

# ASSIGNMENT – 4

TEAM ID : PNT2022TMID39311

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

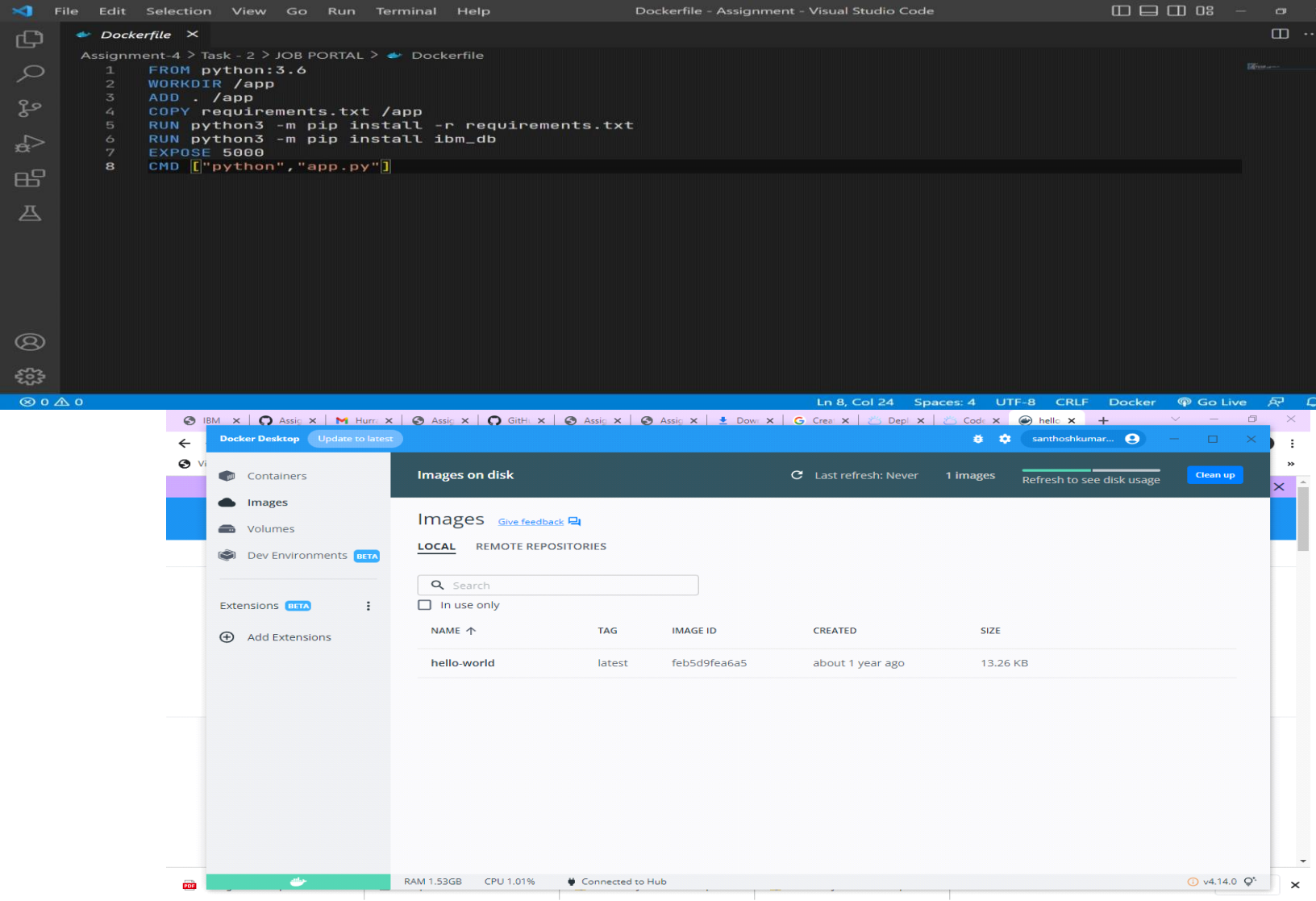
The screenshot shows the Docker Playground interface. At the top, there's a navigation bar with various icons. Below it, a sidebar on the left contains a clock showing '03:57:52', a 'CLOSE SESSION' button, and an 'Instances' section with a '+ ADD NEW INSTANCE' button. The main area displays details for a container named 'cdq9rou3\_cdq9rsn91rrg00em0b9g'. It shows the IP address '192.168.0.8', an 'OPEN PORT' button set to '9000', memory usage '1.67% (66.96MiB / 3.90GiB)', CPU usage '0.98%', and an SSH command: 'ssh ip172-18-0-95-cdq9rou3tccg00c8tccg@direct.labs.play-'. Below this, there are 'DELETE' and 'EDITOR' buttons. A terminal window at the bottom shows the following output:

```
841194d080c8: Pull complete
Digest: sha256:fe371ff5a69549269b24073a5ab1244dd4c0b834cbadf244870572150b1cb749
[node1] (local) root@192.168.0.8 ~
$ docker ps
CONTAINER ID        IMAGE               COMMAND                  CREATED              STATUS              PORTS
414e0264e7c4       ui-fd/ui-for-docker "/ui-for-docker -H t..." About a minute ago   Up About a minute   0.0.0.0:900
0->9000/tcp        jovial_joliot
[node1] (local) root@192.168.0.8 ~
$
```

