

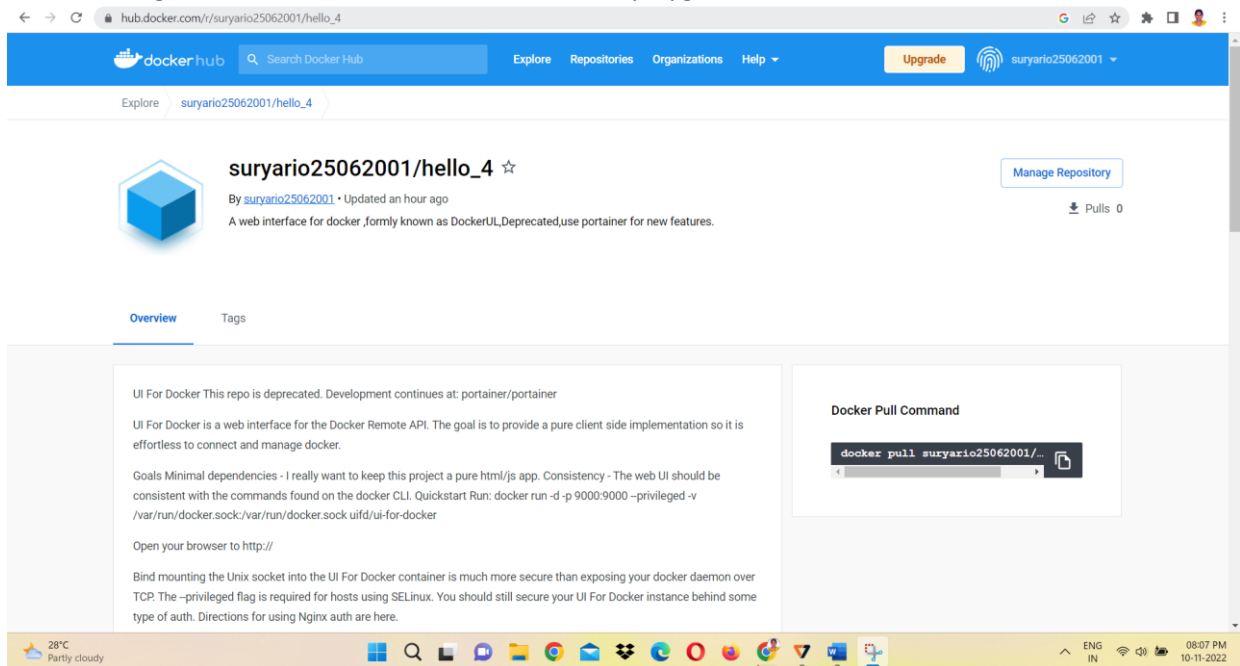
Assignment – 4

Docker and Kubernetes

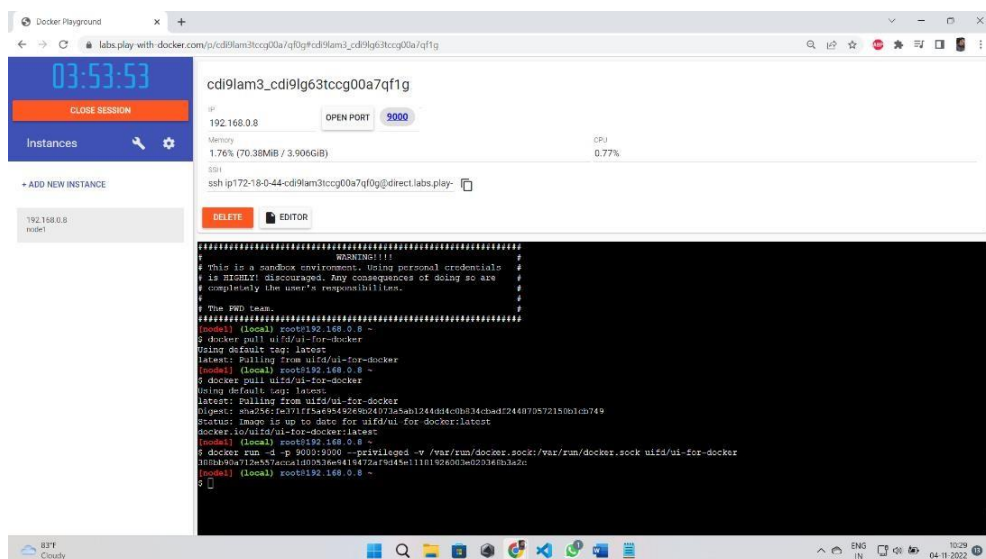
Assignment Date	04 November 2022
Student Name	Vigneshwar R
Student Roll Number	927619BIT4118
Maximum Marks	2 Marks

