

# ASSIGNMENT 4

|              |                          |
|--------------|--------------------------|
| TEAM ID      | PNT2022TMID15066         |
| PROJECT NAME | PLASMA DONOR APPLICATION |
| NAME         | V.S.S.REVANTH            |

Question 1:

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

03:57:32

CLOSE SESSION

Instances

+ ADD NEW INSTANCE

192.168.0.8  
node1

cddvksm0\_cddvkvm0qau000a07j5g

IP  
192.168.0.8

OPEN PORT

Memory  
1.24% (49.52MiB / 3.906GiB)

CPU  
0.31%

SSH  
ssh ip172-18-0-22-cddvksm0qau000a07j50@direct.labs.pla

DELETE

EDITOR

```
#####
# WARNING!!!!
# This is a sandbox environment. Using personal credentials
# is HIGHLY discouraged. Any consequences of doing so are
# completely the user's responsibilities.
#
# The PwD team.
#####
[node1] (local) root@192.168.0.8 ~
$ docker pull hello-world
Using default tag: latest
latest: Pulling from library/hello-world
2db29710123e: Pull complete
Digest: sha256:e18f0a77aefabe047a671ab3ec3eed05414477c951ab1a6f352a06974245fe7
Status: Downloaded newer image for hello-world:latest
docker.io/library/hello-world:latest
[node1] (local) root@192.168.0.8 ~
$ docker run hello-world
```

Activate Windows  
Go to Settings to activate Windows.

03:57:05

CLOSE SESSION

Instances

+ ADD NEW INSTANCE

192.168.0.8  
node1

cddvksm0\_cddvkvm0qau000a07j5g

IP  
192.168.0.8

OPEN PORT

Memory  
1.26% (50.45MiB / 3.906GiB)

CPU  
0.39%

SSH  
ssh ip172-18-0-22-cddvksm0qau000a07j50@direct.labs.pla

DELETE

EDITOR

```
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/

[node1] (local) root@192.168.0.8 ~
$
```

Activate Windows  
Go to Settings to activate Windows.

## Question 2:

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

### DOCKERFILE:

```
1 FROM python:3.8-buster
2
3 WORKDIR /app
4
5 COPY requirements.txt /app/
6
7 RUN pip install -r requirements.txt
8
9 COPY . /app/
10
11 RUN cp .env.dev.sample .env
12
13 EXPOSE 8000
14
15 RUN chmod +x entrypoint.sh
16
17 CMD ["sh", "entrypoint.sh"]
```


### DEPLOYMENT OF JOBPORTAL APPLICATION:

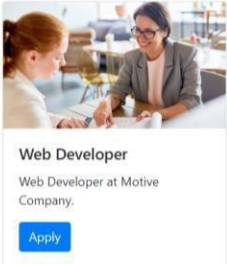
The screenshot shows the Docker Desktop interface. On the left sidebar, the 'Containers' tab is selected. The main area displays a list of containers. Two containers are visible:

|                          | NAME                             | IMAGE                       | STATUS       | PORT(S)    | STARTED       | ACTIONS |
|--------------------------|----------------------------------|-----------------------------|--------------|------------|---------------|---------|
| <input type="checkbox"/> | agitated_neumann<br>918d20882039 | icr.io/helloapp/ibm:latest  | Exited (137) | 49160:8080 |               | ▶ ⋮ 🗑   |
| <input type="checkbox"/> | jolly_turing<br>b62c0712bdd3     | jobportalapplication:latest | Running      | 1234:8000  | 4 minutes ago | ■ ⋮ 🗑   |


At the bottom of the interface, system statistics are shown: RAM 3.06GB, CPU 0.57%, and 'Connected to Hub'. The version 'v4.13.0' is also displayed.

