

## Assignment -4

### Docker and Kubernetes

Assignment Date	21 October 2022
Student Name	Purushothaman C
Student Roll Number	511319205020
Maximum Marks	2 Marks

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

The screenshot shows the Docker Hub repository page for `uifd/ui-for-docker`. The page includes the repository name, a star icon, and a note that the repository is deprecated. It also displays the Docker Pull Command: `docker pull uifd/ui-for-docker`. The page is viewed in a browser window with the address bar showing `hub.docker.com/r/uifd/ui-for-docker`.

The screenshot shows the Docker Playground interface. On the left, there is a sidebar with a clock showing 03:42:30, a 'CLOSE SESSION' button, and a list of instances. The main area displays the details of a container named `cd9an2u3_cd9av060qau0008hbjs0`. The container's IP is `192.168.0.13`. The terminal output shows the following commands and their 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
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
c590dd163101ae795bdcea0eb1ddd98f6fe549cb5f24dab9ff7c1931923fc0d
[node1] (local) root@192.168.0.13 ~
$
```

## UI For Docker

Dashboard	Containers	Containers Network	Images	Networks	Volumes	Info
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Refresh

# UI For Docker

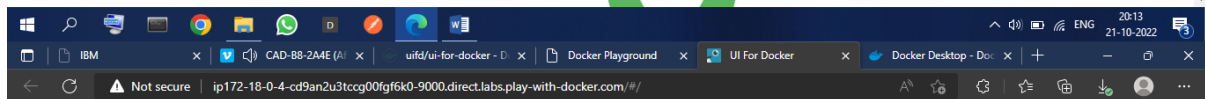
The UI for Docker container engine

Learn more.

## Running Containers

- beautiful\_goldwasser Up About a minute

## Status



## UI For Docker

Dashboard	Containers	Containers Network	Images	Networks	Volumes	Info
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Refresh

## Running Containers

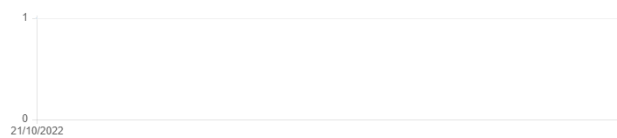
- beautiful\_goldwasser Up About a minute

## Status



Running Stopped Ghost

## Containers created



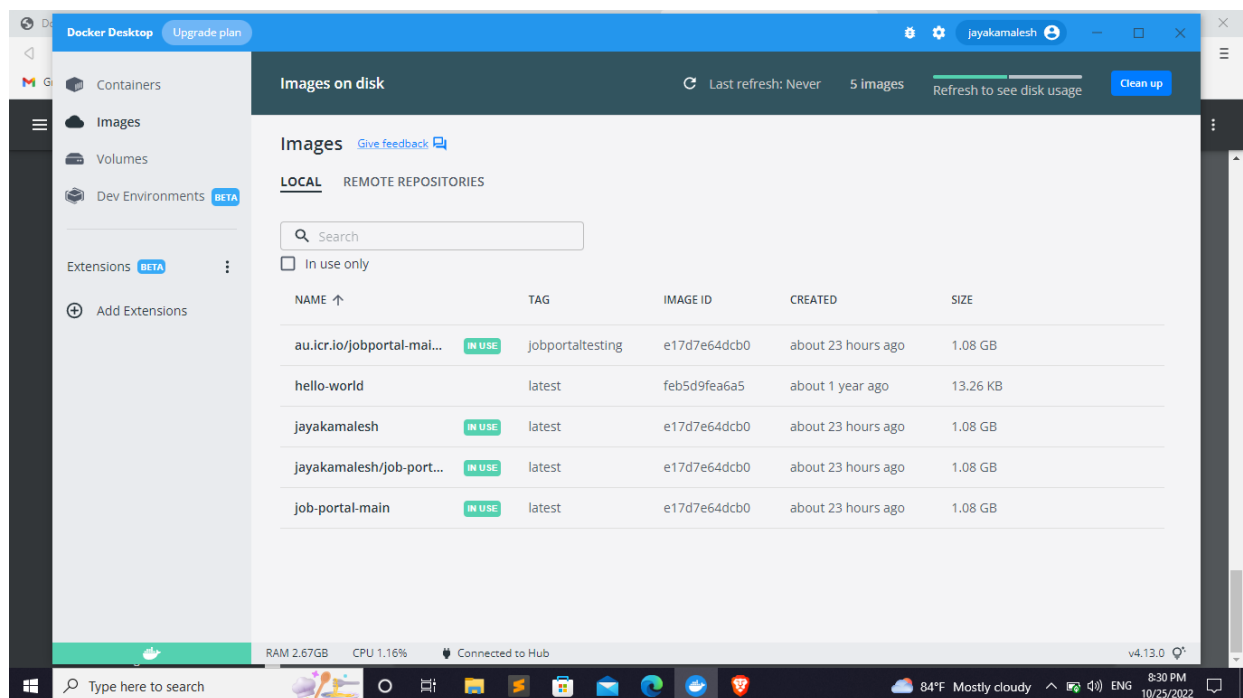
## Images created



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

