

# ASSIGNMENT 4

## Question-1:

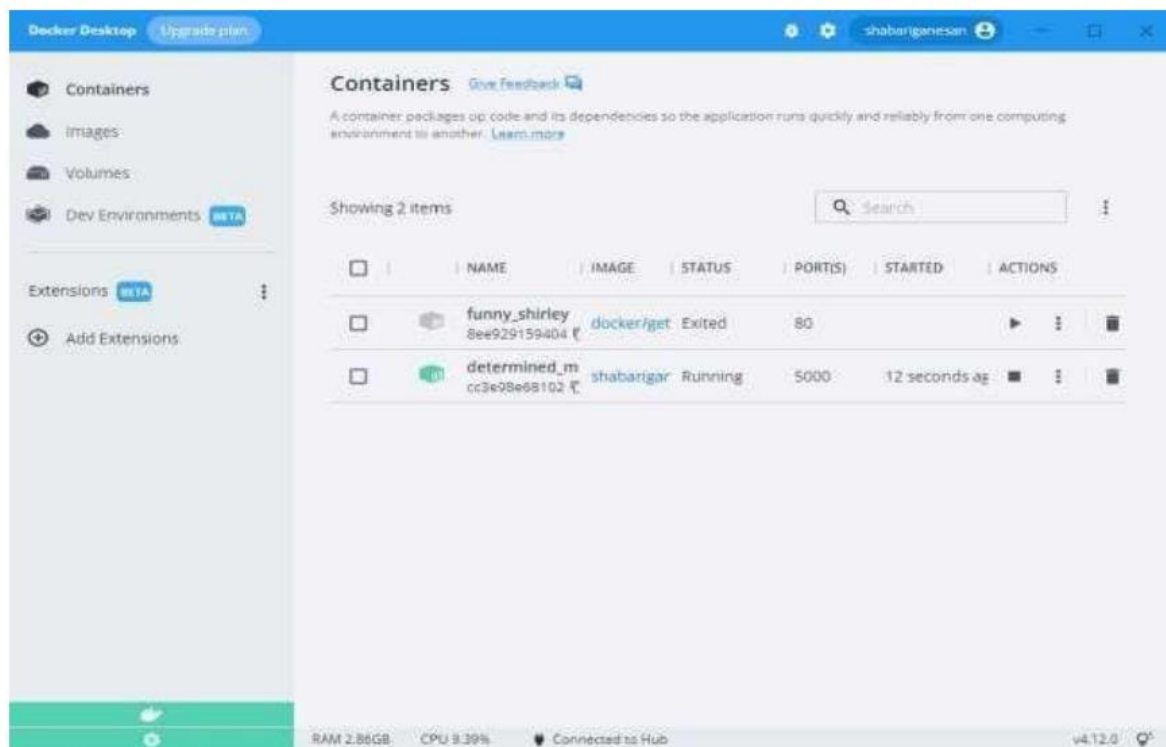
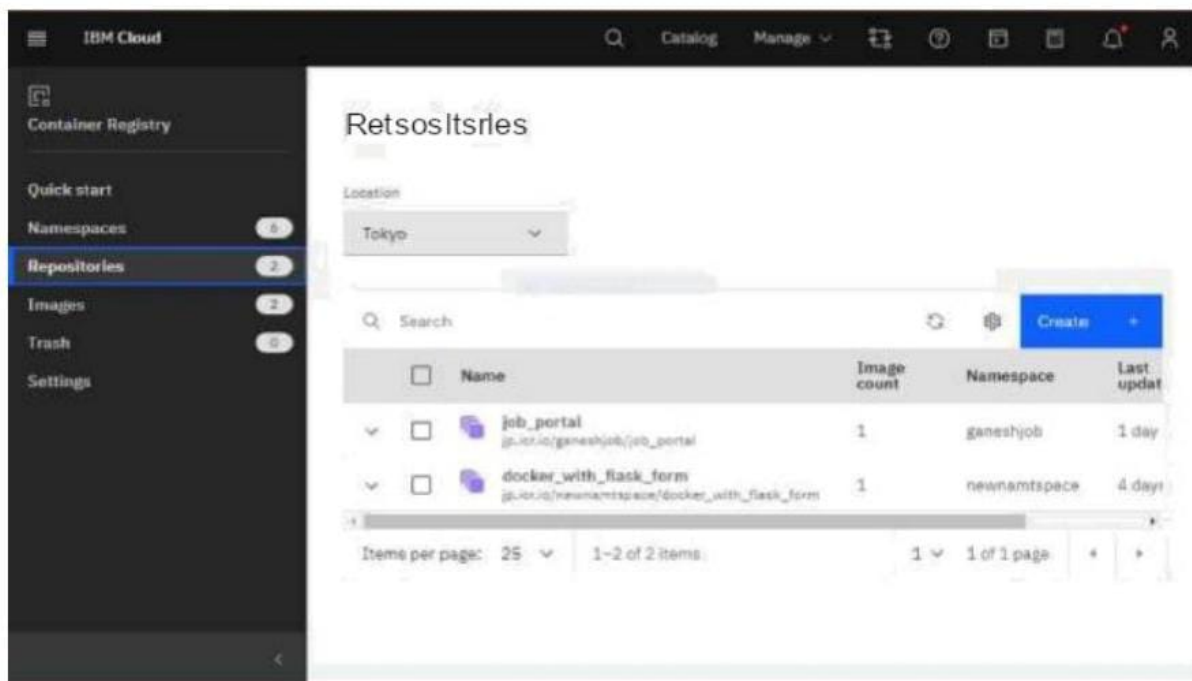
Pull an image from docker hub and run it in docker playground

