Assignment -4
Docker and kubernetes

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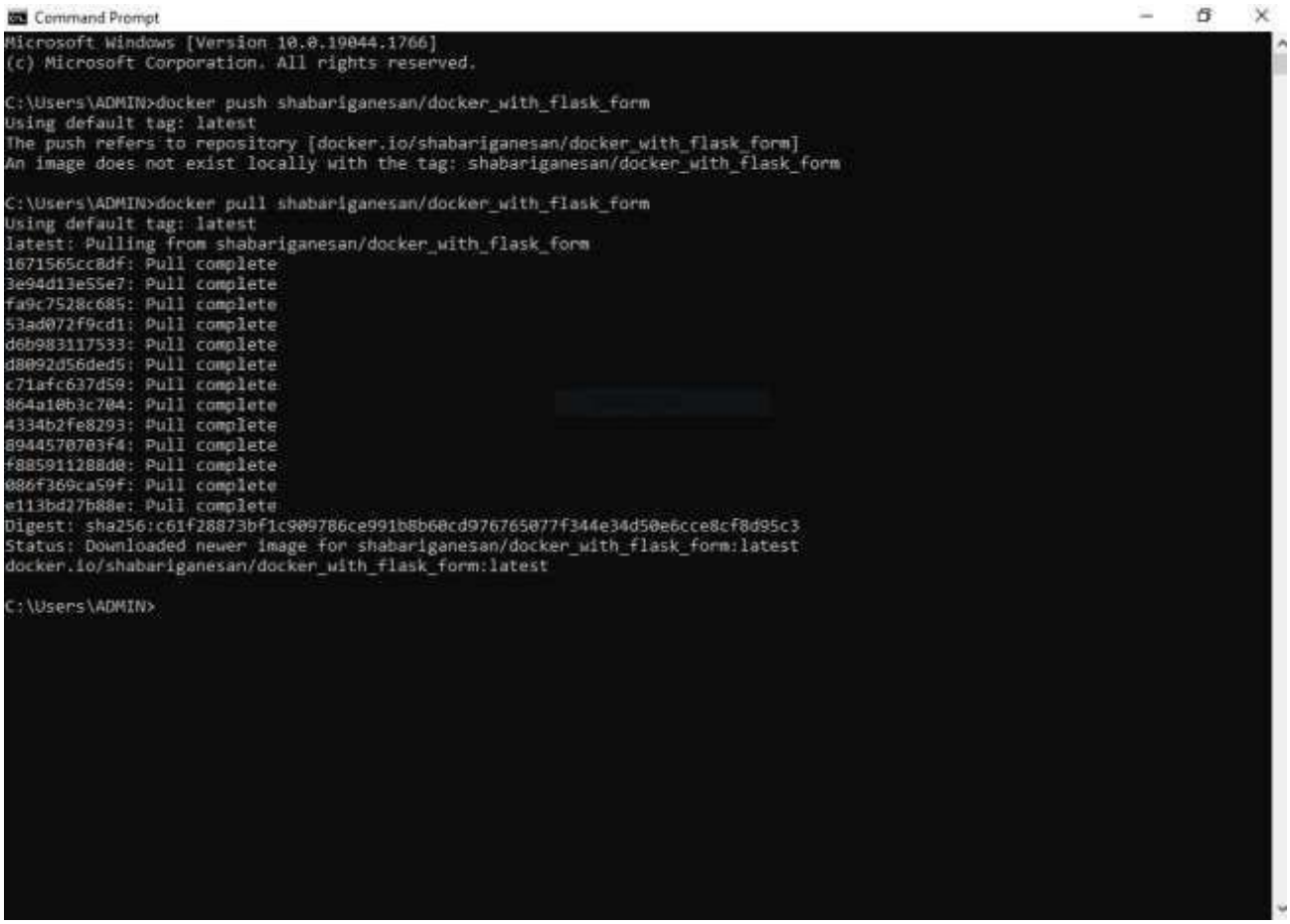
Student Roll Number	92172019104063
Maximum Marks	2 Marks

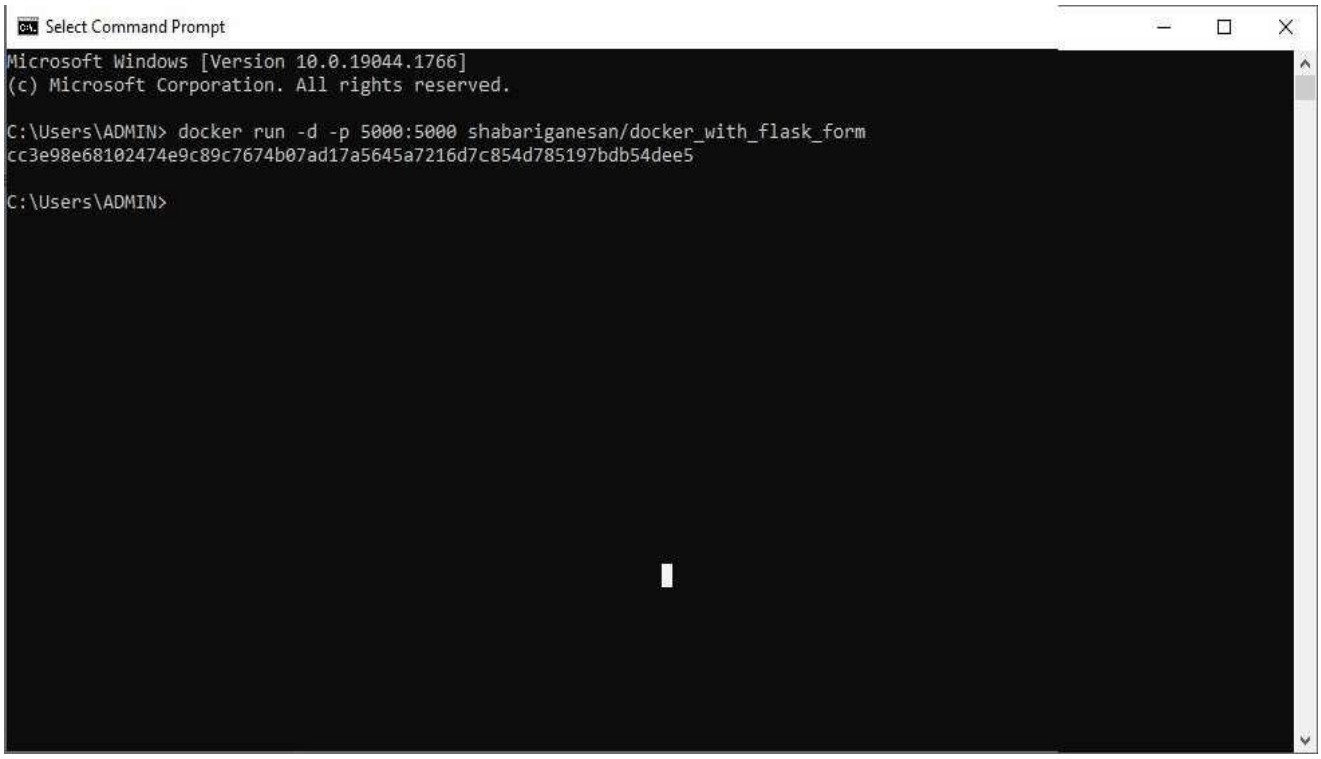
Question-1:

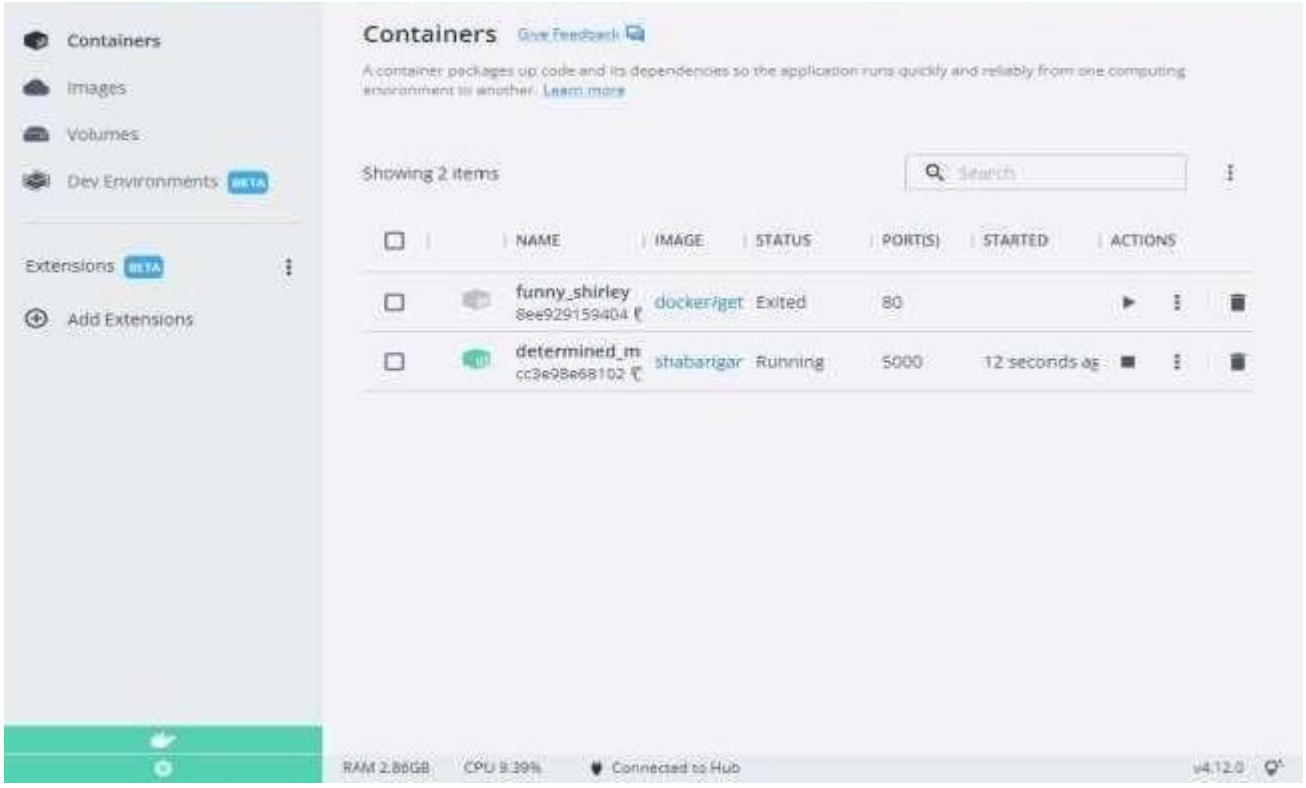
pull an image from docker hub and run it in docker playground.

