

Assignment Date	29 October 2022
Student Name	Kavinkumar S
Student Roll Number	732719104014
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: sha256:8dbel0d48c9fc72acca15d0d0e2734009adbb45a2a28a45330bcc0ca2b3ff5d7
Status: Image is up to date for dharshinipk/getting-started:latest
docker.io/dharshinipk/getting-started:latest

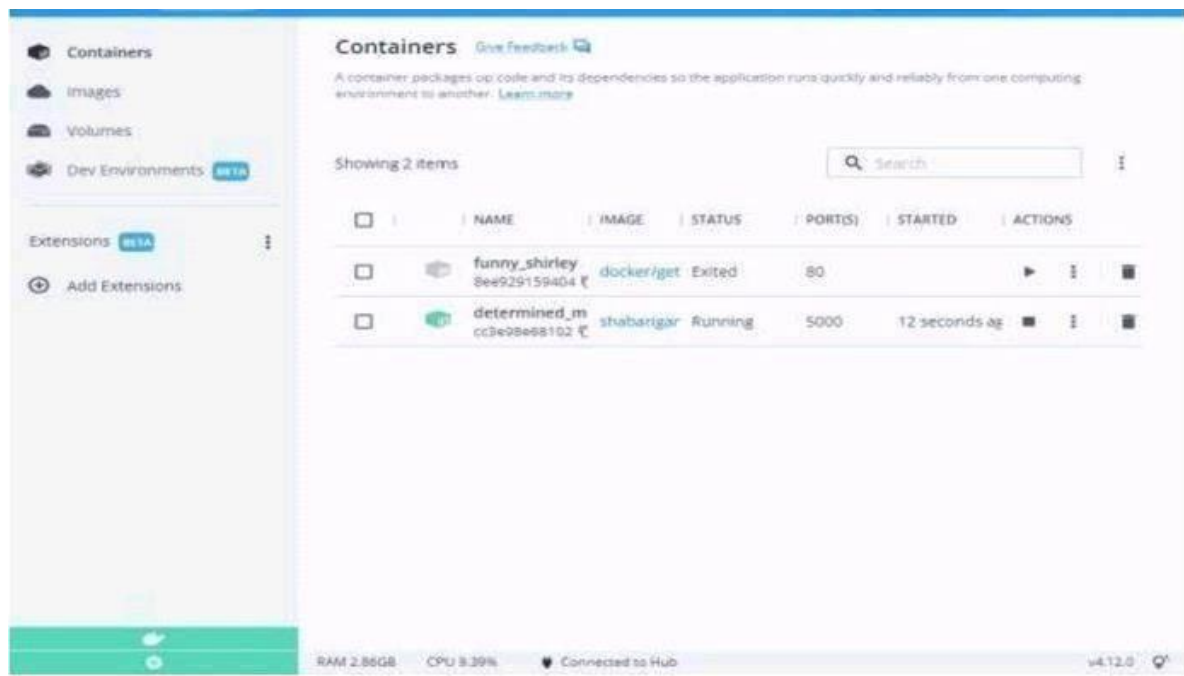
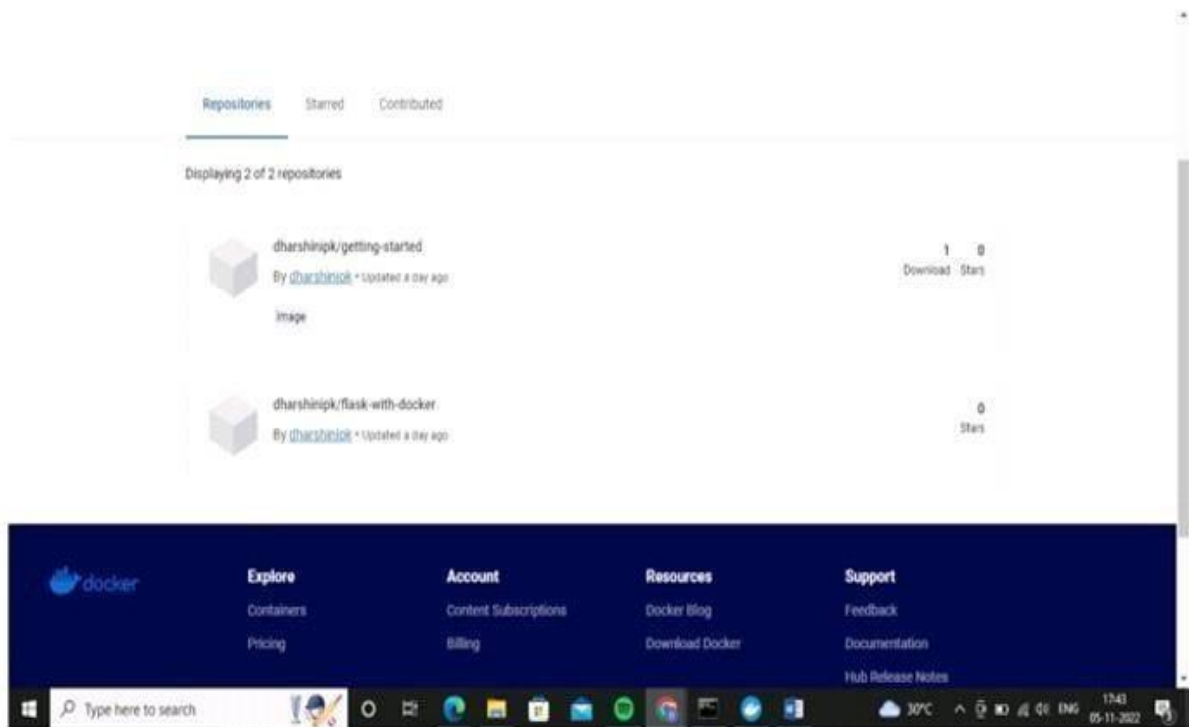
C:\Users\Lenovo>docker pull dharshinipk/docker_flask_with_form
Using default tag: latest
Error response from daemon: manifest for dharshinipk/docker_flask_with_form:latest not found: manifest unknown: manifest unknown

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
0fc1deb8136e: Pushed
1f123186024c: Layer already exists
3d6eb1152931: Layer already exists
100796cdf3b1: Retrying in 1 second
54acb5a6fa8b: Pushing [-----] 71.27MB/520.7MB
d51c018126f: Layer already exists
0ff6e4d46744: Pushing [-----] 8.333MB/10.95MB
a0901d47b5a1: Layer already exists
055ed1b7a428: 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:X3Al1libraryX2fubuntuX3ApullX2service=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

