

Assignment Date	29 October 2022
Student Name	Sangeetha S
Student Roll Number	211419205142
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: sha256:8db1d4d8c9fc72acca150d0be2734009adb45a2a28a45336bcc0ca2b3ff5d7
Status: Image is up to date for dharshinipk/getting-started:latest
docker.io/dharshinipk/getting-started:latest

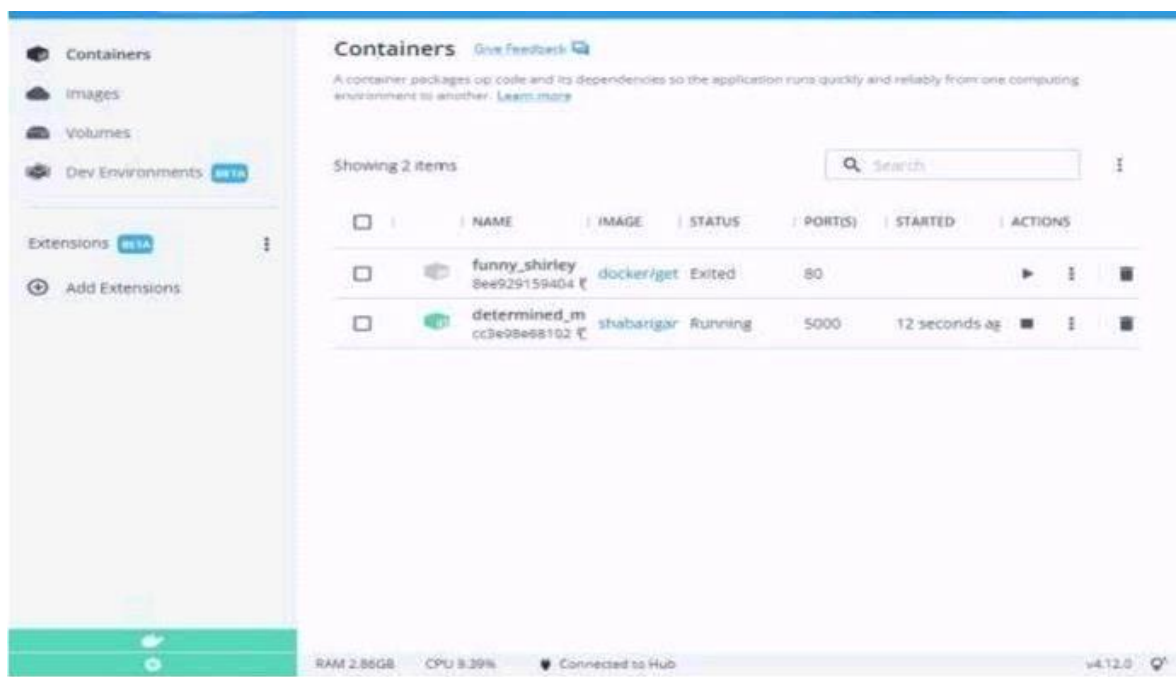
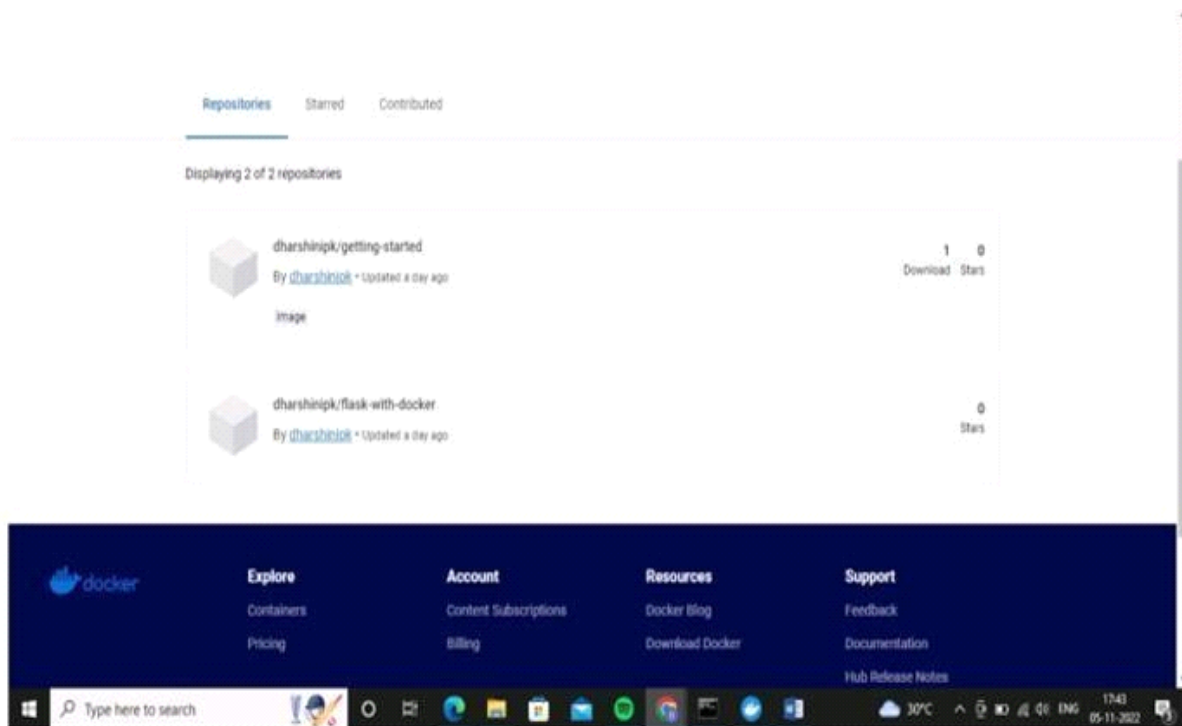
C:\Users\Lenovo>docker pull dharshinipk/docker_flask_with_form
Using default tag: latest
Error response from daemon: manifest for dharshinipk/docker_flask_with_form:latest not found: manifest unknown: manifest unknown

