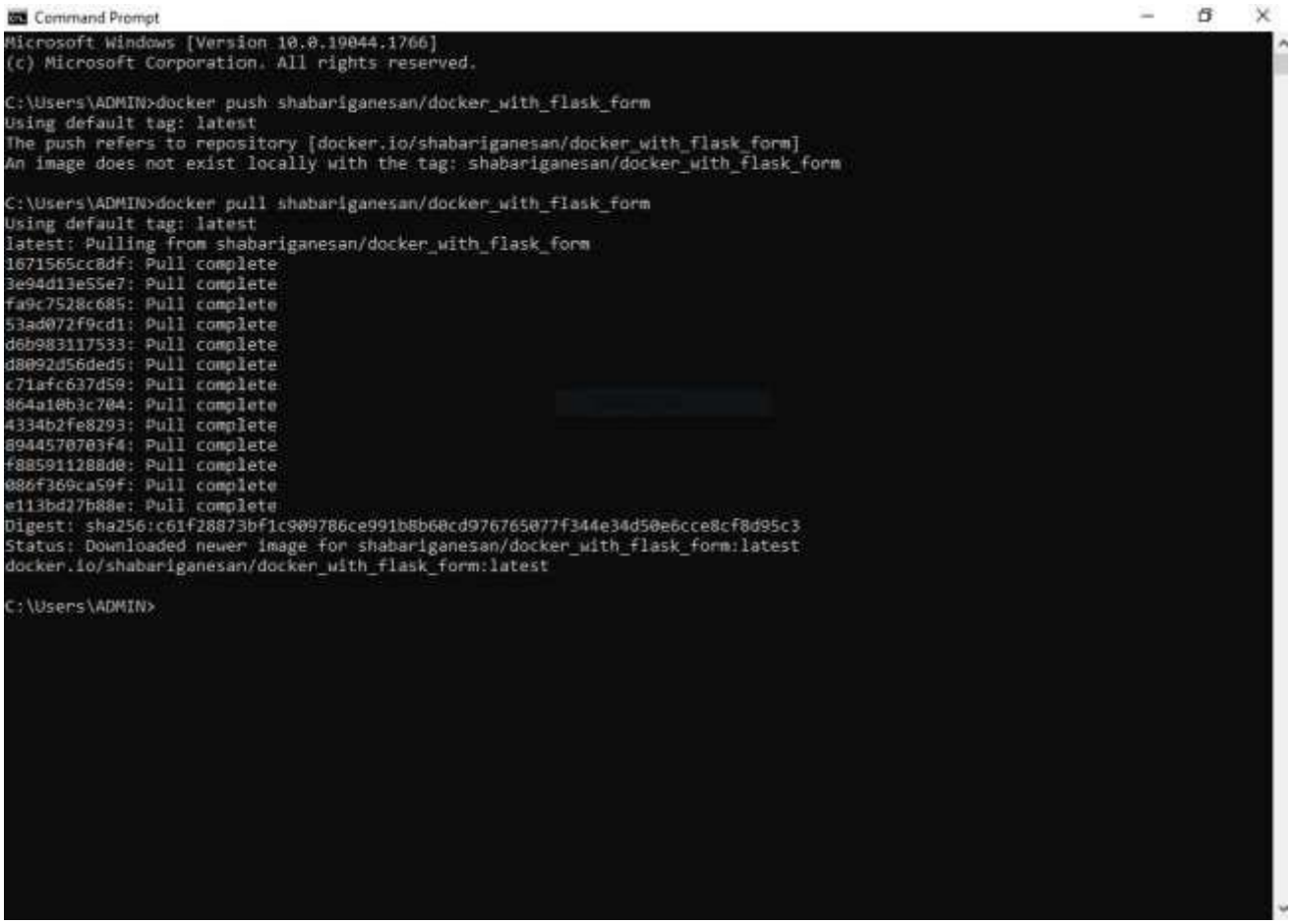
Assignment -4
Docker and kubernetes

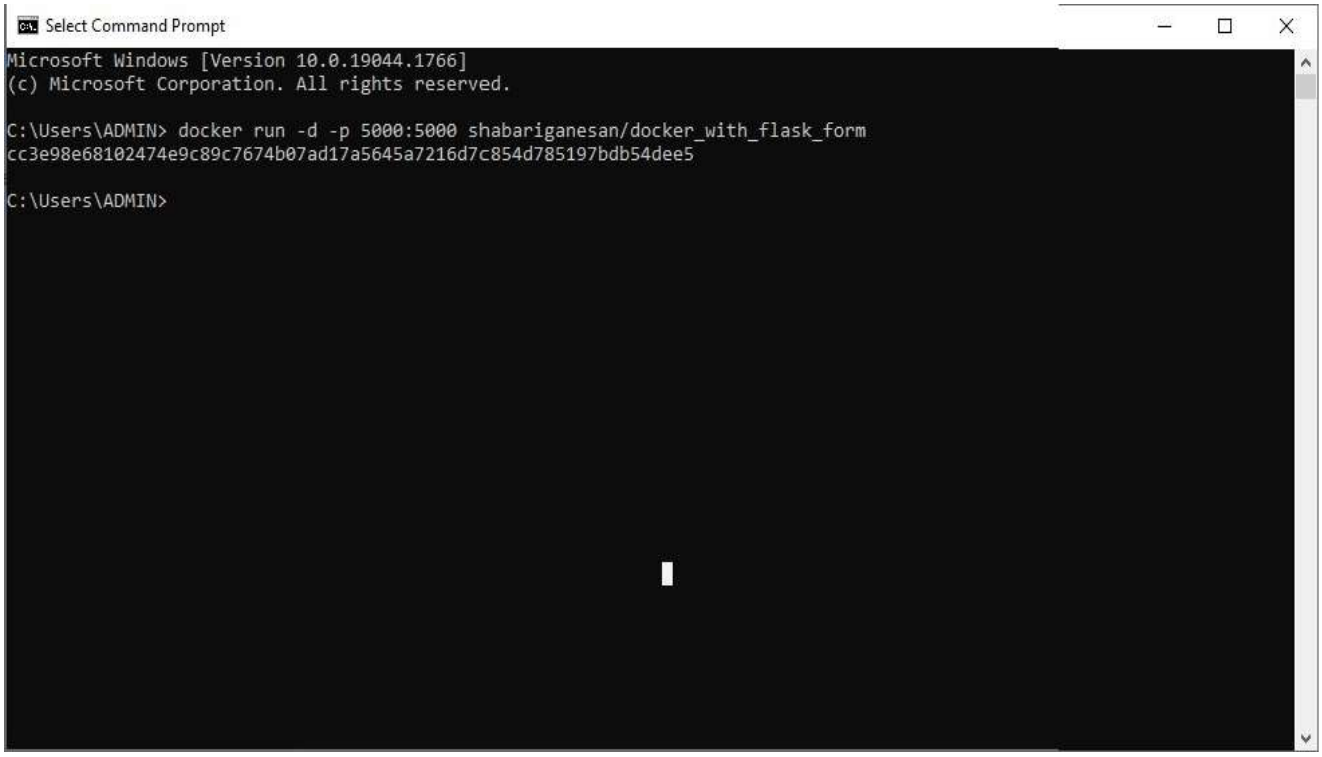
Assignment Date	27 October 2022
Student Name	S LOKESH RAMAN
Student Roll Number	113319104045
Maximum Marks	2 Marks

