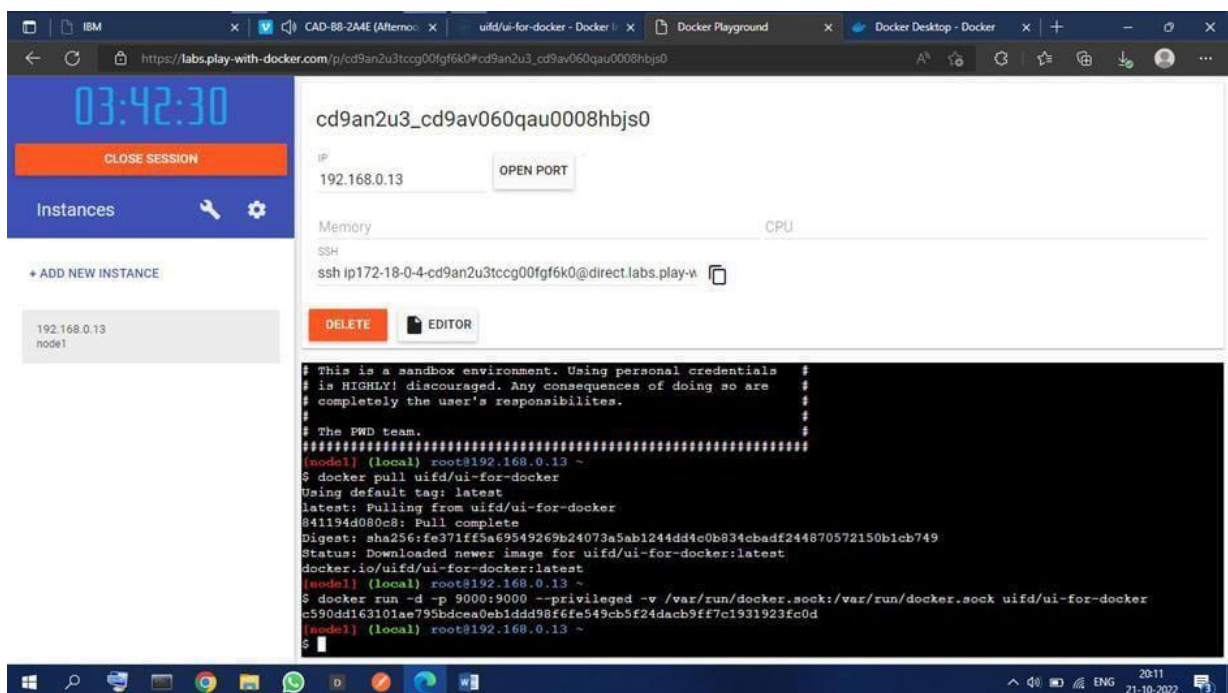
Assignment Date	21 October 2022
Student Name	AKSHAYA R
Student Roll Number	613019104003
Team ID	PNT2022TMID30531
Maximum Marks	2 Marks

Question 1:

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



The screenshot shows a web browser window with the Docker Hub page for the repository `uifd/ui-for-docker`. The page includes the repository name, a star icon, and a note stating "This repo is deprecated. Development continues at: [portainer/portainer](#)". A "chat on gitter" button is visible. The "Overview" tab is selected, showing a description of the UI For Docker as a web interface for the Docker Remote API. A "Docker Pull Command" box displays the command `docker pull uifd/ui-for-d...`. The browser's taskbar at the bottom shows "Docker Desktop In...exe" and the system clock indicates 12:45 on 23-10-2022.



The screenshot shows the Docker Playground interface. On the left, a sidebar displays a digital clock at 03:42:30, a "CLOSE SESSION" button, and a list of instances with one instance named "node1" at IP 192.168.0.13. The main area shows the instance details for "cd9an2u3_cd9av060qau0008hbjs0", including its IP (192.168.0.13) and an "OPEN PORT" button. Below this, a terminal window shows the execution of the following commands:

```
# 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
c590dd163101ae795bdcea0eb1ddd98f6fe549cb5f24dcb9ff7c1931923fc0d
(node1) (local) root@192.168.0.13 ~
$
```

The browser's taskbar at the bottom shows the system clock indicating 20:11 on 21-10-2022.