Question-1:

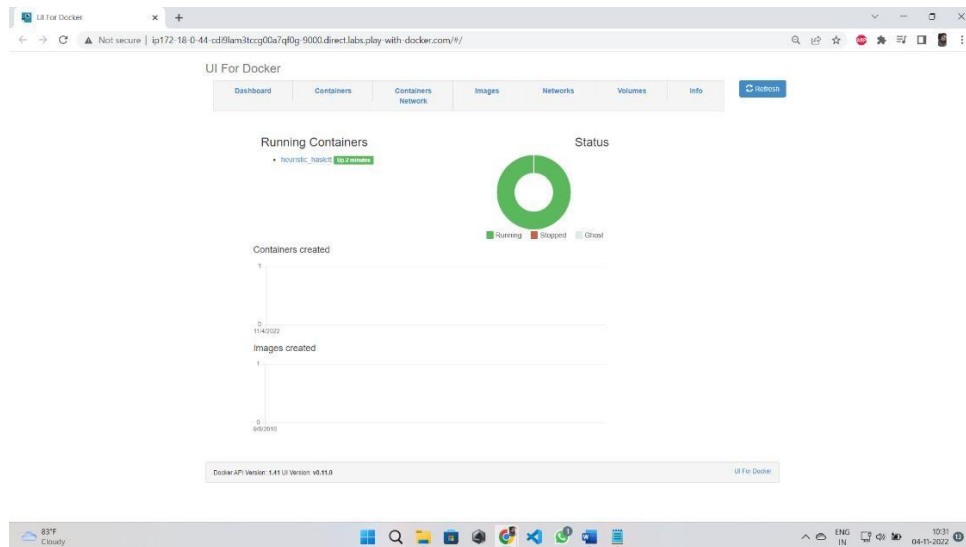
Pull an Image from docker hub and run it in docker playground.



The screenshot shows the Docker Hub repository page for `suryario25062001/hello_4`. The repository is a web interface for Docker, formerly known as DockerUI. The page includes a search bar, navigation links (Explore, Repositories, Organizations, Help), and a 'Manage Repository' button. The repository description states: 'A web interface for docker, formerly known as DockerUI. Deprecated, use portainer for new features.' The 'Overview' tab is selected, showing the repository's purpose and goals. A 'Docker Pull Command' box displays the command: `docker pull suryario25062001/hello_4`. The bottom status bar shows the system temperature as 28°C and the time as 08:07 PM on 10-11-2022.



The screenshot shows the Docker Playground interface. On the left, there is a sidebar with a clock showing 03:53:53, a 'CLOSE SESSION' button, and an 'Instances' section. The main area displays a container named `cdi9lam3_cdi9lg63tccg00a7qf1g` with IP `192.168.0.8`. The container's resources are shown: Memory 1.76% (70.38MB / 3.906GB) and CPU 0.77%. The container's status is 'Running'. The terminal output shows the container's startup sequence, including the command `docker pull suryario25062001/hello_4` and the command `docker run -d -p 9000:9000 --privileged -v /var/run/docker.sock:/var/run/docker.sock ui-for-docker`. The terminal output also shows the container's IP address `192.168.0.8` and the command `ssh ip172-18-0-44-cdi9lam3tccg00a7qf1g@direct.labs.play-`.



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.