```



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- The screenshot shows a Windows desktop environment. In the foreground, a Notepad window titled 'Dockerfile - Notepad' is open, displaying the following Dockerfile content:
- ```

FROM python:3.10.6
WORKDIR /app
COPY requirements.txt ./
RUN pip install -r requirements.txt
COPY . .
EXPOSE 5000
CMD ["python", "-. /app.py"]

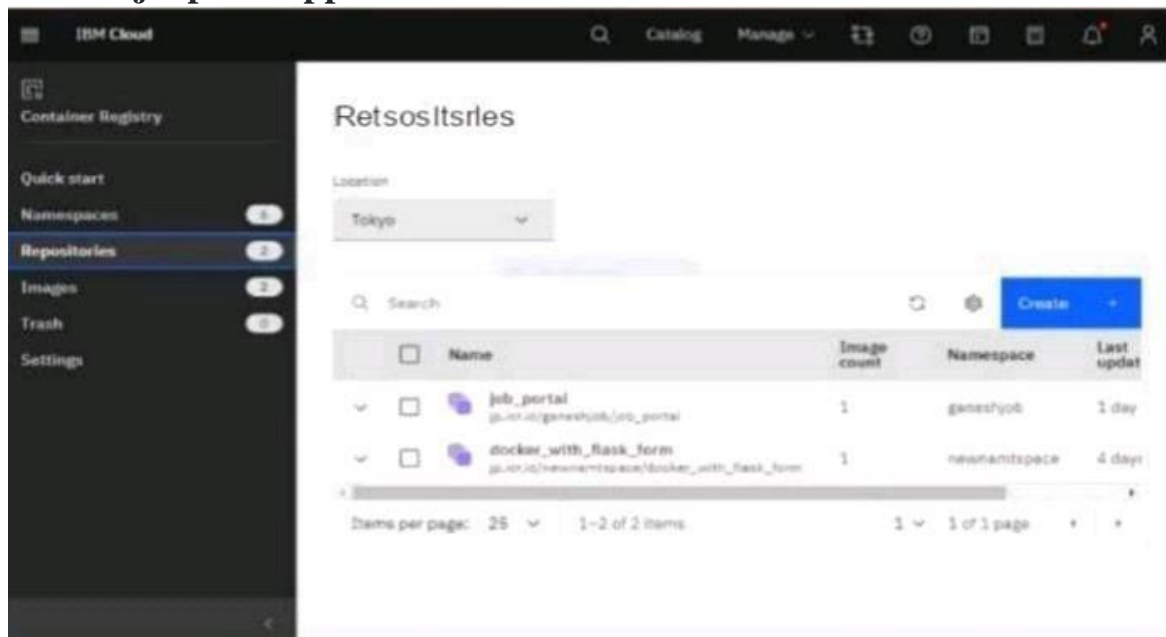
```
- The background shows a Microsoft Word document titled 'Assignment 04 (Compatibility Mode) - Word'. The Word document's ribbon is visible, showing the 'Home' tab with options like 'File', 'Insert', 'Design', 'Layout', 'References', 'Mailings', 'Review', and 'View'. The status bar at the bottom of the Word window indicates 'Page 5 of 12', '152 words', and 'English (United States)'. The Windows taskbar at the bottom shows the search bar, task view button, and several open applications including File Explorer, Edge, and various utility tools. The system tray shows the date and time as '18:28 05-11-2022' and the battery level at 100%.

