

ASSIGNMENT-4

Assignment Date	01 November 2022
Student Name	Karthick S
Student Register Number	312319104063
Maximum Marks	2 Marks

Question 1:

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

```
PS C:\Windows\system32> docker pull hello-world
Using default tag: latest
latest: Pulling from library/hello-world
Digest: sha256:e18f0a777aefabe047a671ab3ec3eed05414477c951ab1a6f352a06974245fe7
Status: Image is up to date for hello-world:latest
docker.io/library/hello-world:latest
PS C:\Windows\system32>
```

Question 2:

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

FROM helloworld:sk

WORKDIR ~/Desktop/

ADD . helloworld/

WORKDIR~/Desktop/IBMproj

RUN pip install -r requirements

RUN chmod +x app.sh

CMD ["/bin/sh","app.sh"]

Question 3:

Create a IBM container registry and deploy helloworld app or jobportalapp.

```
PS C:\WINDOWS\system32> docker tag hello-world icr.io/67890ns/hello-world
PS C:\WINDOWS\system32> docker push icr.io/67890ns/hello-world
Using default tag: latest
The push refers to repository [icr.io/67890ns/hello-world]
e07ee1baac5f: Mounted from 54321ns/hello-world
latest: digest: sha256:f54a58bclaac5ea1a25d796ae155dc228b3f0e11d046ae276b39c4bf2f13d8c4 size: 525
PS C:\WINDOWS\system32> ibmcloud cr image-list
Listing images...
```

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.

The screenshot shows the IBM Cloud Clusters management interface. At the top, there's a navigation bar with 'IBM Cloud', a search bar, and links for 'Catalog', 'Manage', and 'Karthick S's Account'. Below this, the 'Clusters' section is active, showing a cluster named 'mycluster-free' with a status of 'Preparing master, workers...' and a red 'Expires in 30 days' warning. A 'Kubernetes dashboard' button is visible. The left sidebar has tabs for 'Overview', 'Worker nodes' (which is selected), 'Worker pools', and 'DevOps'. The main area displays a table of worker nodes. The table has columns for Name, Status, Worker pool, Zone, Private IP, Public IP, and Version. One node is listed with Name '00000095' and Status 'Provision pending'. The table also includes a search bar, a filter dropdown, and pagination controls at the bottom.

Name	Status	Worker pool	Zone	Private IP	Public IP	Version
00000095	Provision pending	default	Milan 01			--> 1.24.6_1541