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| Assignment Date | 29 October 2022 |
| Student Name | Rakul J |
| Student Roll Number | 727620BCS301 |
| 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: sha256:8dbel4d48c9fc72acca15d0db2734009adb45a2a28a45336bcc0ca2b3ff5d7
Status: Image is up to date for dharshinipk/getting-started:latest
docker.io/dharshinipk/getting-started:latest

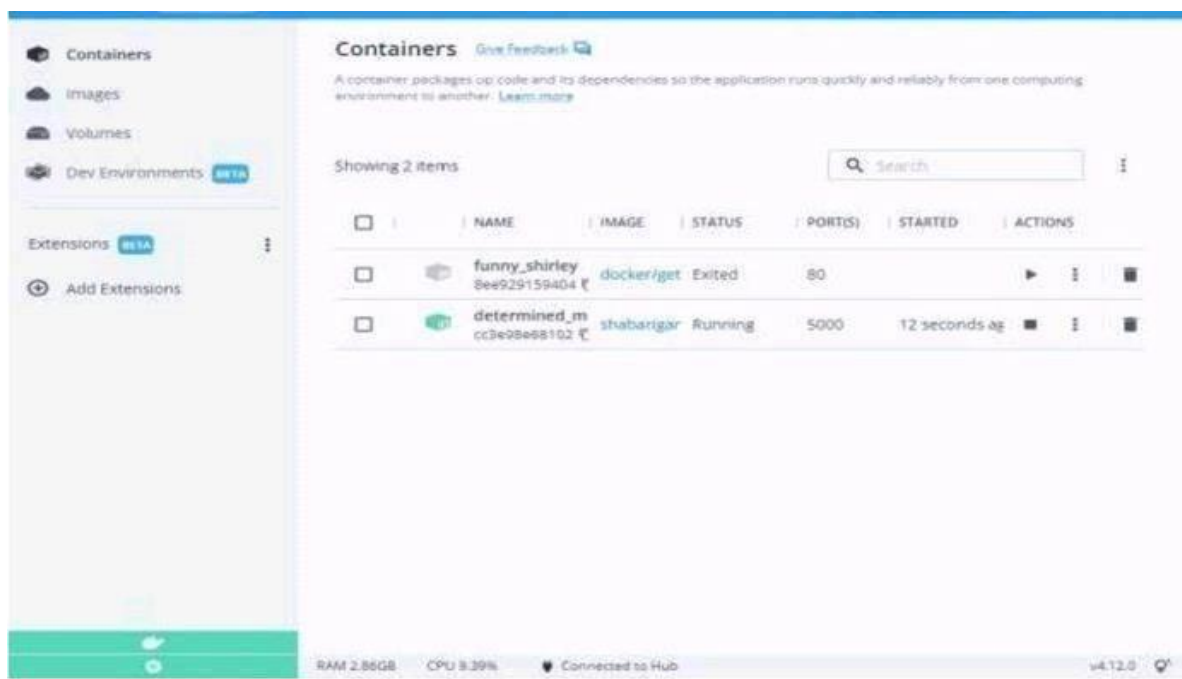
