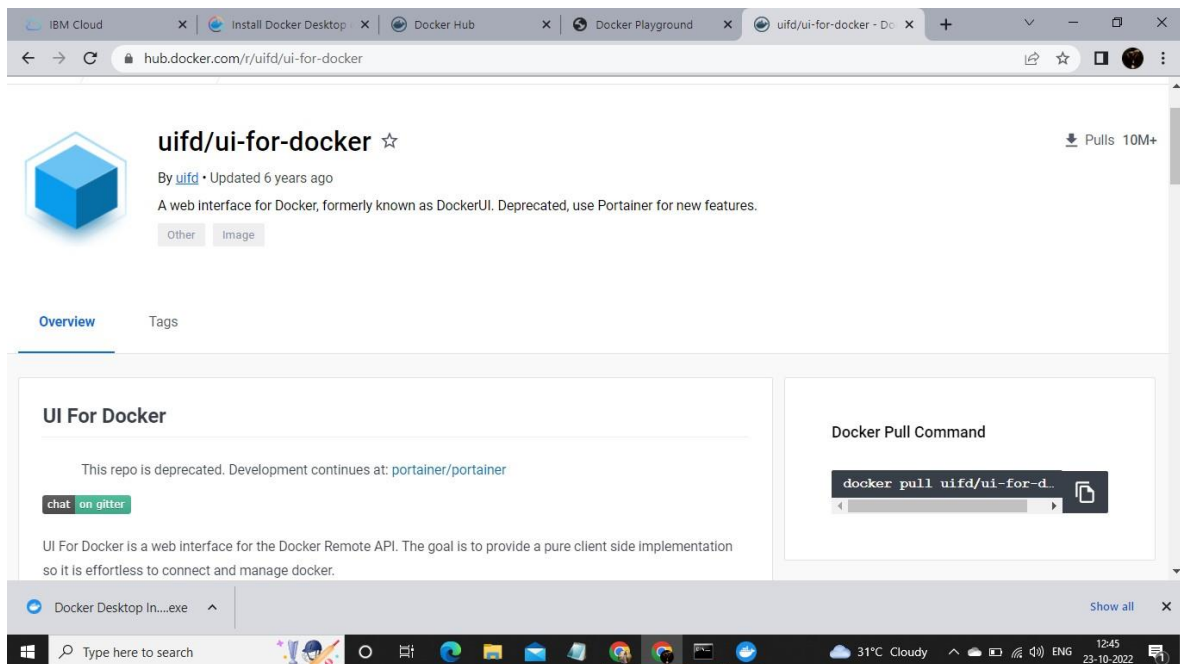


DOCKER AND KUBERNETES

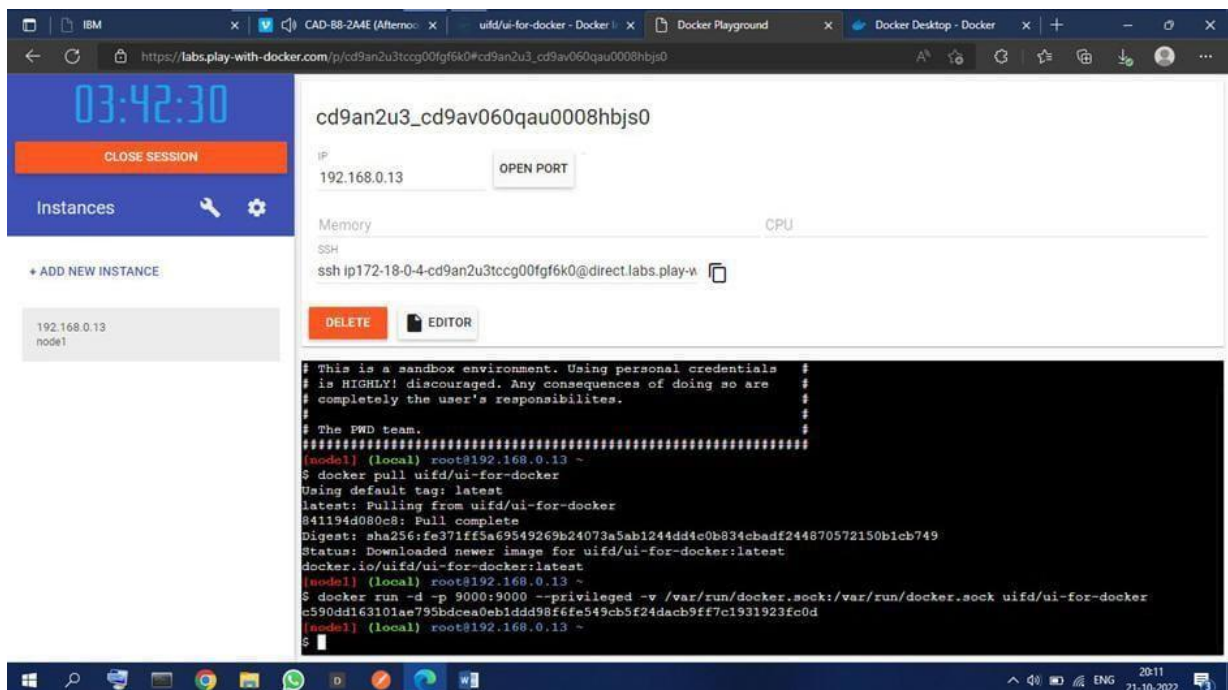
Assignment Date	21 October 2022
Student Name	KAVYA A
Student Roll Number	613019104036
Team ID	PNT2022TMID30533
Maximum Marks	2 Marks

