

DOCKER AND KUBERNETES

Assignment Date	27 October 2022
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Maximum Marks	2 Marks

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

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

The image shows a screenshot of a web browser displaying the Docker Hub page for the repository `uifd/ui-for-docker`. The repository is marked as deprecated, with a note stating: "This repo is deprecated. Development continues at: portainer/portainer". The page also shows the Docker Pull Command: `docker pull uifd/ui-for-docker`.

Below the Docker Hub page, there is a screenshot of the Docker Playground interface. The interface shows a session titled `cd9an2u3_cd9av060qau0008hbjs0` with an IP address of `192.168.0.13`. The session is running on a node named `node1`. 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. #
#####
(node1) (local) root@192.168.0.13 ~
$ docker pull uifd/ui-for-docker
latest: Pulling from uifd/ui-for-docker
841194d080c8: Pull complete
Digest: sha256:fe371ff5a69549263b24072a5ab1244dd4c0b834cbad244870572150b1cb749
Status: Downloaded newer image for uifd/ui-for-docker:latest
docker.io/uifd/ui-for-docker:latest
(node1) (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
c590dd163101ae795bdcea0eb1dd98f6fe549cb5f24dadb9ff7c1931923fc0d
(node1) (local) root@192.168.0.13 ~
```

3. Create an IBM container registry and deploy helloworld or job portal app.

The image displays two screenshots of the 'UI For Docker' web application interface, accessed via a browser at the URL `ip172-18-0-4-cd9an2u3tccg00fgf6sk0-9000.direct.labs.play-with-docker.com/#/`.

Top Screenshot:

- Navigation Bar:** Includes links for Dashboard, Containers, Containers Network, Images, Networks, Volumes, and Info, along with a Refresh button.
- Header:** 'UI For Docker' with the tagline 'The UI for Docker container engine' and a 'Learn more.' button.
- Running Containers:** Lists one container named 'beautiful_goldwasser' with a status of 'Up About a minute'.
- Status:** A green donut chart indicating the status of containers.

Bottom Screenshot:

- Running Containers:** Same as the top screenshot, showing one running container.
- Status:** A green donut chart with a legend for 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.

4. Create a Kubernetes cluster in IBM cloud and deploy helloworld image or jobportal app image and also expose the same app to run in nodeport.

```
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:3.6
-> [auth] library/python:pull token for registry-1.docker.io
-> [internal] load build context
-> => transferring context: 687B
-> [1/6] FROM docker.io/library/python:3.6@sha256:f8652afaf88c25f0d22354d547d891501067ea4026a7fa9ae819df9f300af6fc
639.15
-> => sha256:f8652afaf88c25f0d22354d547d891501067ea4026a7fa9ae819df9f300af6fc 1.86kB / 1.86kB
-> => sha256:d097e4907a8ec979df5ac31872359c2de510f82214c0448e926393b376d3b60d 2.22kB / 2.22kB
-> => sha256:54260638d07c5e3ad24c6e21fc889abbcb486a27634c0892006ff71f3f44b104 9.27kB / 9.27kB
-> => sha256:0e29546d541cbbd309281d21a73a9d1db78665c1b95b74f32b009e0b77a6e1e3 54.92MB / 54.92MB
-> => sha256:9b829c73b52b92b07d5c07a54fb0f3e921995a296c714b53a32ae67d19231fcd 5.15MB / 5.15MB
-> => sha256:c65b7ae361722f070ecae53f35823ed21baa850b105d95cd5a05ab53d748cdd56 10.87MB / 10.87MB
-> => sha256:6404e4811622b31c027ccac322ca4e3037f0805f589a93ae6f15c01aade718793 54.57MB / 54.57MB
-> => sha256:6f9f74896df993fe0172f504fab8a80b4e8a0481a0fef0112efc7eadd3c78f7 196.51MB / 196.51MB
-> => sha256:5e3b1213efc56598e78bd062983945c164de2a37705e06ae2dad823124dc743 6.29MB / 6.29MB
-> => extracting sha256:0e29546d541cbbd309281d21a73a9d1db78665c1b95b74f32b009e0b77a6e1e3 27.3s
-> => sha256:9fddfd56334f2e6efad7e241bf5e7459c40ed105c5478676f41c1244bd96752 14.21MB / 14.21MB
-> => extracting sha256:9b829c73b52b92b07d5c07a54fb0f3e921995a296c714b53a32ae67d19231fcd 2.3s
-> => extracting sha256:c65b7ae361722f070ecae53f35823ed21baa850b105d95cd5a05ab53d748cdd56 4.0s
-> => sha256:404f02044bac0432ca522cb9f254b1c91fcae8080bfeef0be0b743b2f31bab7 2358 / 2358
-> => sha256:c4f42be2be53b900ebffcc040c1df13de538434ccc5f5d954a58848a6160a3af 2.21MB / 2.21MB
-> => extracting sha256:6404e4811622b31c027ccac322ca4e3037f0805f589a93ae6f15c01aade718793 27.3s
-> => extracting sha256:6f9f74896df993fe0172f504fab8a80b4e8a0481a0fef0112efc7eadd3c78f7 131.4s
-> => sha256:5e3b1213efc56598e78bd062983945c164de2a37705e06ae2dad823124dc743 8.2s
-> => extracting sha256:9fddfd56334f2e6efad7e241bf5e7459c40ed105c5478676f41c1244bd96752 11.3s
-> => extracting sha256:404f02044bac0432ca522cb9f254b1c91fcae8080bfeef0be0b743b2f31bab7 0.0s
-> => extracting sha256:c4f42be2be53b900ebffcc040c1df13de538434ccc5f5d954a58848a6160a3af 2.2s
-> [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 sha256:1756719486df002fad5dae385c5221513f2f2d1b49a8d242b22a28af979f19
-> => naming to docker.io/library/job-portal-main
0.15
```

Use 'docker scan' to run Snyk tests against images to find vulnerabilities and learn how to fix them

