

Assignment -1
PNT2022TMID27090

Assignment Date	2 nd November 2022
Student Name	Ramya N
Student Roll Number	310819106064
Maximum Marks	2 Marks

Question-1:

Pull an Image from docker hub and run it in docker playground .

Solution :

GitHub link : <https://github.com/IBM-EPBL/IBM-Project-1022-1658334970/tree/main/Assignments/Ramya%20N/Assignment%204>

The screenshot displays the Docker Desktop application window. The left sidebar shows navigation options: Containers, Images, Volumes, Dev Environments, Extensions, and Add Extensions. The main area is titled 'Containers' and shows a list of running containers. Below this, a terminal window is open, showing the execution of Docker commands to pull and run images.

Containers Table:

NAME	IMAGE	STATUS	PORTS	STARTED	ACTIONS
elated_chatterjee	ubuntu:latest	Running		4 minutes ago	
boring_mclaren	centos:latest	Running		1 minute ago	

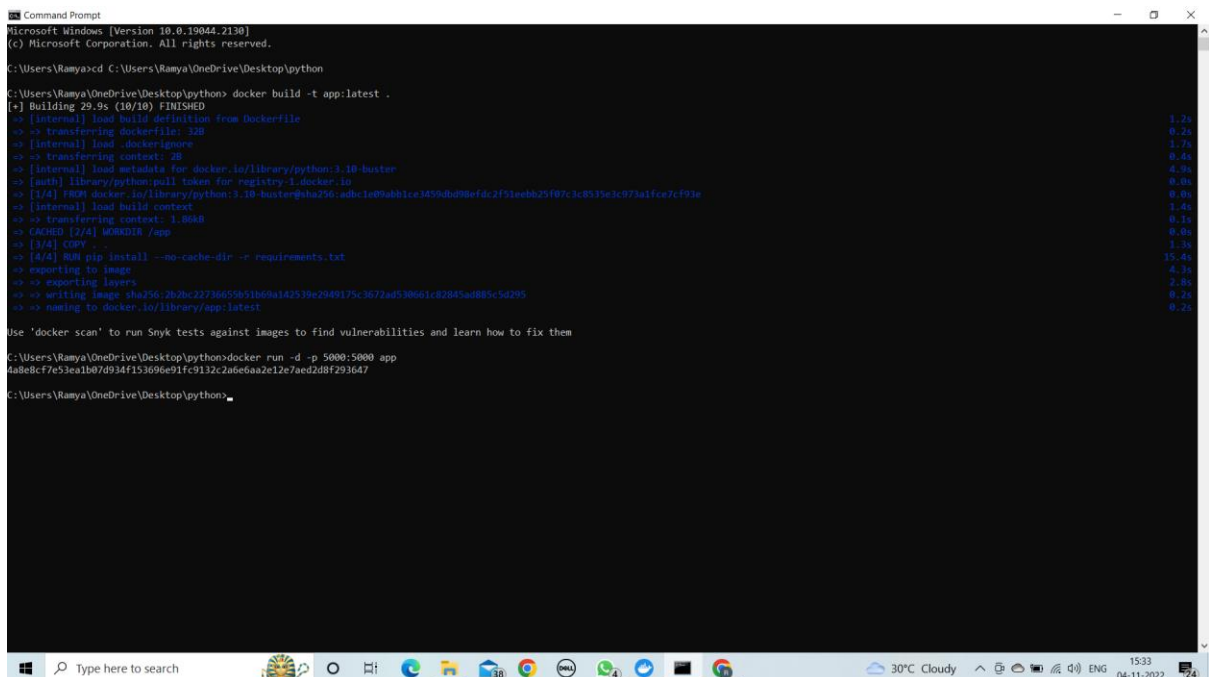
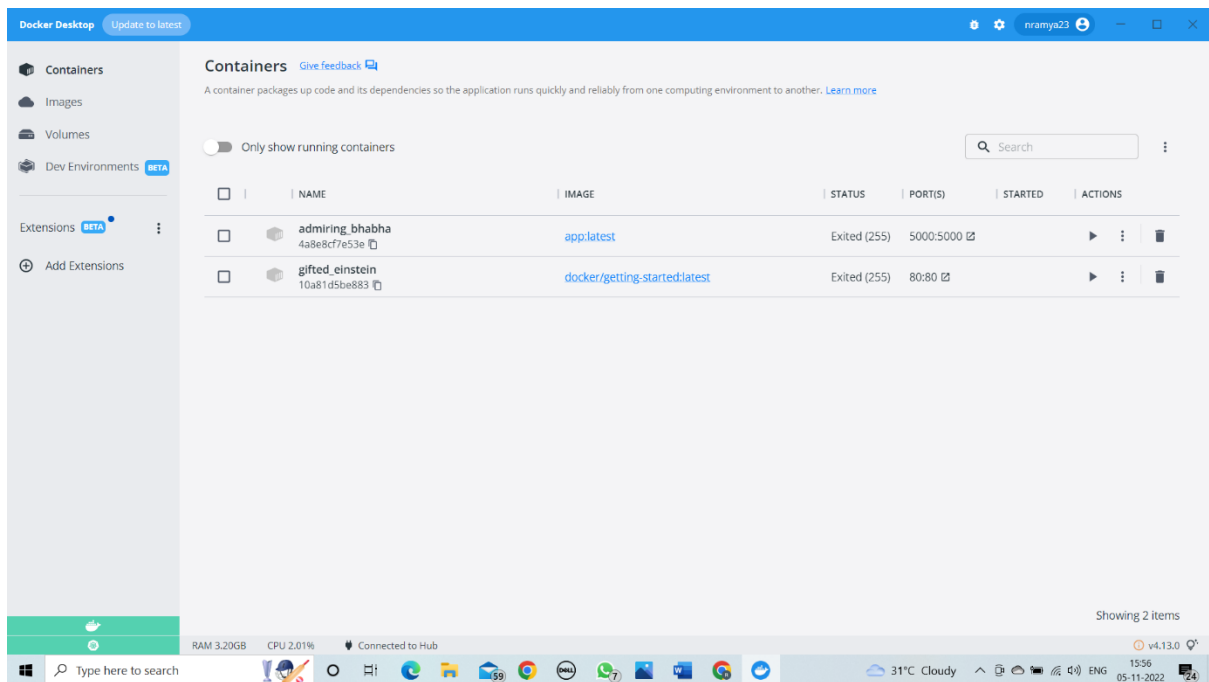
Terminal Output:

