

## Assignment - 4

### Docker and Kubernetes

Assignment Date	01 November 2022
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Maximum Marks	2 Marks

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

The screenshot shows a web browser with two tabs. The first tab is Docker Hub, displaying the repository page for `uifd/ui-for-docker`. The repository is marked as deprecated, with a note that development continues at `portainer/portainer`. The Docker Pull Command is shown as `docker pull uifd/ui-for-docker`.

The second tab is Docker Playground, showing a sandbox environment. The instance name is `cd9an2u3_cd9av060qau0008hbjs0`. The IP address is `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.
#####
[ns001] (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
[ns001] (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
c590d41163101ae795b0ce0e1dd498ff6fe549eb5f24dadb9ff7c1931923Fc0d
[ns001] (local) root@192.168.0.13 ~
```

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

The image displays two screenshots of the 'UI For Docker' web interface, which is a dashboard for managing Docker containers. The interface is accessed via a web browser at the URL `ip172-18-0-4-cd9an2u3tccg00fgf6k0-9000.direct.labs.play-with-docker.com/#/`.

**Top Screenshot:** The dashboard shows the 'Running Containers' section with one container named `beautiful_goldwasser` listed as 'Up About a minute'. The 'Status' section features a green donut chart indicating that all containers are running. The top navigation bar includes links for Dashboard, Containers, Containers Network, Images, Networks, Volumes, and Info, along with a Refresh button.

**Bottom Screenshot:** This screenshot provides a more detailed view of the dashboard. It shows the 'Running Containers' section with the same container `beautiful_goldwasser`. Below this, there are two line graphs: 'Containers created' and 'Images created', both showing a count of 1 over time. The 'Status' section includes a legend for the donut chart: Running (green), Stopped (red), and Ghost (grey).

### 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: 688B
-> [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
-> sha256:6a9a4a811622631c027c0c322ca463937f4805f560a93a6f15c01a0d710795 54.57MB / 54.57MB
-> sha256:6f9f74809df293fe0172f394fabad5e0b4ed0a481a0f0f0112efc7e4d3c76f7 196.51MB / 196.51MB
-> sha256:5a3b1213efc56598e78bd002083945c164de2a37205e06a62dada823124dc743 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 sha256:6a9a4a811622631c027c0c322ca463937f4805f560a93a6f15c01a0d710795
-> extracting sha256:6f9f74809df293fe0172f394fabad5e0b4ed0a481a0f0f0112efc7e4d3c76f7
-> extracting sha256:5a3b1213efc56598e78bd002083945c164de2a37205e06a62dada823124dc743
-> 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

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