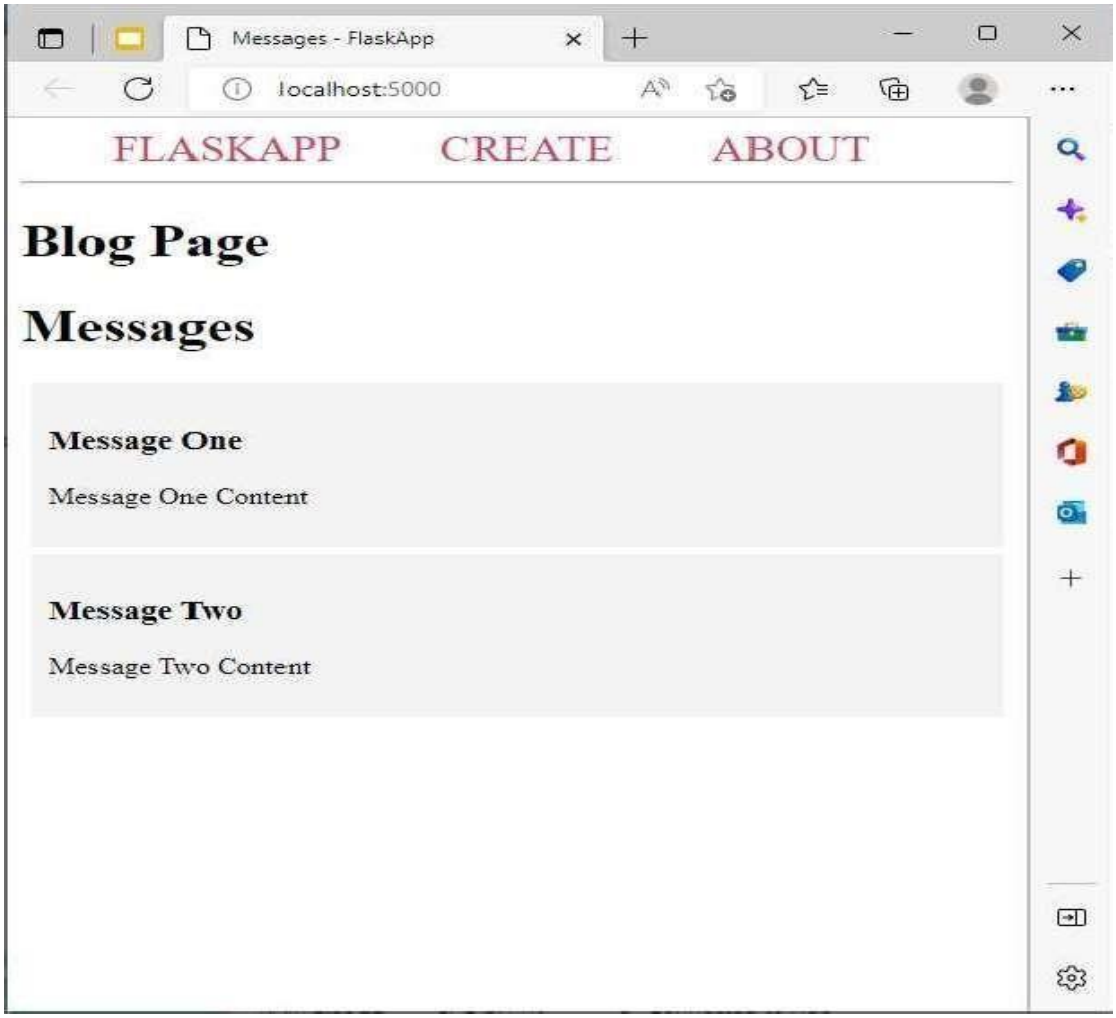
1) pull an image form docker hub



2) runt it in docker playground



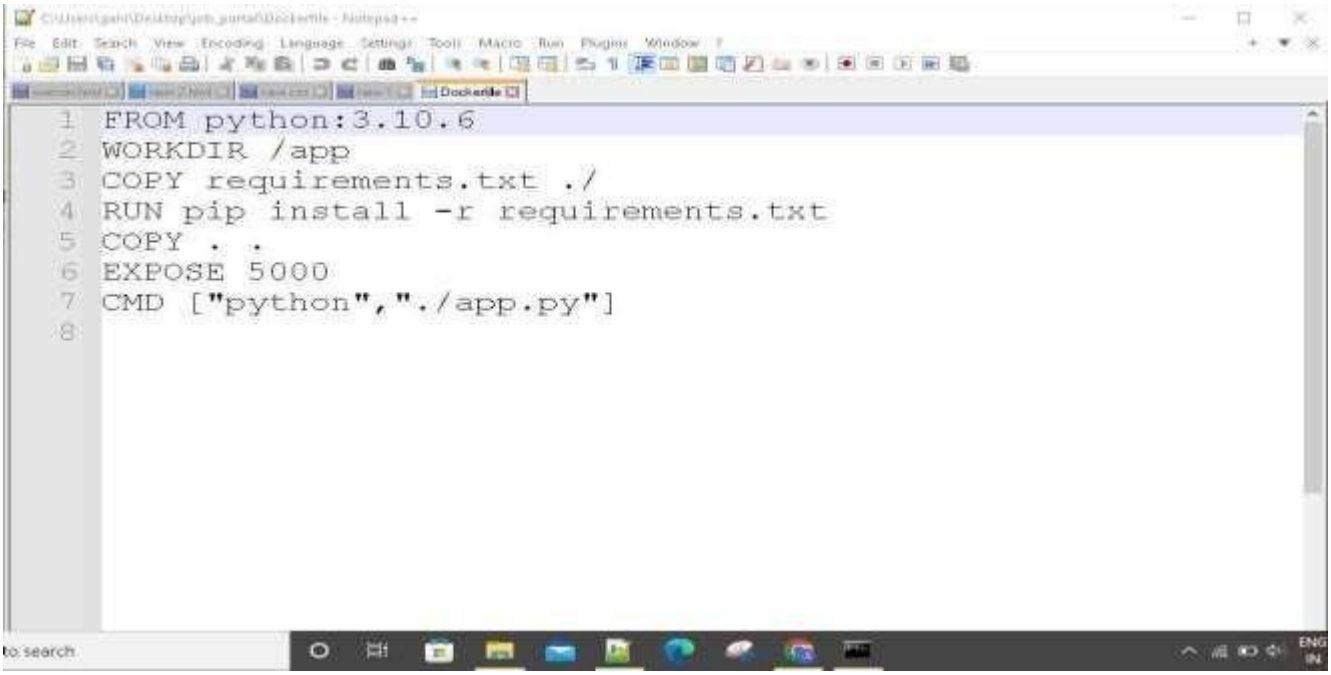



Messages - FlaskApp
localhost:5000
FLASKAPP
CREATE
ABOUT
Blog Page
Messages
Message One
Message One Content
Message Two
Message Two Content

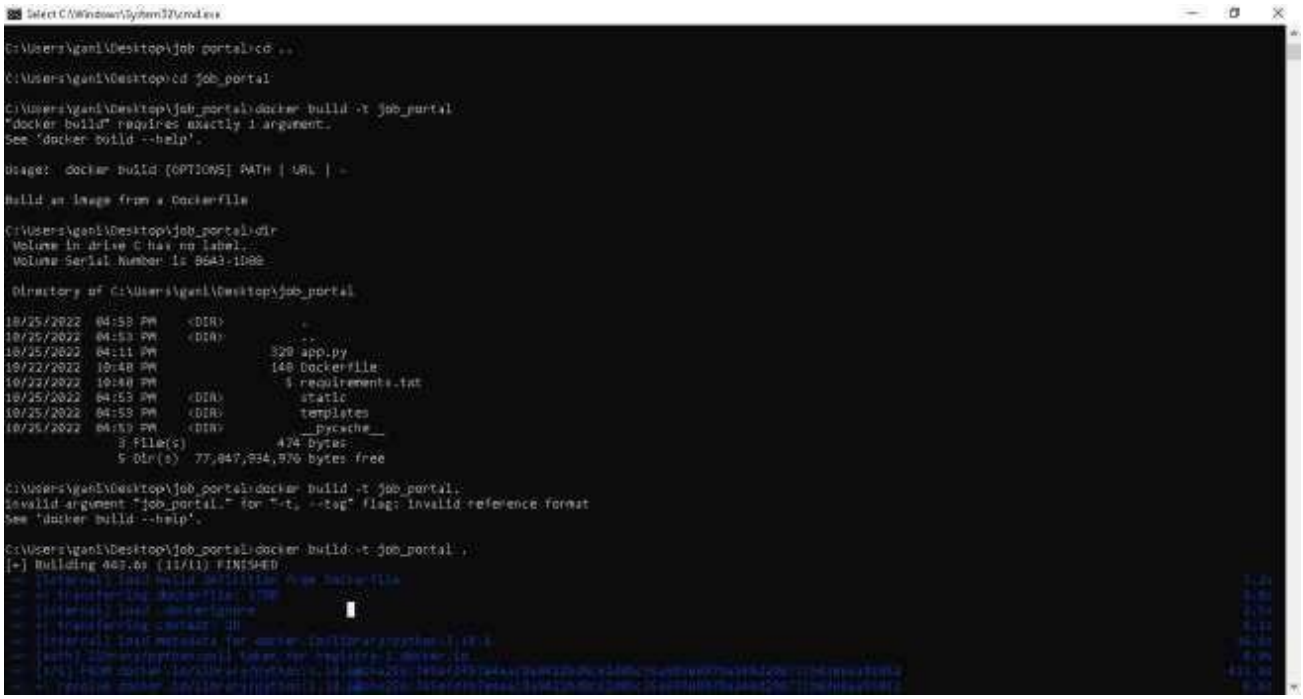
Question-2:

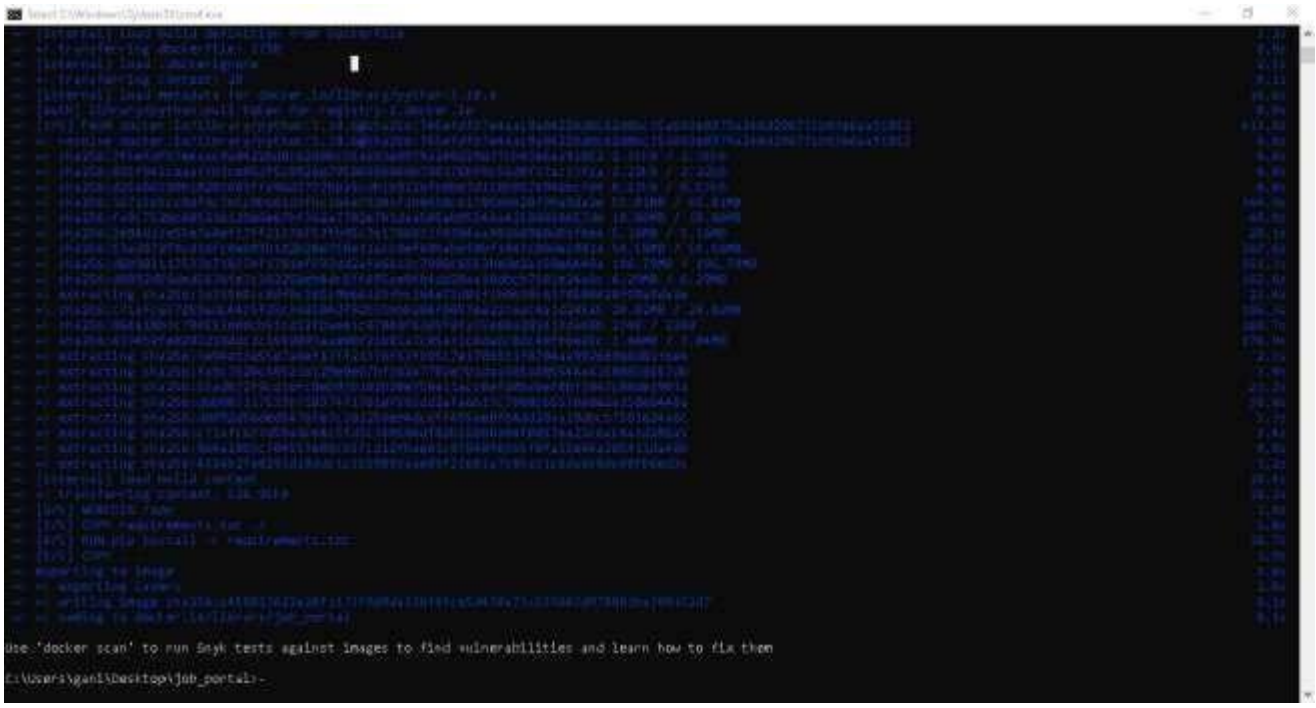
Create a docker file for the jobportal application and deploy it in docker application.

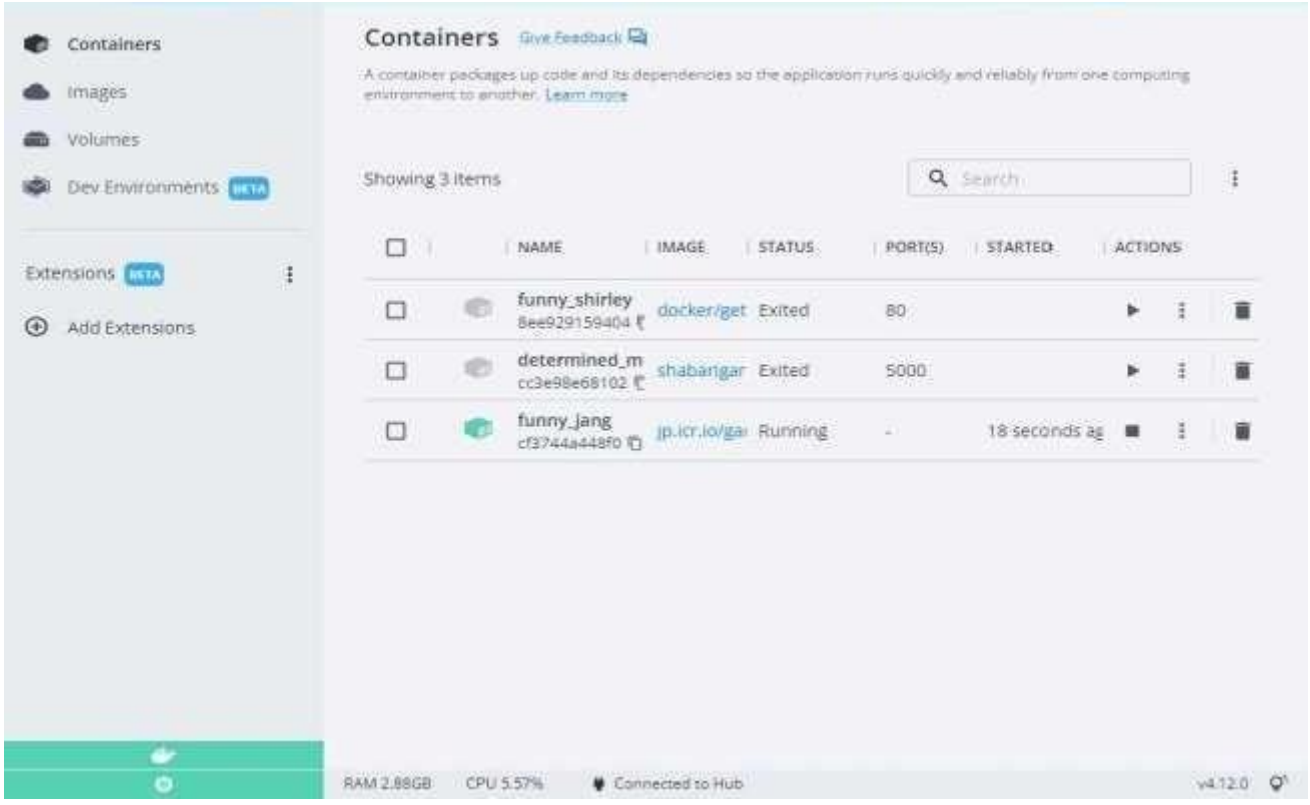
1) Creating a docker file for the jobportal application

