

Assignment -4

Assignment Date	18 November 2022
Student Name	Aishwarya V
Student Roll Number	912819104008
Maximum Marks	2 Marks

1. Pull an Image from docker hub and run it in docker playground.

The screenshot shows a web browser window displaying the Docker Hub page for the 'hello-world' official image. The page includes the Docker Hub logo, a search bar, and navigation links. Below the header, the 'hello-world' image is featured with a 'DOCKER OFFICIAL IMAGE' badge and the description 'Hello World! (an example of minimal Dockerization)'. A 'Quick reference' section lists 'Maintained by: the Docker Community' and 'Where to get help: the Docker Community Slack, Server Fault, Unix & Linux, or Stack Overflow'. A section for 'Supported tags and respective Dockerfile links' is also visible.

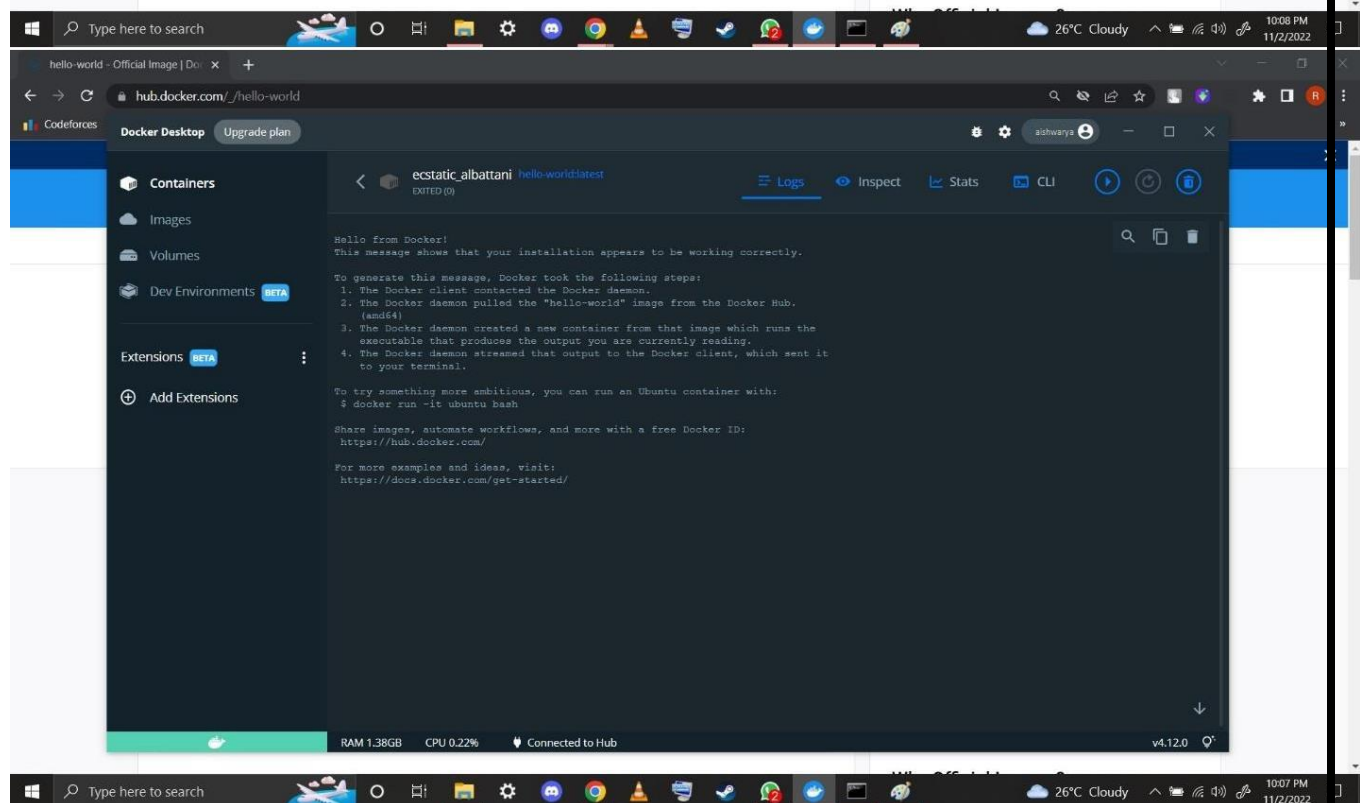
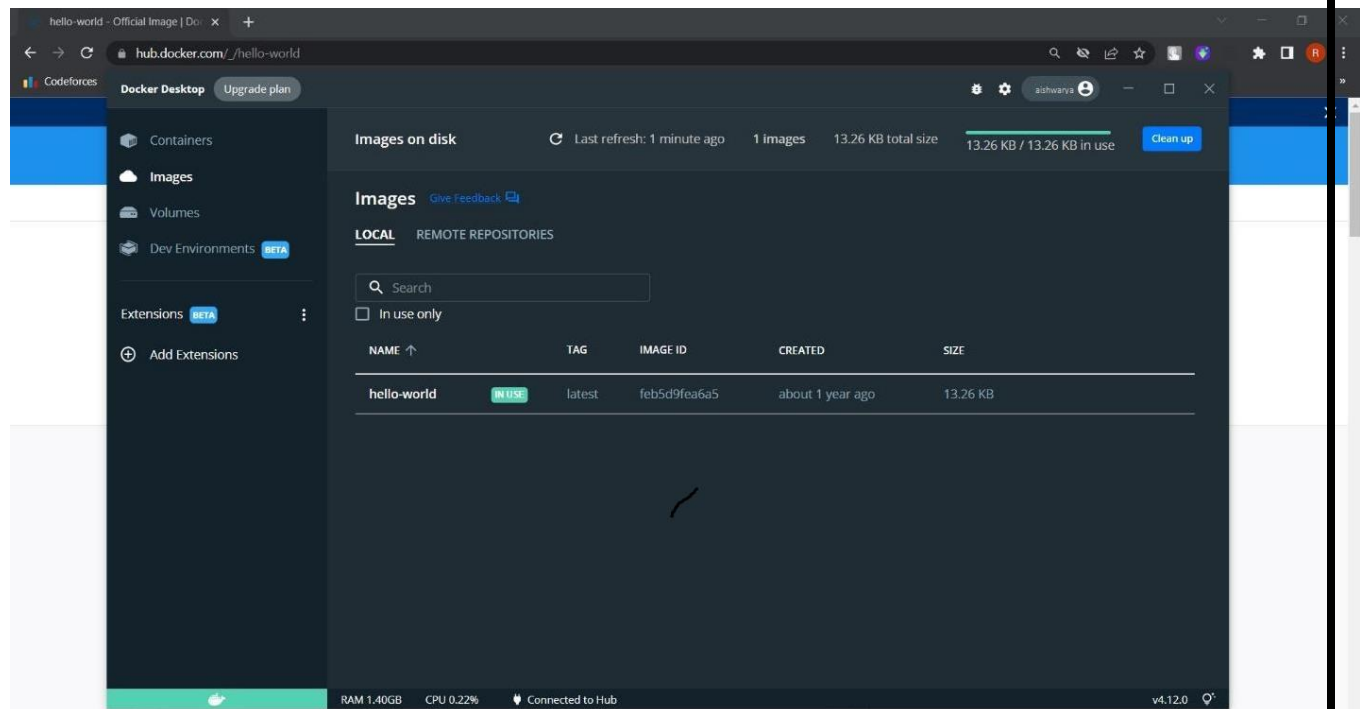
Overlaid on the right side of the browser window is a Windows Command Prompt window. It shows the following commands and output:

```
Microsoft Windows [Version 10.0.19044.2130]
(c) Microsoft Corporation. All rights reserved.

C:\Users\Assig>docker pull hello-world
Using default tag: latest
latest: Pulling from library/hello-world
2db29710123e: Pull complete
Digest: sha256:c18f0a777aefabe047a671ab3ec3eed05414477c951ab1a6f352a06974245fe7
Status: Downloaded newer image for hello-world:latest
docker.io/library/hello-world:latest

C:\Users\Assig>
```

