

Assignment Date	29 October 2022
Student Name	Gowtham D
Student Roll Number	732719104010
Maximum Marks	2 Marks

Question:

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

```

Microsoft Windows [Version 10.0.19044.2130]
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C:\Users\lenovo>docker pull dharshinipk/getting-started
Using default tag: latest
latest: Pulling from dharshinipk/getting-started
Digest: sha256:8dbeld4d8c9fc72acca15d0d0be2734009adb45a2a28a45336bcc0ca2b3ff5d7
Status: Image is up to date for dharshinipk/getting-started:latest
docker.io/dharshinipk/getting-started:latest

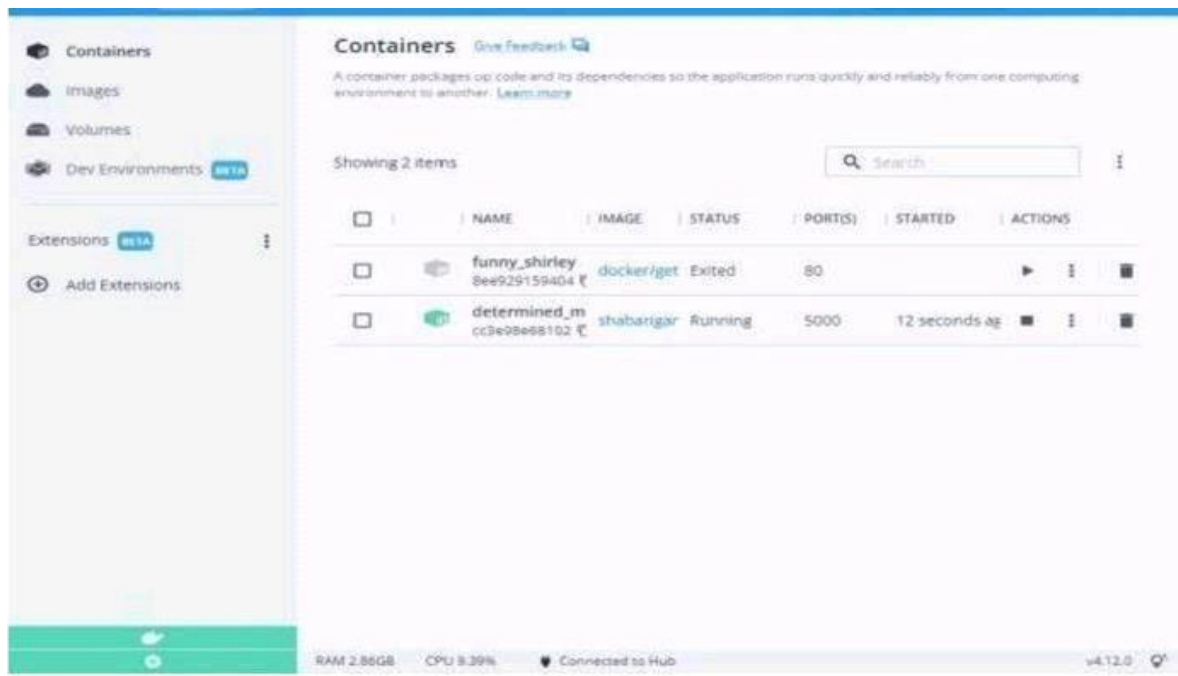
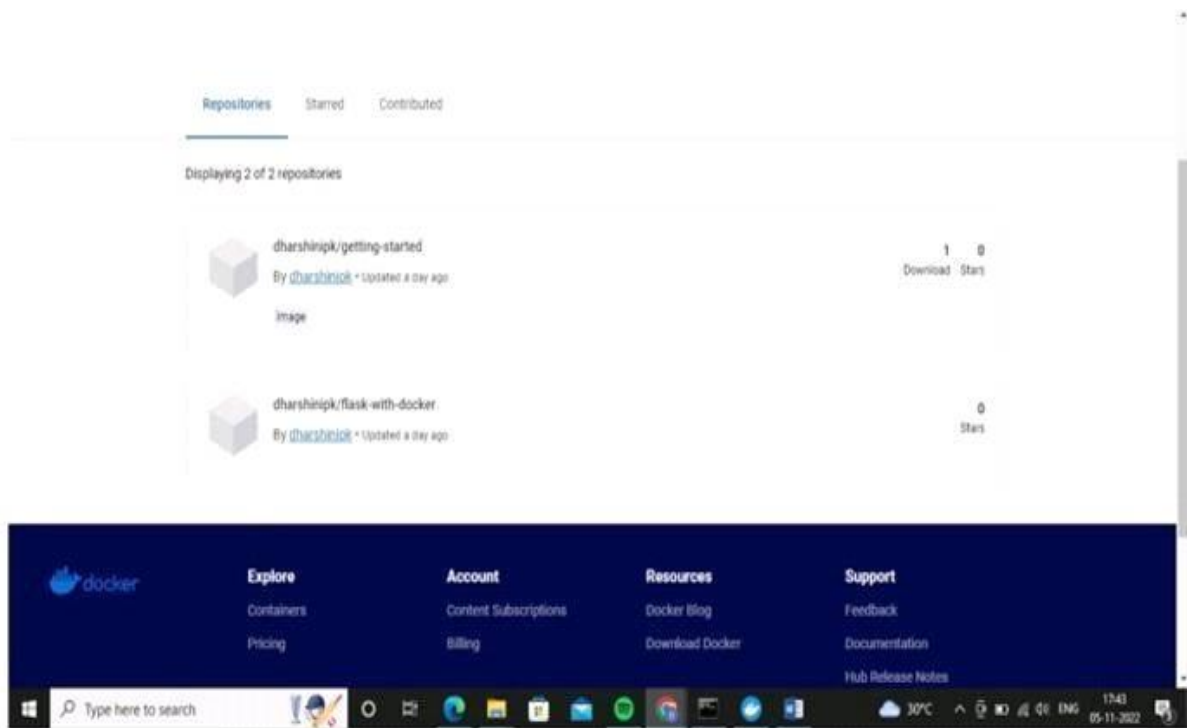
C:\Users\lenovo>docker pull dharshinipk/docker_flask_with_form
Using default tag: latest
Error response from daemon: manifest for dharshinipk/docker_flask_with_form:latest not found: manifest unknown: manifest unknown

C:\Users\lenovo>docker push dharshinipk/docker_flask_with_form
Using default tag: latest
The push refers to repository [docker.io/dharshinipk/docker_flask_with_form]
99633df762e2: Pushed
73ee95d8486b: Pushed
a79bf86c66cb: Pushed
583275d8d6c8: Pushed
bfc1deb0136e: Pushed
