

# ASSIGNMENT - 4

Date	21 October 2022
Team ID	PNT2022TMID17680
Project Title	Plasma Donor Application

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

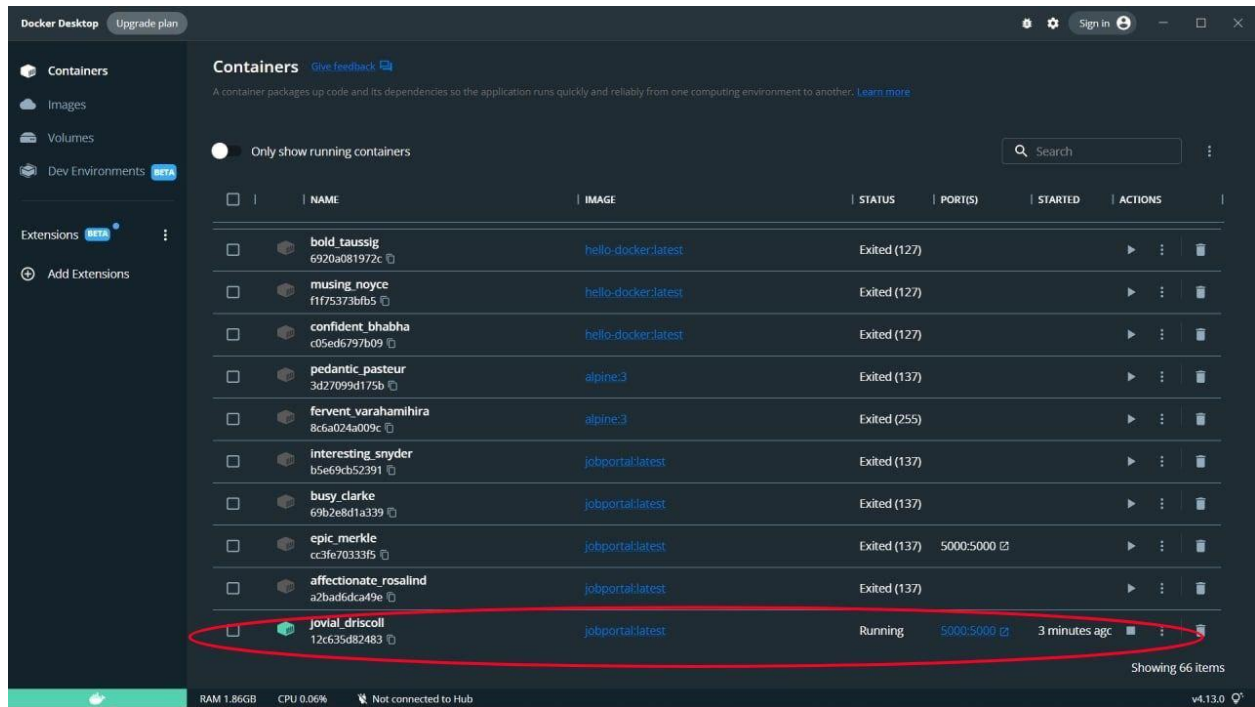
The screenshot shows the Docker Playground interface. On the left, there's a sidebar with a clock showing 03:58:26, a 'CLOSE SESSION' button, and a list of instances. The main area displays the instance details for 'cdj5br63\_cdj5bv63tccg008jm160', including its IP (192.168.0.18), memory usage (26.84%), and CPU usage (0.33%). Below this, there's a terminal window showing a shell session where the user runs 'docker pull python'. The output shows the image being pulled from Docker Hub, with various layers being pulled and the final image being downloaded. The terminal also shows the 'docker image ls' command output, listing the pulled image.