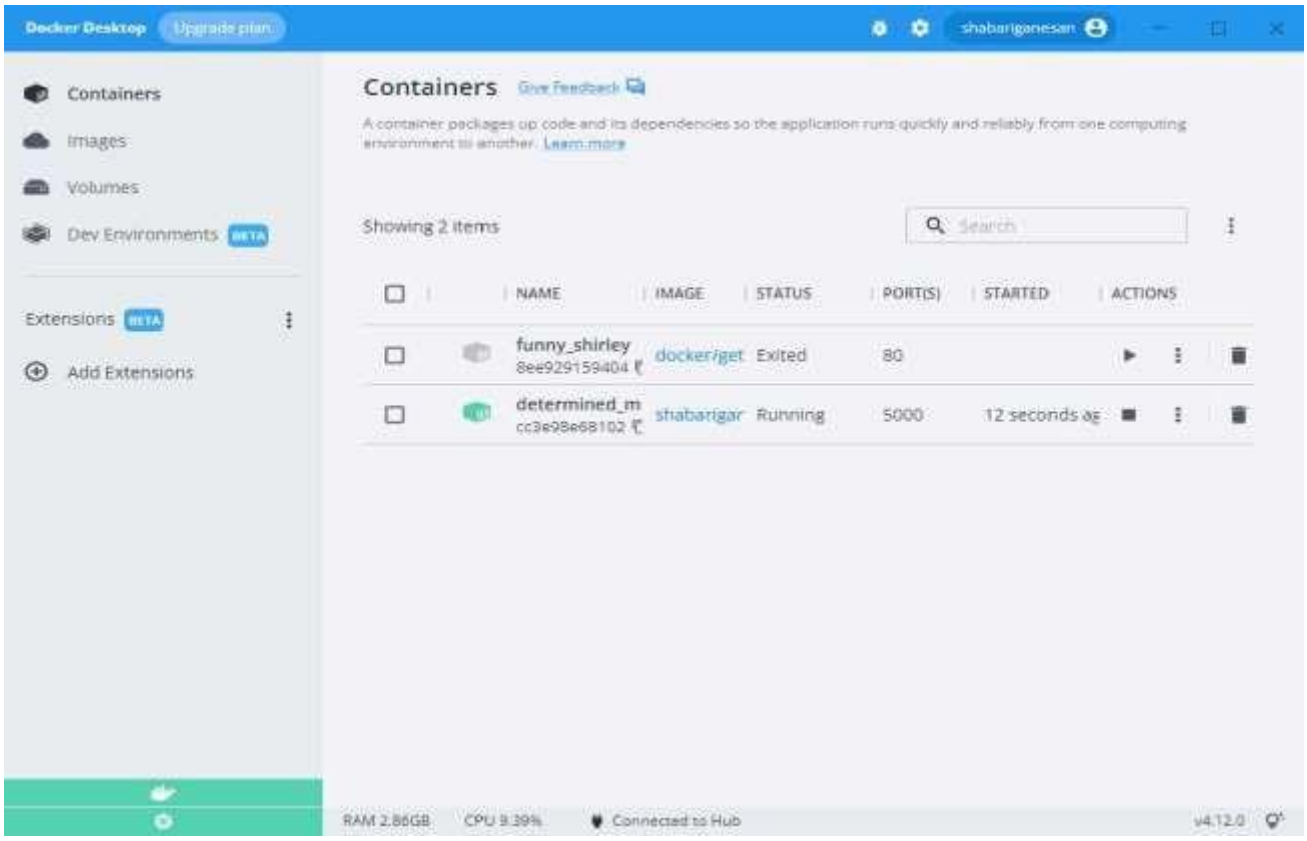
Question-1: pull an image from docker hub and run it in docker playground.

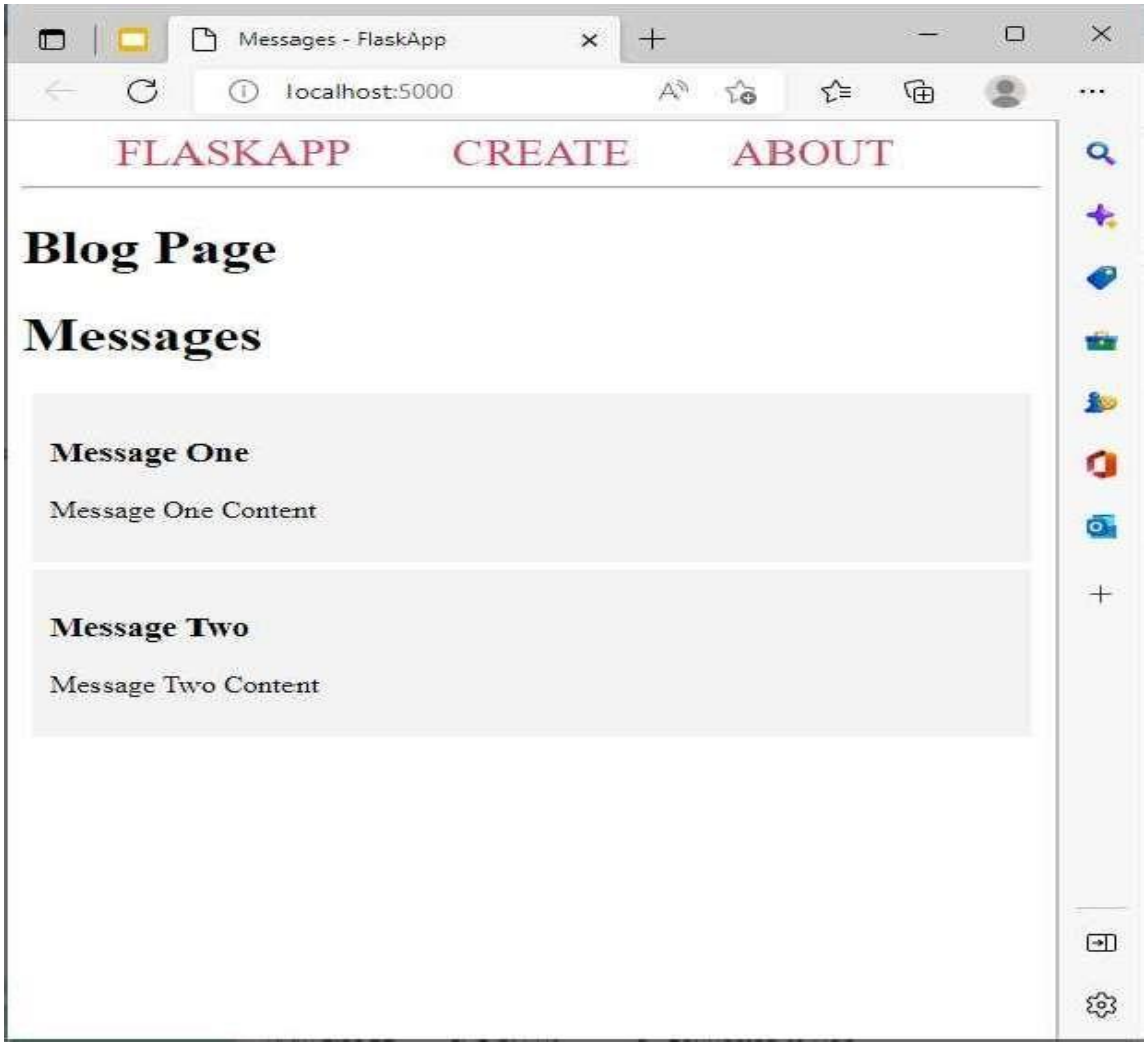
1) pull an image form docker hub



2) runt it in docker playground


Select Command Prompt
Microsoft Windows [Version 10.0.19044.1766]
(c) Microsoft Corporation. All rights reserved.
C:\Users\ADMIN> docker run -d -p 5000:5000 shabariganesan/docker_with_flask_form
cc3e98e68102474e9c89c7674b07ad17a5645a7216d7c854d785197bdb54dee5
C:\Users\ADMIN>