```
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:f8652afaf88c25f0d22354d547d892591067aa4026a7fa9a6819df9f300af6fc
639.15
-> => resolve docker.io/library/python:3.6@sha256:f8652afaf88c25f0d22354d547d892591067aa4026a7fa9a6819df9f300af6fc
1.11
-> => sha256:f8652afaf88c25f0d22354d547d892591067aa4026a7fa9a6819df9f300af6fc 1.86kB / 1.86kB
0.00
-> => sha256:d097a4007a8ec070df5ac1872359c2de510f82214c0448e926393b376d3b60d 2.22kB / 2.22kB
0.00
-> => sha256:54260638d07c5e3ad24c6e21fc889abbc8486a27634c0892086ff71f3f44b104 9.27kB / 9.27kB
0.00
-> => sha256:0e29546d541cddb309281d21a73a9d1db78665c1b95b74f32b009e0b77a6e1e3 54.92MB / 54.92MB
120.85
-> => sha256:09829c73b52b92b97d5c07a54fb0f3e921995a296c714b53a32ae67d19231fcd 5.15MB / 5.15MB
28.55
-> => sha256:c5b7ae361722f070eca53f35823ed21baa85d01d5d95cd5a95ab53d740cdd56 10.87MB / 10.87MB
86.00
-> => sha256:6494e481162b31c027ccac322ca463937f8895f569a9366f15c01aade718793 54.57MB / 54.57MB
253.25
-> => sha256:6f9f74896dfa93fe0172f594faba85e0b4e8a8481a0fef09112efc7e4d3c78f7 196.51MB / 196.51MB
446.11
-> => sha256:5e3b1213efc56598e78bd602983945c164de2a37205e06a62dada823124dc743 6.29MB / 6.29MB
138.11
-> => extracting sha256:0e29546d541cddb309281d21a73a9d1db78665c1b95b74f32b009e0b77a6e1e3
27.35
-> => sha256:9fddfdc56334f2e6efad7e241bf5e7459c40ed105c5478676f41c1244bd96752 14.21MB / 14.21MB
187.66
-> => extracting sha256:9b829c73b52b92b97d5c07a54fb0f3e921995a296c714b53a32ae67d19231fcd
2.35
-> => extracting sha256:c5b7ae361722f070eca53f35823ed21baa85d01d5d95cd5a95ab53d740cdd56
4.05
-> => sha256:404f02044bac0432ca522cbb9f254b1c91fcea6806bfeef0be0b243b2f31bab7 235B / 235B
104.25
-> => sha256:c4f42be2be53b900ebffcc040c1df13de538434ccc5f5d954a56848a6169a3af 2.21MB / 2.21MB
203.88
-> => extracting sha256:6494e481162b31c027ccac322ca463937f8895f569a9366f15c01aade718793
27.35
-> => extracting sha256:6f9f74896dfa93fe0172f594faba85e0b4e8a8481a0fef09112efc7e4d3c78f7
131.45
-> => extracting sha256:5e3b1213efc56598e78bd602983945c164de2a37205e06a62dada823124dc743
8.25
-> => extracting sha256:9fddfdc56334f2e6efad7e241bf5e7459c40ed105c5478676f41c1244bd96752
11.35
-> => extracting sha256:404f02044bac0432ca522cbb9f254b1c91fcea6806bfeef0be0b243b2f31bab7
2.75
-> => extracting sha256:c4f42be2be53b900ebffcc040c1df13de538434ccc5f5d954a56848a6169a3af
2.25
-> [2/6] WORKDIR /app
2.85
-> [3/6] ADD . /app
2.75
-> [4/6] COPY requirements.txt /app
2.65
-> [5/6] RUN python3 -m pip install -r requirements.txt
372.25
-> [6/6] RUN python3 -m pip install ibm_db
9.75
-> exporting to image
7.85
-> => exporting layers
6.85
-> => writing image sha256:1756719486df002fad5dae385c5221513f2ff2d1b49a8d242b22a28af0379f19
0.25
-> => 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
C:\Users\VK-PC\Desktop\job-portal-main>
```



### 3.Create a IBM container registry and deploy helloworld app or jobportal app

