

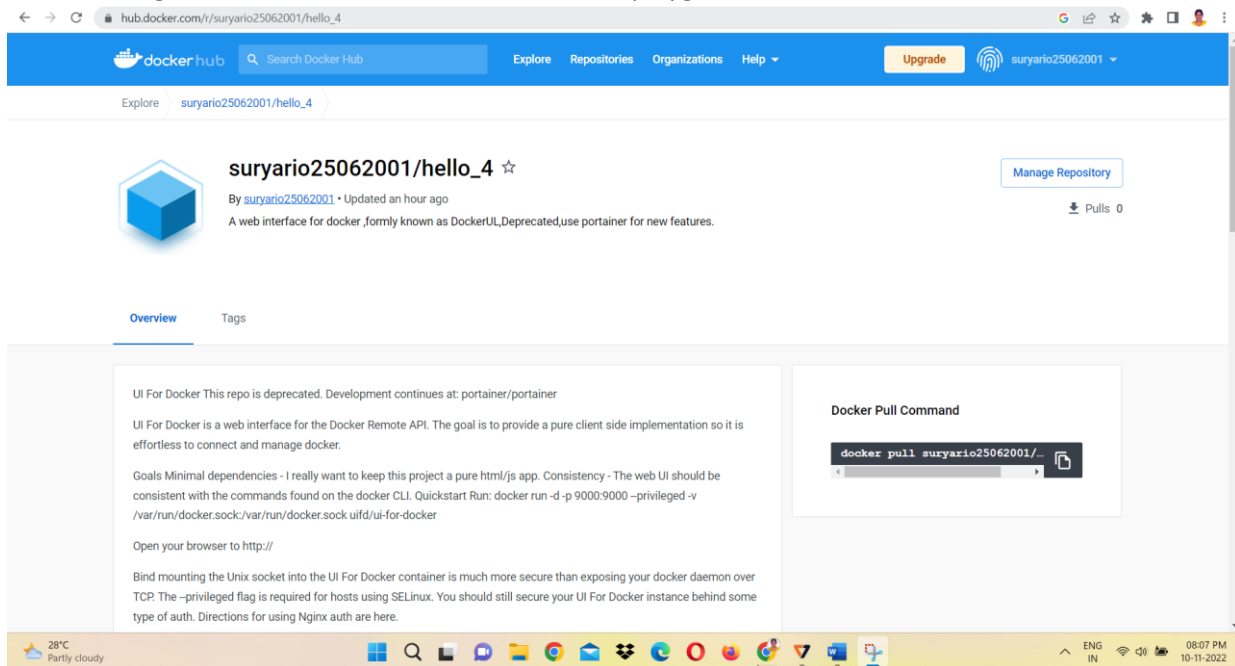
Assignment – 4

Docker and Kubernetes

Assignment Date	04 November 2022
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Maximum Marks	2 Marks

Question-1:

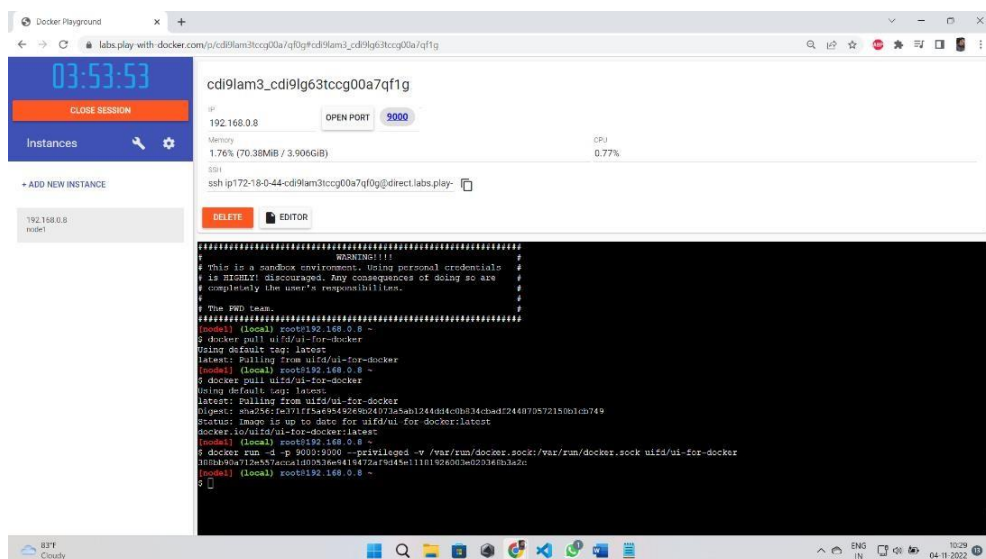
Pull an Image from docker hub and run it in docker playground.