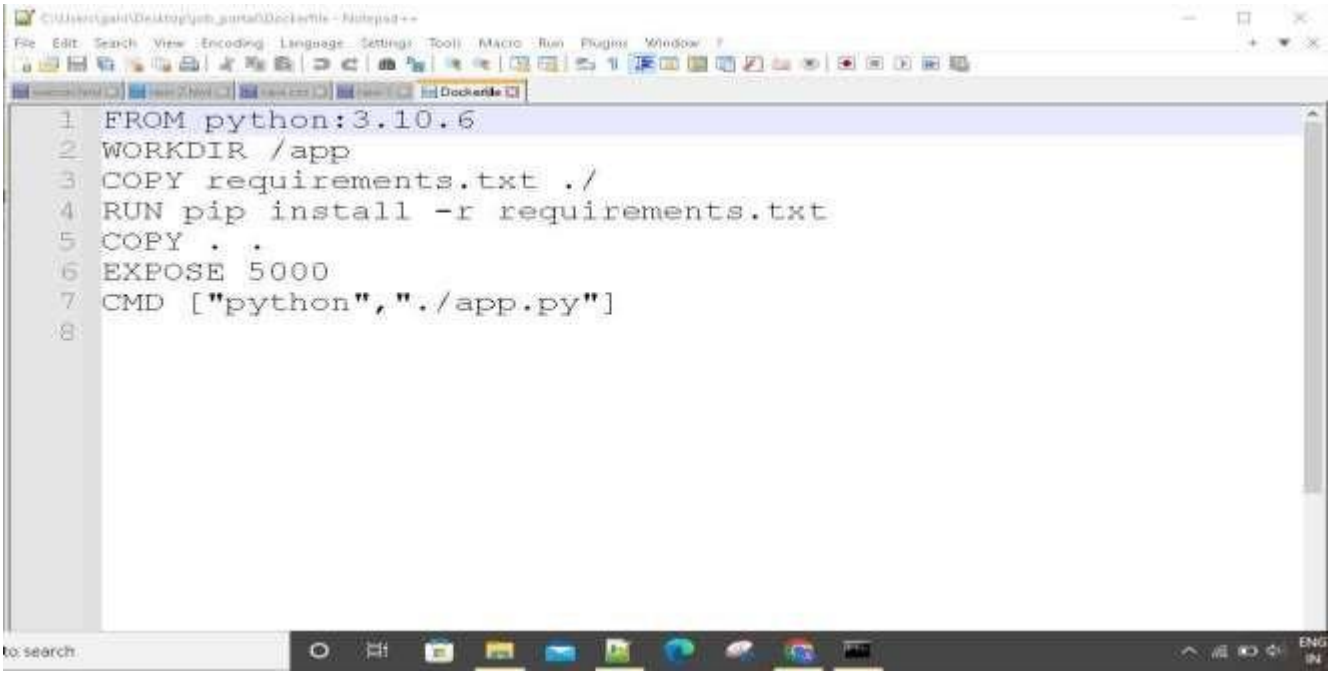

Docker Desktop
Upgrade plan
shabariganesan
Containers
Images
Volumes
Dev Environments
BETA
Extensions
BETA
Add Extensions
Containers
Give feedback
A container packages up code and its dependencies so the application runs quickly and reliably from one computing environment to another. Learn more
Showing 2 items
Search
NAME
IMAGE
STATUS
PORT(S)
STARTED
ACTIONS
funny_shirley
8ee929159404
docker/get
Exited
80
determined_m
cc3e98e68102
shabarigar
Running
5000
12 seconds ag
RAM 2.86GB
CPU 9.39%
Connected to Hub
v4.12.0



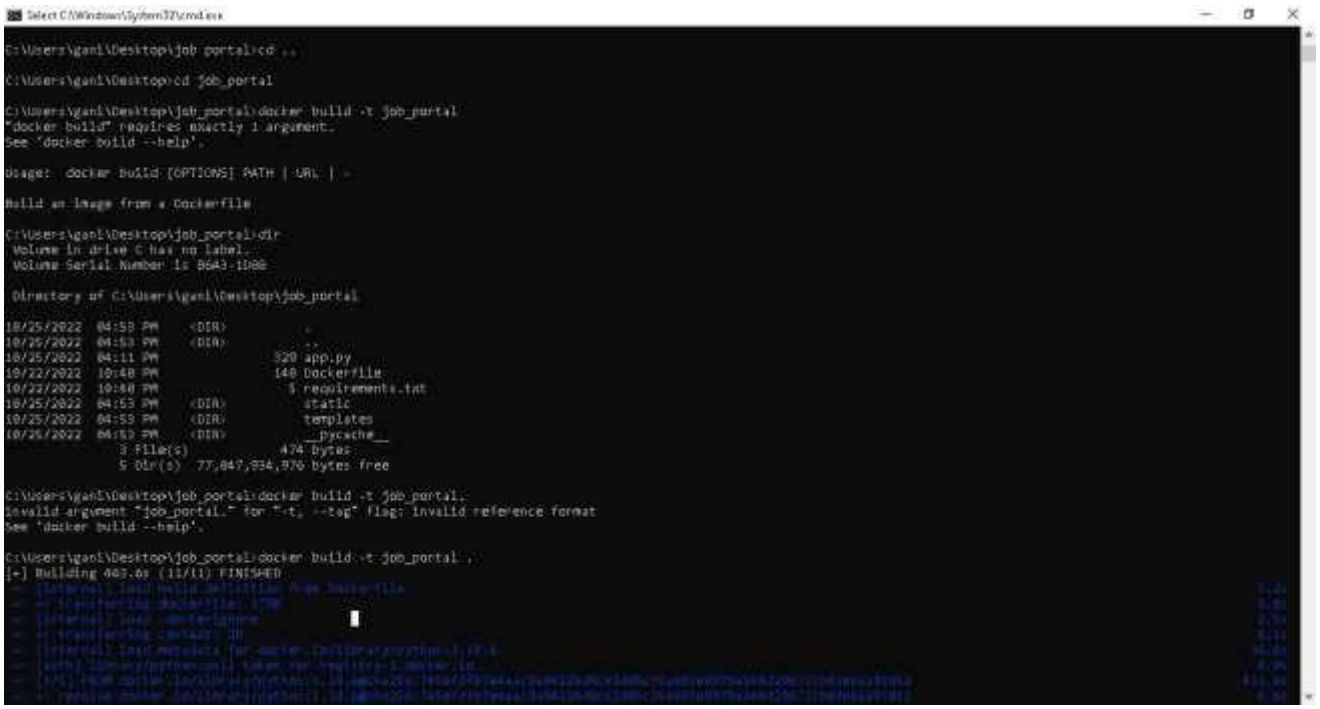
Question-2:

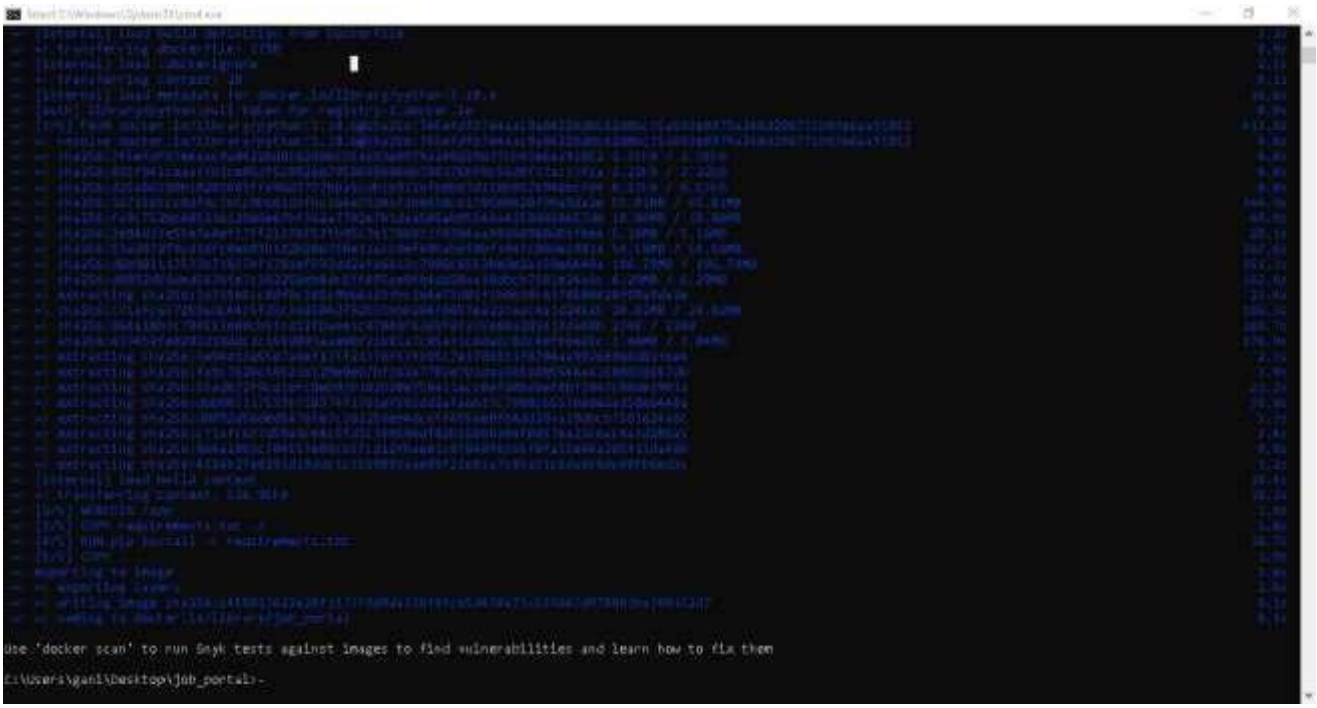
Create a docker file for the jobportal application and deploy it in docker application.