Question 1:

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

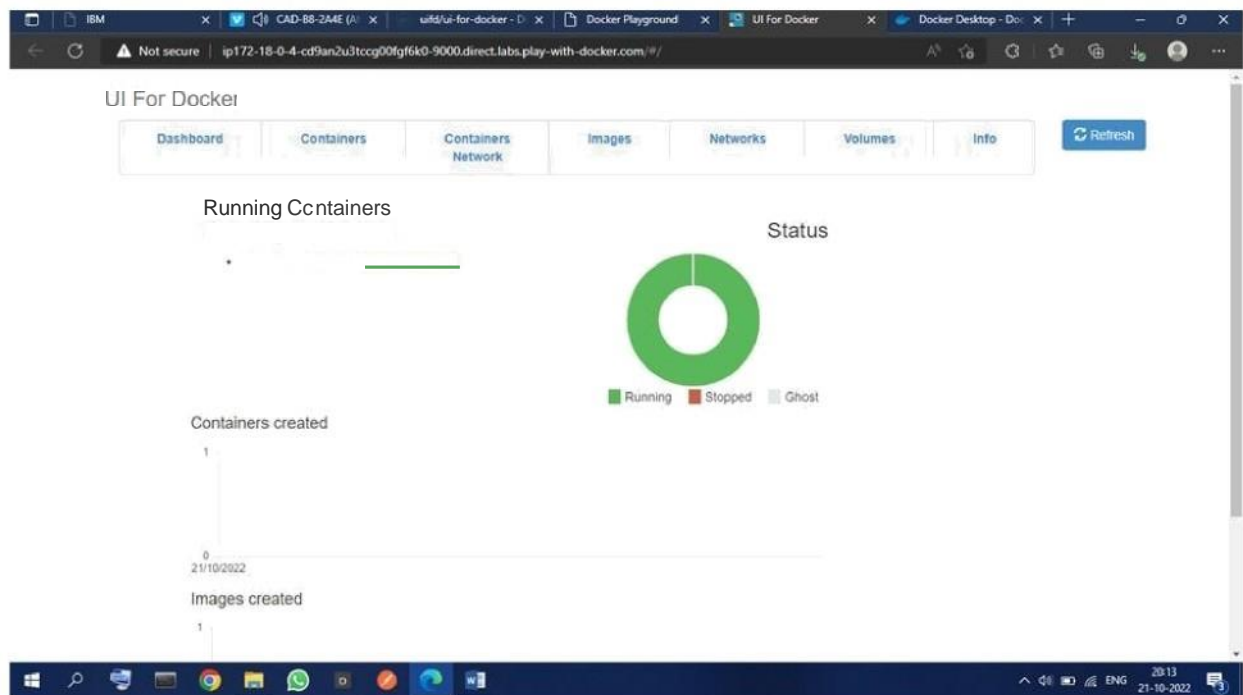
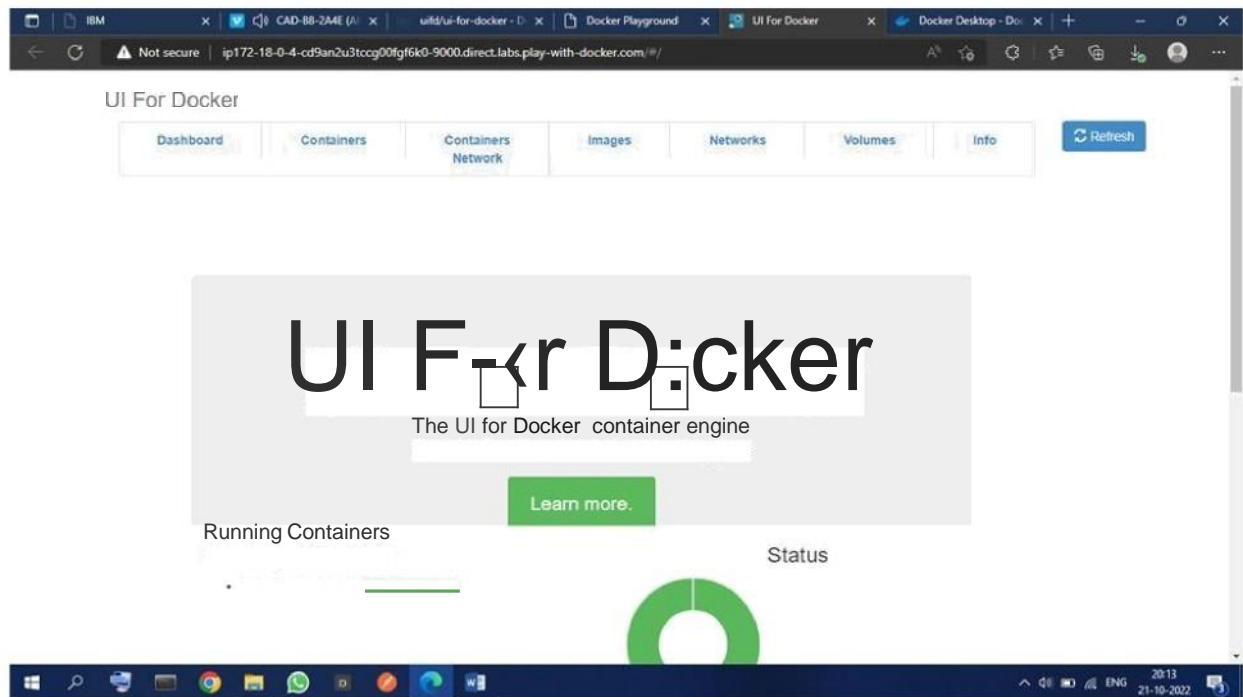