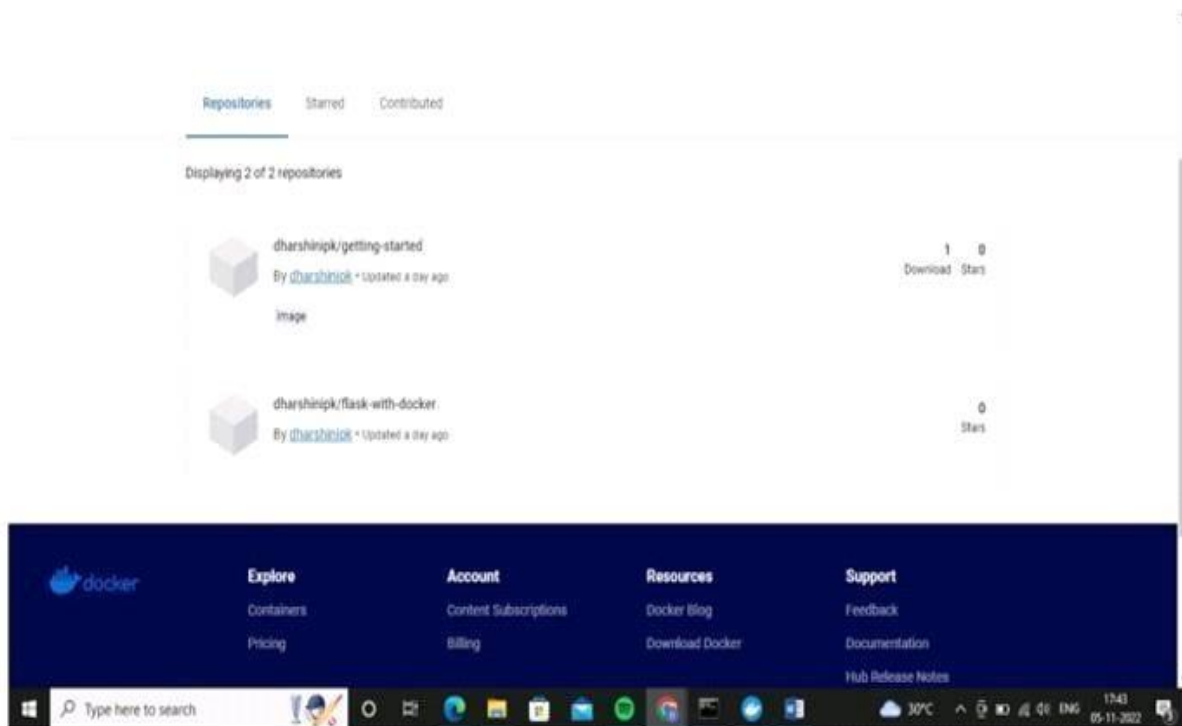
C:\Users\lenovo>docker pull dharshinipk/docker_flask_with_form
Using default tag: latest
Error response from daemon: manifest for dharshinipk/docker_flask_with_form:latest not found: manifest unknown: manifest unknown

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
0fc1deb0136e: Pushed
1f121a68024c: Layer already exists
3d6eb1152931: Layer already exists
100796cdf3b1: Retrying in 1 second