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
bfc1deb8136e: Pushed
1f123186824c: Layer already exists
1d6eb1152931: Layer already exists
1b0706cdf3b1: Retrying in 1 second
54acb5a6fa0b: Pushing [----->] 71.27MB/528.7MB
8d51ce18126f: Layer already exists
9ff6e4d46744: Pushing [----->] 8.333MB/18.95MB
a89d1d47b5a1: Layer already exists
655ed1b7a428: Layer already exists
net/http: TLS handshake timeout

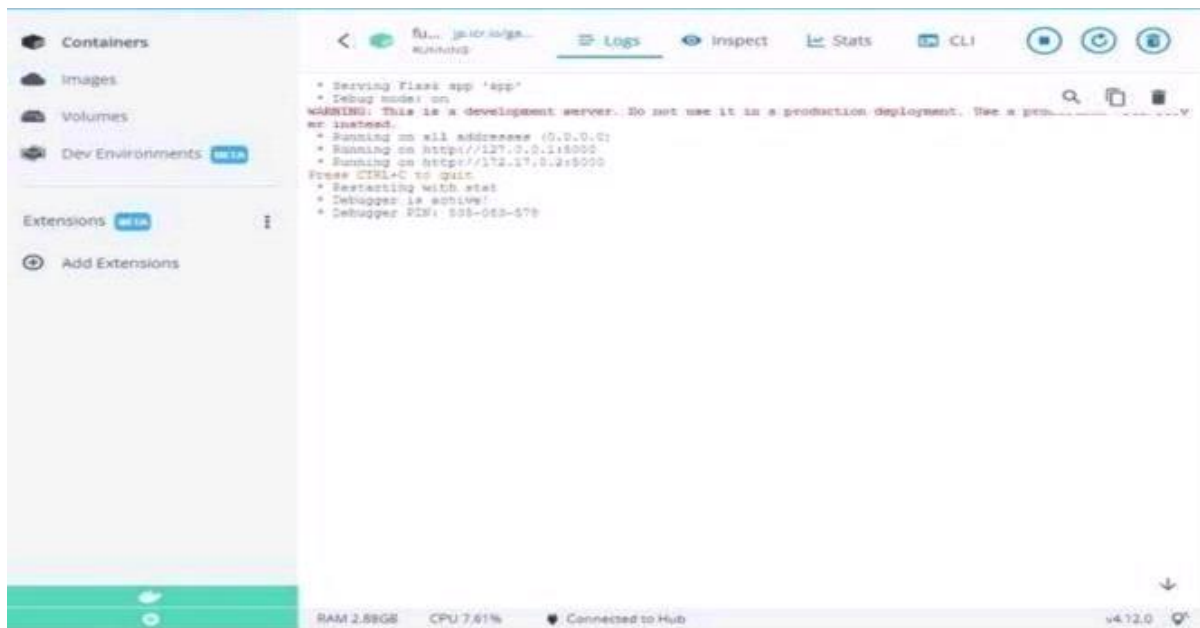
C:\Users\Lenovo>docker images
REPOSITORY          TAG         IMAGE ID      CREATED       SIZE
dharshinipk/docker_flask_with_form   latest     94ac771be3b1  23 hours ago  932MB
docker_flask_with_form               latest     94ac771be3b1  23 hours ago  932MB
dharshinipk/getting-started          latest     cb98f98fd791  6 months ago  28.8MB
docker/getting-started               latest     cb98f98fd791  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%3Fubuntu%3Apull%3Fservice=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