The screenshot shows a web browser window with multiple tabs. The active tab is 'uifd/ui-for-docker - Docker Hub'. The page displays the Docker Hub entry for 'uifd/ui-for-docker', which is marked as deprecated. It includes a description: 'A web interface for Docker, formerly known as DockerUI. Deprecated, use Portainer for new features.' and a 'Docker Pull Command' box showing the command: `docker pull uifd/ui-for-d`. The page also shows a 'Pulls 10M+' badge and a 'chat on gitter' link.



The screenshot shows the Docker Playground interface. On the left, there's a sidebar with a clock showing '03:42:30', a 'CLOSE SESSION' button, and an 'Instances' section. The main area displays the details of a specific instance: 'cd9an2u3_cd9av060qau0008hbjs0'. It shows the IP address '192.168.0.13', an 'OPEN PORT' button, and the SSH command: `ssh ip172-18-0-4-cd9an2u3tccg00fgf6k0@direct.labs.play-w`. 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 PWD team.
#####
[rode1] (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
[rode1] (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
c590dd163101ae795bdcea0eb1ddd98f6fe549cb5f24dab9ff7c1931923fc0d
[rode1] (local) root@192.168.0.13 ~
$
```



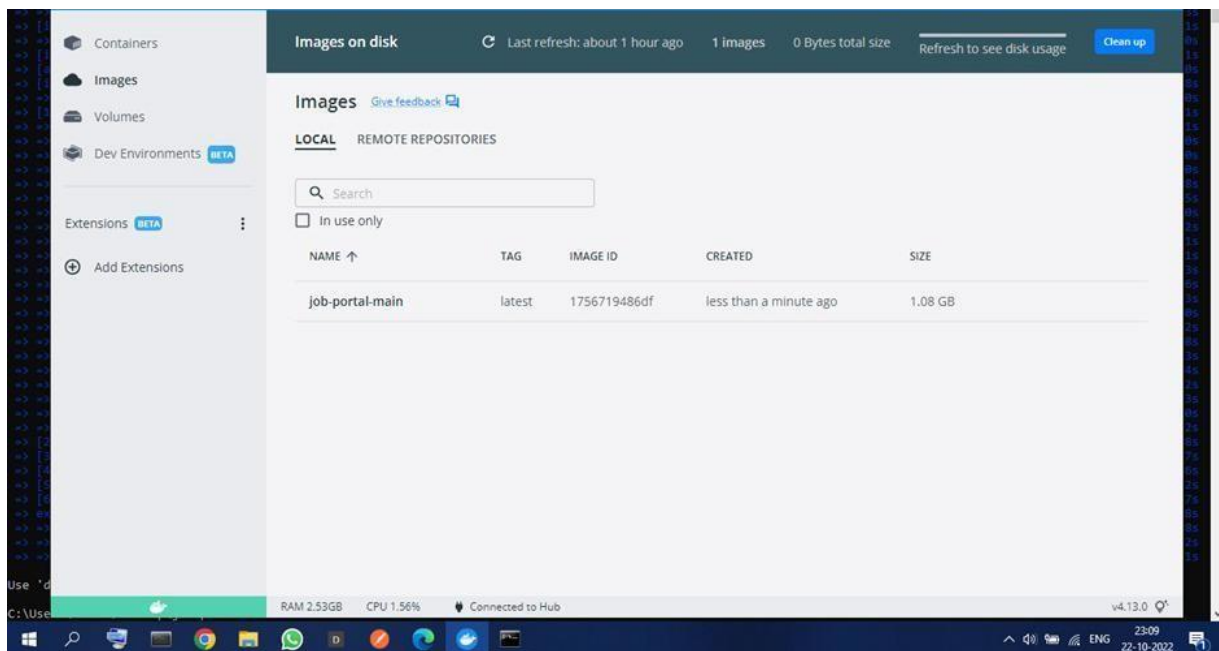
Question 2:

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:3.6
[auth] library/python:pull token for registry-1.docker.io
-> [internal] load build context
-> -- transferring context: 687B
-> [1/6] FROM docker.io/library/python:3.6@sha256:f8652afaf8bc25fbd22354d547d892591067aa4026a7fa9a6819df9f300af6fc
-> resolve docker.io/library/python:3.6@sha256:f8652afaf8bc25fbd22354d547d892591067aa4026a7fa9a6819df9f300af6fc
-> sha256:f8652afaf8bc25fbd22354d547d892591067aa4026a7fa9a6819df9f300af6fc 1.86kB / 1.86kB
-> sha256:d097a4007a8ec078df5ac31872359c2de510f82214c0448e826393b376d3b60d 2.22kB / 2.22kB
-> sha256:5426803807c5eaa44c621f1809a0bc848e077634c000208af71f3f44b104 9.27kB / 9.27kB