The Windows taskbar at the bottom shows the system clock as 10:05 PM on 11/2/2022, with a weather widget indicating 26°C Cloudy.



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

Dockerfile:

FROM

python:3.6

WORKDIR /app

ADD. /app

COPY requirements.txt /app

```
RUN python3 -m pip install -r
```

```
requirements.txt
```

```
RUN python3 -m pip
```

```
install ibm_db
```

EXPOSE 5000

```
CMD ["python","app1.py"]
```

```

C:\Users\Assig>cd C:\Users\Assig\Desktop\IBM-Project\Jobportal
C:\Users\Assig\Desktop\IBM-Project\Jobportal>docker build .
[+] Building 492.2s (12/12) FINISHED
    <[...]
```

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

```

C:\Users\Assig\Desktop\IBM-Project\Jobportal>

```

```
Command Prompt - docker run f3d9015a21f3
C:\Users\Assig\Desktop\IBM-Project\Jobportal>docker images
REPOSITORY                                TAG                                IMAGE ID            CREATED            SIZE
kubeproxy.docker.internal:5000/docker/desktop-kubernetes
k8s.gcr.io/kube-apiserver                v1.25.0                         2042e761d17a       2 months ago      363MB
k8s.gcr.io/kube-scheduler                 v1.25.0                         4d2e2fd0d03e       2 months ago      128MB
k8s.gcr.io/kube-controller-manager        v1.25.0                         bf2cf3115089       2 months ago      50.6MB
k8s.gcr.io/kube-proxy                     v1.25.0                         1a54c86c03a6       2 months ago      117MB
k8s.gcr.io/pause                           3.8                             58a9a0c6d96f       2 months ago      61.7MB
k8s.gcr.io/etcd                           3.5.4-0                         4873874c08ef       4 months ago      711kB
k8s.gcr.io/coredns                        v1.9.3                          a8a176a5d5d6       5 months ago      300MB
docker/desktop-vpnkit-controller           v2.0                             5185b96f0bec       5 months ago      48.8MB
docker/desktop-storage-provisioner         v2.0                             8c2c38aa676e       18 months ago     21MB
99f89471f470                             18 months ago     41.9MB

C:\Users\Assig\Desktop\IBM-Project\Jobportal>docker run f3d9015a21f3
* 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)
```