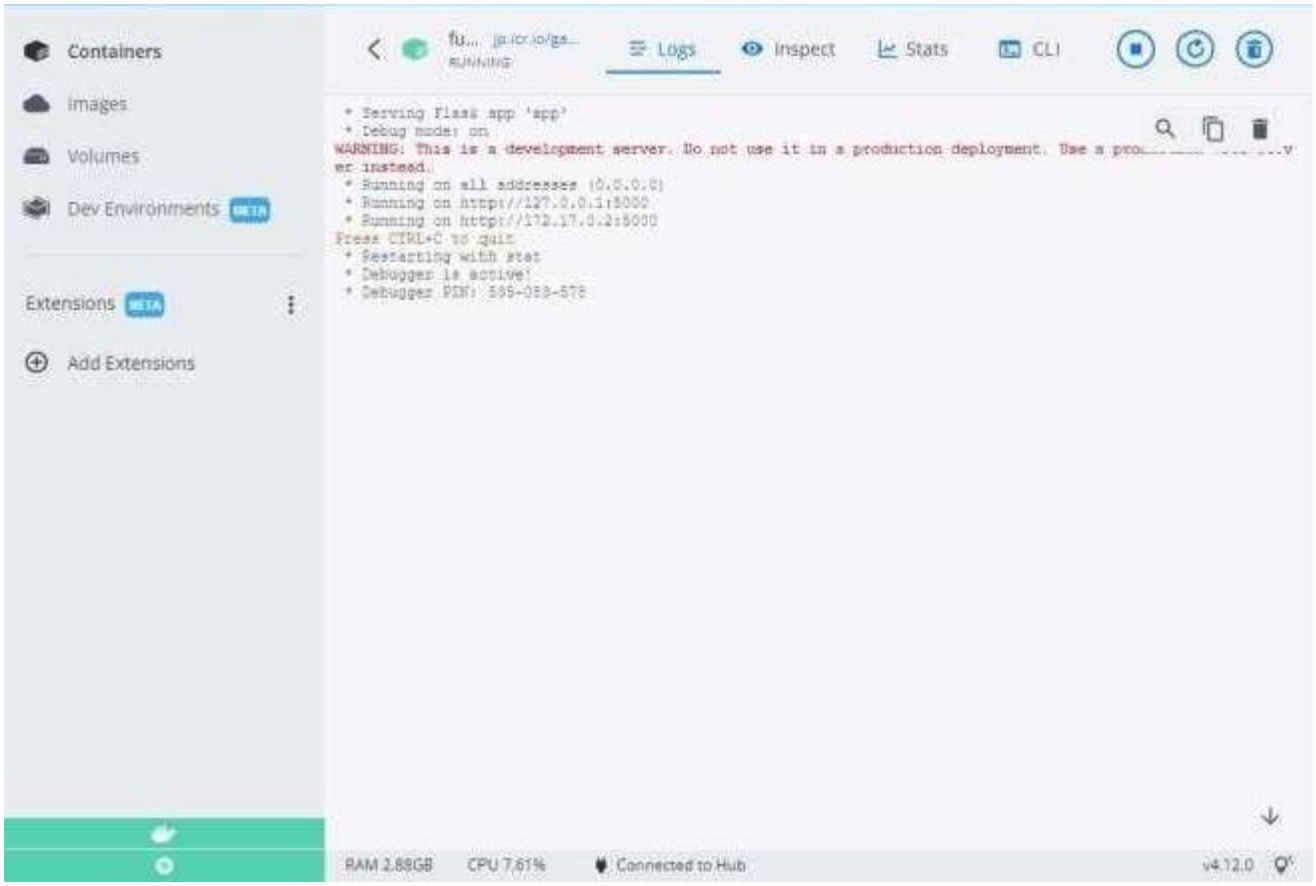


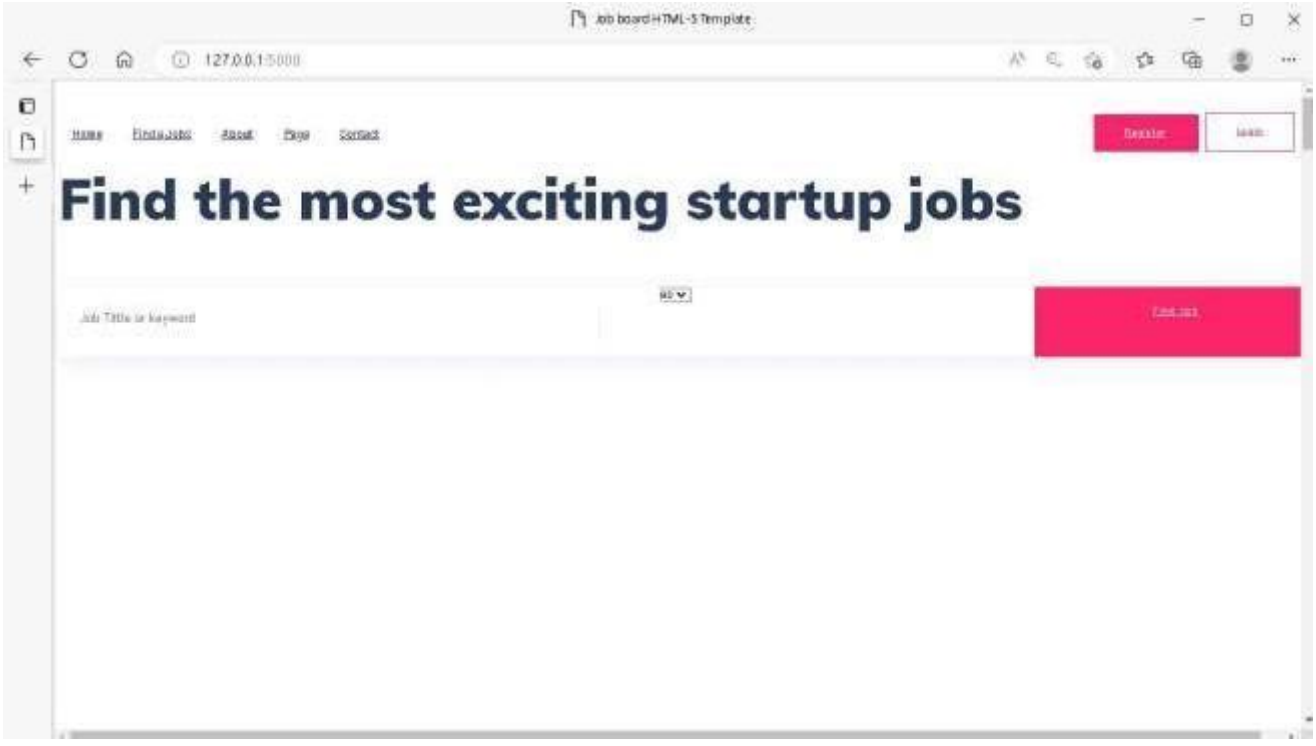
2) deploy in in dokcer application




Use 'docker scan' to run Snyk tests against images to find vulnerabilities and learn how to fix them
C:\Users\ganl\Desktop\job_portal>


Containers
Images
Volumes
Dev Environments BETA
Extensions BETA
Add Extensions
Containers
Give Feedback
A container packages up code and its dependencies so the application runs quickly and reliably from one computing environment to another. Learn more
Showing 3 items
Search
NAME
IMAGE
STATUS
PORT(S)
STARTED
ACTIONS
funny_shirley
8ee929159404
docker/get
Exited
80
determined_m
cc3e98e68102
shabangar
Exited
5000
funny_jang
cf3744a448f0
jp.icr.io/ga
Running
-
18 seconds ag
RAM 2.88GB
CPU 5.57%
Connected to Hub
v4.12.0

