

## ASSIGNMENT – 4

Assignment Date	28 October 2022
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Maximum Marks	2 Mark

### Question-1

Pull an image from Dockers hub and run it in Dockers playground.

### SOLUTION:

#### STEP: 1

Login to Dockers hub and get an image

#### STEP: 2

- Open Dockers playground
- Login with Dockers
- Create new instance

#### STEP: 3

In the command prompt run the following:

```
$ docker pull hello-world
$ docker run hello-world
```

```

[rode1] (local) root@192.168.0.8 ~
$ docker pull hello-world
Using default tag: latest
latest: Pulling from library/hello-world
Digest: sha256:18a657d0cc1c7d0478a3fba8b7eb4918bbe25968d3e1b0e9ebfa71caddbc346
Status: Image is up to date for hello-world:latest
docker.io/library/hello-world:latest
[rode1] (local) root@192.168.0.8 ~
$ docker run hello-world

Hello From Docker!
This message shows that your installation appears to be working correctly.

To generate this message, Docker took the following steps:
 1. The Docker client contacted the Docker daemon.
 2. The Docker daemon pulled the "hello-world" image from the Docker Hub.
    (and564)
 3. The Docker daemon created a new container from that image which runs the
    executable that produces the output you are currently reading.
 4. The Docker daemon streamed that output to the Docker client, which sent it
    to your terminal.

To try something more ambitious, you can run an Ubuntu container with:
$ docker run -it ubuntu bash

Share images, automate workflows, and more with a free Docker ID:
https://hub.docker.com/

For more examples and ideas, visit:
https://docs.docker.com/get-started/

[rode1] (local) root@192.168.0.8 ~
$

```

## QUESTION 2:

Create a Dockers file and deploy it in Dockers desktop application SOLUTION:

