

## ASSIGNMENT-4

|                         |                  |
|-------------------------|------------------|
| Assignment Date         | 01 November 2022 |
| Student Name            | Akilan           |
| Student Register Number | 19cs006          |
| 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:latest
```

```
WORKDIR ~/Desktop/
```

```
ADD . helloworld/
```

```
WORKDIR ~/Desktop/htmlfile
```

```
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 job portal app.

```
Administrator: Windows PowerShell (IBM)
PS C:\Windows\system32> docker tag hello-world icr.io/12121ns/hello-world
PS C:\Windows\system32> docker push icr.io/12121ns/hello-world
Using default tag: latest
The push refers to repository [icr.io/12121ns/hello-world]
e07ee1baac5f: Mounted from 89801ns/hello-world
latest: digest: sha256:f54a78b1aaf5a1a25d70aaf155dc22ab3f0e115b6cae276b26c1bf2f1a28e1a size: 529
PS C:\Windows\system32>
```

#### Question 4:

Create a Kubernetes cluster in IBM cloud and deploy helloworld image or job portal image and also expose the same app to run in node port.

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 expires in 30 days. The 'Worker nodes' tab is selected, showing 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 ID '000000b2', status 'Normal', and IP addresses 16.144.183.56 (Private) and 169.51.194.202 (Public). The version is 1.24.6\_1541.

| Name     | Status | Worker pool | Zone     | Private IP    | Public IP      | Version     |
|----------|--------|-------------|----------|---------------|----------------|-------------|
| 000000b2 | Normal | default     | Milan 01 | 16.144.183.56 | 169.51.194.202 | 1.24.6_1541 |