54acb5a6fa8b: Pushing [----->] 71.27MB/528.7MB
8d51c618126f: Layer already exists
0ff6e4d46744: Pushing [----->] 8.333MB/18.95MB
a80d1d47b5a1: Layer already exists
655ed1b7a428: Layer already exists
net/http: TLS handshake timeout

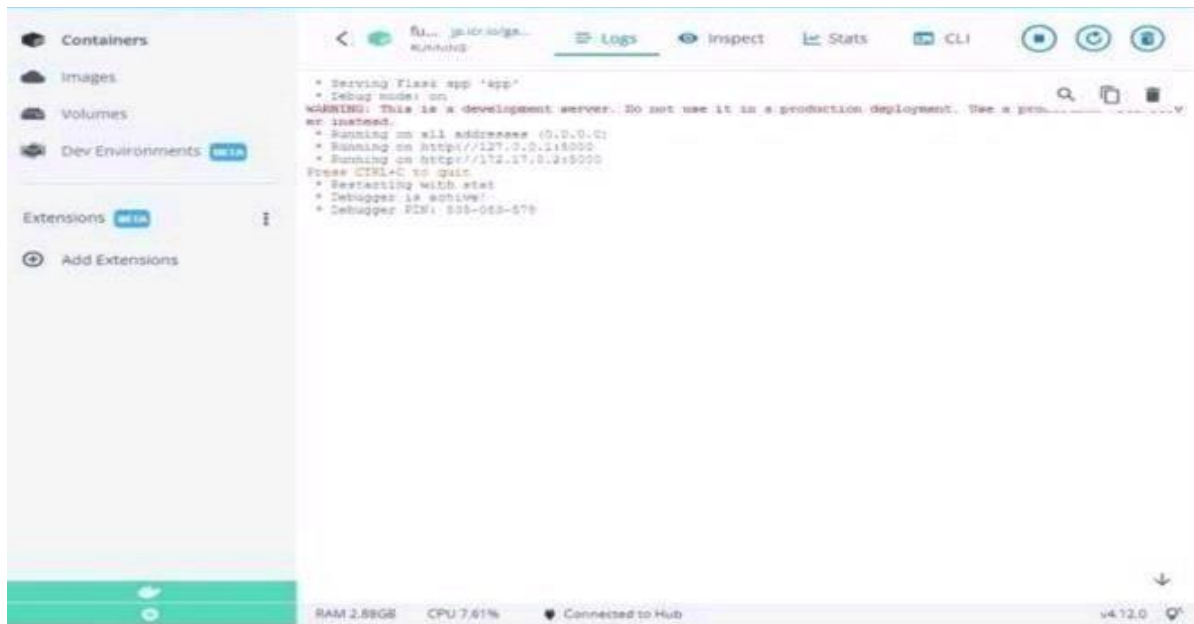
C:\Users\lenovo>docker images
REPOSITORY          TAG          IMAGE ID      CREATED       SIZE
dharshinipk/docker_flask_with_form   latest      94ac771be3b1   23 hours ago   932MB