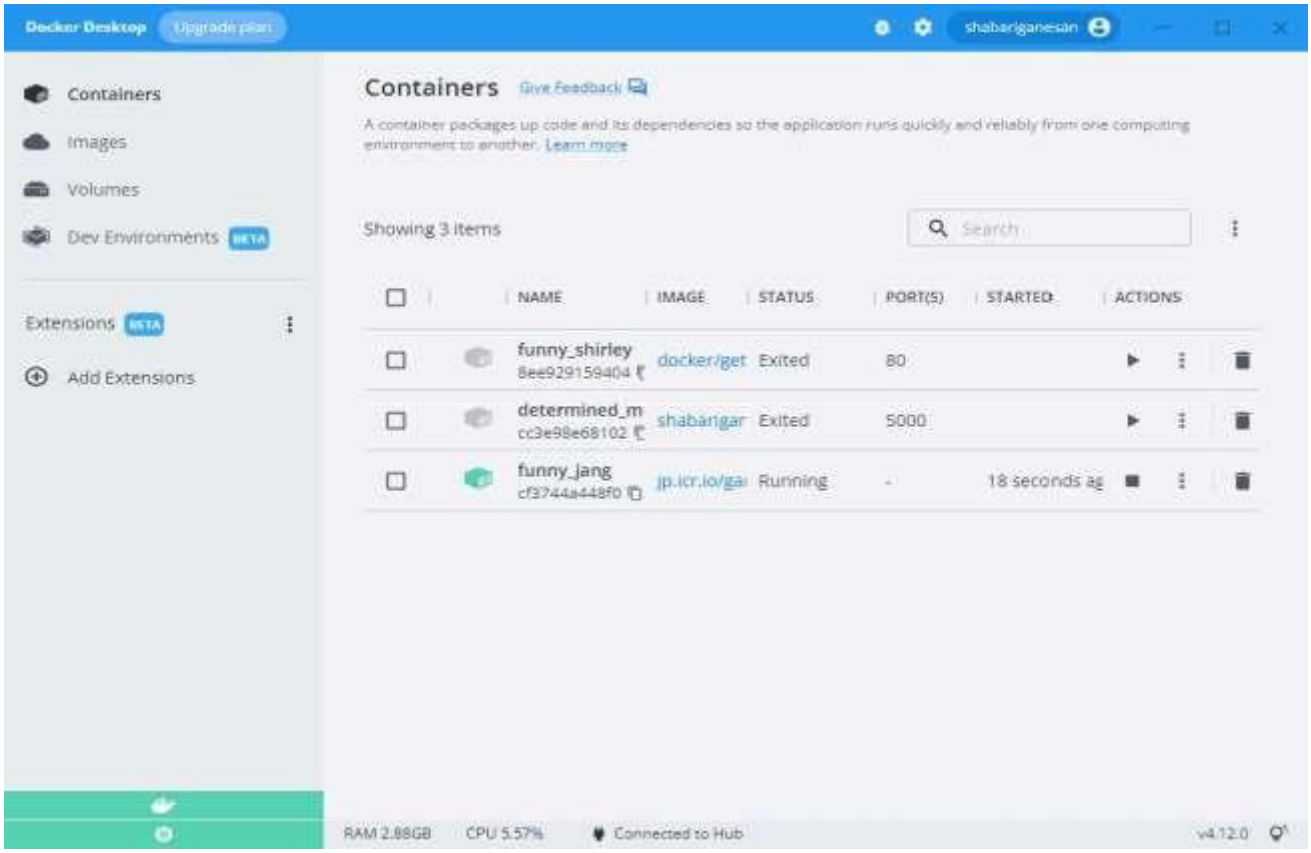
1) Creating a docker file for the jobportal application



2) deploy in in docker application




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


Docker Desktop
Upgrade plan
shabariganesan
Containers
Images
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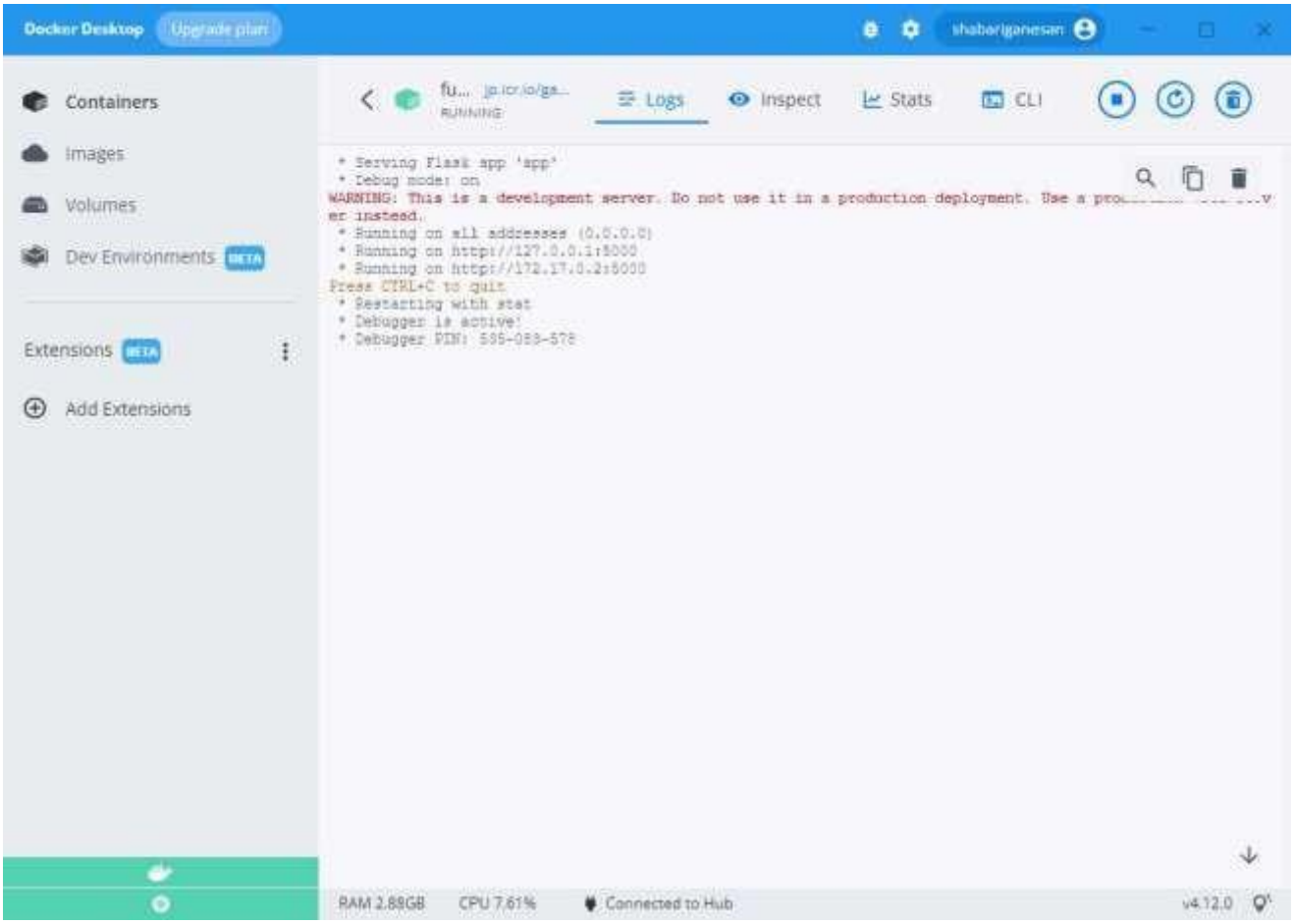
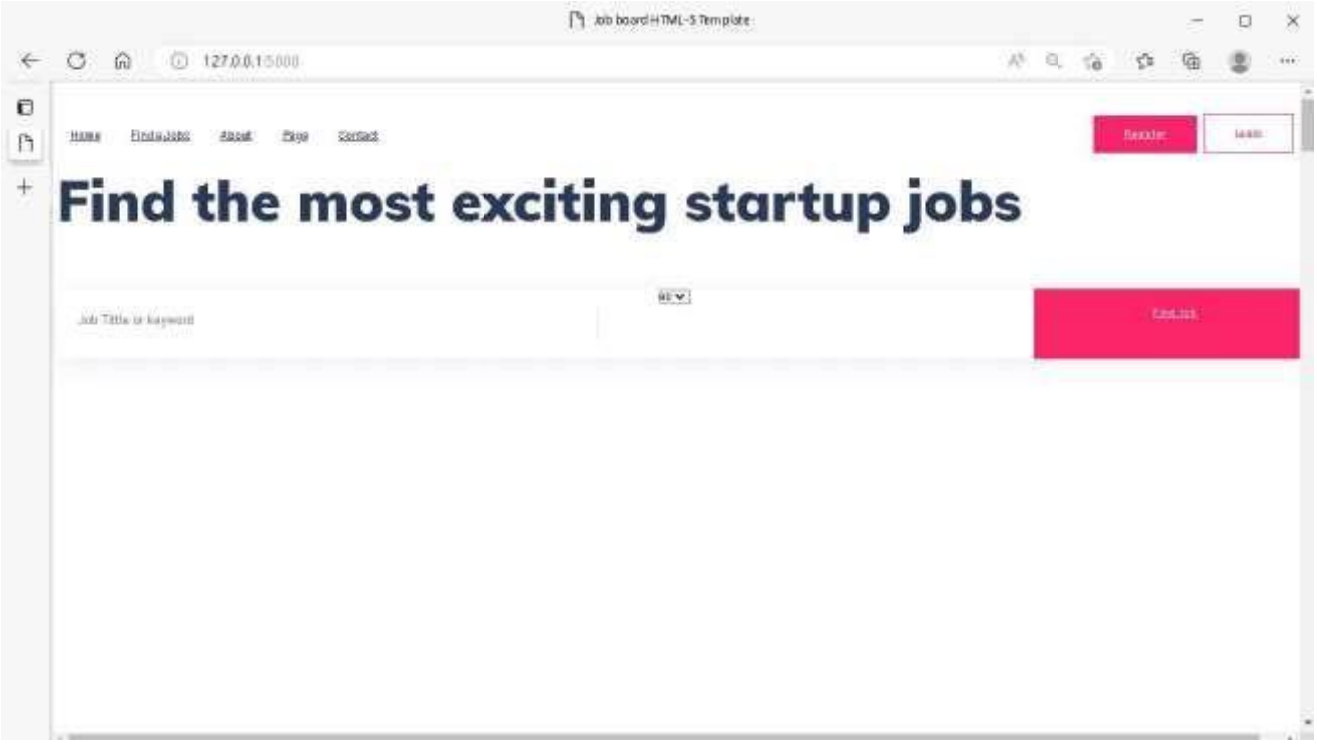
Dev Environments BETA
Extensions BETA
Add Extensions
Containers
Give Feedback
A container packages up code and its dependencies so the application runs quickly and reliably from one computing environment to another. Learn more
Showing 3 items
Search
NAME
IMAGE
STATUS
PORT(S)
STARTED
ACTIONS
funny_shirley
8ee929159404
docker/get
Exited
80
determined_m
cc3e98e68102
shabarigar
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