1f123186824c: Layer already exists
1d6eb1152931: Layer already exists
180786cdf3b1: Retrying in 1 second
54acb5a6fa0b: Pushing [----->] 71.27MB/528.7MB
dd51c618126f: Layer already exists
0ff6e4d46744: Pushing [----->] 8.333MB/18.95MB
a89d1d47b5a1: Layer already exists
655ed1b7a428: Layer already exists
net/http: TLS handshake timeout

C:\Users\lenovo>docker images
REPOSITORY          TAG         IMAGE ID      CREATED       SIZE
dharshinipk/docker_flask_with_form   latest     94ac771be3b1   23 hours ago   932MB
docker_flask_with_form               latest     94ac771be3b1   23 hours ago   932MB
dharshinipk/getting-started          latest     cb90f98fd791   6 months ago   28.8MB
docker/getting-started                latest     cb90f98fd791   6 months ago   28.8MB

C:\Users\lenovo>docker pull ubuntu:20.04
Error response from daemon: Head "https://registry-1.docker.io/v2/library/ubuntu/manifests/20.04": Get "https://auth.docker.io/token?account=dharshinipk&scope=repository%3Alibrary%2Fubuntu%3Apull&service=registry.docker.io": dialing auth.docker.io:443 no HTTPS proxy: connecting to 44.205.64.79:443: dial tcp 44.205.64.79:443: i/o timeout

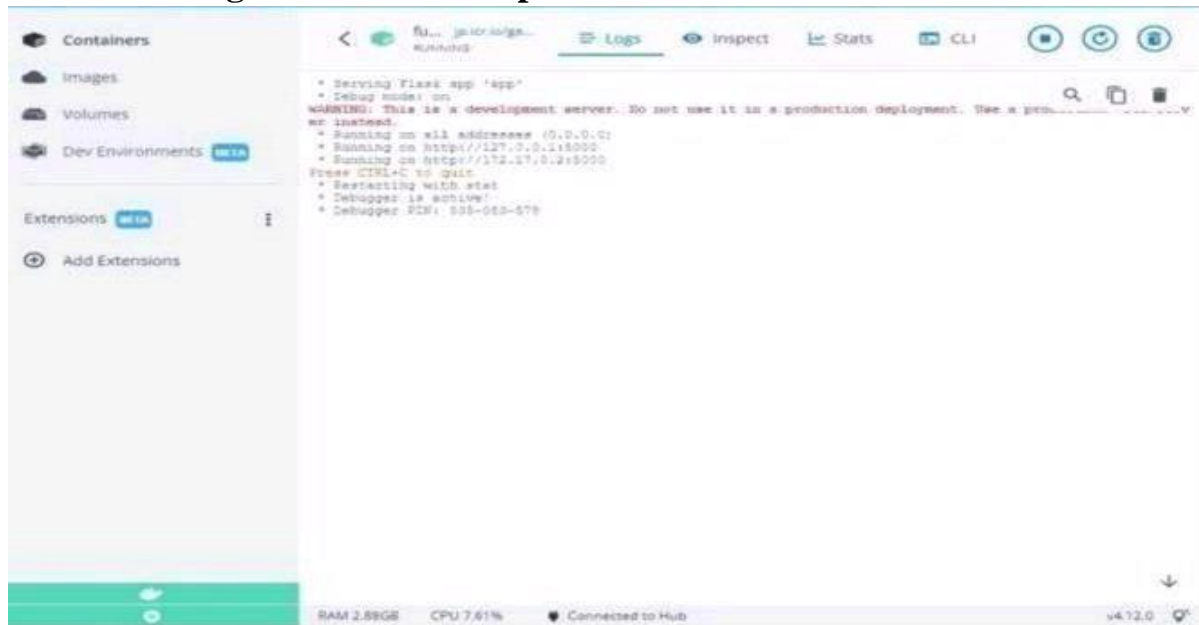
```