```
Command Prompt - docker run -p 5000:5000 au.icr.io/jobportal-main/testrepo:jobportaltesting
Password>
Authenticating...
OK
Targeted account Jayakamalesh k's Account (b9916d3d37d24674be1984ac2159a53c)

API endpoint:      https://cloud.ibm.com
Region:           au-syd
User:             5009it.jayakamalesh@kingston.ac.in
Account:          Jayakamalesh k's Account (b9916d3d37d24674be1984ac2159a53c)
Resource group:   No resource group targeted, use 'ibmcloud target -g RESOURCE_GROUP'
CF API endpoint:
Org:
Space:

C:\Users\ELCOT>ibmcloud plugin install container-service
Looking up 'container-service' from repository 'IBM Cloud'...
Plug-in 'container-service[kubernetes-service/ks] 1.0.459' found in repository 'IBM Cloud'
Attempting to download the binary file...
 26.86 MiB / 26.86 MiB [=====] 100.00% 36s
28168192 bytes downloaded
Installing binary...
OK
Plug-in 'container-service 1.0.459' was successfully installed into C:\Users\ELCOT\bluemix\plugins\container-service. Use 'ibmcloud plugin show container-service' to s
how its details.

C:\Users\ELCOT>ibmcloud plugin install container-registry
Looking up 'container-registry' from repository 'IBM Cloud'...
Plug-in 'container-registry[cr] 1.0.2' found in repository 'IBM Cloud'
Attempting to download the binary file...
 11.90 MiB / 11.90 MiB [=====] 100.00% 14s
12476416 bytes downloaded
Installing binary...
OK
Plug-in 'container-registry 1.0.2' was successfully installed into C:\Users\ELCOT\bluemix\plugins\container-registry. Use 'ibmcloud plugin show container-registry' to
show its details.

C:\Users\ELCOT>ibmcloud plugin install observe-service
Looking up 'observe-service' from repository 'IBM Cloud'...
Plug-in 'observe-service 1.0.82' found in repository 'IBM Cloud'
Attempting to download the binary file...
 13.38 MiB / 13.38 MiB [=====] 100.00% 19s
14024704 bytes downloaded

Type here to search
84°F Mostly cloudy 8:09 PM 10/25/2022

Command Prompt - docker run -p 5000:5000 au.icr.io/jobportal-main/testrepo:jobportaltesting
12476416 bytes downloaded
Installing binary...
OK
Plug-in 'container-registry 1.0.2' was successfully installed into C:\Users\ELCOT\bluemix\plugins\container-registry. Use 'ibmcloud plugin show container-registry' to
show its details.

C:\Users\ELCOT>docker login
Authenticating with existing credentials...
Login Succeeded

Logging in with your password grants your terminal complete access to your account.
For better security, log in with a limited-privilege personal access token. Learn more at https://docs.docker.com/go/access-tokens/

C:\Users\ELCOT>ibmcloud cr login
Logging 'docker' in to 'au.icr.io'...
Logged in to 'au.icr.io'.

OK

C:\Users\ELCOT>docker pull hello-world
Using default tag: latest
latest: Pulling from library/hello-world
2db29710123a: Pull complete
Digest: sha256:18a657d0cc1c7d0678a3fba8b7eb4918bba25968d3e1b0adebfa71cadddbc346
Status: Downloaded newer image for hello-world:latest
docker.io/library/hello-world:latest

C:\Users\ELCOT>docker job-portal-main au.icr.io/jobportal-main/testrepo:jobportaltesting
docker: 'job-portal-main' is not a docker command.
See 'docker --help'

C:\Users\ELCOT>docker tag job-portal-main au.icr.io/jobportal-main/testrepo:jobportaltesting

C:\Users\ELCOT>docker push au.icr.io/jobportal-main/testrepo:jobportaltesting
The push refers to repository [au.icr.io/jobportal-main/testrepo]
fb63d0a236e1: Pushed
e12b82bb8bd4: Pushed
d5524390f4c9: Pushed
94efdbb0ed11: Pushed
016575b95346: Pushed
aa4e080c19f6: Pushed
8ba9f690e8ba: Pushed
3e607d59ef9f: Pushed
1e18e7e1fcc2: Pushed
```

```
Command Prompt - docker run -p 5000:5000 au.icr.io/jobportal-main/testrepo:jobportaltesting
Logging in with your password grants your terminal complete access to your account.
For better security, log in with a limited-privilege personal access token. Learn more at https://docs.docker.com/go/access-tokens/

C:\Users\ELCOT>ibmcloud cr login
Logging 'docker' in to 'au.icr.io'...
Logged in to 'au.icr.io'.