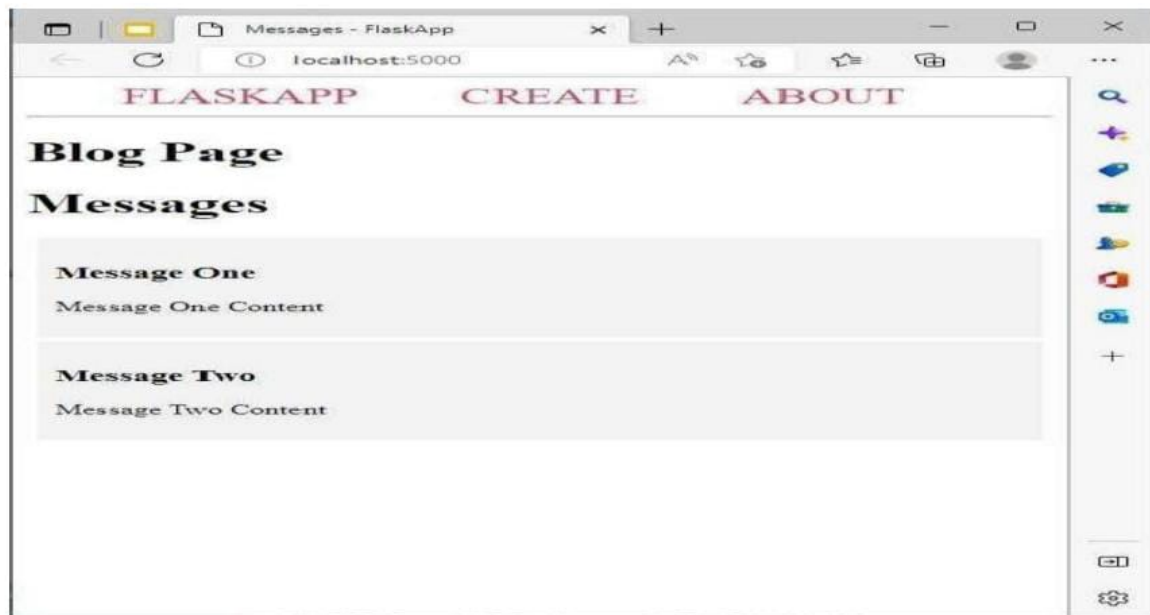
```
Command Prompt
Microsoft Windows [Version 10.0.19044.1766]
(c) Microsoft Corporation. All rights reserved.

C:\Users\ADMIN>docker push shabariganesan/docker_with_flask_form
Using default tag: latest
The push refers to repository [docker.io/shabariganesan/docker_with_flask_form]
An image does not exist locally with the tag: shabariganesan/docker_with_flask_form

C:\Users\ADMIN>docker pull shabariganesan/docker_with_flask_form
Using default tag: latest
latest: Pulling from shabariganesan/docker_with_flask_form
1671565cc8df: Pull complete
3e94d13e55e7: Pull complete
fa9c7528c685: Pull complete
53ad072f9cd1: Pull complete
d6b983117533: Pull complete
d8092d56ded5: Pull complete
c71afc637d59: Pull complete
864a18b3c704: Pull complete
4334b2fe8293: Pull complete
8944570703f4: Pull complete
f885911288d0: Pull complete
086f369ca59f: Pull complete
e113bd27b88e: Pull complete
Digest: sha256:c61f28873bf1c909786ce991b8b60cd976765077f344e34d50e6cce8cf8d95c3
Status: Downloaded newer image for shabariganesan/docker_with_flask_form:latest
docker.io/shabariganesan/docker_with_flask_form:latest

C:\Users\ADMIN>
```