docker_flask_with_form               latest      94ac771be3b1   23 hours ago   932MB
dharshinipk/getting-started          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%3Aubuntu%3Apull%3Aservice+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

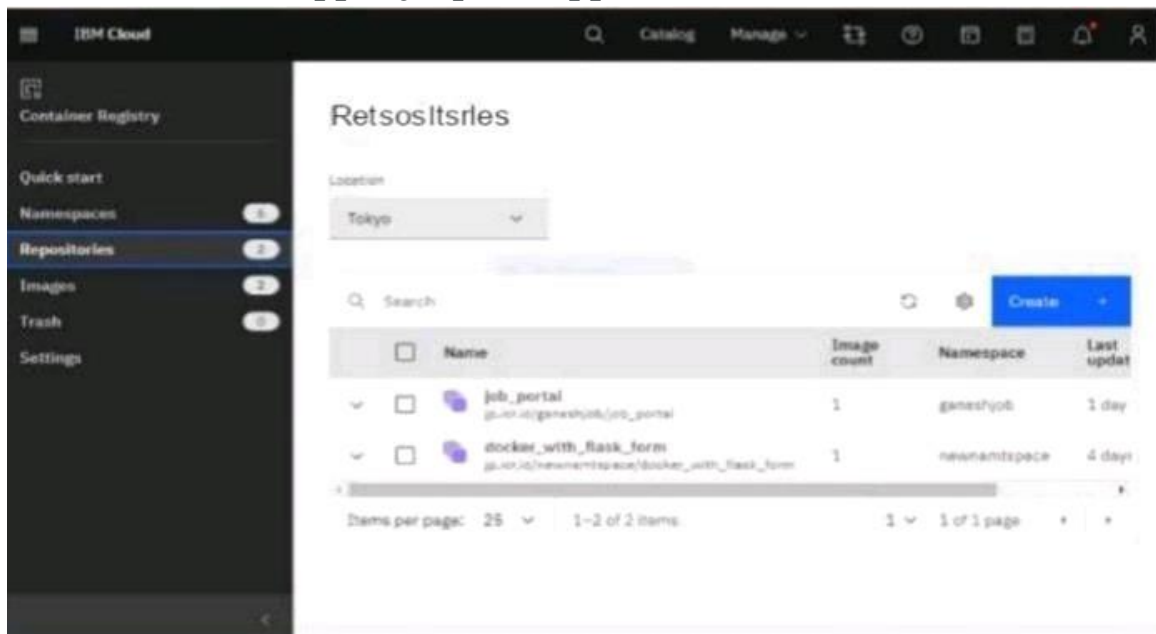
```

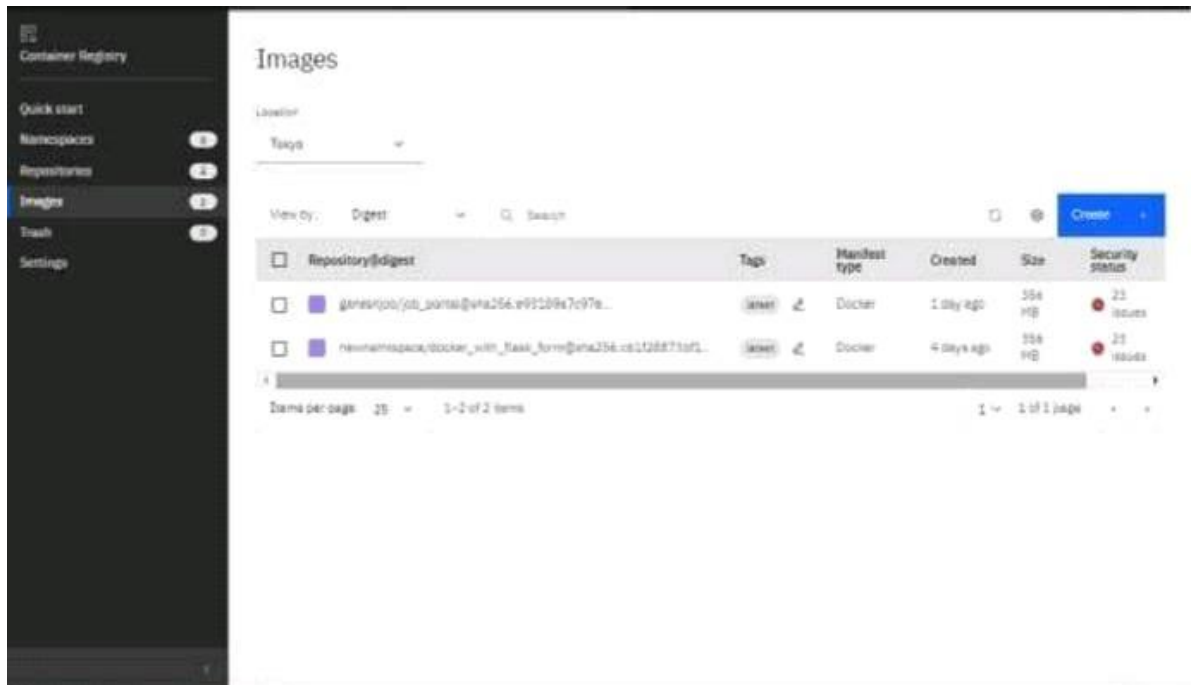


- Create a docker file for the jobportal application and deploy it in Docker desktop application.



