

## Assignment - 4

### Docker and Kubernetes

Assignment Date	01 November 2022
Student Name	PNT2022TMID09659
Student Roll Number	310619205086
Maximum Marks	2 Marks

#### 1. Pull an image from docker hub and run it in docker Playground

The screenshot displays two browser windows. The top window shows the Docker Hub page for the repository `uifd/ui-for-docker`. The page indicates that the repository is deprecated and development continues at `portainer/portainer`. It provides a Docker Pull Command: `docker pull uifd/ui-for-docker`.

The bottom window shows the Docker Playground interface. It displays the instance ID `cd9an2u3_cd9av060qau0008hbjs0` and the IP address `192.168.0.13`. The terminal output shows the following commands and results:

```
# This is a sandbox environment. Using personal credentials #
# is HIGHLY discouraged. Any consequences of doing so are #
# completely the user's responsibilities. #
# #
# The FWD team. #
#####
[nsdml] (local) root@192.168.0.13 ~
$ docker pull uifd/ui-for-docker
Using default tag: latest
latest: Pulling from uifd/ui-for-docker
841194d080c8: Pull complete
Digest: sha256:fe371fff5a69549269b24073a5ab1244dd4c0b834cbadf244870572150b1cb749
Status: Downloaded newer image for uifd/ui-for-docker:latest
docker.io/uifd/ui-for-docker:latest
[nsdml] (local) root@192.168.0.13 ~
$ docker run -d -p 9000:9000 --privileged -v /var/run/docker.sock:/var/run/docker.sock uifd/ui-for-docker
c590d4ii63101ae795b2ceae0b1dd498ff6fe549eb5f24dadb9ff7c1931923Fc0d
[nsdml] (local) root@192.168.0.13 ~
```

2. Create a docker file for the job portal application and deploy it in Docker desktop applliation.

The image displays two screenshots of the 'UI For Docker' web application interface, which is used for managing Docker containers. The browser's address bar shows the URL: `ip172-18-0-4-cd9an2u3tccg00fgf6k0-9000.direct.labs.play-with-docker.com/#/`.

**Top Screenshot:**

- Navigation Bar:** Includes tabs for Dashboard, Containers, Containers Network, Images, Networks, Volumes, and Info, along with a Refresh button.
- Header:** Features the title 'UI For Docker' and the subtitle 'The UI for Docker container engine', with a 'Learn more.' button.
- Running Containers:** A list showing one container named 'beautiful\_goldwasser' with a status of 'Up About a minute'.
- Status:** A large green donut chart indicating the overall system status.

**Bottom Screenshot:**

- Running Containers:** Similar to the top screenshot, showing the 'beautiful\_goldwasser' container.
- Status:** A large green donut chart with a legend below it: 'Running' (green), 'Stopped' (red), and 'Ghost' (grey).
- Containers created:** A line graph showing the number of containers created over time, with a peak of 1 on 21/10/2022.
- Images created:** A line graph showing the number of images created over time, with a peak of 1 on 21/10/2022.