OK

C:\Users\ELCOT>docker pull au.icr.io/jobportal-main/testrepo
Using default tag: latest
Error response from daemon: manifest for au.icr.io/jobportal-main/testrepo:latest not found: manifest unknown: manifest unknown


C:\Users\ELCOT>docker run -p 5000:5000 au.icr.io/jobportal-main/testrepo
Unable to find image 'au.icr.io/jobportal-main/testrepo:latest' locally
docker: Error response from daemon: manifest for au.icr.io/jobportal-main/testrepo:latest not found: manifest unknown: manifest unknown.
See 'docker run --help'.

C:\Users\ELCOT>docker pull au.icr.io/jobportal-main/testrepo:jobportaltesting
jobportaltesting: Pulling from jobportal-main/testrepo
Digest: sha256:dc6a1d3f889845c94bc9b8b84e938a0b015e6031ddc40c016025363967265213
Status: Image is up to date for au.icr.io/jobportal-main/testrepo:jobportaltesting
au.icr.io/jobportal-main/testrepo:jobportaltesting

C:\Users\ELCOT>docker run -p 5000:5000 au.icr.io/jobportal-main/testrepo
Unable to find image 'au.icr.io/jobportal-main/testrepo:latest' locally
docker: Error response from daemon: manifest for au.icr.io/jobportal-main/testrepo:latest not found: manifest unknown: manifest unknown.
See 'docker run --help'.

C:\Users\ELCOT>docker run -p 5000:5000 au.icr.io/jobportal-main/testrepo:jobportaltesting
docker: Error response from daemon: driver failed programming external connectivity on endpoint heuristic_spence (d84c3fb81e5087dab6d1558694311ab227859e3b338aea1f7c4020c2ad72f4ae): Bind for 0.0.0.0:5000 failed: port is already allocated.

C:\Users\ELCOT>docker run -p 5000:5000 au.icr.io/jobportal-main/testrepo:jobportaltesting
* Serving Flask app 'app' (lazy loading)
* Environment: production
  WARNING: This is a development server. Do not use it in a production deployment.
  Use a production WSGI server instead.
* Debug mode: off
* Running on all addresses.
  WARNING: This is a development server. Do not use it in a production deployment.
* Running on http://172.17.0.2:5000/ (Press CTRL+C to quit)
```



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## Aboutus

### Mission

SMARTBRIDGE is an edTech organization with a vision to bridge the gap between academia & industry. Our outcome-based experiential learning programs on emerging technologies (Internet of Things, Machine Learning, Data Science, Artificial Intelligence, Robotics) are building skilled entry - level engineers, for the corporate world. .

### Vission

Our main objective is to bridge the existing gaps between prevailing industry standards and what the academics offer to the graduates while passing out of university. SmartBridge offers suitable skill deployment and training to the young talent before on boarding their first job. Our skill development programs are designed considering the present expectations in the industry.

### Objective

Well directed career guidance programs for educational institutions  
Appropriate certification courses that suit the industry need  
Train the trainers; expanded awareness about the current industry standards  
Liaise with corporates to offer niche internships  
Establish technology development centers in colleges  
Specialised incubation centers in collaboration with corporates

## JobPortal

Lorem ipsum dolor sit amet consectetur adipisicing elit. Voluptatum quis, reiciendis id magni magnam, accusamus nobis in, temporibus molestias ab placeat rerum aperiam illum perspiciatis ducimus non! Fugiat, odit ducimus.

## Get in Touch

- jobportal@gmail.com
- +91 8977787657

IBM Cloud

Container Registry

Quick start

Namespaces2

Repositories1

Images1

Trash0

Settings

Search resources and products...

CatalogManageJayakamalesh k's Acco...


Repositories

Location

Sydney

Search

Create

Name	Image count	Namespace	Last updated
 testrepo au.icr.io/jobportal-main/testrepo	1	jobportal-main	1 day ago

Items per page: 251-1 of 1 item

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https://cloud.ibm.com/registry/repos

Type here to search

84°F 8:53 PM 10/25/2022

IBM Cloud

Container Registry

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CatalogManageJayakamalesh k's Acco...


Repositories

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Items per page: 251-1 of 1 item

11 of 1 page

Type here to search

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IBM Cloud

Container Registry

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Search resources and products...

CatalogManageJayakamalesh k's Acco...

cloud.ibm.com/registry/images

Images

Location

Sydney

View by: DigestSearch

Create

Repository@digest	Tags	Manifest type	Created	Size	Security status
<div>jobportal-main/testrepo@sha256:dc6a1d3f8898...</div>	jobportaltesting	Docker	1 day ago	435 MB	99 issues

Items per page: 251-1 of 1 item

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https://cloud.ibm.com/registry/images

Type here to search

84°F8:53 PM10/25/2022