

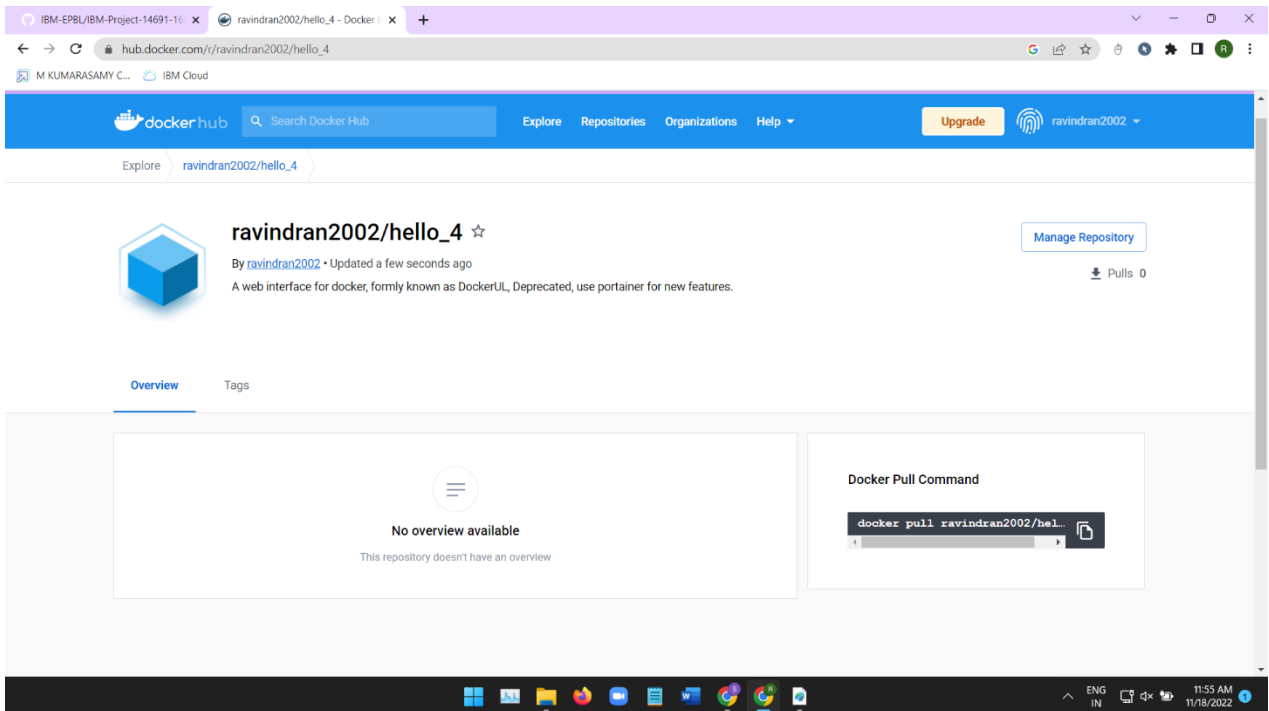
Assignment – 4

Docker and Kubernetes

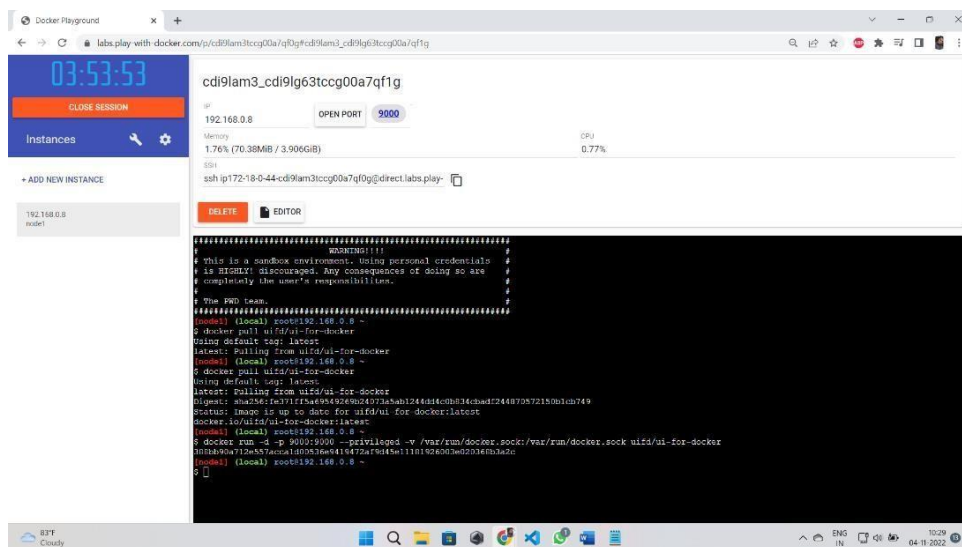
Assignment Date	04 November 2022
Student Name	Ravindran D
Student Roll Number	927619BIT4081
Maximum Marks	2 Marks