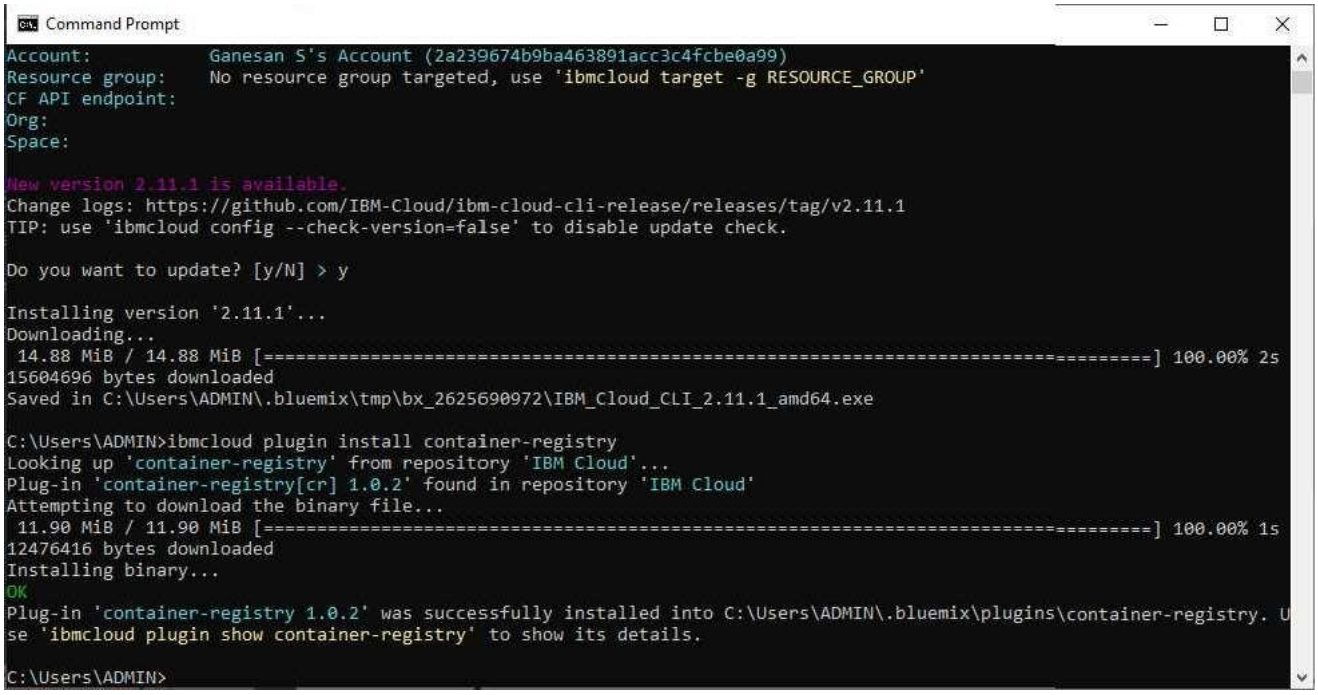




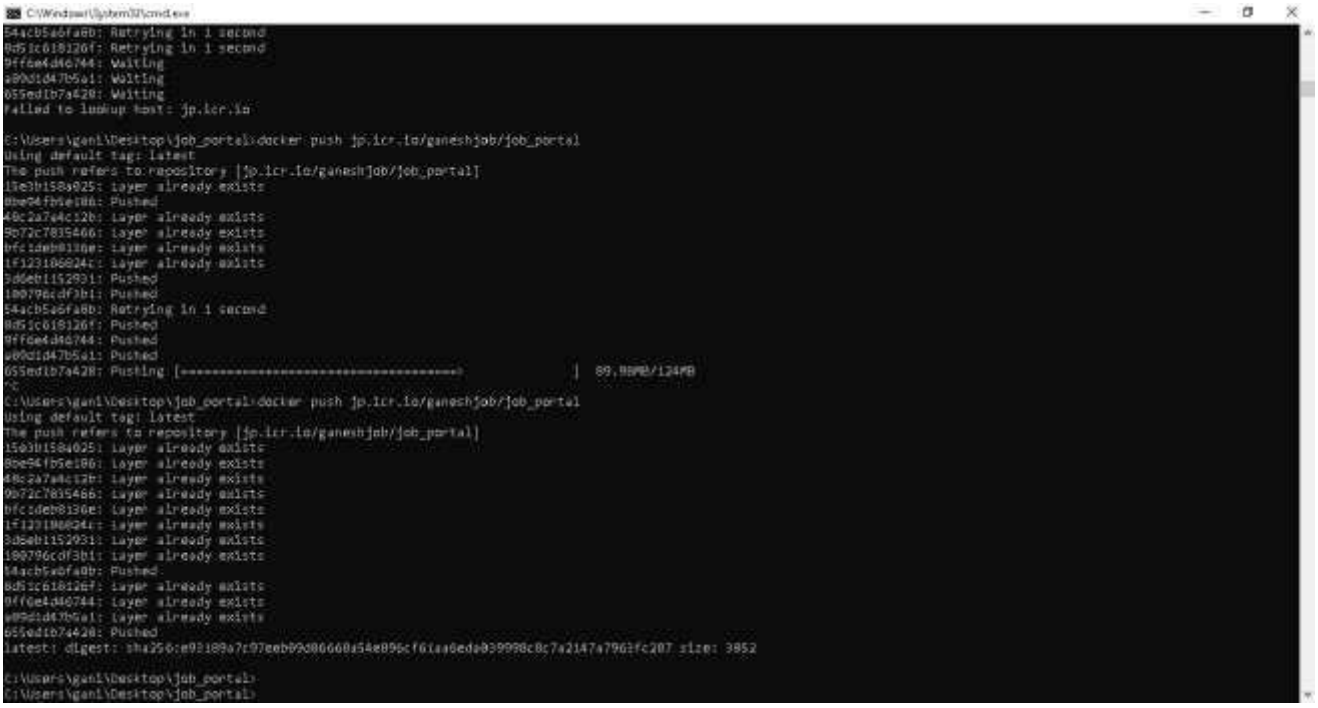
running in docker desktop 1

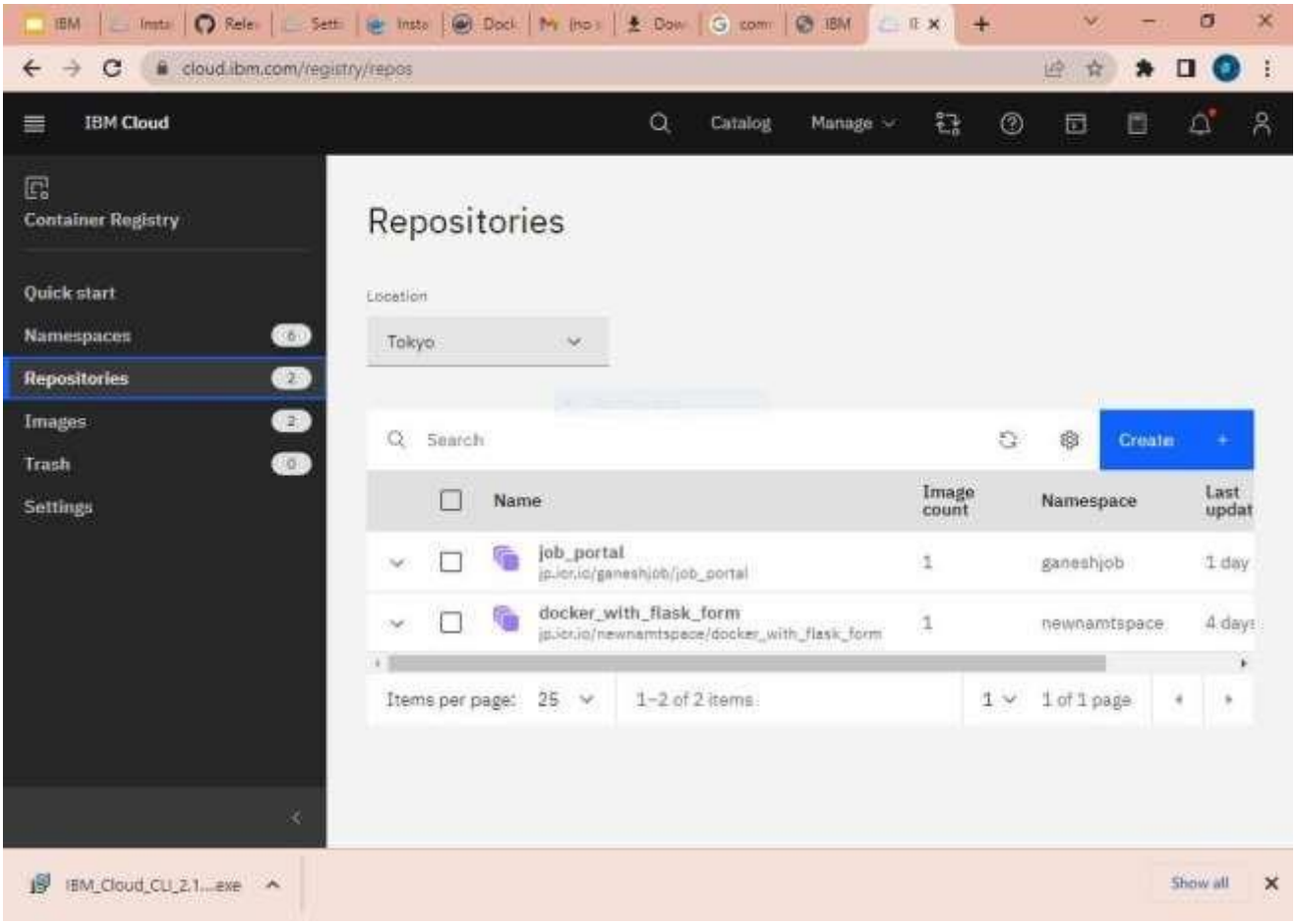
Question-3:Create a ibm container registry and deploy helloworld app or jobportalapp