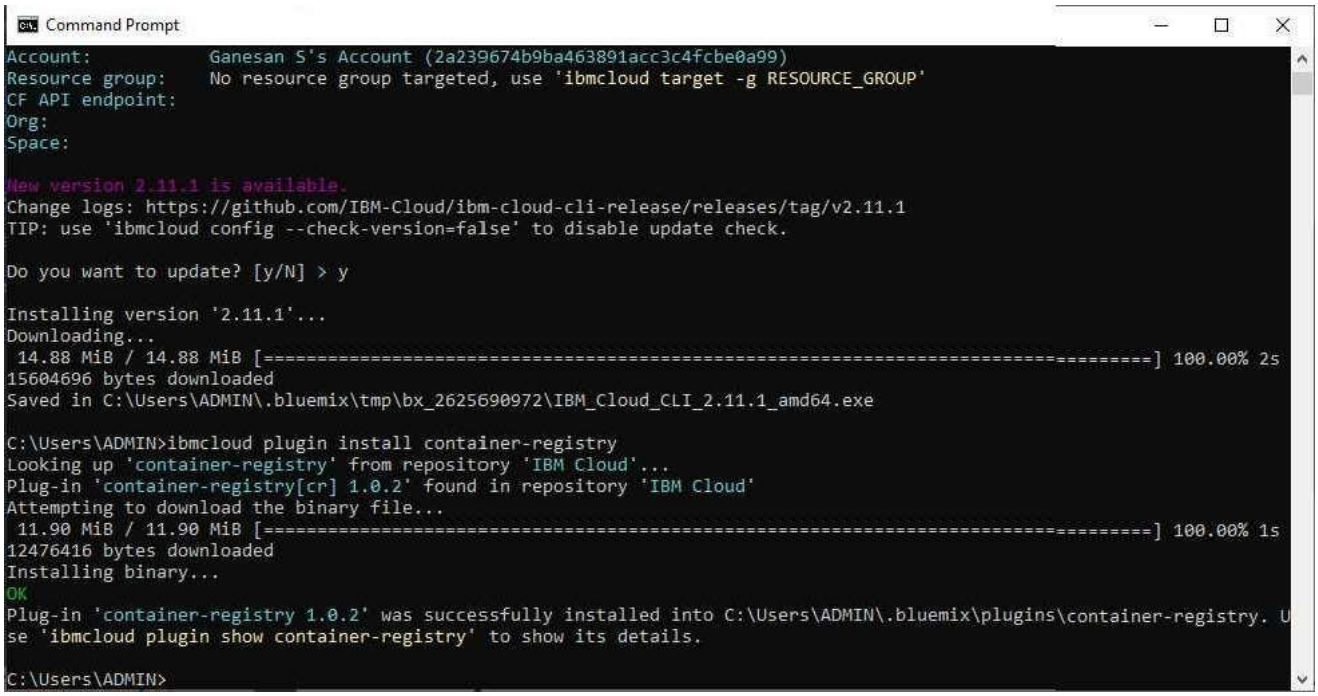




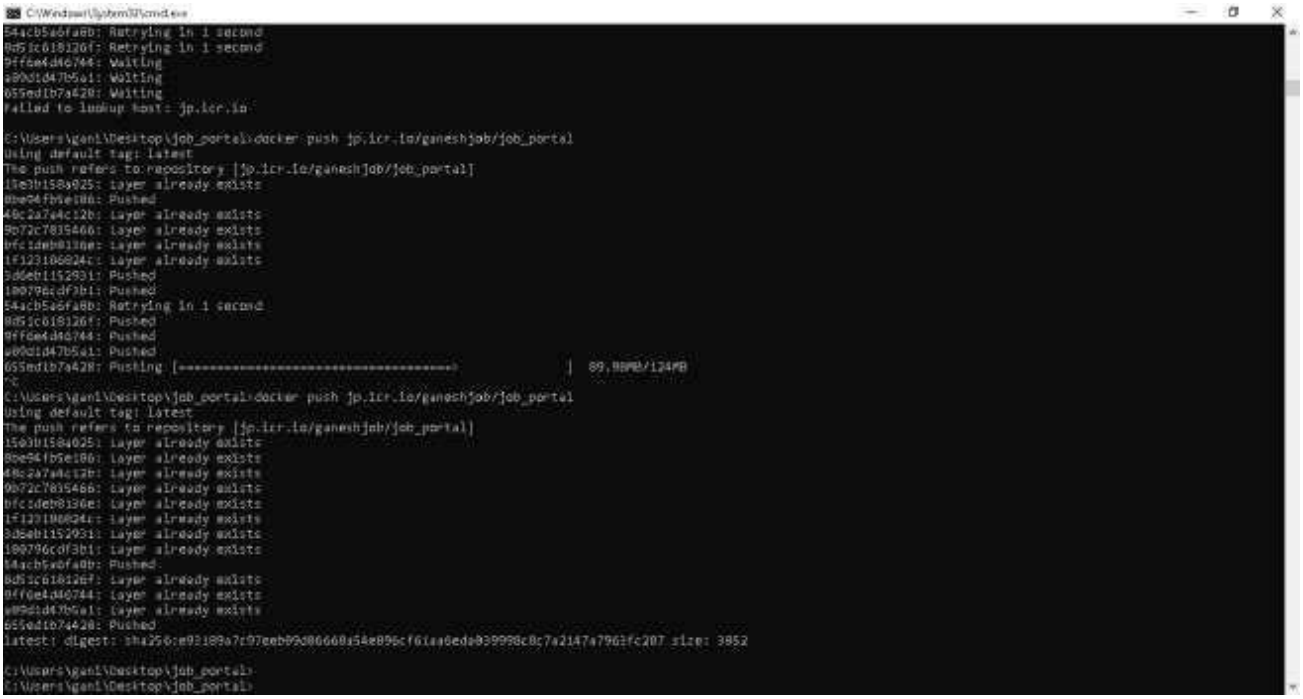
running in docker desktop 1

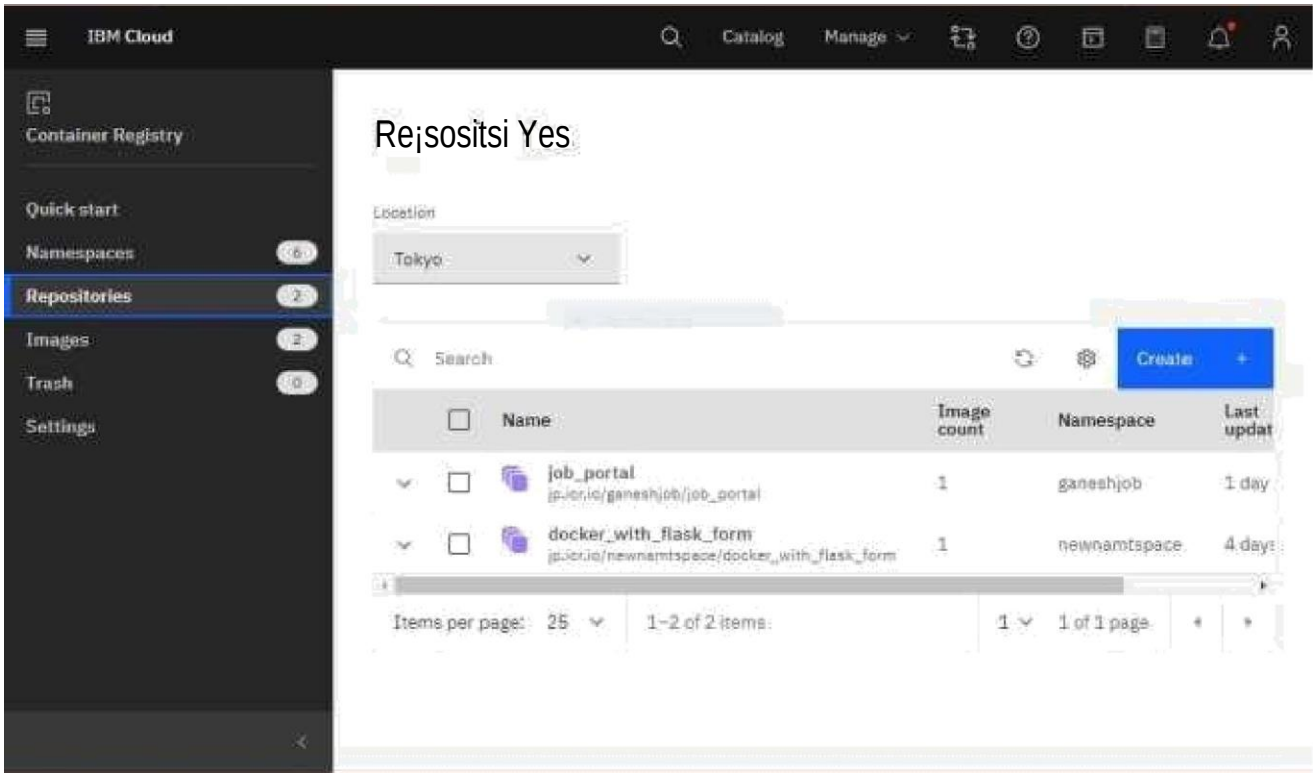
Question-3:Create aIbm container registry and deploy helloworld app or jobportalapp