### STEP: 1

- Create a flask application
- Create a Dockerfile in the same folder

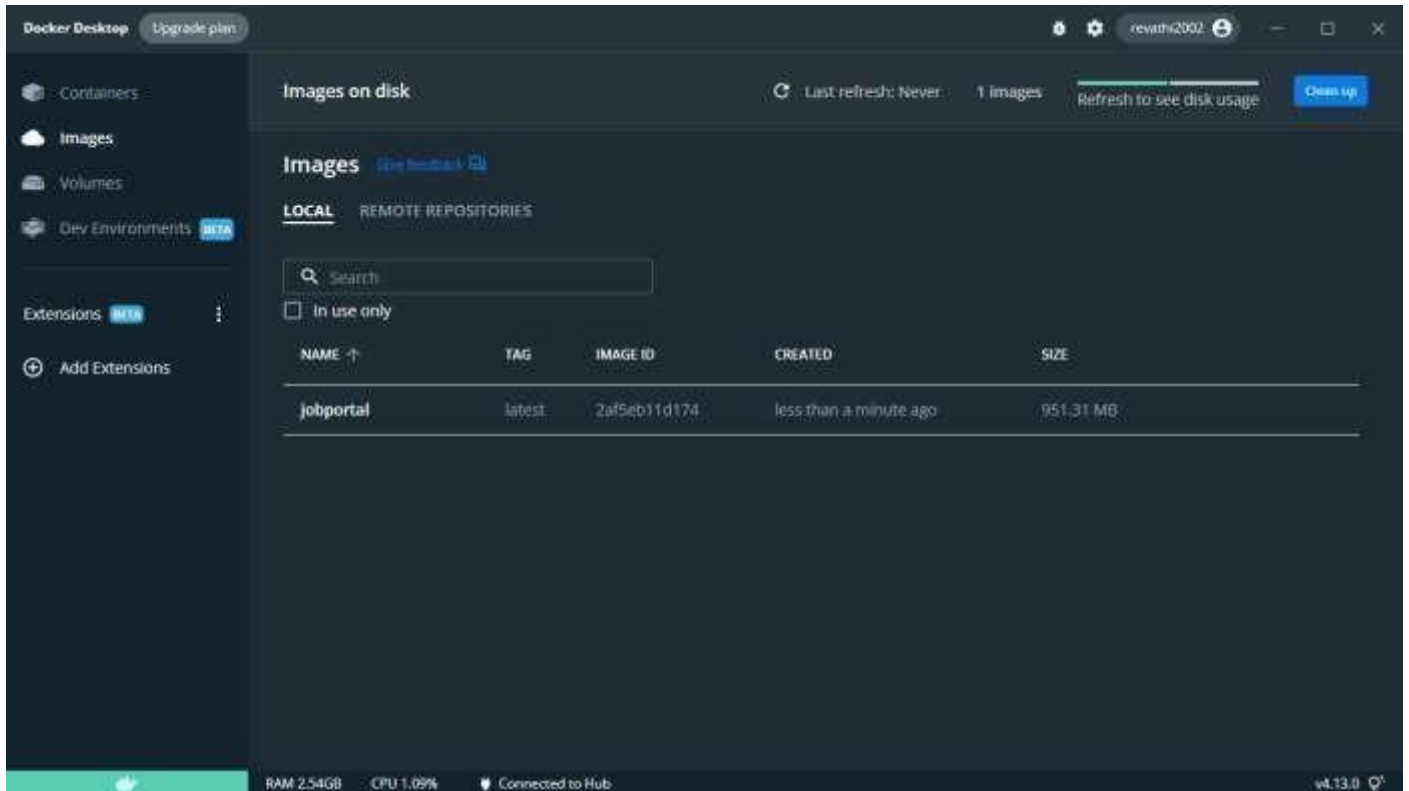
### STEP: 2

Run the following commands to deploy it in docker desktop

```

$ docker build -t jobportal
$ docker image ls