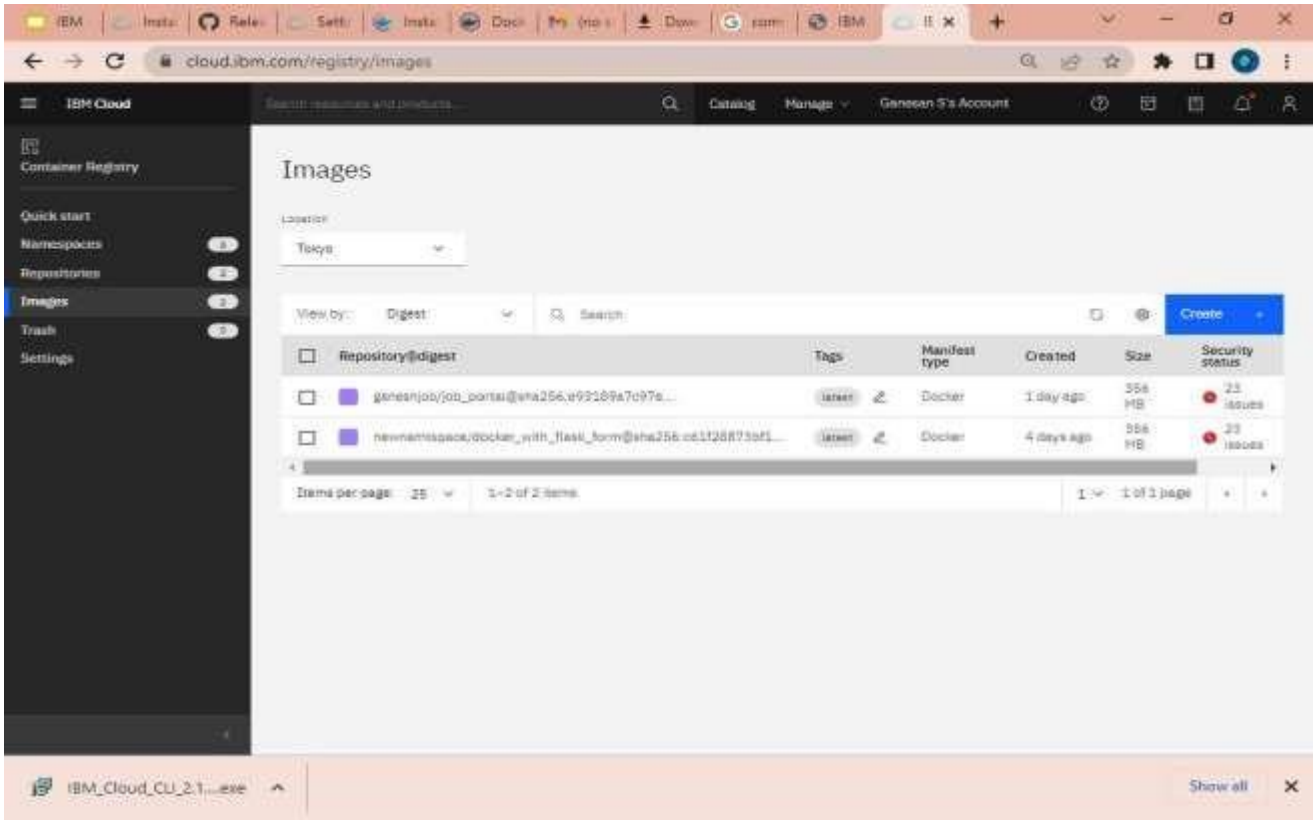
1) create a ibm container registry



2) deployhelloworld or jobportal

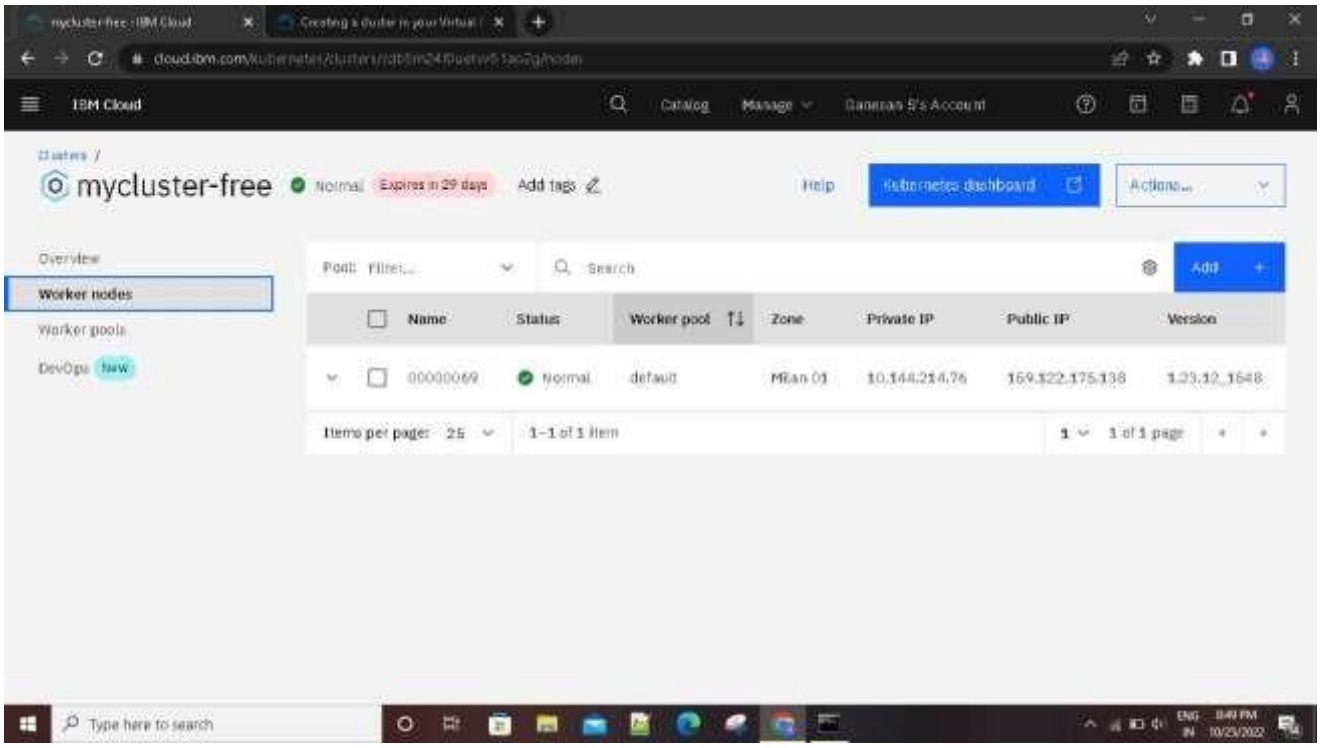




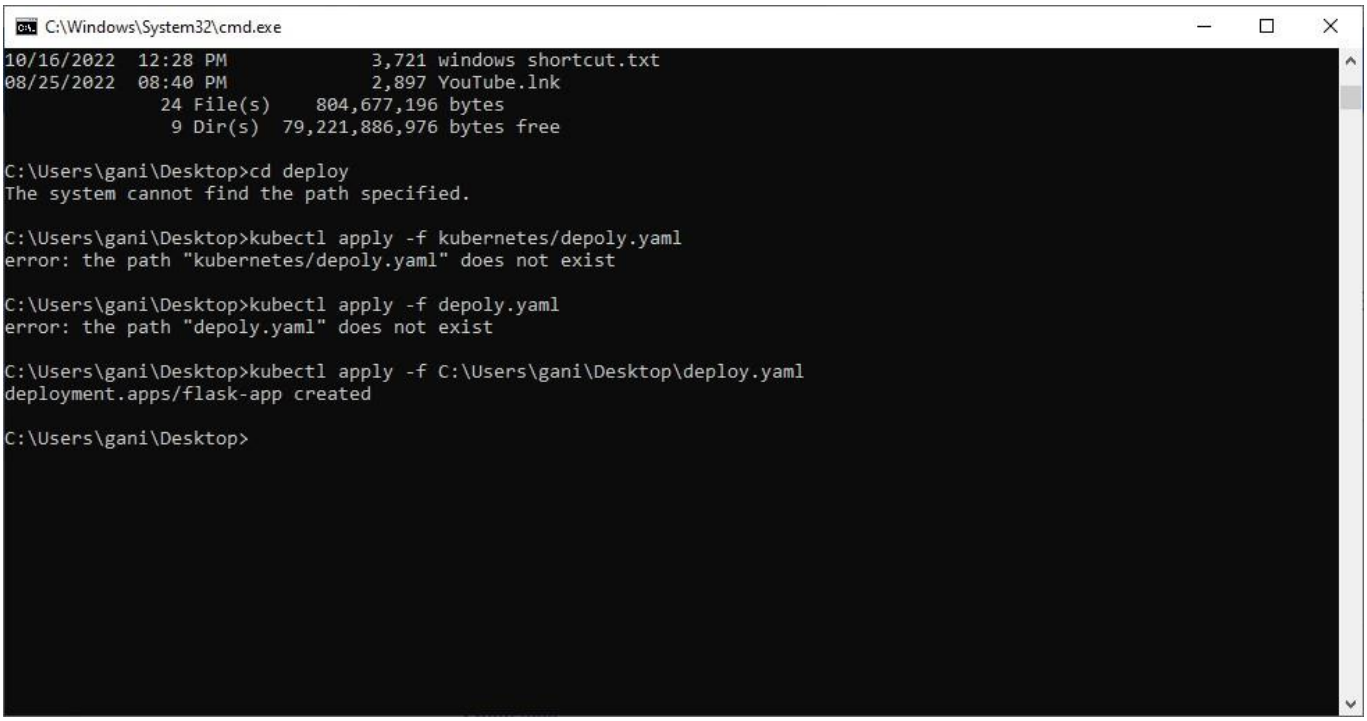