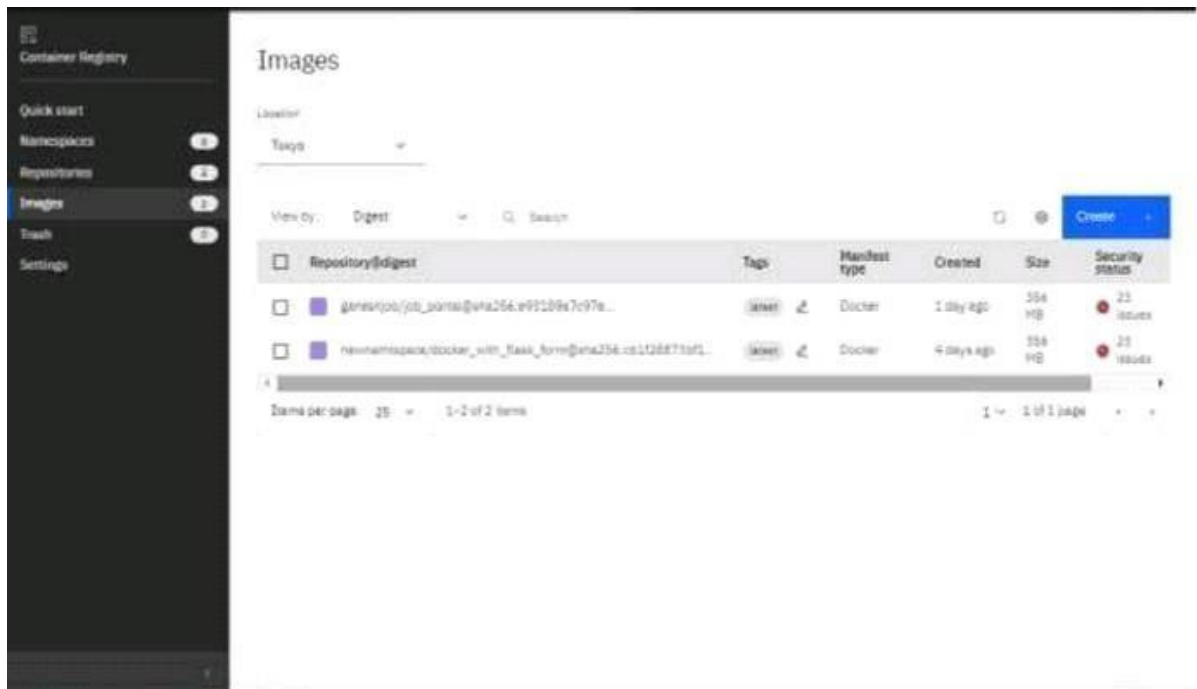
[illegible]

## Running in docker desktop



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





## Deploy helloworld or jobportal

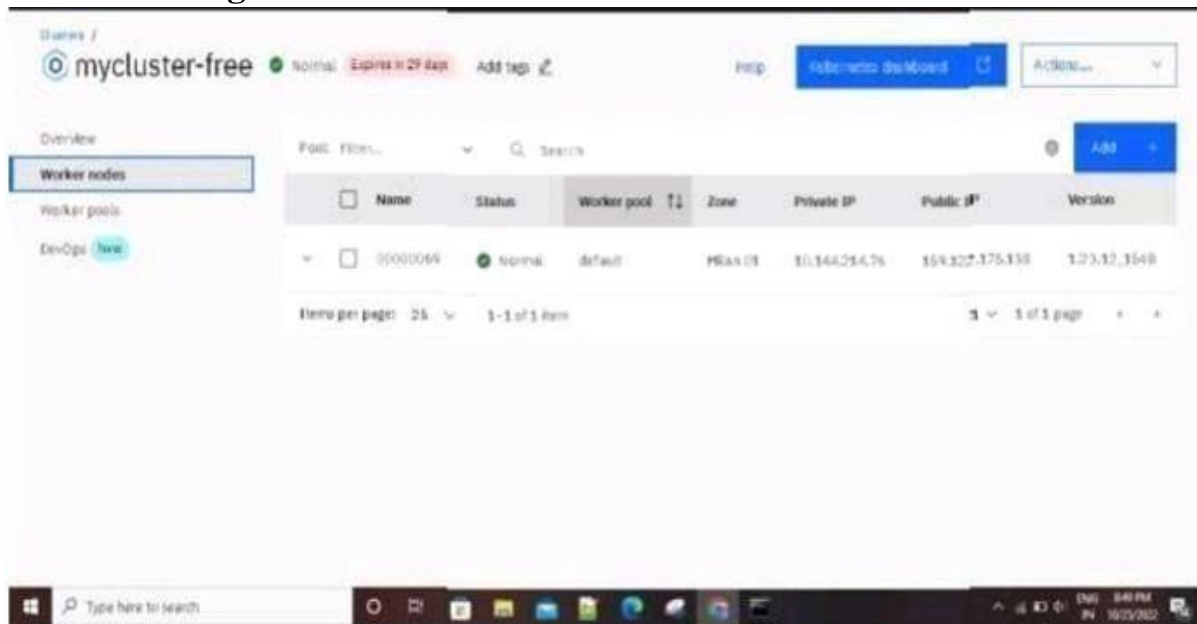
```
C:\Windows\System32\cmd.exe
hach5abfadb: Retrying in 1 second
h55c618126f: Retrying in 1 second
9ff6e4d6784: Waiting
a99d1d470e1: Waiting
a55ed1b74428: Waiting
Failed to lookup host: jp.lcr.io

C:\Users\ganesh\Desktop\job_portal>docker push jp.lcr.io/ganeshjob/job_portal
Using default tag: latest
The push refers to repository [jp.lcr.io/ganeshjob/job_portal]
15e3b158a025: layer already exists
b0e54f95e186: Pushed
48c2a7a4c12b: layer already exists
8072c7835466: layer already exists
9fc1de9d196e: layer already exists
1f122180024c: layer already exists
1d6eb1152921: Pushed
180796c0f3b1: Pushed
hach5abfadb: Retrying in 1 second
h55c618126f: Pushed
9ff6e4d6784: Pushed
a99d1d470e1: Pushed
a55ed1b74428: Pushing [-----] 99.8MB/124MB
^C
C:\Users\ganesh\Desktop\job_portal>docker push jp.lcr.io/ganeshjob/job_portal
Using default tag: latest
The push refers to repository [jp.lcr.io/ganeshjob/job_portal]
15e3b158a025: layer already exists
b0e54f95e186: layer already exists
48c2a7a4c12b: layer already exists
8072c7835466: layer already exists
9fc1de9d196e: layer already exists
1f122180024c: layer already exists
1d6eb1152921: layer already exists
180796c0f3b1: layer already exists
hach5abfadb: Pushed
h55c618126f: layer already exists
9ff6e4d6784: layer already exists
a99d1d470e1: layer already exists
a55ed1b74428: Pushed
latest: digest: sha256:e9f109a7c97e0eb908668e54e89c61e4bde909908c7a21a7e79d1fc207 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) 804,677,196 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
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
error from server (AlreadyExists): services "flask-service" already exists
C:\Windows\system32\
C:\Windows\system32\kubectl -n kubernetes-dashboard get deploy
^C
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 127.0.0.1:8081
^C
C:\Windows\system32\kubectl -n kubernetes-dashboard get deploy
^C
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

```