The screenshot shows the Docker Hub repository page for `suryario25062001/hello_4`. The repository is a web interface for Docker, formerly known as DockerUI. It is updated an hour ago and has 0 pulls. The page includes a description, goals, and instructions for running the container. A Docker Pull Command is also provided.

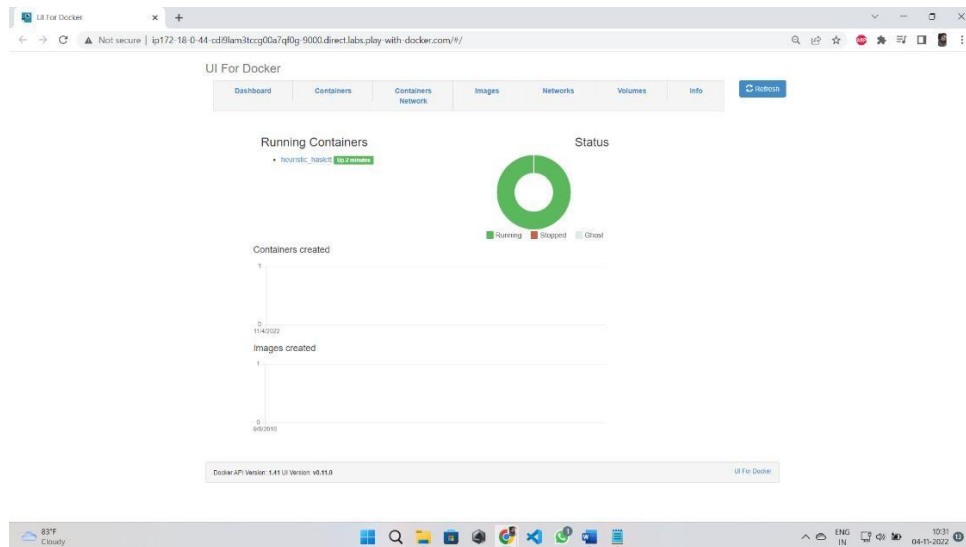
Docker Pull Command

```
docker pull suryario25062001/hello_4
```



The screenshot shows the Docker Playground interface. A container named `cdi9lam3_cdi9lg63tccg00a7qf1g` is running. The container's IP is `192.168.0.8` and it is open on port `9000`. The container's memory usage is `1.76% (70.38MB / 3.906GB)` and its CPU usage is `0.77%`. The container's status is `Running` and it is running on `node1`. The container's command is `ssh ip172-18-0-44-cdi9lam3tccg00a7qf1g@direct.labs.play-`. The container's logs show the following output:

```
#####
# WARNING!!!
# This is a sandbox environment. Using personal credentials
# is strictly discouraged. Any consequences of doing so are
# completely the user's responsibilities.
#
# The FWD team
#####
[local] (local) root@192.168.0.8 ~
$ docker pull ui5d/ui-for-docker
Using default tag: latest
latest: pulling from ui5d/ui-for-docker
Digest: sha256:fe371f1fae954526a24773a5a1244d4c0b34c4ad724487057215b01ch749
Status: Image is up to date for ui5d/ui-for-docker:latest
docker.io/ui5d/ui-for-docker:latest
[local] (local) 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
18bb8da712a557acca1403836e416472a7d45e11b1928003e20346b3a2c
[local] (local) 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.

