Assignment-4

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Batch No	B9 - 3A5E
Project Name	NEWS TRACKER APPLICATION
Team ID	PNT2022TMID31792

Question-1:

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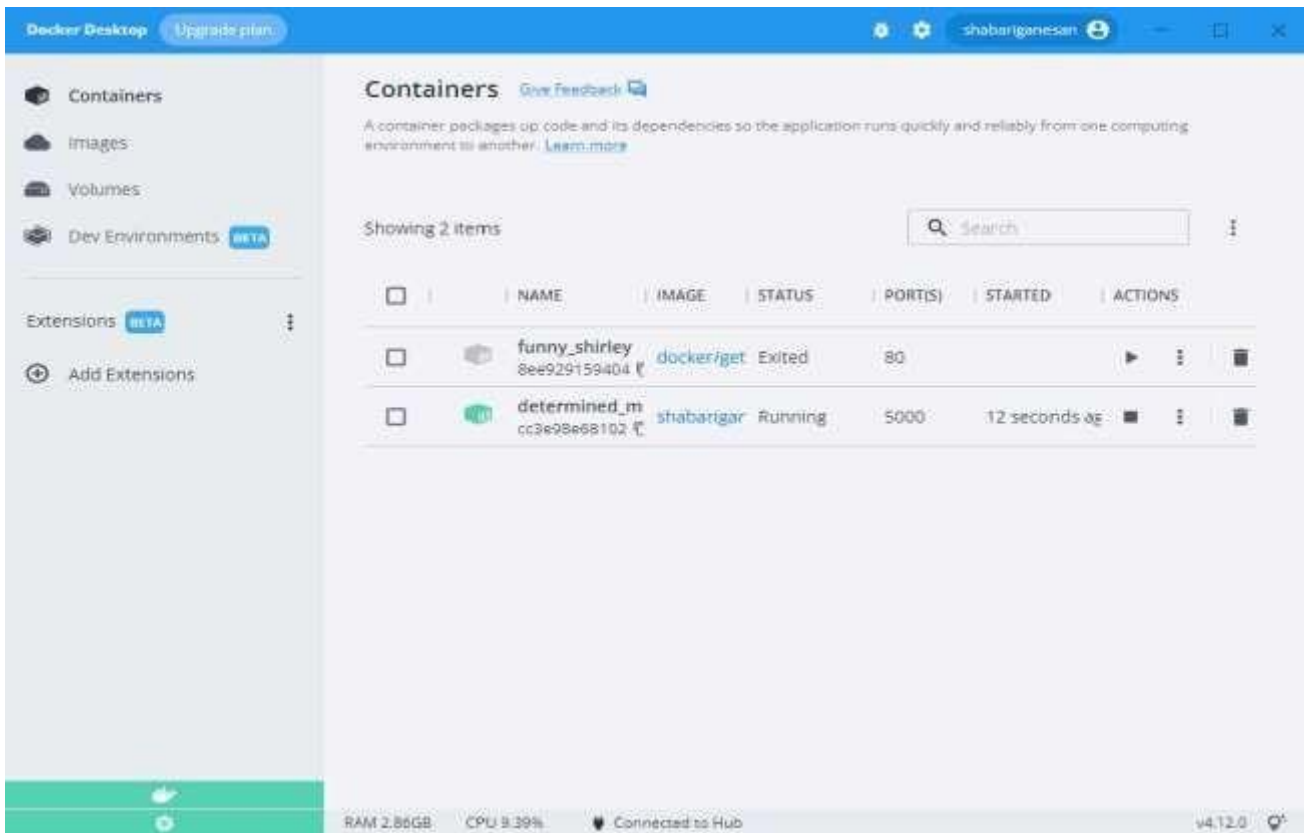
playground.pullan image form dockerhub

runtitindockerplayground

IBM Cloud

Container Registry

Quick start
Namespaces (6)
Repositories (2)
Images (2)
Trash (0)
Settings

IBM Cloud | Search | Catalog | Manage ∨

RetsosItsrles

Location

Tokyo ∨

Q 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 ∨   1 of 1 page

Docker Desktop Upgrade plan.   shabariganesan

Containers

Containers Give Feedback

Containers
Images
Volumes
Dev Environments BETA

Extensions BETA
Add Extensions

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   Q 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