## Question-2:

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

```

C:\Users\lgan\Desktop\job portal>cd ..
C:\Users\lgan\Desktop>cd job_portal
C:\Users\lgan\Desktop\job_portal>docker build -t job_portal
"docker build" requires exactly 1 argument.
see "docker build --help".

Usage: docker build [OPTIONS] PATH | URL | -
Build an image from a Dockerfile

C:\Users\lgan\Desktop\job_portal>dir
Volume in drive C has no label.
Volume Serial Number is 86A1-1B96

Directory of C:\Users\lgan\Desktop\job_portal

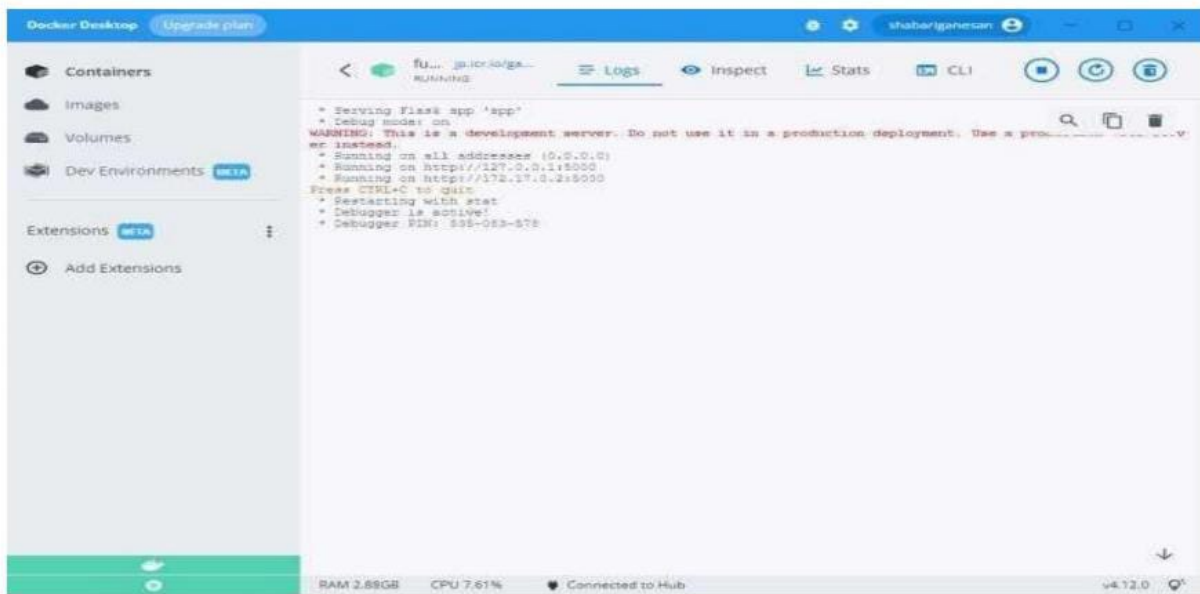
10/25/2022  04:53 PM  <DIR>          .
10/25/2022  04:53 PM  <DIR>          ..
10/25/2022  04:11 PM                320 app.py
10/22/2022  10:48 PM               148 Dockerfile
10/22/2022  10:48 PM                1 requirements.txt
10/25/2022  04:53 PM  <DIR>          static
10/25/2022  04:53 PM  <DIR>          templates
10/25/2022  04:53 PM  <DIR>          __pycache__
                    3 File(s)          474 Bytes
                    5 Dir(s)  77,047,934,936 bytes free

C:\Users\lgan\Desktop\job_portal>docker build -t job_portal .
invalid argument "job_portal." for "-t, --tag" flag: invalid reference format
see "docker build --help".

C:\Users\lgan\Desktop\job_portal>docker build -t job_portal .
[+] Building 467.6s (11/11) FINISHED
=> [internal] load build definition from Dockerfile
=> [internal] load Dockerfile from Dockerfile
=> [internal] load .dockerignore
=> [internal] create build context
=> [internal] send build context to Docker daemon 1.074MB
=> [internal] resolve image references for docker.io/library/python:3.9.13
=> [internal] fetch docker.io/library/python:3.9.13
=> [internal] resolve image references for docker.io/library/python:3.9.13
=> [internal] fetch docker.io/library/python:3.9.13
=> [internal] resolve image references for docker.io/library/python:3.9.13
=> [internal] fetch docker.io/library/python:3.9.13
=> [internal] resolve image references for docker.io/library/python:3.9.13
=> [internal] fetch docker.io/library/python:3.9.13
=> [internal] resolve image references for docker.io/library/python:3.9.13
=> [internal] fetch docker.io/library/python:3.9.13

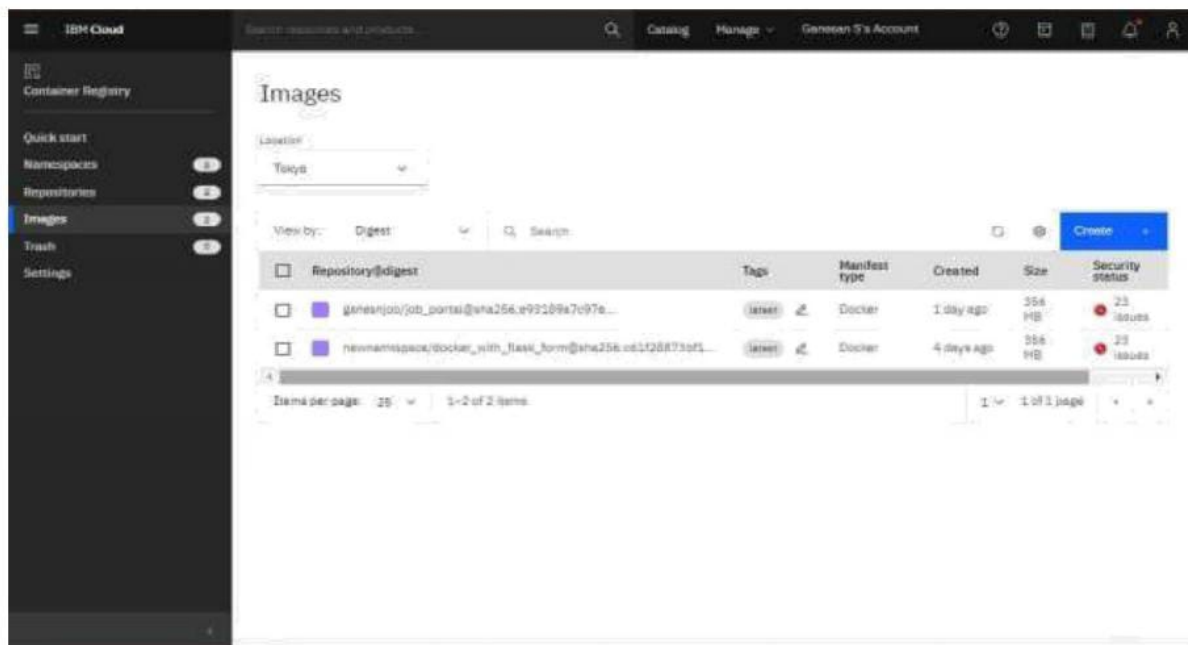
```