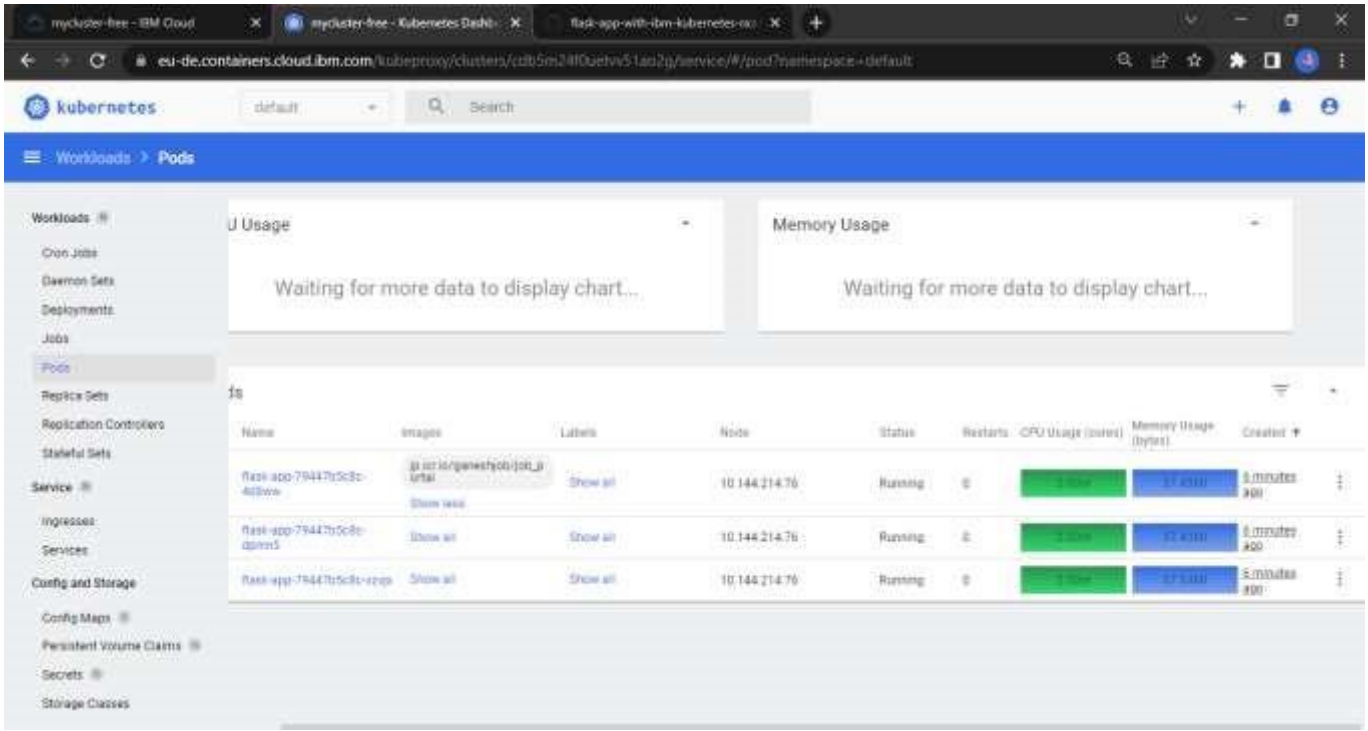
Question-4: Create a kubernetes cluster in ibm cloud and deploy helloworld image or jobportal image and also expose the same app to run in noteport