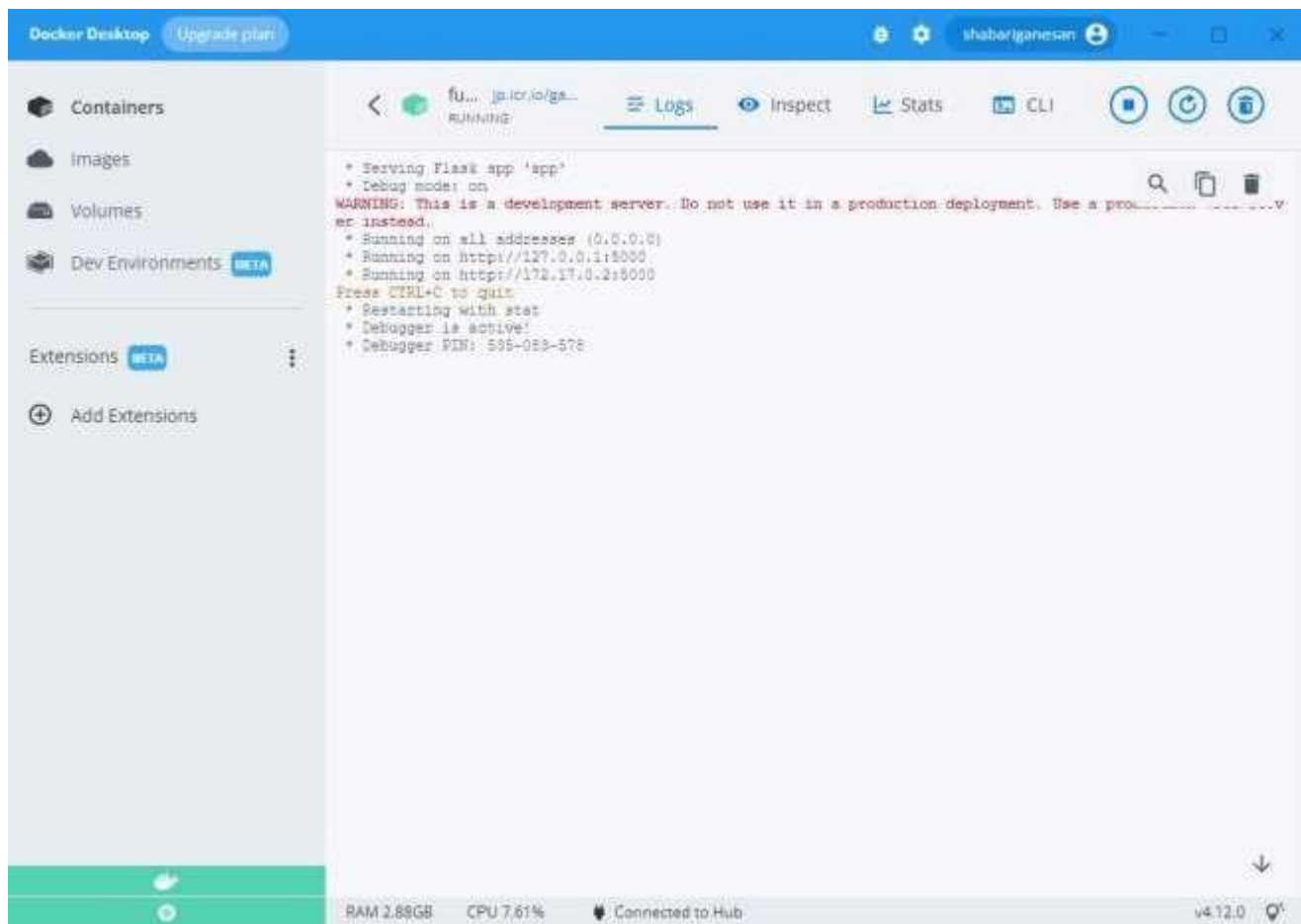**Question-2:**

Createadockerfileforthejobportalapplicationanddeployitindockerapplication.

