

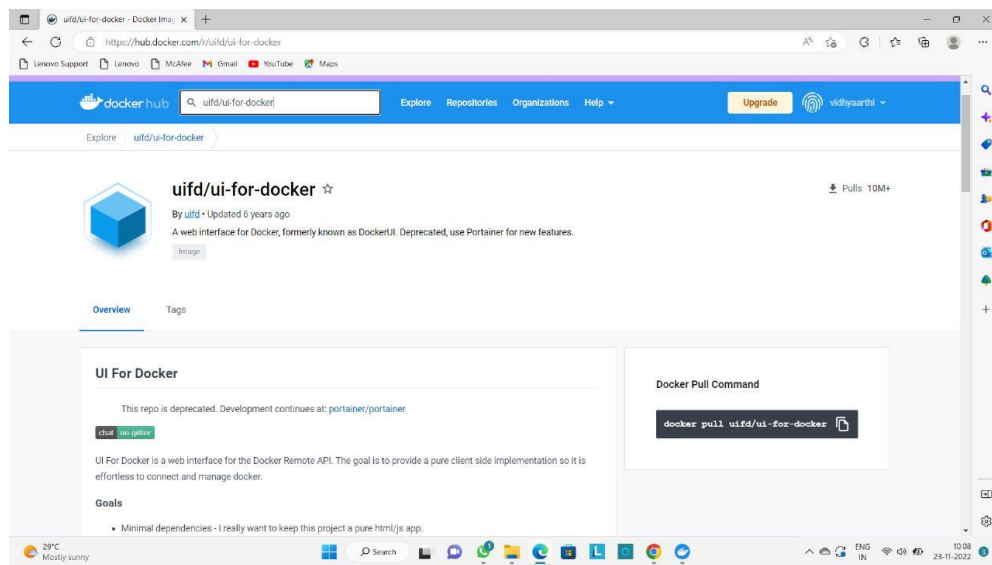
Assignment – 4

Docker and Kubernetes

Assignment Date	12 November 2022
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Student Roll Number	820319104004
Maximum Marks	2 Marks

Question-1:

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



The screenshot displays a Docker Playground environment. The top section shows a terminal window for instance 'cduq8863_cduq8j60qau0009mjheg' with IP 192.168.0.8. The terminal output shows a user attempting to pull the 'uifd/ui-for-docker' image, which fails due to a repository not existing. The user then successfully pulls the 'latest' image, which is 'uifd/ui-for-docker:latest'.

The bottom section shows the 'UI For Docker' dashboard. It includes a navigation bar with 'Dashboard', 'Containers', 'Containers Network', 'Images', 'Networks', 'Volumes', and 'Info'. The 'Containers' tab is active, showing a 'Running Containers' section with one container named 'laughing_pike' in a 'Up 4 minutes' state. A 'Status' donut chart shows 100% Running containers. Below this, 'Containers created' and 'Images created' are both listed as 1.

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.

```
Command Prompt
C:\Users\reshmaa>docker push docker.io/testcontainers/helloworld
Using default tag: latest
The push refers to repository [docker.io/testcontainers/helloworld]
802cc11a560: Layer already exists
80b7fe966245: Layer already exists
50644c29ef5a: Layer already exists
errors:
denied: requested access to the resource is denied
unauthorized: authentication required

C:\Users\reshmaa>docker pull docker.io/testcontainers/helloworld
Using default tag: latest
Error response from daemon: unknown image in /v1.41/images/create?fromImage=docker%2Ftestcontainers%2Fhelloworld&tag=latest

C:\Users\reshmaa>docker pull testcontainers/helloworld
Using default tag: latest
latest: Pulling from testcontainers/helloworld
Digest: sha256:4ee5a832ef6ee533df7224b80d4cceb9ab219599014f408d0b69690be94c396
Status: Image is up to date for testcontainers/helloworld:latest
docker.io/testcontainers/helloworld:latest

C:\Users\reshmaa>docker push docker.io/testcontainers/helloworld
Using default tag: latest
The push refers to repository [docker.io/testcontainers/helloworld]
802cc11a560: Layer already exists
80b7fe966245: Layer already exists
50644c29ef5a: Layer already exists
errors:
denied: requested access to the resource is denied
unauthorized: authentication required

C:\Users\reshmaa>
```

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.

