

## Assignment -4

Assignment Date	19 September 2022
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Student Roll Number	711119104020
Maximum Marks	2 Marks

### Question-1:

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

### Solution:

Used Docker

### Output:

The screenshot displays the Docker Playground web interface. On the left, there's a sidebar with a timer at 03:55:37, a 'CLOSE SESSION' button, and an 'Instances' section showing a single instance named 'node1' with IP 192.168.0.8. The main area shows the instance details for 'cdkdshiv9\_cdkdicf91rrg00fv7uu0' with IP 192.168.0.8 and an 'OPEN PORT' button. Below this, there's a terminal window showing the following commands and output:

```
WARNING! Your password will be stored unencrypted in /root/.docker/config.json.
Configure a credential helper to remove this warning. See
https://docs.docker.com/engine/reference/commandline/login/#credentials-store

(node1) (local) root@192.168.0.8 ~
$ docker pull kavayagopi/ibm-docker-image:latest
latest: Pulling from kavayagopi/ibm-docker-image
540db60ca938: Pull complete
d037ddac5dde: Pull complete
05d0edf52df4: Pull complete
54d94e388fb8: Pull complete
0d1523f4f3ad: Pull complete
967a7573157c: Pull complete
f29176288ffe: Pull complete
7b59458d1490: Pull complete
Digest: sha256:26d1580cdcb3c56d527a56feafed7858b3ba268344d18180bf7c745e4c37e0bd
Status: Downloaded newer image for kavayagopi/ibm-docker-image:latest
docker.io/kavayagopi/ibm-docker-image:latest
(node1) (local) root@192.168.0.8 ~
$
```

The terminal output shows the successful pulling of the 'kavayagopi/ibm-docker-image:latest' image from Docker Hub. The interface also includes a bottom status bar with system information like 31°C, Cloudy, and the date 07-11-2022.

## Question-2:

Create a docker file for the jobportal application and deploy it in Docker desktop application.

### Solution:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Document</title>
</head>
<body>
  <nav class="navbar navbar-dark bg-dark">
    <div class="container-fluid">
      <div class="navbar-nav">
        <h1 align="center">Job portal</h1>
      </div>
    </div>
  </nav>
  <form>
    <div align="center">
      <p>UserName</p>
      <p><input type="text" name="UserName" placeholder="UserName"></p>
      <p>Password</p>
      <p><input type="text" name="Password" placeholder="password"></p>

      <p><button type="button" class="btn btn-outline-success">Success</button><br><br></p>
      Don't have an account?<br><br><a href="/signup">Click Here</a>

    </div>
  </form>
</body>
</html>
```

## Output:

### Job portal

UserName

Password

Don't have an account?

[Click Here](#)

## Question-3:

Create a IBM container registry and deploy helloworld app or jobportalapp.

## Solution:

Used Docker

## Output:

```
Command Prompt - docker push kavvagopi/ibm-docker-image:latest
b1ed2c7094f4: Preparing
998070ff2c3a: Waiting
ff362123de14: Waiting
b2d5eeabab3a: Waiting
denied: requested access to the resource is denied

C:\Users\kavya gopi>docker push kavvagopi/ibm-docker-image:latest
The push refers to repository [docker.io/kavvagopi/ibm-docker-image]
5b795d5040bc: Preparing
3c41070ca3b7: Preparing
f0386a93b8c3: Preparing
9238e5c915fa: Preparing
b1ed2c7094f4: Preparing
998070ff2c3a: Waiting
ff362123de14: Waiting
b2d5eeabab3a: Waiting
denied: requested access to the resource is denied

C:\Users\kavya gopi>docker login
Login with your Docker ID to push and pull images from Docker Hub. If you don't have a Docker ID, head over to https://hub.docker.com to create one.
Username: kavvagopi
Password:
Error response from daemon: Get "https://registry-1.docker.io/v2/": unauthorized: incorrect username or password

C:\Users\kavya gopi>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\kavya gopi>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\kavya gopi>docker push kavvagopi/ibm-docker-image:latest
The push refers to repository [docker.io/kavvagopi/ibm-docker-image]
5b795d5040bc: Pushing [>] 147.5kB/11.68MB
3c41070ca3b7: Pushing [=====] 7.168kB
f0386a93b8c3: Pushing 2.048kB
9238e5c915fa: Preparing
b1ed2c7094f4: Preparing
998070ff2c3a: Waiting
ff362123de14: Waiting
b2d5eeabab3a: Preparing
```

#### Question-4:

Create a Kubernetes cluster in IBM cloud and deploy helloworld image or jobportal image and also expose the same app to run in nodeport.

#### Solution:

Used IBM Kubernetes cluster

#### Output:

```
Windows PowerShell
PS C:\Users\kavya gopi> ibmcloud cr login
Logging 'docker' in to 'icr.io'...
FAILED
Failed to 'docker login' to 'icr.io' with error: Error response from daemon: Get "https://icr.io/v2/": dialing icr.io:443 no HTTPS proxy: connecting to 169.60.98.86:443: dial tcp 169.60.98.86:443: i/o timeout
.

PS C:\Users\kavya gopi> ibmcloud cr login
Logging 'docker' in to 'icr.io'...
Logged in to 'icr.io'.

OK
PS C:\Users\kavya gopi> docker tag project2022 icr.io/kavyakd/kavyarepo
PS C:\Users\kavya gopi> docker push icr.io/kavyakd/kavyarepo
Using default tag: latest
The push refers to repository [icr.io/kavyakd/kavyarepo]
5b795d5040bc: Retrying in 1 second
3c41070ca3b7: Retrying in 3 seconds
f0386a93b8c3: Retrying in 3 seconds
9238e5c915fa: Pushing [=====] 8.729MB
b1ed2c7094f4: Retrying in 4 seconds
d90070ff2c3a: Waiting
ff362123de14: Waiting
b2d5eeeaba3a: Waiting
|
```