

Assignment Number	4
Assignment Date	28th October 2022
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Maximum marks	2 MARKS

Question:

- 1. Pull an Image from docker hub and run it in docker playground.**
- 2. Create a dockerfile for the job portal / flask application and deploy it in Docker desktop application.**
- 3. Create an IBM container registry and push a docker image of a flask application or job portal app.**
- 4. Create a Kubernetes cluster in IBM cloud and deploy flask application image or job portal image and also expose the same app to run in nodeport.**

Answers:

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

```
Command Prompt

Hello from Docker!
This message shows that your installation appears to be working correctly.

To generate this message, Docker took the following steps:
1. The Docker client contacted the Docker daemon.
2. The Docker daemon pulled the "hello-world" image from the Docker Hub.
   (amd64)
3. The Docker daemon created a new container from that image which runs the
   executable that produces the output you are currently reading.
4. The Docker daemon streamed that output to the Docker client, which sent it
   to your terminal.

To try something more ambitious, you can run an Ubuntu container with:
$ docker run -it ubuntu bash

Share images, automate workflows, and more with a free Docker ID:
https://hub.docker.com/

For more examples and ideas, visit:
https://docs.docker.com/get-started/

C:\Users\prath>docker images
REPOSITORY          TAG                 IMAGE ID            CREATED             SIZE
docker101tutorial   latest             1310d78c8eb8       2 minutes ago      28.9MB
alpine/git          latest             42a1cda0ba24       13 days ago        43.6MB
hello-world         latest             feb5d9fea6a5       13 months ago      13.3kB

C:\Users\prath>
```

2.Create a dockerfile for the job portal / flask application and deploy it in Docker desktop application.

Containers

Images

Volumes

Dev Environments

Extensions

Add Extensions

Images on disk

4 Images

Refresh to see disk usage

Clean up

Images

LOCAL

REMOTE REPOSITORIES

Search

In use only

NAME	TAG	IMAGE ID	CREATED	SIZE
alpine	latest	9c6f07244728	3 months ago	5.54 MB
alpine/git	latest	42a1cda0ba24	14 days ago	43.61 MB
docker101tutorial	latest	1310d78c8eb8	about 13 hours ago	28.94 MB
hello-world	latest	feb5d9fea6a5	about 1 year ago	13.26 KB

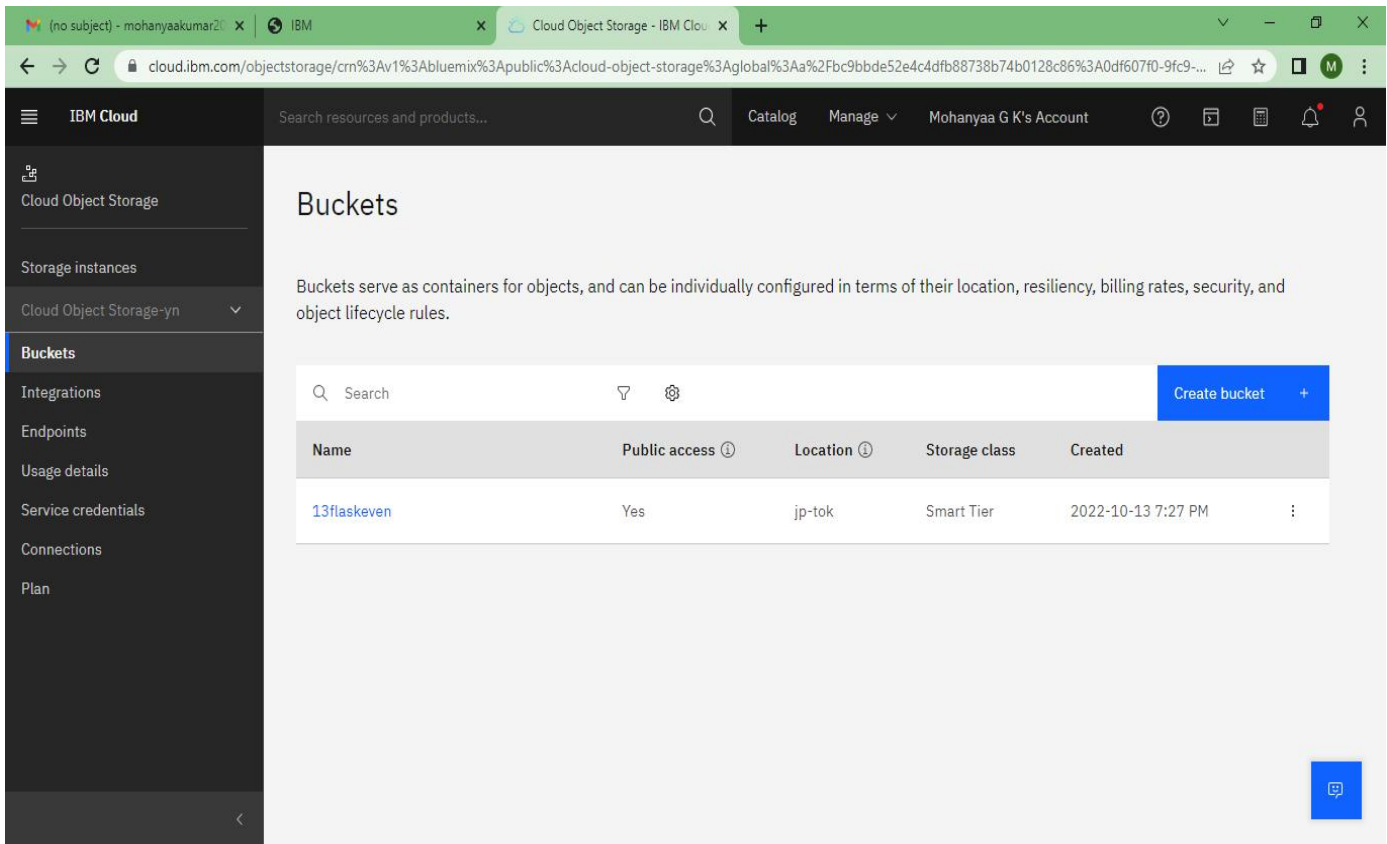
RAM 1.43GB

CPU 0.07%

Connected to Hub

v4.13.1

3.Create an IBM container registry and push a docker image of a flask application or job portal app.



4. Create a Kubernetes cluster in IBM cloud and deploy flask application image or job portal image and also expose the same app to run in nodeport

2. Change directory to Lab 1:

```
cd "Lab 1"
```

3. Log in to the IBM Cloud CLI:

```
ibmcloud login
```

To specify an IBM Cloud region, include the API endpoint.

4. In order to upload images to the IBM Cloud Container Registry, you first need to create a namespace with the following command:

```
ibmcloud cr namespace-add <my_namespace>
```

5. Build the container image with a `1` tag and push the image to the IBM Cloud

Registry: `ibmcloud cr build --tag
us.icr.io/<my_namespace>/hello-world:1 .`

6. Verify the image is built:

```
ibmcloud cr images
```