

Assignment Number	4
Assignment Date	28 October 2022
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Student Roll No	19BIT007
Maximum marks	2 Marks

Questions:

1. Pull an Image from docker hub and run it in docker playground.
2. Create a docker file 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 node port.

Answers:

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

```

C:\Users\Priyanka J>docker images
REPOSITORY TAG IMAGE ID CREATED SIZE

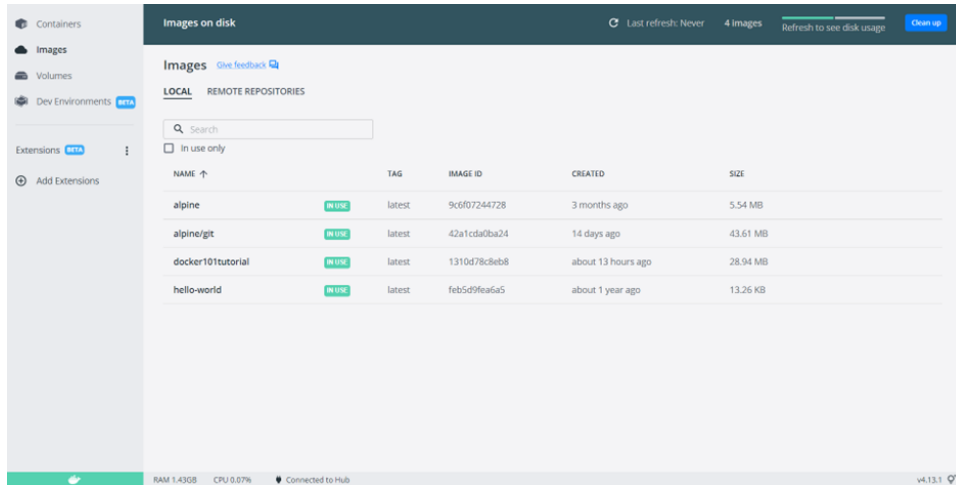
C:\Users\Priyanka J>docker version
Client:
Cloud integration: v1.0.29
Version: 20.10.20
API version: 1.41
Go version: go1.18.7
Git commit: 9fdeb9c
Built: Tue Oct 18 18:28:44 2022
OS/Arch: windows/amd64
Context: default
Experimental: true

Server: Docker Desktop 4.13.1 (90346)
Engine:
Version: 20.10.20
API version: 1.41 (minimum version 1.12)
Go version: go1.18.7
Git commit: 03df974
Built: Tue Oct 18 18:18:35 2022
OS/Arch: linux/amd64
Experimental: false
containerd:
Version: 1.6.8
GitCommit: 9cd3357b7fd7218e4aec3eae239db1f68a5a6ec6
runc:
Version: 1.1.4
GitCommit: v1.1.4-0-g5fd4c4d
docker-init:
Version: 0.19.0
GitCommit: de40ad0

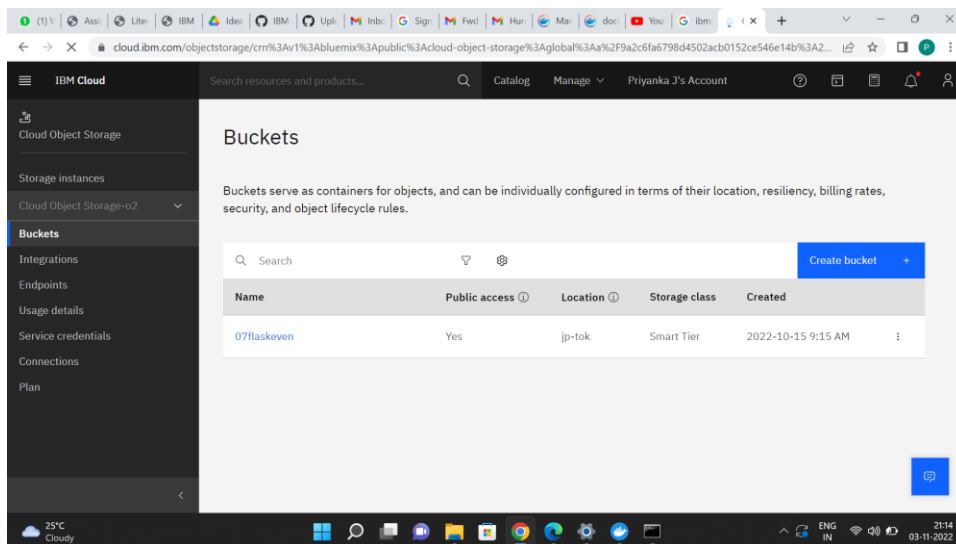
C:\Users\Priyanka J>docker v
docker: 'v' is not a docker command.
See 'docker --help'

```

2. Create a docker file 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 expose the same app to run in node port.

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
```