JOYPORAL | HOME

Not secure | 172.20.10.6:5000/login

Codeforces

sheep-logo

LOGOUT REGISTER MY JOBS

Available Jobs

Python

Skills for python

Apply Now

Docker Desktop Upgrade plan

jovial_proskuriakova f3d9015a21f3

Log Inspect Stats CLI

* 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)

EXT

RAM 4.89GB CPU 2.44% Connected to Hub

v4.12.0

3. Create a IBM container registry and deploy job and skill recommender app.

```
Command Prompt
Microsoft Windows [Version 10.0.19044.2130]
(c) Microsoft Corporation. All rights reserved.

C:\Users\Assig>ibmcloud login
API endpoint: https://cloud.ibm.com

Email> 19cs008@syedengg.co.in

Password>
Authenticating...
OK

Targeted account: Aishwarya's Account (3828f847bb644584acc551e935d0e383)

Select a region (or press enter to skip):
1. au-syd
2. in-che
3. jp-osa
4. jp-tok
5. kr-seo
6. eu-de
7. eu-gb
8. ca-tor
9. us-south
10. us-east
11. br-sao
Enter a number>

API endpoint: https://cloud.ibm.com
Regions:
User: 19cs008@syedengg.co.in
Account: Aishwarya (3828f847bb644584acc551e935d0e383)
Resource group: No resource group targeted, use 'ibmcloud target -g RESOURCE_GROUP'
CF API endpoint:
Org:
Space:

C:\Users\Assig>
```

```
Command Prompt
C:\Users\Assig>ibmcloud cr login
Logging 'docker' in to 'icr.io'...
Logged in to 'icr.io'.

OK

C:\Users\Assig>docker tag f3d9015a21f3 icr.io/Assig/jobportal

C:\Users\Assig>docker push icr.io/Assig/jobportal
Using default tag: latest
The push refers to repository [icr.io/Assig/jobportal]
21d8888e119b: Pushed
e45859251a61: Pushed
ba5faf349894: Pushed
21a1adcafa41: Pushed
4c702597ab0c: Pushed
aa4c808c19f6: Pushed
0ba9f090e8ba: Pushed
3a607d99af9f: Pushed
1a38e7a1fcc2: Pushed
c3a8d93ed24: Pushed
26a504e63be4: Pushed
8bf42db0de72: Pushed
31892cc314cb: Pushed
11936051f93b: Pushed
latest: digest:sha256:910c91f1fe2226ae9306e48d02426c6c513bf54cfad9b960a8cb02bcb0926143 size: 3260

C:\Users\Assig>
```

IBM Cloud Container Registry - R x +

cloud.ibm.com/registry/repos

Codeforces

IBM Cloud

Search resources and products...

Catalog Manage Raad Chowdhury's Acc...

Container Registry

Quick start

Namespaces 1

Repositories 1

Images 1

Trash 0

Settings


Repositories

Location

Global

Search

Create +

Name	Image count	Namespace	Last updated
 jobportal icr.io/Assig/jobportal	1	Assig	5 days ago

Items per page: 25 1-1 of 1 item

1 1 of 1 page

Type here to search

32°C Cloudy 12:04 PM 11/3/2022

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

The screenshot displays the Kubernetes Dashboard interface in a web browser. The browser's address bar shows the URL: `eu-de.containers.cloud.ibm.com/kubeproxy/clusters/cdhm3amf0p6bv8bpl3i0/service/#/pod/default/jobportal-5d9d6b7594-xnd9v?namespace=default`. The dashboard's top navigation bar includes the Kubernetes logo, a dropdown menu set to 'default', a search bar, and icons for adding resources, notifications, and a user profile. The breadcrumb trail indicates the path: `Workloads > Pods > jobportal-5d9d6b7594-xnd9v`. On the left sidebar, various Kubernetes resource categories are listed, with 'Pods' currently selected. The main content area is divided into three sections: 'Metadata', 'Resource information', and 'Conditions'. The 'Metadata' section provides details about the pod, including its name, namespace, creation time, age, and UID. The 'Resource information' section shows the node the pod is running on, its status, IP address, QoS class, restart count, and the service account used. The 'Conditions' section is currently empty.

Name	Namespace	Created	Age	UID
jobportal-5d9d6b7594-xnd9v	default	Nov 3, 2022	37 seconds ago	c7ca5e6d-6505-4321-a0c7-90418c630ce2

Node	Status	IP	QoS Class	Restarts	Service Account
10.144.212.158	ErrImagePull	172.30.141.206	BestEffort	0	default