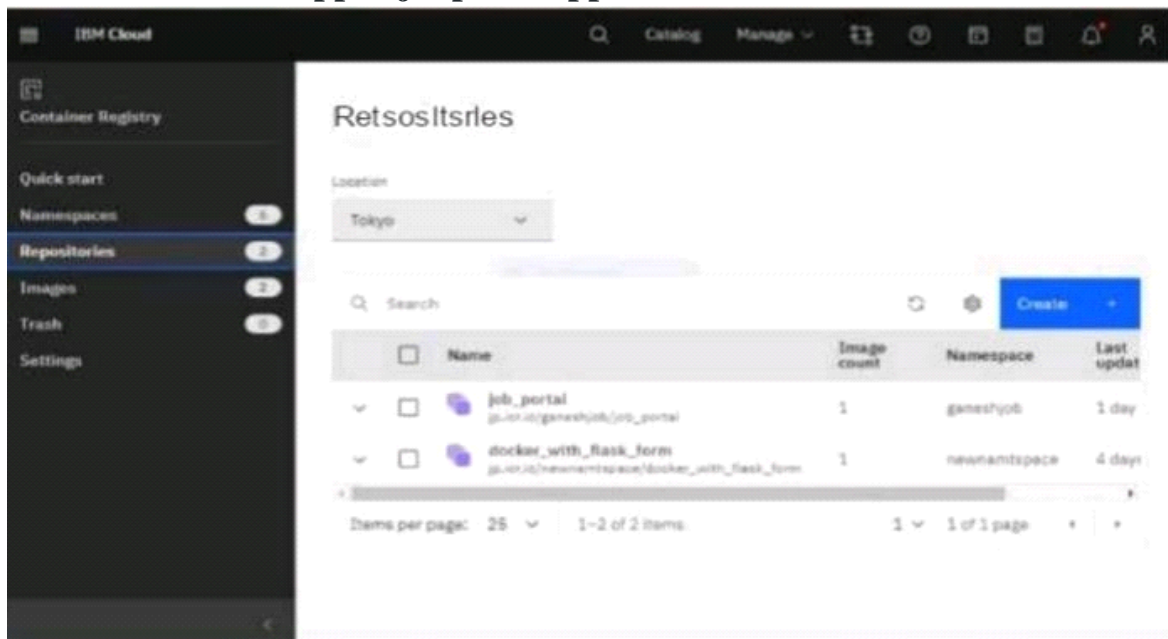
```

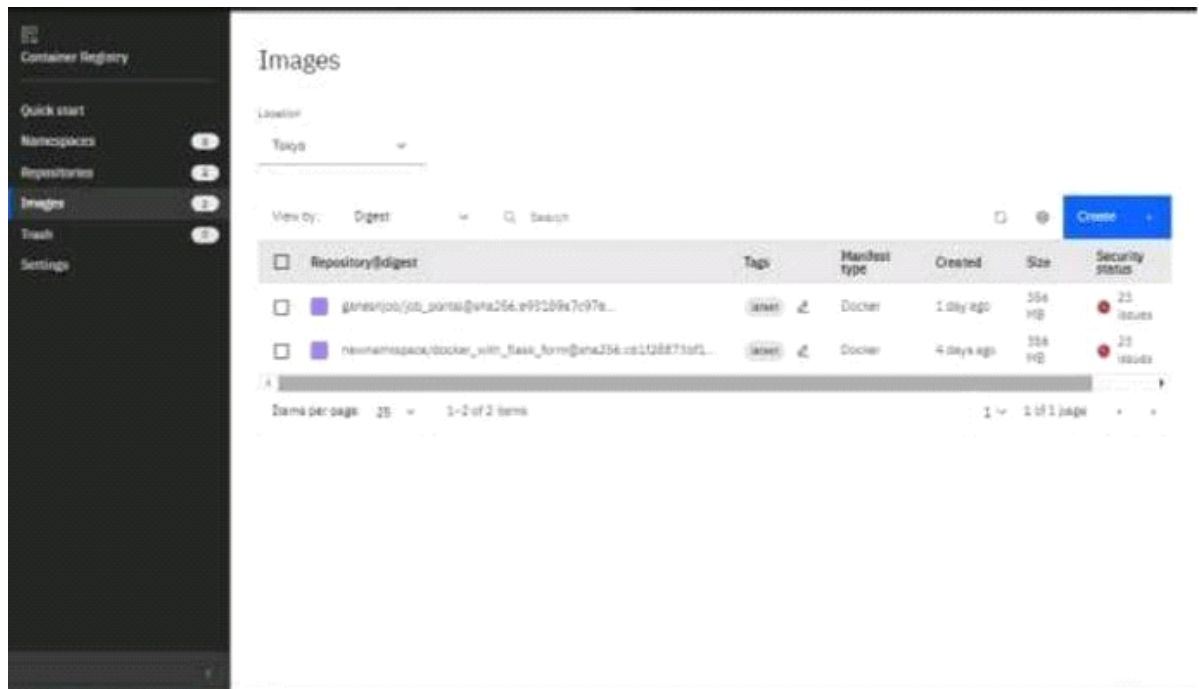


- Create a docker file for the jobportal application and deploy it in Docker desktop application.



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





Deploy helloworld or jobportal