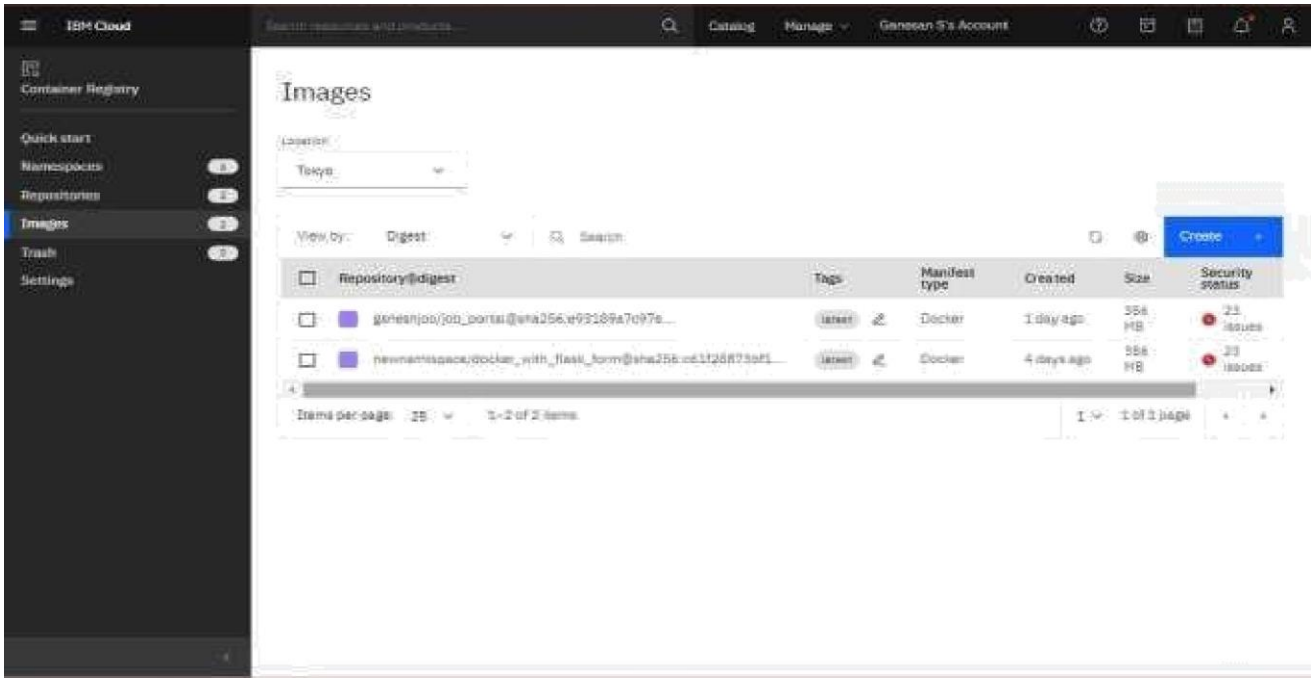
1) create a ibm container registry



2) deployhelloworld or jobportal

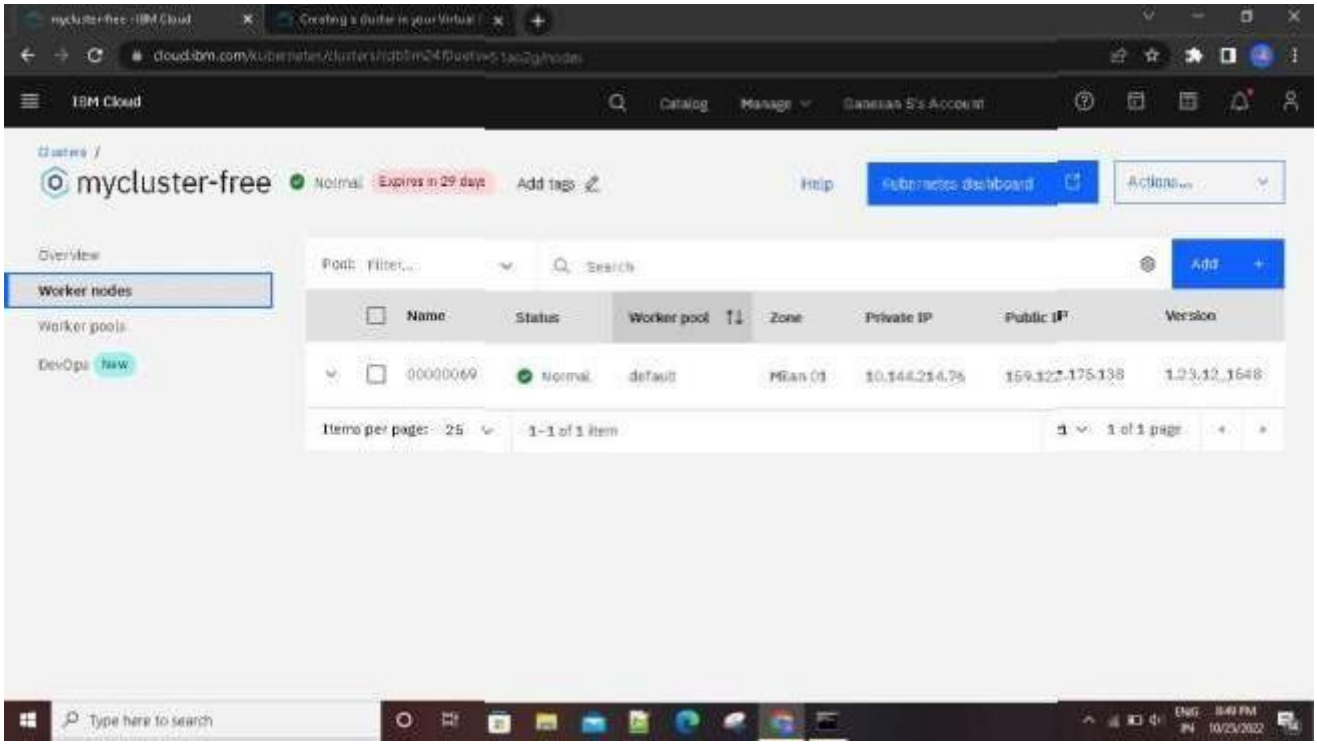



IBM Cloud
Catalog
Manage
Container Registry
Quick start
Namespaces 6
Repositories 2
Images 2
Trash 0
Settings
Re¡sositsi Yes
Location
Tokyo
Search
Create
Name
Image count
Namespace
Last updat
job_portal
jp.icr.io/ganeshjob/job_portal
1
ganeshjob
1 day
docker_with_flask_form
jp.icr.io/newnamtspace/docker_with_flask_form
1
newnamtspace
4 days
Items per page: 25
1–2 of 2 items
1 of 1 page