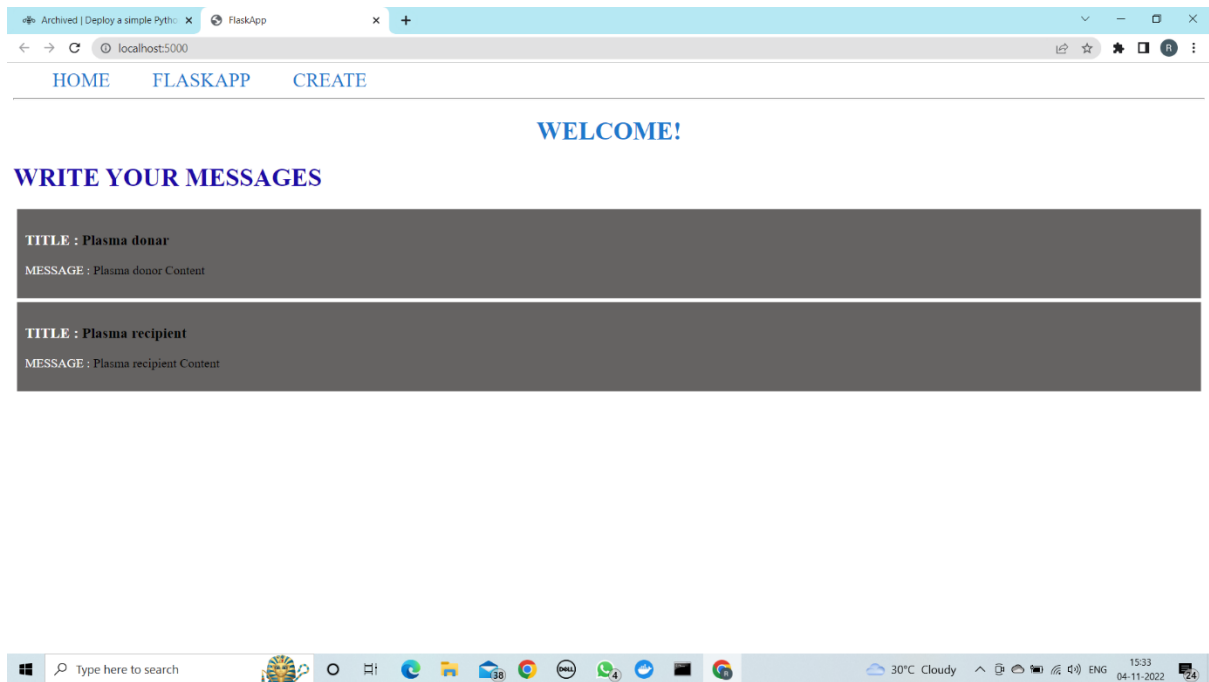
```
C:\Users\Ramyadocker> ps
CONTAINER ID        IMAGE               COMMAND             CREATED             STATUS             PORTS              NAMES
085b13f46c22       centos:latest      "/bin/bash"        34 seconds ago     Up 29 seconds     0.0.0.0:22->0.0.0.0:22   boring_mclaren
10aa88026298       ubuntu:latest      "bash"             3 minutes ago      Up 3 minutes      0.0.0.0:22->0.0.0.0:22   elated_chatterjee

C:\Users\Ramyadocker> ps
CONTAINER ID        IMAGE               COMMAND             CREATED             STATUS             PORTS              NAMES
085b13f46c22       centos:latest      "/bin/bash"        34 seconds ago     Up 29 seconds     0.0.0.0:22->0.0.0.0:22   boring_mclaren
10aa88026298       ubuntu:latest      "bash"             3 minutes ago      Up 3 minutes      0.0.0.0:22->0.0.0.0:22   elated_chatterjee
```