### Question-3:

Create a Ibm container registry and deploy helloworld app or jobportal app



```
C:\Windows\system32\cmd.exe
84acb5a6f8b: Retrying in 1 second
8d51c618126f: Retrying in 1 second
0ff6e4d6744: Waiting
0ff6e4d6744: Waiting
0ff6e4d6744: 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
00e94105e190: Pushed
48c2a7a4c12b: layer already exists
0b72c7d154d6: layer already exists
0ffc0e80138e: layer already exists
1f122186024c: layer already exists
b86eb1152931: Pushed
180796cdf3b1: Pushed
84acb5a6f8b: Retrying in 1 second
8d51c618126f: Pushed
0ff6e4d6744: Pushed
0ff6e4d6744: Pushed
0ff6e4d6744: Pushing [=====] | 89.80MB/124MB
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
00e94105e190: layer already exists
48c2a7a4c12b: layer already exists
0b72c7d154d6: layer already exists
0ffc0e80138e: layer already exists
1f122186024c: layer already exists
b86eb1152931: layer already exists
180796cdf3b1: layer already exists
84acb5a6f8b: Pushed
8d51c618126f: layer already exists
0ff6e4d6744: layer already exists
0ff6e4d6744: layer already exists
0ff6e4d6744: Pushed
latest: digest: sha256:e92189a7197eeb09386668e54e899c61a4ed6a939999dc8c7a2147a7961fc287 size: 3852
C:\Users\gan\Desktop\job_portal>
C:\Users\gan\Desktop\job_portal>
```

#### Question-4:

Create a kubernetes cluster in ibm cloud and deploy helloworld image or jobportal image and also expose the same app to run in noteport

mycluster-free IBM Cloud

cloud.ibm.com/kubernetes/clusters/2d55m240uefrw51ac2g3nodes

IBM Cloud Catalog Manage Ganiyan S's Account

Overview mycluster-free Normal Expires in 29 days Add tags Help kube-apiserver deployed Actions

Overview

Worker nodes

Worker pools

DevOps [View](#)

Post: Filter...

Name	Status	Worker pool	Zone	Private IP	Public IP	Version
00000069	Normal	default	MEan 01	10.144.214.76	159.127.175.138	1.23.12_1548

Items per page: 25 1-1 of 1 item 1 1 of 1 page

```
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
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 127.0.0.1:8001
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  cnone    *          *            80         27m
C:\Windows\system32>kubectl get svc
NAME          TYPE          CLUSTER-IP      EXTERNAL-IP    PORT(S)      AGE

```