## OUTPUT:


 Find Jobs



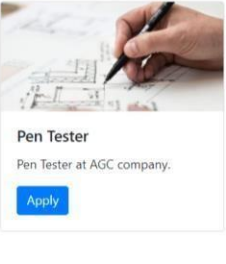
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### Question 3:

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

### IBM CONTAINER REGISTRY DEPLOYMENT:

 Container Registry

[Quick start](#)  
[Namespaces](#)  
[Repositories](#)  
**[Images](#)**  
[Trash](#)  
[Settings](#)

## Images

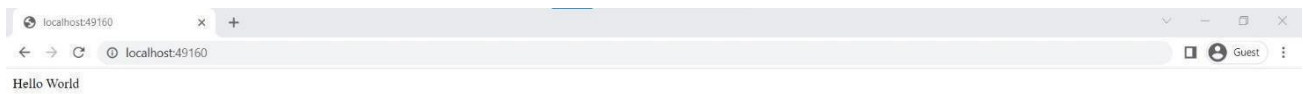
Location: Global

View by: Digest Search Create

| <input type="checkbox"/> | Repository@digest                   | Tags   | Manifest type | Created   | Size   | Security status |
|--------------------------|-------------------------------------|--------|---------------|-----------|--------|-----------------|
| <input type="checkbox"/> | helloapp/ibm@sha256:a3d35518ea7f... | latest | Docker        | 1 day ago | 352 MB | 20 issues       |

Items per page: 25 1-1 of 1 item 1 1 of 1 page

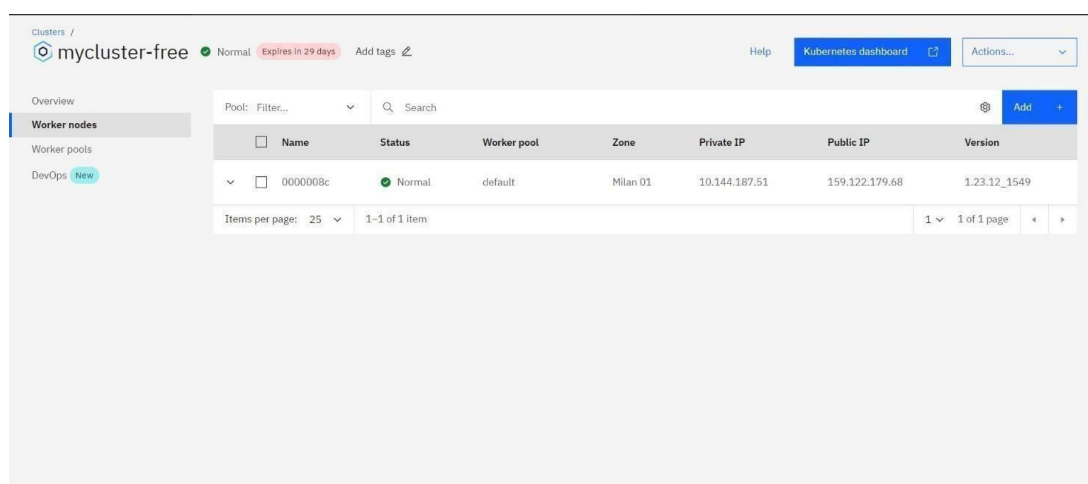
## OUTPUT:




## 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.

## CREATING KUBERNETES CLUSTER IN IBM CLOUD AND EXPOSING NODEPORT:

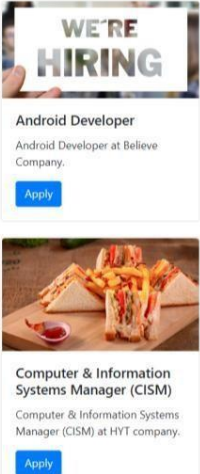


OUTPUT:

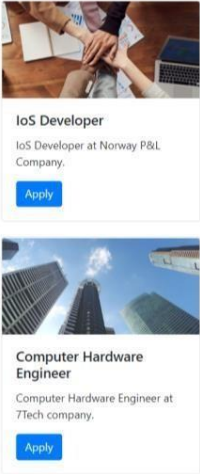
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