```
C:\Windows\system32\cmd.exe
04ach5a6f48b: Retrying in 1 second
0d5ic618126f: Retrying in 1 second
0ff6e4d6744: Waiting
u0905d4705a1: Waiting
055ed1b74428: Waiting
Failed to lookup host: jp.lcr.io

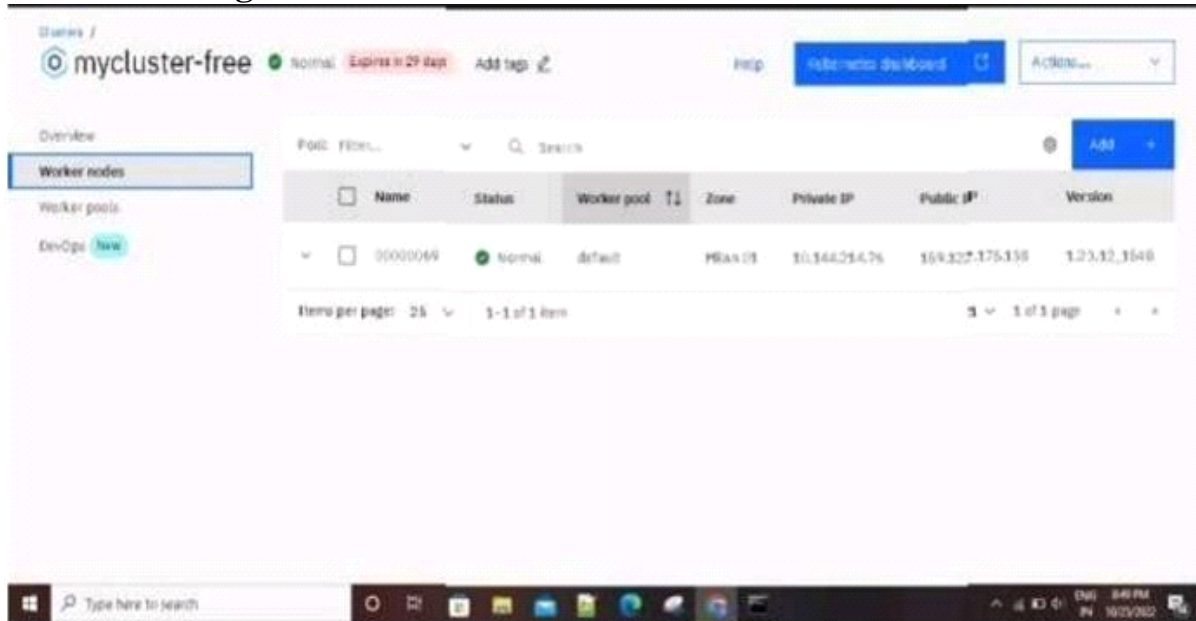
C:\Users\gan\Desktop\job_portal>docker push jp.lcr.io/ganeshjob/job_portal
Using default tag: latest
The push refers to repository [jp.lcr.io/ganeshjob/job_portal]
15eb1584025: layer already exists
09e94f95e186: Pushed
48c2a74ac12b: layer already exists
9b72c7835466: layer already exists
0fc5de8136e: layer already exists
1f123180624c: layer already exists
3d6eb1152931: Pushed
180796cdf3b1: Pushed
14ac15c4d4a8: Retrying in 1 second
0d5ic618126f: Pushed
0ff6e4d6744: Pushed
u0905d4705a1: Pushed
055ed1b74428: Pushing [=====] 99.80MB/124MB
^C

C:\Users\gan\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]
15eb1584025: layer already exists
09e94f95e186: layer already exists
48c2a74ac12b: layer already exists
9b72c7835466: layer already exists
0fc5de8136e: layer already exists
1f123180624c: layer already exists
3d6eb1152931: layer already exists
180796cdf3b1: layer already exists
04ach5a6f48b: Pushed
0d5ic618126f: layer already exists
0ff6e4d6744: layer already exists
u0905d4705a1: layer already exists
055ed1b74428: Pushed
latest: digest: sha256:99129e7c97e9b906668a54e09cfc1a8edeb939998c87a21477961fc287 size: 3852

C:\Users\gan\Desktop\job_portal>
C:\Users\gan\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/deploy.yaml
error: the path "kubernetes/deploy.yaml" does not exist

C:\Users\gani\Desktop>kubectl apply -f deploy.yaml
error: the path "deploy.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>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
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
^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

```