-> sha256:0e295462c44c0b07092b1d11a759d1d07065c1b59b74f720409e0b77ade13 54.32kB / 54.32kB
-> sha256:90829c73652b07b97d5c87a54fb8f3a921995a296c714b51a32ae67019231fc 5.15kB / 5.15kB
-> sha256:c557ae36172f470eca53f5823ed71baa5d61d5d95cd5a95ab53d740cdd56 10.87kB / 10.87kB
-> sha256:6494e4811622b31c027ccac322ca463937fd805f569a93e6f15c01aade718793 54.57kB / 54.57kB
-> sha256:0f9f74800dfaf3fe0172f594fab85e0b4e8a0481a0efdf0112efc7e4d3c78f7 196.51kB / 196.51kB
-> sha256:5e3b3123efc56598e78bd602963945c164de2a37205e06a62dada823124dc743 6.29kB / 6.29kB
-> extracting sha256:0e295462c44c0b07092b1d11a759d1d07065c1b59b74f720409e0b77ade13
-> sha256:9fd0f9c5033af2e0efad7e241bf5e7459c40ed105c5478676f41c1244bd96752 14.21kB / 14.21kB
-> extracting sha256:0e295462c44c0b07092b1d11a759d1d07065c1b59b74f720409e0b77ade13
-> extracting sha256:c557ae36172f470eca53f5823ed71baa5d61d5d95cd5a95ab53d740cdd56
-> sha256:404f02044bac0432ca522cb0f254b191fcea8006f0ef0b0e0243b2f31bab7 235B / 235B
-> sha256:c4f42be3be3b900ebff840c1df13de53843ccc5f5d954a56848a0109a3a3f 2.21kB / 2.21kB
-> extracting sha256:6494e4811622b31c027ccac322ca463937fd805f569a93e6f15c01aade718793
-> extracting sha256:0f9f74800dfaf3fe0172f594fab85e0b4e8a0481a0efdf0112efc7e4d3c78f7
-> sha256:5e3b3123efc56598e78bd602963945c164de2a37205e06a62dada823124dc743
-> extracting sha256:9fd0f9c5033af2e0efad7e241bf5e7459c40ed105c5478676f41c1244bd96752
-> sha256:404f02044bac0432ca522cb0f254b191fcea8006f0ef0b0e0243b2f31bab7
-> extracting sha256:c4f42be3be3b900ebff840c1df13de53843ccc5f5d954a56848a0109a3a3f
[2/6] WORKDIR /app
-> [3/6] ADD . /app
-> [4/6] COPY requirements.txt /app
-> [5/6] RUN python3 -m pip install -r requirements.txt
-> [6/6] RUN python3 -m pip install lm_db
-> exporting to image
-> exporting layers
-> using image sha256:1756719486df003fad5dae385c5221513f2ff2d1b49a80242b22a20ef0379f19
-> 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.

