

Assignment -4

Docker and Kubernetes

Assignment Date	21 October 2022
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Maximum Marks	2 Marks

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

The image shows two screenshots. The top screenshot is the Docker Hub website, which includes a navigation bar with 'Explore', 'Repositories', 'Organizations', and 'Help'. A large blue banner says 'Welcome to Docker' and 'Download the desktop application'. Below this are three cards: 'Create a Repository', 'Docker Hub Basics', and 'Language-Specific Guides'. The bottom screenshot is the Docker Playground interface, showing a terminal window with the following commands and output:

```
# 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
Using default tag: latest
latest: Pulling from uifd/ui-for-docker
841194d080c8: Pull complete
Digest: sha256:fe371ff5a69549269b24073a5ab1244dd4c0b834cbadf244870572150b1cb749
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
c590dd163101ae795bdcea0eb1ddd498f6fe549cb5f24dab9ff7c1931923fc0d
(node1) (local) root@192.168.0.13 ~
$
```

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

The image displays two screenshots of the 'UI For Docker' web application interface, accessed via a browser. The browser's address bar shows the URL: `ip172-18-0-4-cd9an2u3tccg00fg6k0-9000.direct.labs.play-with-docker.com/#/`.

Top Screenshot:

- Navigation Bar:** Includes tabs for Dashboard, Containers, Containers Network, Images, Networks, Volumes, and Info. A 'Refresh' button is on the right.
- Running Containers:** Lists one container named 'beautiful_goldwasser' with a status of 'Up About a minute'.
- Status:** A donut chart indicates 100% of containers are 'Running' (green).
- Containers created:** A line graph showing a count of 1 on 21/10/2022.
- Images created:** A line graph showing a count of 1.

Bottom Screenshot:

- Header:** Large text 'UI For Docker' with the subtitle 'The UI for Docker container engine' and a 'Learn more.' button.
- Running Containers:** Same as the top screenshot, showing 'beautiful_goldwasser'.
- Status:** A partially visible donut chart.

3. Create an IBM container registry and deploy hello word app

The image shows a Windows command prompt window with the following output:

```
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:f8052aaf88c25f0d22354d547d892501067aa4026a7fa9a08190f9f300af6fc
-> resolve docker.io/library/python:3.6:sha256:f8052aaf88c25f0d22354d547d892501067aa4026a7fa9a08190f9f300af6fc
-> sha256:f8052aaf88c25f0d22354d547d892501067aa4026a7fa9a08190f9f300af6fc 1.00kB / 1.00kB
-> sha256:a097a907a9e0879d5e31871359c2de510f02214c0440e916303b37ed3be00 2.22kB / 2.22kB
-> sha256:54260818087c5e1ad24c6e21fc889abbc840a27634c0892086ff71f3f44b104 9.27kB / 9.27kB
-> sha256:0e29546d541cdd309281d21a73aed1d78665c1b95b74f32b009eb77a6e1e3 54.92MB / 54.92MB
-> sha256:90829c73052b92b97d5c07a54fb0f3e921995a296c714b53a32ae67d19231fcd 5.15MB / 5.15MB
-> sha256:cb5b7ae361722f070eca53f35823ed21baa85d61d5d95cd5a95ab53d740cdd56 10.87MB / 10.87MB
-> sha256:6494e4811622b31c027ccac322ca463937fd805f560a93e6f15c01aade718793 54.57MB / 54.57MB
-> sha256:6f9f74896d9a3fe0172f594fabafSe0b4e0a01a0f0d9112efc7e4d3c78f7 196.51MB / 196.51MB
-> sha256:5e3d1212efc56580e70b09f93a5c1640a23705c080d3dada823145c743 6.20MB / 6.20MB
-> extracting sha256:0e29546d541cdd309281d21a73aed1d78665c1b95b74f32b009eb77a6e1e3
-> sha256:9fd0fd636134f2e0efad7e241bf5e7450c40ed105c5478676f41c1244bd96762 14.21MB / 14.21MB
-> extracting sha256:90829c73052b92b97d5c07a54fb0f3e921995a296c714b53a32ae67d19231fcd
-> extracting sha256:cb5b7ae361722f070eca53f35823ed21baa85d61d5d95cd5a95ab53d740cdd56
-> sha256:494f02044bac0432ca522cbb0f254b1c91fcae6800bfeef0be0b243b2f31bab7 235B / 235B
-> sha256:c4f42be2be53b900ebff040c1df13de538434ccc5f5d954a56848a6169a3a3f 2.21MB / 2.21MB
-> extracting sha256:6494e4811622b31c027ccac322ca463937fd805f560a93e6f15c01aade718793
-> extracting sha256:6f9f74896d9a3fe0172f594fabafSe0b4e0a01a0f0d9112efc7e4d3c78f7
-> extracting sha256:5e3d1212efc56580e70b09f93a5c1640a23705c080d3dada823145c743
-> extracting sha256:9fd0fd636134f2e0efad7e241bf5e7450c40ed105c5478676f41c1244bd96762
-> extracting sha256:404f02044bac0432ca522cbb0f254b1c91fcae6800bfeef0be0b243b2f31bab7
-> extracting sha256:c4f42be2be53b900ebff040c1df13de538434ccc5f5d954a56848a6169a3a3f
-> [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 sha256:1756719486df0e2fad5dae305c5221513f2ff2d1b49a8d242b22a28af0379f19
-> 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>
```

The Docker Desktop interface shows the following information:

- Containers: 0
- Images: 1 Images
- Volumes: 0 Bytes total size
- Dev Environments: 0
- Extensions: 0
- Images on disk: 1 Images, 0 Bytes total size
- Images: Give feedback
- LOCAL: job-portal-main (latest, 1756719486df, less than a minute ago, 1.08 GB)
- REMOTE REPOSITORIES: 0
- Search: Search
- In use only: ☐
- NAME: job-portal-main
- TAG: latest
- IMAGE ID: 1756719486df
- CREATED: less than a minute ago
- SIZE: 1.08 GB
- RAM: 2.53GB
- CPU: 1.56%
- Connected to Hub
- v4.13.0