

ASSIGNMENT - 4

Assignment Date	04 November 2022
Student Name	Tharun
Team ID	PNT2022TMID22008
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:f54a58bc1aac5ea1a25d796ae155dc228b3f0e11d046ae276b39c4bf2f13d8c4 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 displays the IBM Cloud console interface for a Kubernetes cluster named 'mycluster-free'. The cluster is in the 'Preparing master, workers...' state and will expire in 30 days. The 'Worker nodes' tab is selected, showing a table with one worker node.

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

Navigation links on the left include Overview, Worker nodes (selected), Worker pools, and DevOps. The top navigation bar includes IBM Cloud, a search bar, Catalog, Manage, and the user account 'Karthick S's Account'.