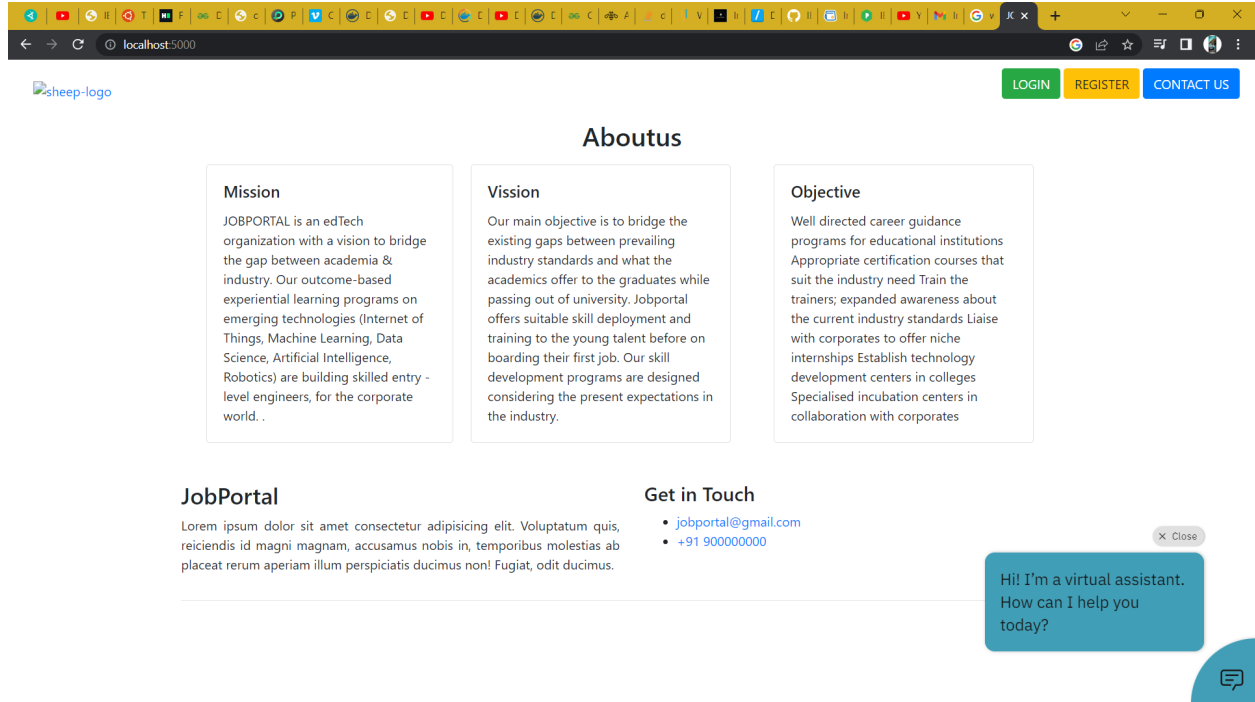
```
##### WARNING!!!! #####
# This is a sandbox environment. Using personal credentials #
# is HIGHLY discouraged. Any consequences of doing so are #
# completely the user's responsibilities. #
# #
# The PwD team. #
#####
(node1) (local) root@192.168.0.18 ~
$ docker pull python
Using default tag: latest
latest: Pulling from library/python
17cee241f0b: Pull complete
de4a4c6caea8: Pull complete
4edced8587e6: Pull complete
a7969c7fbf40: Pull complete
74fbfdeaf91: Pull complete
10fe51aed899: Pull complete
e9ee597bb8de: Pull complete
2d9db46d211: Pull complete
3b9b3c4e849c: Pull complete
Digest: sha256:fc809ada71c087cec7e2d2244bcb9fba137638978a669f2aaf6267db43e89f9df
Status: Downloaded newer image for python:latest
docker.io/library/python:latest
(node1) (local) root@192.168.0.18 ~
$ docker image ls
REPOSITORY TAG IMAGE ID CREATED SIZE
python latest 80cdfb0bdcc 10 days ago 932MB
(node1) (local) root@192.168.0.18 ~
$
```

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

```
# Docker File

FROM python:3
COPY . /app
WORKDIR /app
RUN python3 -m pip install -r requirements.txt
EXPOSE 5000
CMD [ "python3", "app.py" ]
```





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

The screenshot displays the IBM Cloud Container Registry interface. The left sidebar contains navigation links: Container Registry, Quick start, Namespaces (1), Repositories (2), Images (2), Trash (1), and Settings. The main content area is titled 'Images' and shows a list of container images under the 'Sydney' location. The table below lists the images:

Repository@digest	Tags	Manifest type	Created	Size	Security status
value/helloworld@sha256:93a39c7005bb...	latest	Docker	1 day ago	363 MB	6 issues
value/jobportal@sha256:44772a5e183d...	latest	Docker	31 days ago	435 MB	102 issues

At the bottom of the table, there are pagination controls: 'Items per page: 25', '1-2 of 2 items', and '1 of 1 page'.

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

##### Deployment.yaml

```
# Deployment.yaml file

apiVersion: apps/v1
kind: Deployment
metadata :
  name: jobportal
spec:
  replicas: 3
  selector:
    matchLabels :
      app: jobportal
  template:
    metadata:
      labels:
        app: jobportal
    spec:
      containers:
        - name: jobportal
          image : vasudeha/cadjob
          imagePullPolicy: Always
          ports:
            - containerPort: 5000
```

## Service.yaml

```
# service.yaml file
apiVersion: v1
kind: Service
metadata:
  name : jobportal
spec:
  ports:
    - port: 5000
      # targetPort: 5000
  type: NodePort
  selector:
    app: jobportal
```

The screenshot shows the IBM Cloud Kubernetes dashboard for a cluster named 'mycluster-free'. The cluster is in a 'Normal' state and expires in 30 days. The dashboard provides an overview of the cluster's status and details.

**Cluster Overview:**

- Node status:** 1 of 1, Normal
- Add-on status:** 0 of 0, Normal
- Master status:** Normal
- Ingress status:** Unknown

**Details:**

- Cluster ID:** cdke5sgf0fuqbtffjp10
- Version:** 1.24.7\_1542
- Infrastructure:** Classic
- Zones:** Milan 01
- Created:** 11/7/2022, 4:20 PM
- Resource group:** Default
- Image security enforcement:** Enable

**Node health:** 1 total nodes

