

DOCKER AND KUBERNETES

Assignment Date	15 NOVEMBER 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 with multiple tabs. The active tab is Docker Hub, displaying the repository page for `uifd/ui-for-docker`. The page includes a repository icon, name, and description: "A web interface for Docker, formerly known as DockerUI. Deprecated, use Portainer for new features." It also shows a "Pulls 10M+" badge and a "chat on gitter" link. Below the repository information, there are sections for "Overview" and "Tags".

Below the Docker Hub page, there is a screenshot of the Docker Playground interface. The interface shows a session titled `cd9an2u3_cd9av060qau0008hbjso` with an IP address of `192.168.0.13`. It includes a "CLOSE SESSION" button, an "OPEN PORT" button, and a "DELETE" button. The "Instances" section shows a list of instances with the name `node1` and IP `192.168.0.13`. The "SSH" section shows the command `ssh ip172-18-0-4-cd9an2u3tccg00fgf6k0@direct.labs.play-with-docker.com`. The "Terminal" section shows 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:fe371fff5a69549269b24073a5ab1244dd4c0b834cbadf244870572150b1cb749
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
c590dd163101ae798bdca0eb1ddd98f6fe549cb5f24dadb9ff7c1931923fc0d
[node1] (local) root@192.168.0.13 ~
$
```

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

UI For Docker

Dashboard Containers Containers Network Images Networks Volumes Info Refresh

UI For Docker


The UI for Docker container engine

Learn more.

Running Containers

- beautiful_goldwasser Up About a minute

Status



Running Stopped Ghost


UI For Docker

Dashboard Containers Containers Network Images Networks Volumes Info Refresh

Running Containers

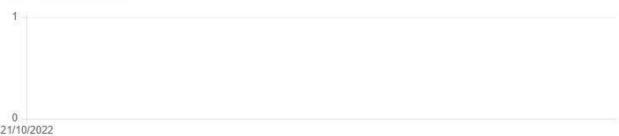
- beautiful_goldwasser Up About a minute

Status




Running Stopped Ghost

Containers created



Images created



4. Create a Kubernetes cluster in IBM cloud and deploy Helloworld image or job portal app image and also expose the same app to run in no deport.

```
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:f8652afa88c25f8d22354d547d892591067aa4026a7fa9a6819df9f300af6fc
-> resolve docker.io/library/python:3.6@sha256:f8652afa88c25f8d22354d547d892591067aa4026a7fa9a6819df9f300af6fc
-> sha256:f8652afa88c25f8d22354d547d892591067aa4026a7fa9a6819df9f300af6fc 1.86kB / 1.86kB
-> sha256:d097f4907a8ec079df5ac31872359c2de510f82214c0448e926393b376d3b60d 2.22kB / 2.22kB
-> sha256:54260638d07c5e3ad24ce21fc889abbcc8486a27634c0802086ff71f3f44b104 9.27kB / 9.27kB
-> sha256:0e29546d541c0b380261d21a73a941db7865c1b95b74f326a09e077a0e1e3 54.92MB / 54.92MB
-> sha256:0a029c73b52b92b97d5c07e241b0f3ae921995a206c714b53a32ae67d19231fcd 5.15MB / 5.15MB
-> sha256:cb5b7ae361722f070eca53f35823ed21baa85d61d5d05cd5a95ab53d740cdd56 10.87MB / 10.87MB
-> sha256:6494e4811622b31c027ccc322ca463937fd805f569a93e6f15c01aade718793 54.57MB / 54.57MB
-> sha256:6f9f74896df9a3fe0172f504fab85e0b4e8a041a0efed9112efc7e4d3c78f7 196.51MB / 196.51MB
-> sha256:5e3b1213efc56598e78bd602983945c164de2a37205e06a62dada823124dc743 6.29MB / 6.29MB
-> extracting sha256:0e29546d541c0b380261d21a73a941db7865c1b95b74f326a09e077a0e1e3
-> sha256:9fddfd5c56334f2e6efad7e241bf5e7459c40ed105c5478676f41c1244bd96752 14.21MB / 14.21MB
-> extracting sha256:90829c73b52b92b97d5c07e241bf5e7459c40ed105c5478676f41c1244bd96752 2.33
-> extracting sha256:cb5b7ae361722f070eca53f35823ed21baa85d61d5d05cd5a95ab53d740cdd56 4.06
-> sha256:404f02044bac0432ca522cbb9f254b1c91fca68006bfeef0be0b243b2f31bab7 2350 / 2350
-> sha256:c4f42be2be53b900ebffcc048c1df13de538434ccc5f5d954a56848a6109a3a3f 2.21MB / 2.21MB
-> extracting sha256:6494e4811622b31c027ccc322ca463937fd805f569a93e6f15c01aade718793 27.33
-> sha256:6f9f74896df9a3fe0172f504fab85e0b4e8a041a0efed9112efc7e4d3c78f7 131.44
-> extracting sha256:5e3b1213efc56598e78bd602983945c164de2a37205e06a62dada823124dc743 8.25
-> sha256:9fddfd5c56334f2e6efad7e241bf5e7459c40ed105c5478676f41c1244bd96752 11.33
-> extracting sha256:404f02044bac0432ca522cbb9f254b1c91fca68006bfeef0be0b243b2f31bab7 0.05
-> extracting sha256:c4f42be2be53b900ebffcc048c1df13de538434ccc5f5d954a56848a6109a3a3f 2.25
[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 image
-> exporting layers
-> writing image sha256:1756719486df082fad5d9e305c5221513f2ff2d1b49a8d242b22a28af0379f19
-> 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

C:\Use

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

Create a IBM container registry and deploy hello word app