Creatingadockerfileforthejobportalapplication

```
1  FROM python:3.10.6
2  WORKDIR /app
3  COPY requirements.txt ./
4  RUN pip install -r requirements.txt
5  COPY . .
6  EXPOSE 5000
7  CMD ["python","./app.py"]
8
```

deployinindokcerapplication

Use 'docker scan' to run Snyk tests against images to find vulnerabilities and learn how to fix them

C:\Users\gani\Desktop\job_portal>

runningindockerdesktop1

Question-3:CreateaIbm containerregistry anddeploy helloworldapp orjobportalapp

createa ibm container registry

deployhelloworldorjobportal
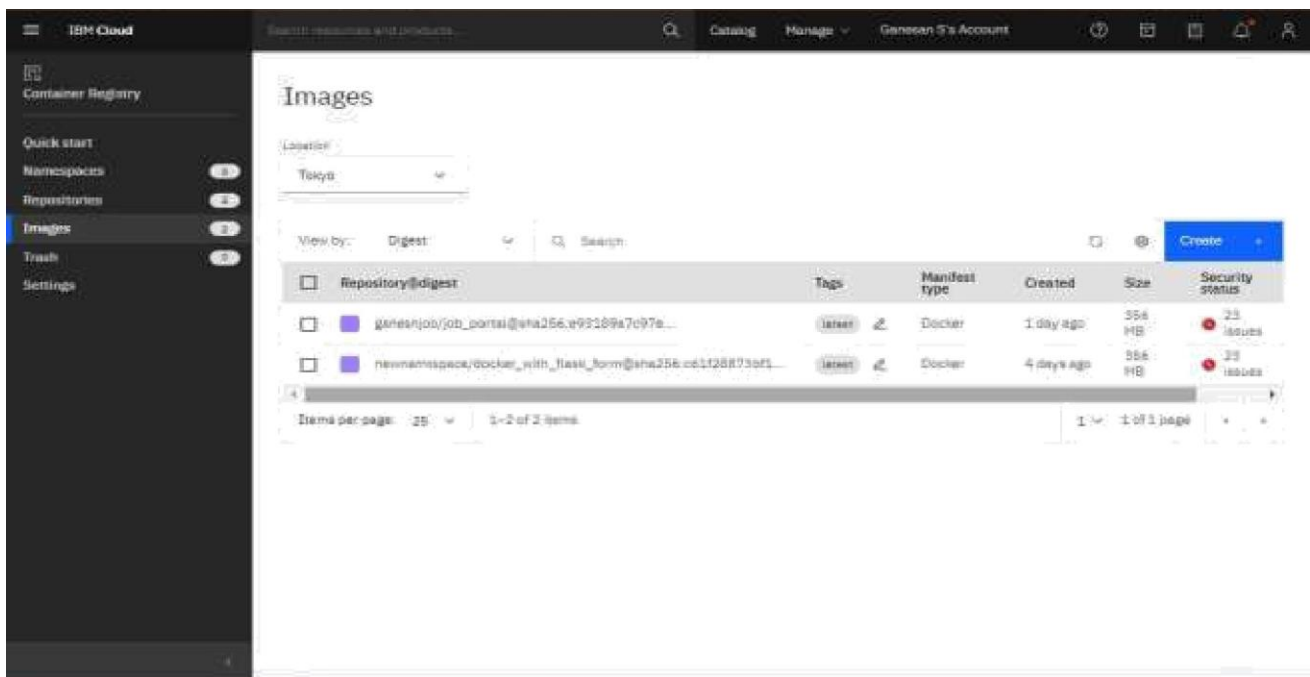
Question-4: Create a kubernetes cluster in ibm cloud and deploy helloworld image or jobportal image and also exposethesameapp to run in noteport

Creatingakubernetesclusterinibmcloud

deployhelloworldimageorjobportalimageandalsoexposethesameapptoruninnoteport

Deployment

Daemon Sets

Wa1lin-gformoredaIaadisplaycharl...Walingformoredata adisplaychart...

Running

Services

```
ving Flask app 'app'
ug mode: on
m[1mWARNING: This is a development server. Do not use it in a production deployment. Use a production WSGI server instead.[0m
ning on all addresses (0.0.0.0)
ning on http://127.0.0.1:5000
ning on http://172.30.23.11:5000
mPress CTRL+C to quit[0m
tarting with stat
ugger is active!
ugger PIN: 316-487-149
```

Services

```
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
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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
```