```

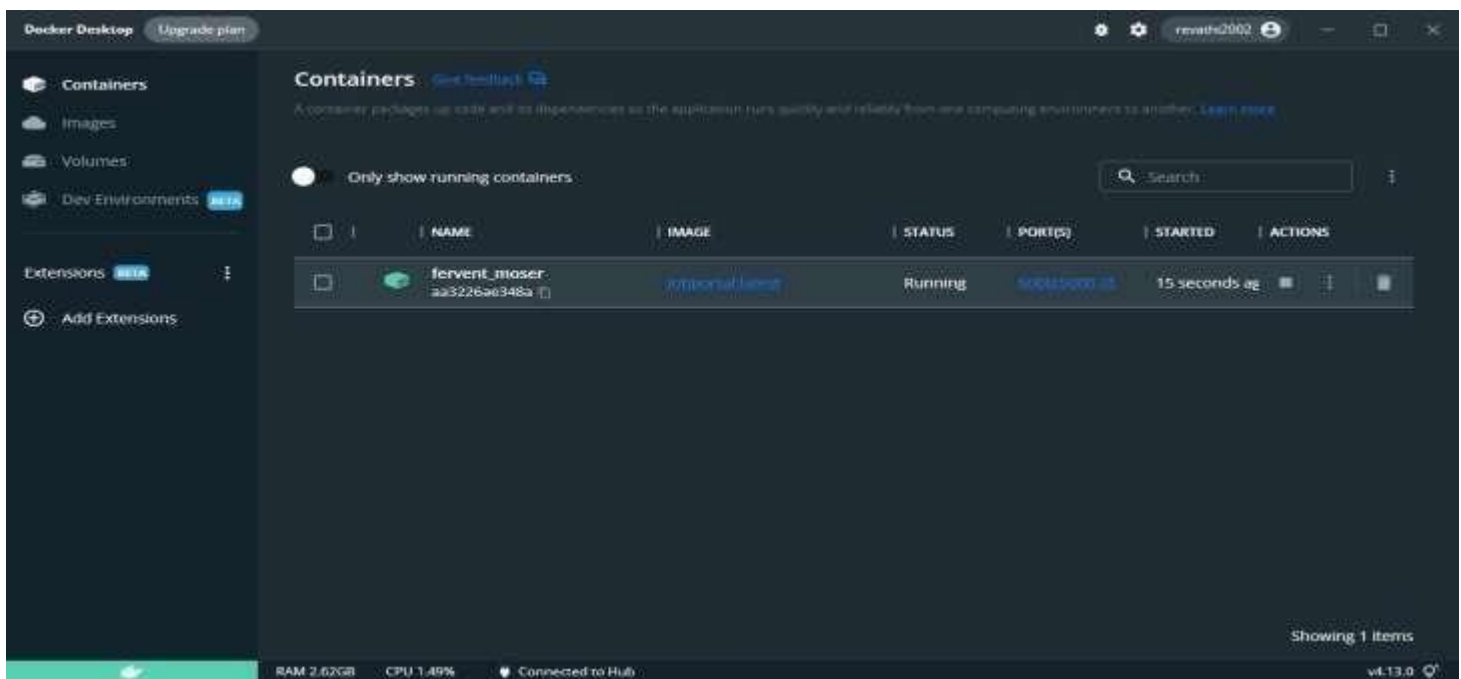


\$ docker container run -p 5000:5000 jobportal

```
PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE
PS D:\Ibms project\Assignments\Team Lead\Assignment 4\Docker_Desktop> docker container run -p 5000:5000 jobportal
* Serving Flask app 'app'
* Debug mode: on
WARNING: This is a development server. Do not use it in a production deployment. Use a production WSGI server instead.
* Running on all addresses (0.0.0.0)
* Running on http://172.17.0.1:5000
* Running on http://172.17.0.2:5000
Press CTRL+C to quit
* Restarting with stat
* Debugger is active!
* Debugger PID: 221-899-559
172.17.0.1 - - [25/Oct/2022 11:30:28] "GET / HTTP/1.1" 200 -
172.17.0.1 - - [25/Oct/2022 11:30:29] "GET /static/css/style.css HTTP/1.1" 200 -
172.17.0.1 - - [25/Oct/2022 11:30:29] "GET /static/images/1.png HTTP/1.1" 200 -
172.17.0.1 - - [25/Oct/2022 11:30:30] "GET /favicon.ico HTTP/1.1" 404 -
PS D:\Ibms project\Assignments\Team Lead\Assignment 4\Docker_Desktop> docker image ls
REPOSITORY TAG IMAGE ID CREATED SIZE
jobportal latest 2af5eb11d174 7 minutes ago 951MB
PS D:\Ibms project\Assignments\Team Lead\Assignment 4\Docker_Desktop> docker container ls
CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES
PS D:\Ibms project\Assignments\Team Lead\Assignment 4\Docker_Desktop>
```



\$ docker container ls



QUESTION 3:

## Create an IBM container registry and deploy hello-world-app or job-portal-app SOLUTION:

### QUESTION 4:

```
PS D:\Ibm project\Assignments\Team Lead\Assignment 4\IBM Container_Registry> ibmcloud plugin install container-registry --c 'IBM Cloud'
Looking up 'container-registry' from repository 'IBM Cloud'...
Plug-in 'container-registry[cr] 1.8.2' found in repository 'IBM Cloud'
Attempting to download the binary file...
11.90 MB / 11.90 MB [-----] 100.00% 1m37s
12426416 bytes downloaded

Installing binary...
OK
Plug-in 'container-registry 1.8.2' was successfully installed into C:\Users\ELCOP\ibm\plugins\container-registry, the 'C:\Program Files\IBM\Cloud\bin\ibmcloud.exe' plugin show 'container-registry' to show its details.
PS D:\Ibm project\Assignments\Team Lead\Assignment 4\IBM Container_Registry> ibmcloud cr region-set global
FAILED
You are not logged in to IBM Cloud.
Log in by running the 'C:\Program Files\IBM\Cloud\bin\ibmcloud.exe login' command.

PS D:\Ibm project\Assignments\Team Lead\Assignment 4\IBM Container_Registry> ibmcloud login -d https://cloud.ibm.com
API endpoint: https://cloud.ibm.com

Email> revathi3007@gmail.com

Password>
Authenticating...
Credentials were rejected.
Code: B00D0602E, message: The credentials you entered for the user 'revathi3007@gmail.com' are incorrect.

Password>
Authenticating...
Credentials were rejected.
Code: B00D0602E, message: The credentials you entered for the user 'revathi3007@gmail.com' are incorrect.

PS D:\Ibm project\Assignments\Team Lead\Assignment 4\IBM Container_Registry> ibmcloud login -d https://cloud.ibm.com
API endpoint: https://cloud.ibm.com

Email> 90061918665@uwaterloo.ca

Password>
PS D:\Ibm project\Assignments\Team Lead\Assignment 4\IBM Container_Registry> ibmcloud cr region-set global
The region is set to 'global', the registry is 'icr.io'.

No resource group is targeted, therefore, the default resource group for the account ('Default') is targeted.

Adding namespace 'jobportal' in resource group 'Default' for account Revathi R's account in registry icr.io...

The requested namespace is already in use in registry 'icr.io'.
Choose a different namespace.

No resource group is targeted, therefore, the default resource group for the account ('Default') is targeted.

Adding namespace 'jobspace1' in resource group 'Default' for account Revathi R's account in registry icr.io...

Successfully added namespace 'jobspace1'

OK
PS D:\Ibm project\Assignments\Team Lead\Assignment 4\IBM Container_Registry> ibmcloud cr login
Logging 'docker' in to 'icr.io'...
logged in to 'icr.io'.

OK
PS D:\Ibm project\Assignments\Team Lead\Assignment 4\IBM Container_Registry> docker pull hello-world
Using default tag: latest
latest: Pulling from library/hello-world
2d029710123e: Pull complete
Digest: sha256:13a0578cc1c788578a3f8e8b7b4918ba2596d33e8b9d6fa71cadd8c36
Status: Downloaded newer image for hello-world:latest
docker.io/library/hello-world:latest
PS D:\Ibm project\Assignments\Team Lead\Assignment 4\IBM Container_Registry> docker tag hello-world icr.io/jobspace1/hello-world:v1
PS D:\Ibm project\Assignments\Team Lead\Assignment 4\IBM Container_Registry> docker image ls
REPOSITORY          TAG         IMAGE ID      CREATED       SIZE
jobportal            latest      2af5eb11d124   59 minutes ago 95.9kB
hello-world          latest      f05d0fead65   13 months ago 13.3kB
icr.io/jobspace1/hello-world v1         f05d0fead65   13 months ago 13.3kB
PS D:\Ibm project\Assignments\Team Lead\Assignment 4\IBM Container_Registry> docker push icr.io/jobspace1/hello-world:v1
The push refers to repository [icr.io/jobspace1/hello-world]
e07e0b8a5ff: Pushed
v1: digest: sha256:f54a58bclaa25d79bae155d22b37be11d0bae770b9c4b72f13d84 size: 525
PS D:\Ibm project\Assignments\Team Lead\Assignment 4\IBM Container_Registry> ibmcloud cr image-list
Listing images...

Repository          Tag         Digest          Namespace        Created          Size          Security status
icr.io/jobspace1/hello-world v1          f54a58bclaa     jobspace1        1 year ago      2.5 kB        -

OK
```

IBM Cloud

Search resources and products...

Catalog

Manage

Revathi R's Account

Container Registry

Quick start

Namespaces

Repositories

Images

Trash

Settings

Repositories

Location

Global

Search

Create

Name	Image count	Namespace	Last updated		
hello-world icr.io/jobspace1/hello-world	1	jobspace1	397 days ago		
Digest	Manifest type	Tags	Created	Size	Security status
f54a58bclaa	Docker	v1	397 days ago	2 kB	Unsupported OS

Items per page: 25 1-1 of 1 item

1 1 of 1 page