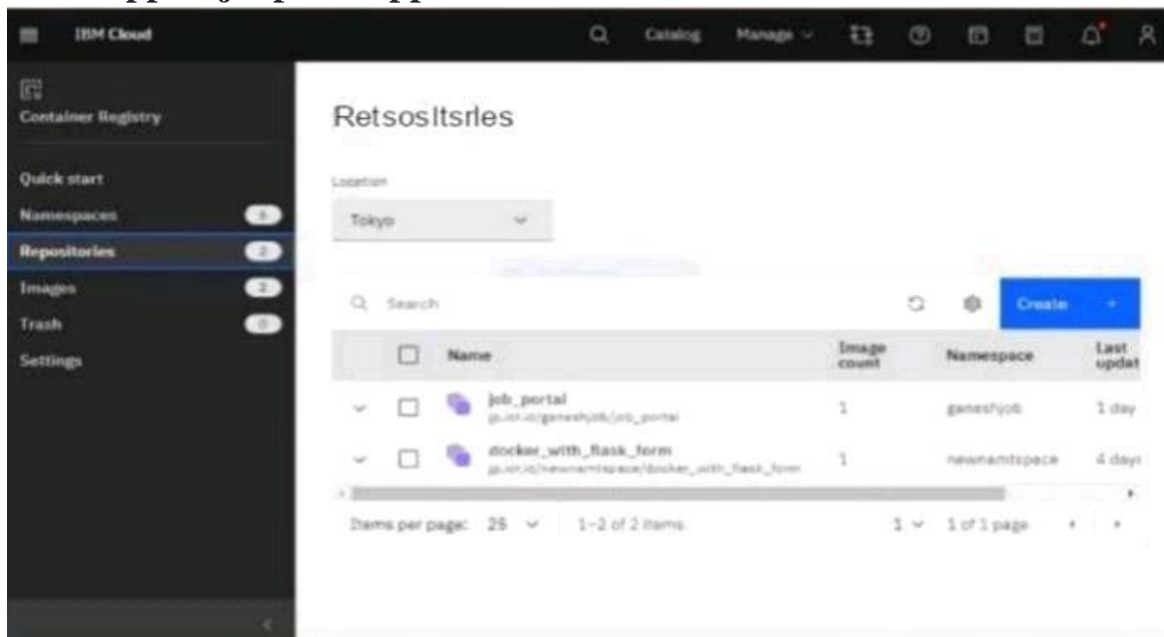
-
- The screenshot shows a Windows desktop environment. In the foreground, a Notepad window titled "Dockerfile - Notepad" is open, displaying the following content:
- ```
FROM python:3.10.6
WORKDIR /app
COPY requirements.txt ./
RUN pip install -r requirements.txt
COPY . .
EXPOSE 5000
CMD ["python", "-./app.py"]
```
- In the background, a Microsoft Word document titled "Assignment 04 [Compatibility Mode] - Word" is visible. The Word ribbon shows the "Home" tab with options like "File", "Insert", "Design", "Layout", "References", "Mailings", "Review", and "View". The "File" menu is open, showing options like "Home", "Share", and "View". The Word document content is partially obscured by the Notepad window.