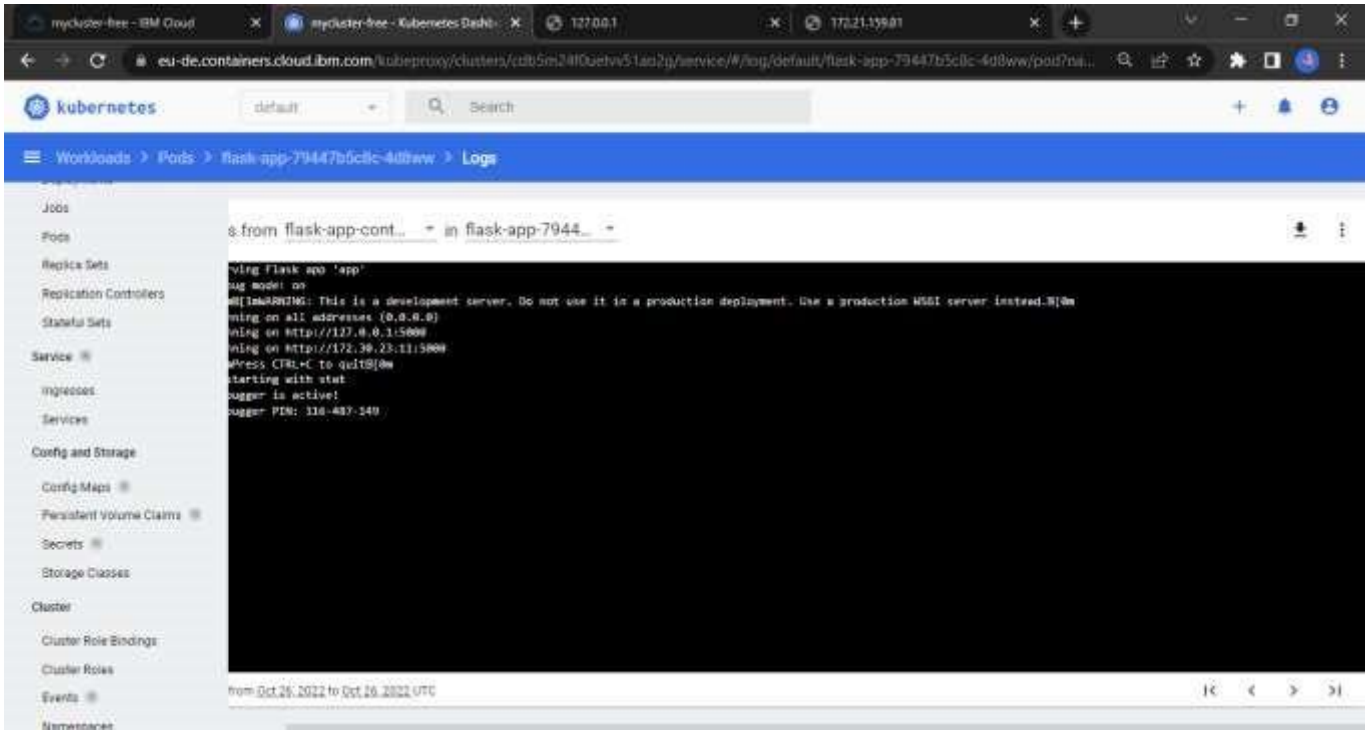
1)Creating a kubernetes cluster in ibm cloud

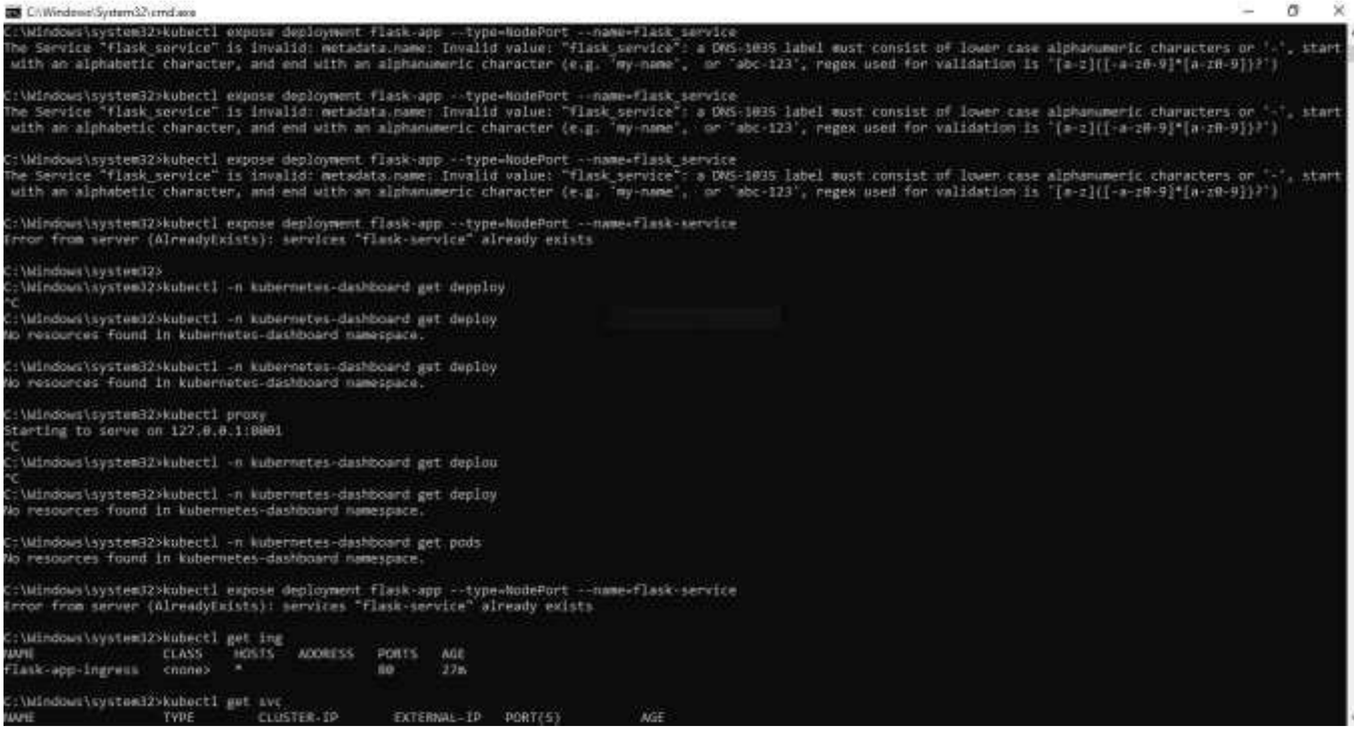


2) deploy helloworld image or jobportal image and also expose the same app to run in noteport




kubernetes
default
Search
Workloads > Pods
Workloads
Cron Jobs
Daemon Sets
Deployments
Jobs
Pods
Replica Sets
Replication Controllers
Stateful Sets
Service
Ingresses
Services
Config and Storage
Config Maps
Persistent Volume Claims
Secrets
Storage Classes
U Usage
Waiting for more data to display chart...
Memory Usage
Waiting for more data to display chart...


kubernetes
default
Search
Workloads > Pods > flask-app-79447b5c8c-4d8ww > Logs
Jobs
Pods
Replica Sets
Replication Controllers
Stateful Sets
Service
Ingresses
Services
Config and Storage
Config Maps
Persistent Volume Claims
Secrets
Storage Classes
Cluster
Cluster Role Bindings
Cluster Roles
Events
s from flask-app-cont... in flask-app-7944...
Press CTRL+C to quit
Restarting with stat
Debugger is active!
Debugger PIN: 116-487-149


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
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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