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

The screenshot shows a Visual Studio Code terminal window with the output of a Docker build command. The output is as follows:

```
[+] Building 299.0s (12/12) FINISHED
=> [internal] load build definition from Dockerfile
=> transferring dockerfile: 229B
=> [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
=> [1/6] FROM docker.io/library/python:3.6sha256:f8652afaf88c25f0d22354d547d892591067aa4026a7fa9a6819df9f308af6fc
=> resolve docker.io/library/python:3.6sha256:f8652afaf88c25f0d22354d547d892591067aa4026a7fa9a6819df9f308af6fc
=> sha256:f8652afaf88c25f0d22354d547d892591067aa4026a7fa9a6819df9f308af6fc 1.86kB / 1.86kB
=> sha256:d097a4907a8ec079df5ac31872359c2de510f8221c0b448e926393b376d3b60d 2.22kB / 2.22kB
=> sha256:54260638d07c5e3ad24cde21fc889abbc848a27634c0892886ff7f13f44b104 9.27kB / 9.27kB
=> sha256:0e2954d541cdd309281d21a73a9d1db78665c1b95b74f32b009e0b77a6e1e3 54.92MB / 54.92MB
=> sha256:9b829c73b52b92b7d5c07a54fb0f3e921995a296c714b53a32ae67d19231fcd 5.15MB / 5.15MB
=> sha256:cb5b7ae361722f07beca53f35823ed21baa85d61d5d95cd5a95ab53d746cd56 10.87MB / 10.87MB
=> sha256:6094e4d1102b31c0272c0a322ca463937f0805f699956af1c01aade718793 54.57MB / 54.57MB
=> sha256:6f9f74896dfa3fe8172f594faba85e0b4e8a0481n0f9e9112efc7e4d3c78f7 106.51MB / 106.51MB
=> sha256:5a3b1213efc56598e78bd602983945c164de2a37205e06a2dada823124dc743 6.29MB / 6.29MB
=> extracting sha256:0e2954d541cdd309281d21a73a9d1db78665c1b95b74f32b009e0b77a6e1e3 3.1s
=> extracting sha256:9b829c73b52b92b7d5c07a54fb0f3e921995a296c714b53a32ae67d19231fcd 0.3s
=> extracting sha256:cb5b7ae361722f07beca53f35823ed21baa85d61d5d95cd5a95ab53d746cd56 0.4s
=> sha256:9fd0fcd56334f2e6efad7e241bf5e7459c40ed105c5478676f41c1244bd96752 14.21MB / 14.21MB
=> sha256:404f0204bac0432ca522cbb9f254b1c91fcea0806bfeef0be0e243b2f31bab7 235B / 235B
=> extracting sha256:6494e481162b31c0272c0a322ca463937f0805f699956af1c01aade718793 3.5s
=> sha256:c4f42be2b5b908ebf9c040c1df13de538434ccc5f5d954a56848a6169a3a3f 2.21MB / 2.21MB
=> extracting sha256:6f9f74896dfa3fe8172f594faba85e0b4e8a0481n0f9e9112efc7e4d3c78f7 7.1s
=> extracting sha256:5a3b1213efc56598e78bd602983945c164de2a37205e06a2dada823124dc743 0.3s
=> extracting sha256:9fd0fcd56334f2e6efad7e241bf5e7459c40ed105c5478676f41c1244bd96752 0.6s
=> extracting sha256:404f0204bac0432ca522cbb9f254b1c91fcea0806bfeef0be0e243b2f31bab7 0.8s
=> extracting sha256:c4f42be2b5b908ebf9c040c1df13de538434ccc5f5d954a56848a6169a3a3f 0.2s
=> [internal] load build context
=> transferring context: 33.97kB
=> [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
```