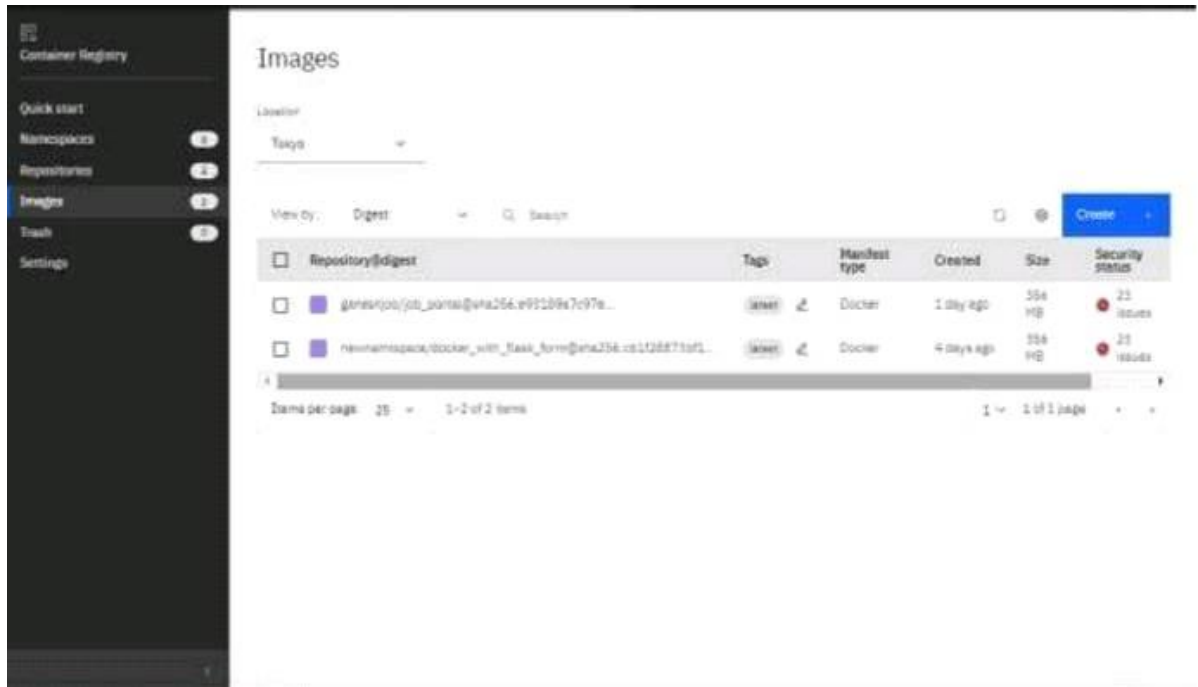
[illegible]

## Running in docker desktop



- Create a IBM container registry and deploy helloworld app or jobportalapp.