### 3. Create an IBM Container registry and deploy

```
C:\Windows\System32\cmd.exe
-> [internal] load build definition from Dockerfile
-> => transferring dockerfile: 32B
-> [internal] load .dockerignore
-> => transferring context: 2B
-> [internal] load metadata for docker.io/library/python:3.8
-> [auth] library/python:pull token for registry-1.docker.io
-> [internal] load build context
-> => transferring context: 687B
-> [1/6] FROM docker.io/library/python:3.8@sha256:f8652aef88c25f8d2354d547d892591067aa076a7fa9a8819df9f308aef6c
-> resolve docker.io/library/python:3.8@sha256:f8652aef88c25f8d2354d547d892591067aa076a7fa9a8819df9f308aef6c
-> sha256:f8652aef88c25f8d2354d547d892591067aa076a7fa9a8819df9f308aef6c: 1.86kB / 1.86kB
-> sha256:d007a4997a8e679df5ac31872359c2de510f82214c0448e928393b376d3b0d0 2.22kB / 2.22kB
-> sha256:54206038007c5e3ad24c0e21f889abbcb486a27634c0892886ff71f3f44b104 9.27kB / 9.27kB
-> sha256:0e2954dd541cdd309281d21a73a9d1db70665c1b95b74f32b009e0b77a6e1e3 54.92MB / 54.92MB
-> sha256:90829c73b52b92b97d5c07e54fb0f3e921995a296c714b53a32ae67d19231fcd 5.15MB / 5.15MB
-> sha256:cb5b7ae361722f070eca53f35823ed21baa85d01d5d95cd5a95ab53d740cdd56 10.87MB / 10.87MB
-> sha256:6a9a4a811622b31c027c0c322ca463937f48e5f560a93aef15c01a0d710795 54.57MB / 54.57MB
-> sha256:6f9f74809df293fe0172f394fabad5e0b4ed9a481a0f0f0112efc7e4d3c76f7 196.51MB / 196.51MB
-> sha256:5a3b1213efc56598e78bd002083945c164de2a37205e06a62dad823124dc743 6.29MB / 6.29MB
-> extracting sha256:0e2954dd541cdd309281d21a73a9d1db70665c1b95b74f32b009e0b77a6e1e3
-> sha256:0fdddfdc56334f2e6efad7e241bf5e7459c40ed105c5470676f41c1244bd90752 14.21MB / 14.21MB
-> extracting sha256:90829c73b52b92b97d5c07e54fb0f3e921995a296c714b53a32ae67d19231fcd
-> extracting sha256:cb5b7ae361722f070eca53f35823ed21baa85d01d5d95cd5a95ab53d740cdd56
-> sha256:404f02044bac0432ca522cbb9f254b1c91fcea806bfeef8be0b243b2f31bab7 235B / 235B
-> sha256:c4f42be2be53b00ebffcc040c1d13de538434cc5f5d954a56048ae169a3af 2.21MB / 2.21MB
-> extracting sha256:6a9a4a811622b31c027c0c322ca463937f48e5f560a93aef15c01a0d710795
-> extracting sha256:6f9f74809df293fe0172f394fabad5e0b4ed9a481a0f0f0112efc7e4d3c76f7
-> extracting sha256:5a3b1213efc56598e78bd002083945c164de2a37205e06a62dad823124dc743
-> extracting sha256:0fdddfdc56334f2e6efad7e241bf5e7459c40ed105c5470676f41c1244bd90752
-> extracting sha256:404f02044bac0432ca522cbb9f254b1c91fcea806bfeef8be0b243b2f31bab7
-> extracting sha256:c4f42be2be53b00ebffcc040c1d13de538434cc5f5d954a56048ae169a3af
-> [2/6] WORKDIR /app
-> [3/6] ADD . /app
-> [4/6] COPY requirements.txt /app
-> [5/6] RUN python3 -m pip install -r requirements.txt
-> [6/6] RUN python3 -m pip install ibm_db
-> exporting to image
-> exporting layers
-> writing image sha256:1756719486df002fad5dae305c5221513f2ff2d1b49add242b22a28af0379f19
-> naming to docker.io/library/job-portal-main
Use 'docker scan' to run Snyk tests against images to find vulnerabilities and learn how to fix them
C:\Users\VK-PC\Desktop\job-portal-main>
```

Docker Desktop Upgrade plan

Containers Images Volumes Dev Environments BETA Extensions BETA Add Extensions

Images on disk Last refresh: about 1 hour ago 1 Images 0 Bytes total size Refresh to see disk usage Clean up

Images Give feedback

LOCAL REMOTE REPOSITORIES

Search

☐ In use only

NAME	TAG	IMAGE ID	CREATED	SIZE
job-portal-main	latest	1756719486df	less than a minute ago	1.08 GB

RAM 2.53GB CPU 1.56% Connected to Hub v4.13.0