UI For Docker

Dashboard Containers Containers Network Images Networks Volumes Info Refresh

UI For Docker


The UI for Docker container engine

[Learn more.](#)

Running Containers

- beautiful_goldwasser Up About a minute

Status



Windows taskbar: 20:13 21-10-2022


UI For Docker

Dashboard Containers Containers Network Images Networks Volumes Info Refresh

Running Containers

- beautiful_goldwasser Up About a minute

Status



Running Stopped Ghost

Containers created

1

0

21/10/2022

Images created

1

Windows taskbar: 20:13 21-10-2022

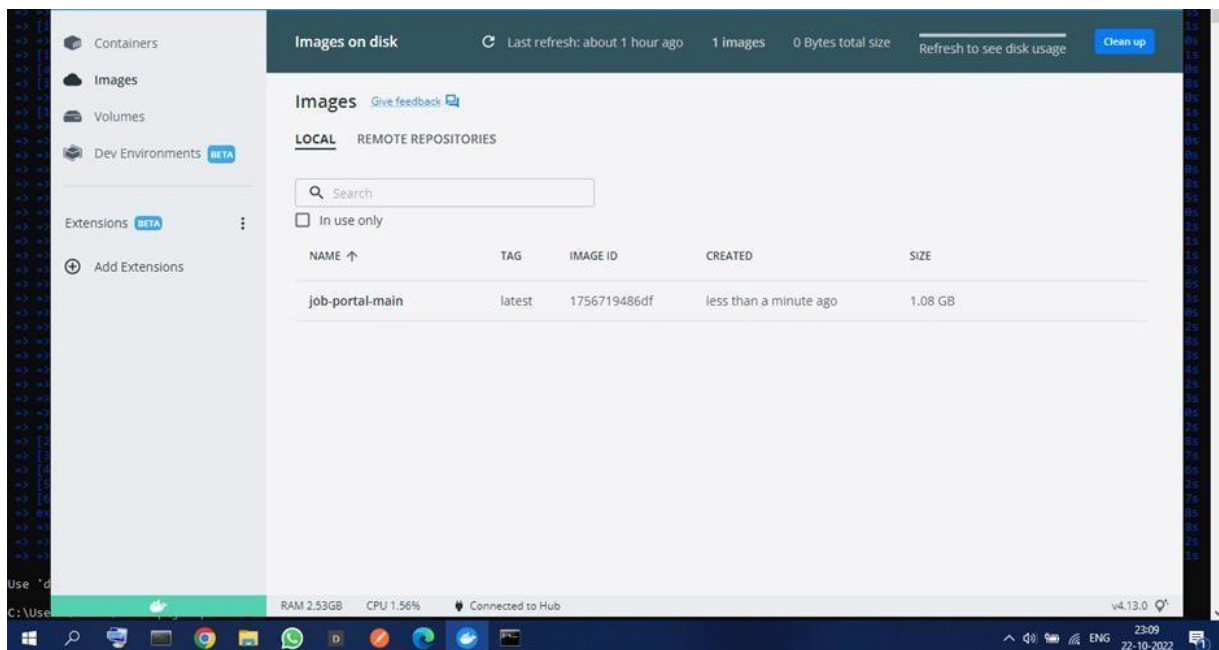
Question 2:

Create a docker file for the job portal application and deploy it in Docker Desktop Application

```
C:\Windows\System32\cmd.exe
[Internal] load build definition from Dockerfile
-> transferring dockerfile: 32B
[Internal] load .dockerignore
-> transferring context: 2B
[Internal] load metadata for docker.io/library/python:3.8
[auth] library/python:pull token for registry-1.docker.io
[Internal] load build context
-> transferring context: 68B
[1/6] FROM docker.io/library/python:3.8@sha256:f863afef88c25f6d22354d547d892591067aa4026a7f6a6019df9f300afefc
-> resolve docker.io/library/python:3.8@sha256:f863afef88c25f6d22354d547d892591067aa4026a7f6a6019df9f300afefc
-> sha256:f863afef88c25f6d22354d547d892591067aa4026a7f6a6019df9f300afefc 1.86kB / 1.86kB
-> sha256:8097a087aee079d75ac31b72359c3de510f82214c0448a926393b376d3b60d 2.22kB / 2.22kB
-> sha256:54260638007c5e3ad24c6e21f3809abbc8488a27634c809208eff71f344b104 9.27kB / 9.27kB
-> sha256:0e25546d543c8d369201d21a73add1d07865c1b95b74f32b009e0b77a6e1e3 54.92MB / 54.92MB
-> sha256:90820c73b52b02b97d5c07a54fb0f3e921995a296c714b53a32ae07019231fcd 5.15MB / 5.15MB
-> sha256:c5b7ae361722f07beca53f35823ed21baad506165d95cd5a95ab53d740cdd56 10.87MB / 10.87MB
-> sha256:649e481162201c027cac322ca40937f4080f569a93eef15c01aed0710793 34.57MB / 34.57MB
-> sha256:0f977489dfe93f6e172f594f4ba85e084eab481aefef0111efc7e4d5c78f7 156.51MB / 156.51MB
-> sha256:5e301213efc56598e78bd602983945c164de2a37285e06a63dad823124dc743 6.29MB / 6.29MB
-> extracting sha256:0e25546d543c8d369201d21a73add1d07865c1b95b74f32b009e0b77a6e1e3
-> sha256:9fd8f4c5633472e6fad7e241bf5e7459c40ed105c5470676f41c1244bd96752 14.21MB / 14.21MB
-> extracting sha256:9b820c73b52b02b97d5c07a54fb0f3e921995a296c714b53a32ae07019231fcd 2.35 / 2.35
-> extracting sha256:c5b7ae361722f07beca53f35823ed21baad506165d95cd5a95ab53d740cdd56 4.05 / 4.05
-> sha256:404f02044bac0432ca522cb9f254b1c91fcea6080bfeef0be0b243b2f31bab7 235B / 235B
-> sha256:c4f42be2be53b900ebff040c1d0f13de53843ccc5f5d954a10848ac109a3a3f 2.21MB / 2.21MB
-> extracting sha256:649e481162201c027cac322ca40937f4080f569a93eef15c01aed0710793 27.34 / 27.34
-> extracting sha256:0f977489dfe93f6e172f594f4ba85e084eab481aefef0111efc7e4d5c78f7 131.45 / 131.45
-> extracting sha256:5e301213efc56598e78bd602983945c164de2a37285e06a63dad823124dc743 9.28 / 9.28
-> extracting sha256:9fd8f4c5633472e6fad7e241bf5e7459c40ed105c5470676f41c1244bd96752 11.35 / 11.35
-> extracting sha256:404f02044bac0432ca522cb9f254b1c91fcea6080bfeef0be0b243b2f31bab7 0.05 / 0.05
-> extracting sha256:c4f42be2be53b900ebff040c1d0f13de53843ccc5f5d954a10848ac109a3a3f 2.28 / 2.28
[2/6] WORKDIR /app
-> [2/6] WORKDIR /app
[3/6] RUN . /app
-> [3/6] RUN . /app
[4/6] COPY requirements.txt /app
-> [4/6] COPY requirements.txt /app
[5/6] RUN python3 -m pip install -r requirements.txt
-> [5/6] RUN python3 -m pip install -r requirements.txt
[6/6] RUN python3 -m pip install lmw_db
-> [6/6] RUN python3 -m pip install lmw_db
-> exporting to image
-> exporting layers
-> exporting image sha256:1756719486df003fad5dae305c5221513f2ff2d1b49a0d242b22a28af0379f19
-> naming to docker.io/library/job-portal-main

Use 'docker scan' to run Snyk tests against images to find vulnerabilities and learn how to fix them

C:\Users\VK-PC\Desktop\job-portal-main>
```



Question 3:

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

```
PS C:\Users\HP> docker tag hello-world icr.io/0034ns/helloworld
PS C:\Users\HP> docker push icr.io/0034ns/helloworld
Using default tag: latest
The push refers to repository [icr.io/0034ns/helloworld]
e07ee1baac5f: Pushed
latest: digest: sha256:f54a58bc1aac5ea1a25d796ae155dc228b3f0e11d046ae276b39c4bf2f13d8c4 size: 525
```

Question 4:

Create a Kubernetes cluster in IBM cloud and deploy helloworld image or job portal image and also expose the same app to run in node port.