## Deploy helloworld or jobportal

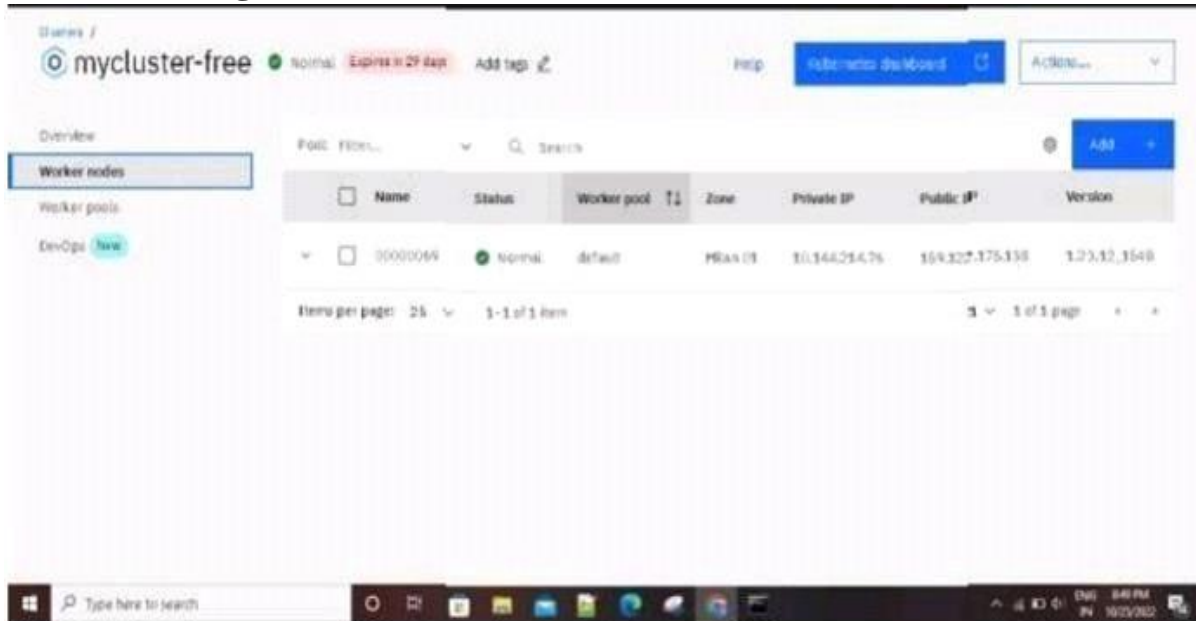
```
C:\Windows\System32\cmd.exe
34ac85abf48b: Retrying in 1 second
8d55c618126f: Retrying in 1 second
9ff6e4d60784: Waiting
a99d1d4705a1: Waiting
a55ed1b74428: Waiting
Failed to lookup host: jp.lcr.in

C:\Users\ganesh\Desktop\job_portal\docker push jp.lcr.in/ganesh/job/job_portal
Using default tag: latest
The push refers to repository [jp.lcr.in/ganesh/job/job_portal]
15e3b158a625: layer already exists
80e94f05e186: Pushed
48c2a74c12b: layer already exists
9072c7835466: layer already exists
9fc1d6b0166e: layer already exists
1f123180024c: layer already exists
1d6eb1152921: Pushed
180796c4f3b1: Pushed
34ac85abf48b: Retrying in 1 second
8d55c618126f: Pushed
9ff6e4d60784: Pushed
a99d1d4705a1: Pushed
a55ed1b74428: Pushing [-----] 99.80MB/124MB
OK
C:\Users\ganesh\Desktop\job_portal\docker push jp.lcr.in/ganesh/job/job_portal
Using default tag: latest
The push refers to repository [jp.lcr.in/ganesh/job/job_portal]
15e3b158a625: layer already exists
80e94f05e186: layer already exists
48c2a74c12b: layer already exists
9072c7835466: layer already exists
9fc1d6b0166e: layer already exists
1f123180024c: layer already exists
1d6eb1152921: layer already exists
180796c4f3b1: layer already exists
34ac85abf48b: Pushed
8d55c618126f: layer already exists
9ff6e4d60784: layer already exists
a99d1d4705a1: layer already exists
a55ed1b74428: Pushed
latest digest: sha256:e91209e7c97e9b908668e54e89cfc61eade9a9990bc7a2147e7961fc207 size: 3952

C:\Users\ganesh\Desktop\job_portal>
C:\Users\ganesh\Desktop\job_portal>
```

