

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 has a blue header with the Docker logo and navigation links. A large blue banner in the center says 'Welcome to Docker' and 'Download the desktop application' with a 'Download for Windows' button. Below the banner are three white boxes: 'Create a Repository', 'Docker Hub Basics', and 'Language-Specific Guides'. The bottom screenshot is the Docker Playground interface. It shows 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 -w /var/run/docker.sock:/var/run/docker.sock uifd/ui-for-docker
c590dd163101ae795bdcea0eb1ddd98f6fe549cb5f24dab9ff7c1931923fc0d
[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, which is accessed via a browser at the URL `ip172-18-0-4-cd9an2u3tccg00fgf6k0-9000.direct.labs.play-with-docker.com/#/`.

Top Screenshot: The interface shows the 'UI For Docker' title and the subtitle 'The UI for Docker container engine'. Below this, there is a 'Running Containers' section with a list of containers. One container, 'beautiful_goldwasser', is listed as 'Up About a minute'. To the right of the container list is a 'Status' section featuring a green donut chart that is 100% filled, indicating that all containers are running. The legend below the chart shows 'Running' in green, 'Stopped' in red, and 'Ghost' in grey.

Bottom Screenshot: This screenshot shows the same interface after a new container has been created. The 'Running Containers' section now lists two containers: 'beautiful_goldwasser' (Up About a minute) and a new container (Up About a minute). The 'Status' section shows a green donut chart that is 50% filled, indicating that half of the containers are running. The legend remains the same.

Below the 'Status' section, there are two line graphs: 'Containers created' and 'Images created'. The 'Containers created' graph shows a single data point at 1 on the y-axis for the date 21/10/2022. The 'Images created' graph shows a single data point at 1 on the y-axis for the date 21/10/2022.

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

```
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:f8052aaf88c25f6d22354d547d892591067aa4026a7fa9a6819df9f300af6fc
-> resolve docker.io/library/python:3.6@sha256:f8052aaf88c25f6d22354d547d892591067aa4026a7fa9a6819df9f300af6fc
-> sha256:f8052aaf88c25f6d22354d547d892591067aa4026a7fa9a6819df9f300af6fc 1.86kB / 1.86kB
-> sha256:a097ae997a8e099df5c31872359c2de510f02214c6a80e78393b37dd3b08d 2.22kB / 2.22kB
-> sha256:54268638087c53ad24c6e21fc889abb08486a27634c802808ff713f44b104 9.27kB / 9.27kB
-> sha256:9e29546d54c1dhd300281d21a73a0d1d78665c1b05b74f32b009a0b77abe1e3 54.92MB / 54.92MB
-> sha256:9b829c73052b02b97d5c07a54fb0f3e921995a296c714b53a32ae67d19231fcd 5.15MB / 5.15MB
-> sha256:cb5b7ae361722f070eca53f35823ed21baa85d61d5d95cd5a95ab53d740cdd56 10.87MB / 10.87MB
-> sha256:6404e4811622b31c027ccac322ca463937fd885f50a93e6f15c01aade718793 54.57MB / 54.57MB
-> sha256:6f9f74896dfa93fe0372f594fab85e0b4e8a041a0fef09112efc7e4d3c78f7 196.51MB / 196.51MB
-> sha256:5e3b1112efc56598e78bdc02983945c164de2a37305e0bae2dada821124dc743 6.29MB / 6.29MB
-> extracting sha256:0e29546d54c1dhd300281d21a73a0d1d78665c1b05b74f32b009a0b77abe1e3 27.3kB
-> sha256:9fd0f6c56134f2a8efad7e281bf2e7489c40ed185c5478676f41c1244b096752 14.21MB / 14.21MB
-> extracting sha256:9b829c73052b02b97d5c07a54fb0f3e921995a296c714b53a32ae67d19231fcd 9.3kB
-> extracting sha256:cb5b7ae361722f070eca53f35823ed21baa85d61d5d95cd5a95ab53d740cdd56 4.4kB
-> sha256:494f02044bac0432ca522cbb9f254b1c91fcea6806bfeef0b0b243b2f31bab7 235B / 235B
-> sha256:c4f42be2b530900ebffc040c1df13de538434ccc5f5d954a56848a6169a3a3f 2.21MB / 2.21MB
-> sha256:6494e4811622b31c027ccac322ca463937fd885f50a93e6f15c01aade718793 273.3kB
-> extracting sha256:6f9f74896dfa93fe0372f594fab85e0b4e8a041a0fef09112efc7e4d3c78f7 131.4kB
-> sha256:5e3b1112efc56598e78bdc02983945c164de2a37305e0bae2dada821124dc743 6.22kB
-> extracting sha256:9fd0f6c56134f2a8efad7e281bf2e7489c40ed185c5478676f41c1244b096752 11.2kB
-> extracting sha256:404f02044bac0432ca522cbb9f254b1c91fcea6806bfeef0b0b243b2f31bab7 0.4kB
-> extracting sha256:c4f42be2b530900ebffc040c1df13de538434ccc5f5d954a56848a6169a3a3f 2.2kB
-> [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 layers
-> writing image sha256:1756719486df002fad5dae305c5221513f2ff2d1b49a8d242b22a28af0379f19
-> 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

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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