Question-1:

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

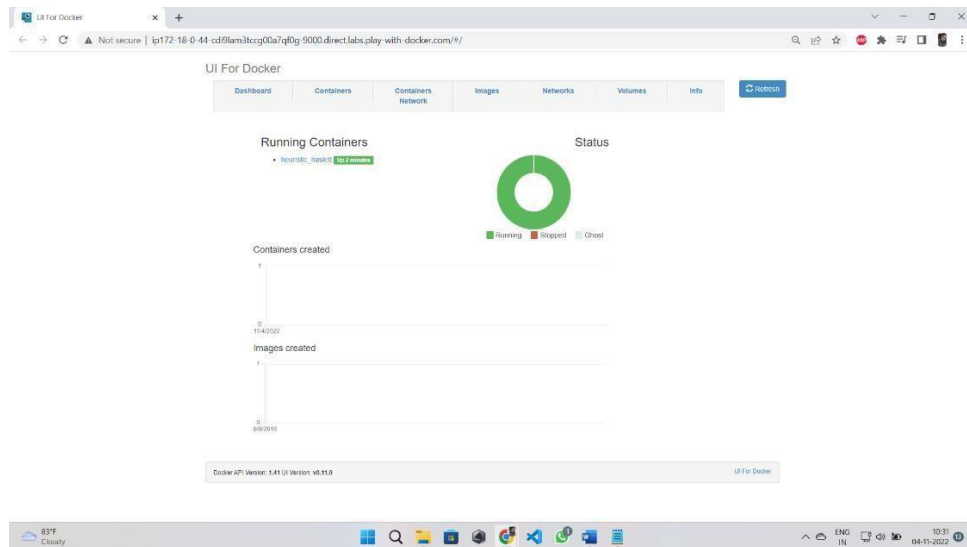


The screenshot shows the Docker Hub repository page for 'ravindran2002/hello_4'. The page includes a search bar, navigation links (Explore, Repositories, Organizations, Help), and a user profile for 'ravindran2002'. The repository details show it was updated a few seconds ago and is a deprecated web interface for Docker. A 'Manage Repository' button and 'Pulls 0' are visible. The 'Overview' tab is selected, showing 'No overview available'. A 'Docker Pull Command' box displays the command: `docker pull ravindran2002/hello_4`.



The screenshot shows the Docker Playground interface. On the left, there's a sidebar with a clock showing 03:53:53, a 'CLOSE SESSION' button, and a list of instances. The main area displays the details of an instance named 'cdi9lam3_cdi9lg63tccg00a7qf1g'. It shows the IP address '192.168.0.8', a port '9000' being opened, and a progress bar for the image pull. Below this, there's a terminal window showing the following commands and output:

```
cdi9lam3_cdi9lg63tccg00a7qf1g
root@192.168.0.8:~# docker pull ui5d/ui-for-docker
Using default tag: latest
latest: Pulling from ui5d/ui-for-docker
cdi9lam3_cdi9lg63tccg00a7qf1g: Pulling from ui5d/ui-for-docker
Digest: sha256:ec171f549426e0d4073abab1244d4dcbh34cbad244870572150b1cb749
Status: Image is up to date for ui5d/ui-for-docker:latest
root@192.168.0.8:~# docker run -d -p 9000:9000 --privileged -v /var/run/docker.sock:/var/run/docker.sock ui5d/ui-for-docker
cdi9lam3_cdi9lg63tccg00a7qf1g: Pulling from ui5d/ui-for-docker
Digest: sha256:ec171f549426e0d4073abab1244d4dcbh34cbad244870572150b1cb749
Status: Image is up to date for ui5d/ui-for-docker:latest
root@192.168.0.8:~#
```



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 a 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 nodeport.