Question 2 :

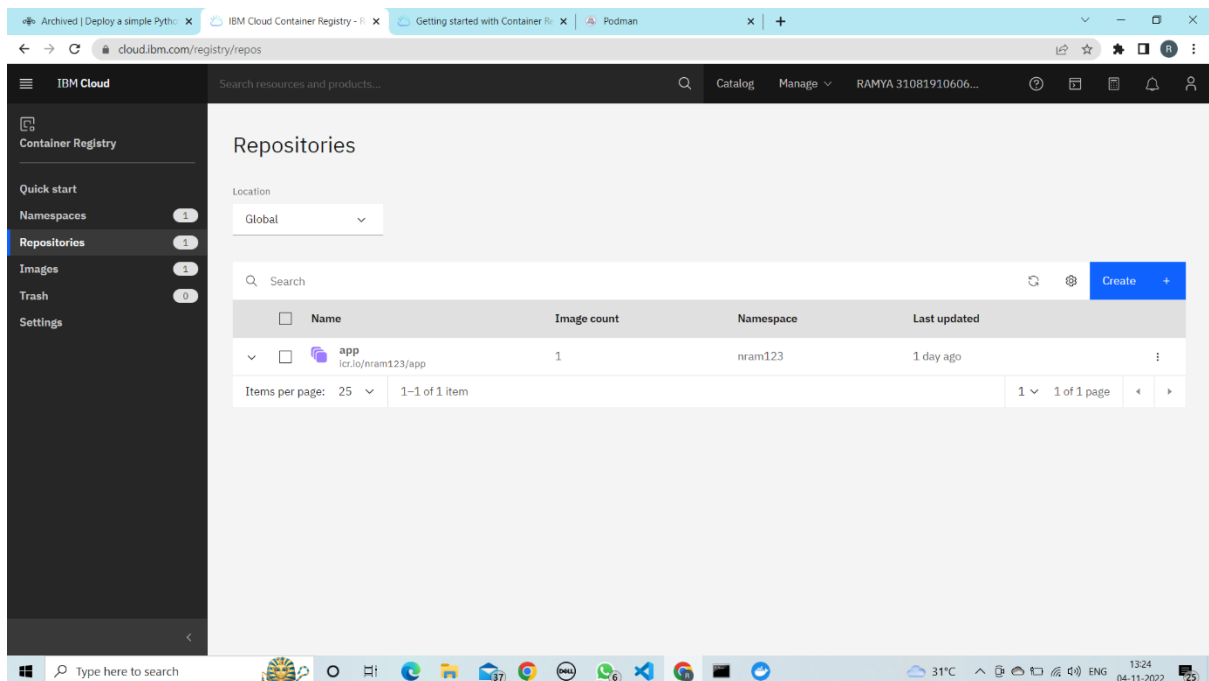
Create a docker file for the jobportal application and deploy it in Docker desktop application.