- Create an IBM container registry and deploy helloworld app or jobportalapp.

```

Windows PowerShell
PS C:\Users\heiss> ibmcloud cr login
Logging 'docker' in to 'jp.icr.io'...
FAILED
Failed to 'docker login' to 'jp.icr.io' with error: Error saving credentials: error storing credentials - err: exit status 1, out: 'getting entitlement: request to https://accounts-api.s.us-east-1.aws.dcr.io/v2/users/heissanjay/orgs/?page_size=2147483647 failed with status 403: {"message":"access is forbidden with a JWT issued from a personal access token","errinfo":{}}'

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

OK
PS C:\Users\heiss> docker pull hello-world
Using default tag: latest
latest: Pulling from library/hello-world
2db29710123e: Pull complete
Digest: sha256:e18f0e777eefabe047a671ab3ec3eed05414477c951ab1a6f352a06974245fe7
Status: Downloaded newer image for hello-world:latest
docker.io/library/hello-world:latest
PS C:\Users\heiss> docker tag hello-world jp.icr.io/hello-world-assign/helloworld:hello-world-assignment
PS C:\Users\heiss> docker push jp.icr.io/hello-world-assign/helloworld
Using default tag: latest
The push refers to repository [jp.icr.io/hello-world-assign/helloworld]
tag does not exist: jp.icr.io/hello-world-assign/helloworld:latest
PS C:\Users\heiss> docker push jp.icr.io/hello-world-assign/helloworld:hello-world-assignment
The push refers to repository [jp.icr.io/hello-world-assign/helloworld]
e07ee1baac5f: Pushed
hello-world-assignment: digest: sha256:f54a58bcaac5ea1a25d796ae155dc228b3f0e11d046ae276b39c4bf2f13d8c4 size: 525
PS C:\Users\heiss>

```

Container Registry

Quick start

**Namespaces** 2

Repositories 0

Images 0

Trash 0

Settings

## Namespaces

Location  
Global

Viewing filtered namespaces

A filter is applied so that only the namespace helloworld12 is included in the table.

Show all namespaces

Resource group: Filter...

Search

Create

<input type="checkbox"/>	Name	Resource group	Repository count	Image count	Retention policy	
<input type="checkbox"/>	helloworld12	Default	0	0	Retain all images	:

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

Clusters /  
 mycluster-free Normal Expires in 29 days Add tags

Overview

**Worker nodes**

Worker pools

DevOps New

Pool: Filter...

Search

Add

<input type="checkbox"/>	Name	Status	Worker pool	Zone	Private IP	Public IP	Version
<input type="checkbox"/>	000000e0	<span>Normal</span>	default	Milan 01	10.144.222.79	169.51.203.247	1.24.7_1543

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