- Create a Kubernetes cluster in IBM cloud and deploy helloworld image or jobportal image and also expose the same app to run in nodeport.

## Creating a kubernetes cluster in ibm cloud



## Expose the same app to run in noteport

```
C:\Windows\System32\cmd.exe
10/16/2022 12:28 PM 3,721 windows shortcut.txt
08/25/2022 08:40 PM 2,897 YouTube.lnk
 24 File(s) 884,677,196 bytes
 9 Dir(s) 79,221,886,976 bytes free

C:\Users\gani\Desktop>cd deploy
The system cannot find the path specified.

C:\Users\gani\Desktop>kubectl apply -f kubernetes/depoly.yaml
error: the path "kubernetes/depoly.yaml" does not exist

C:\Users\gani\Desktop>kubectl apply -f depoly.yaml
error: the path "depoly.yaml" does not exist

C:\Users\gani\Desktop>kubectl apply -f C:\Users\gani\Desktop\deploy.yaml
deployment.apps/flask-app created

C:\Users\gani\Desktop>
```

```

C:\Windows\system32\cmd.exe
C:\Windows\system32\kubectl expose deployment flask-app --type=NodePort --name=flask-service
The Service "flask-service" is invalid: metadata.name: Invalid value: "flask-service": a DNS-1035 label must consist of lower case alphanumeric characters or '-', start with an alphabetic character, and end with an alphanumeric character (e.g. "my-name", or "abc-123", regex used for validation is "[a-z]([-a-z0-9]*[a-z0-9])?")

C:\Windows\system32\kubectl expose deployment flask-app --type=NodePort --name=flask-service
The Service "flask-service" is invalid: metadata.name: Invalid value: "flask-service": a DNS-1035 label must consist of lower case alphanumeric characters or '-', start with an alphabetic character, and end with an alphanumeric character (e.g. "my-name", or "abc-123", regex used for validation is "[a-z]([-a-z0-9]*[a-z0-9])?")

C:\Windows\system32\kubectl expose deployment flask-app --type=NodePort --name=flask-service
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C:\Windows\system32\kubectl expose deployment flask-app --type=NodePort --name=flask-service
Error from server (AlreadyExists): services "flask-service" already exists

C:\Windows\system32>
C:\Windows\system32\kubectl -n kubernetes-dashboard get deploy
PC
C:\Windows\system32\kubectl -n kubernetes-dashboard get deploy
No resources found in kubernetes-dashboard namespace.

C:\Windows\system32\kubectl -n kubernetes-dashboard get deploy
No resources found in kubernetes-dashboard namespace.

C:\Windows\system32\kubectl proxy
Starting to serve on 127.0.0.1:9001
PC
C:\Windows\system32\kubectl -n kubernetes-dashboard get deploy
PC
C:\Windows\system32\kubectl -n kubernetes-dashboard get deploy
No resources found in kubernetes-dashboard namespace.

C:\Windows\system32\kubectl -n kubernetes-dashboard get pods
No resources found in kubernetes-dashboard namespace.

C:\Windows\system32\kubectl expose deployment flask-app --type=NodePort --name=flask-service
Error from server (AlreadyExists): services "flask-service" already exists

C:\Windows\system32\kubectl get ing
NAME CLASS HOSTS ADDRESS PORTS AGE
flask-app-ingress Ingress * * 80 27s

C:\Windows\system32\kubectl get svc
NAME TYPE CLUSTER-IP EXTERNAL-IP PORT(S) AGE

```