QUESTION 3 :

Create a IBM container registry and deploy helloworld app or jobportalapp



```
Command Prompt
C:\Users\Ramy>docker tag app icr.io/nram123/app:latest
C:\Users\Ramy>docker push icr.io/nram123/app:latest
The push refers to repository [icr.io/nram123/app]
2a22539fb2c9: Pushed
7cda585ce95f: Pushed
70d4d7b6ed3f: Pushed
80a66a8360c5: Pushed
779f328f6d1d: Pushed
3154fd784942: Pushed
a0520480c038: Pushed
86d4190a4f6: Pushed
8cf4aa8768a: Pushed
ada8cfae898c: Pushed
7a0f5bec8b3: Pushed
f0a87eb98d2a: Pushed
latest: digest: sha256:b10535d6c37a97226bcd68d3fca2d6412da7f26272424730d44a21f3c864fff size: 2844

C:\Users\Ramy>ibmcloud cr image-list
Listing images...

Repository      Tag      Digest      Namespace      Created      Size      Security status
icr.io/nram123/app  latest  b10535d6c37a  nram123        19 hours ago  347 MB      -

C:\Users\Ramy>
```

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 nodeport.

Overview

Cluster

Namespaces

Nodes

Persistent Volumes

Roles

Storage Classes

Namespace

default

Overview

Workloads

Cron Jobs

Daemon Sets

Deployments

Jobs

Pods

Replica Sets

Replication Controllers

Stateful Sets

Discovery and Load Balancing

Ingresses

Services

Config and Storage

Deployments

Name	Labels	Pods	Age	Images
flask-node-deployment	app: flasknode	1 / 1	5 minutes	registry.ng.bluemix.net/flask-node/app

Pods

Name	Node	Status	Restarts	Age	CPU (cores)	Memory (bytes)
flask-node-deployment-5cd96cf6bc-d6nfx	10.47.79.201	Running	0	5 minutes	0	19.352 Mi

Replica Sets

Name	Labels	Pods	Age	Images
flask-node-deployment-5cd96cf6bc	app: flasknode pod-template-hash: 1785279267	1 / 1	5 minutes	registry.ng.bluemix.net/flask-node/app

Discovery and Load Balancing

Services

Name	Labels	Cluster IP	Internal endpoints	External endpoints	Age
kubernetes	component: apiserver provider: kubernetes	172.21.0.1	kubernetes:443 TCP kubernetes:0 TCP	-	a minute
flask-node-deployment	-	172.21.104.14	flask-node-deployment:5000 TCP flask-node-deployment:0 TCP	-	a minute