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





Deploy helloworld or jobportal

```
C:\Windows\system32\cmd.exe
64c8b4a08b: Retrying in 1 second
6d51c810120f: Retrying in 1 second
9f6e4d40744: Pushing
w0021d470541: Pushing
655ed1b7a420: Pushing
failed to lookup host: jp.icr.io

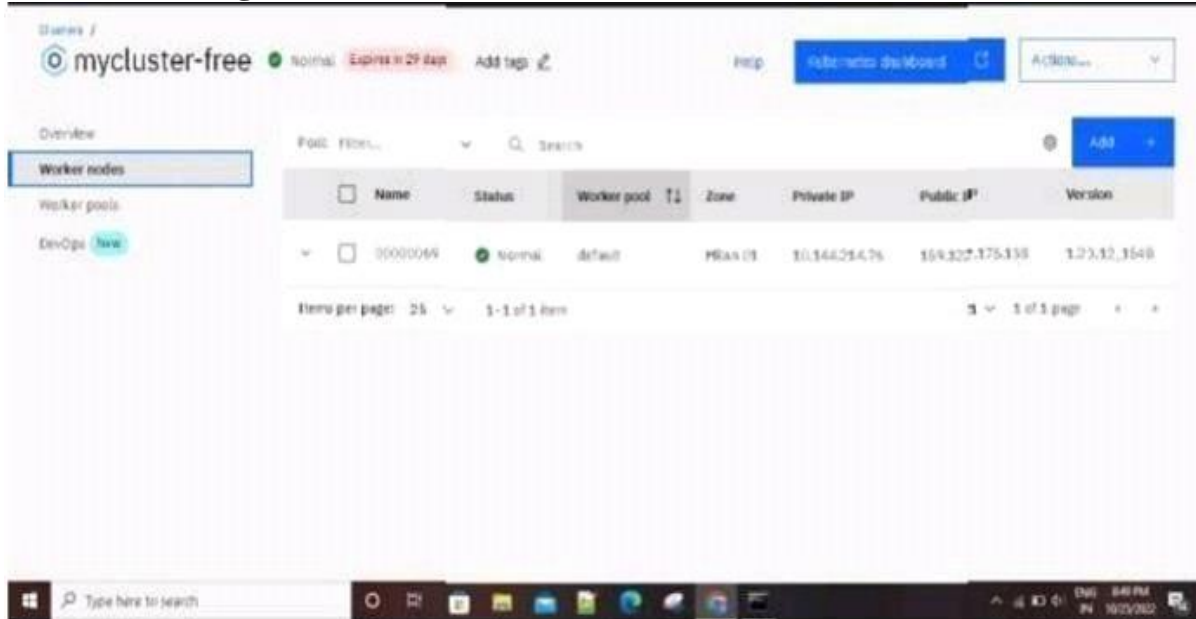
C:\Users\lgan\Desktop\job_portal>docker push jp.icr.io/ganeshjob/job_portal
Using default tag: latest
The push refers to repository [jp.icr.io/ganeshjob/job_portal]
13e1b15d4025: layer already exists
80e94f95e100: Pushed
48c2a740c12b: layer already exists
9072c7035460: layer already exists
9fc1d0e0130e: layer already exists
1f123180024c: layer already exists
3d0e1152051: Pushed
100796c0f3b1: Pushed
64c8b4a08b: Retrying in 1 second
6d51c810120f: Pushed
9f6e4d40744: Pushed
w0021d470541: Pushed
655ed1b7a420: Pushing [=====] 99.10MB/124MB
^C

C:\Users\lgan\Desktop\job_portal>docker push jp.icr.io/ganeshjob/job_portal
Using default tag: latest
The push refers to repository [jp.icr.io/ganeshjob/job_portal]
13e1b15d4025: layer already exists
80e94f95e100: layer already exists
48c2a740c12b: layer already exists
9072c7035460: layer already exists
9fc1d0e0130e: layer already exists
1f123180024c: layer already exists
3d0e1152051: layer already exists
100796c0f3b1: layer already exists
100796c0f3b1: Pushed
64c8b4a08b: Pushed
6d51c810120f: layer already exists
9f6e4d40744: layer already exists
w0021d470541: layer already exists
655ed1b7a420: Pushed
latest: digest: sha256:e91209a7c97b9096608a54e09c761a3bd0909906c87a21a7a7901fc207 size: 9852

C:\Users\lgan\Desktop\job_portal>
C:\Users\lgan\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 127.0.0.1:9901
^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  <none>   *          *            80        27m
C:\Windows\system32\kubectl get svc
NAME          TYPE          CLUSTER-IP      EXTERNAL-IP      PORT(S)      AGE

```