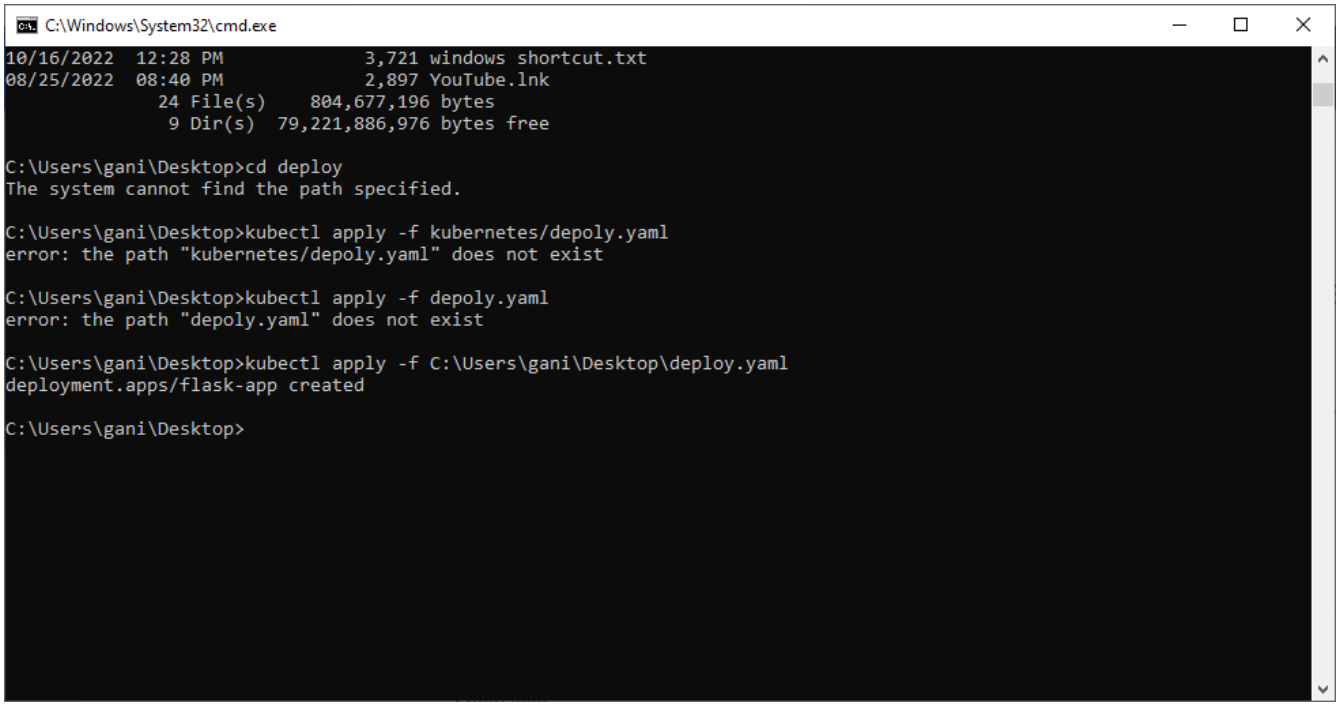

IBM Cloud
Catalog
Manage
Ganesan S's Account
Container Registry
Quick start
Namespaces
Repositories
Images
Trash
Settings
Images
Location
Tokyo
View by:
Digest
Search
Create
Repository@digest
Tags
Manifest type
Created
Size
Security status
Docker
1 day ago
4 days ago
Items per page: 25
1 of 1 page

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

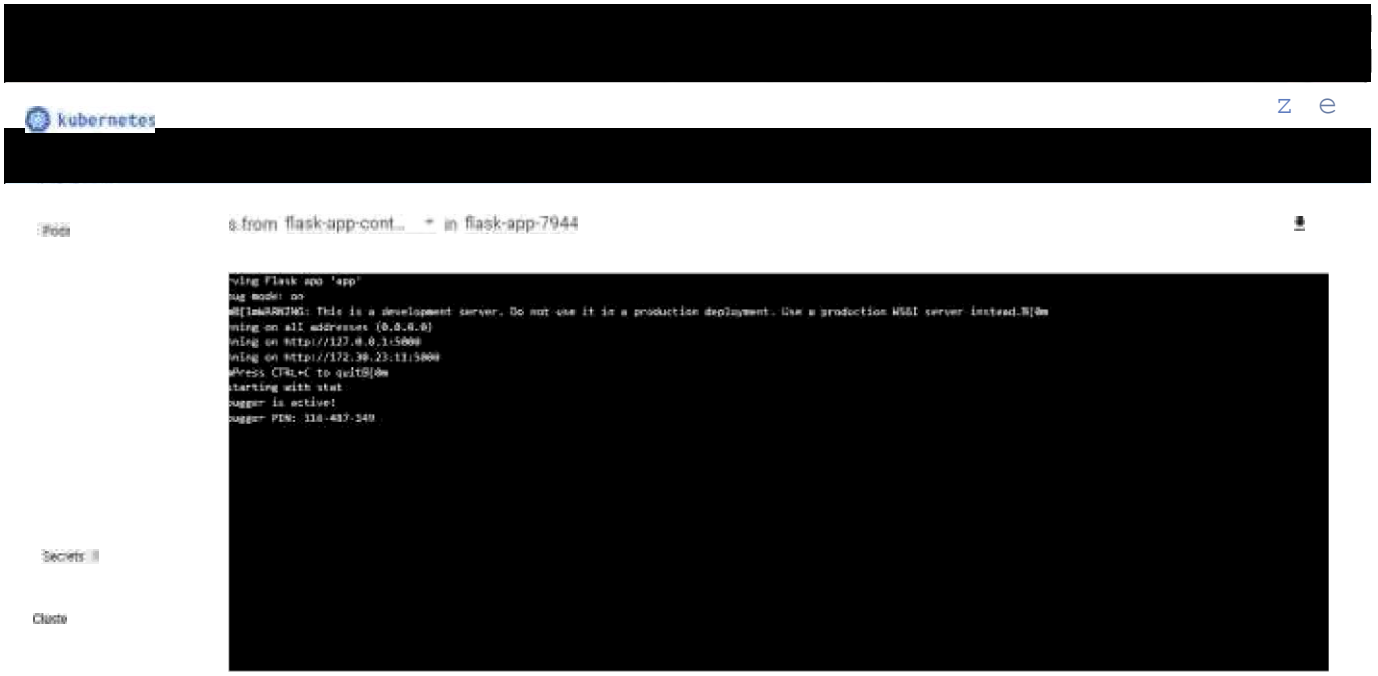
1) Creating a kubernetes cluster in ibm cloud



2) deploy helloworld image or jobportal image and also expose the same app to run in noteport




kubernetes
Workloads
Cron Jobs
Daemon Sets
Deployments
Jobs
Replica Sets
Replication Controllers
Stateful Sets
Service
Memory Usage


kubernetes
Pods
s from flask-app-cont... in flask-app-7944
Secrets
Cluste

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 depploy
^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 127.0.0.1:8001
^C
C:\Windows\system32>kubectl -n kubernetes-dashboard get deplou
^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
```