

Assignment -4

Assignment Date	13 NOVEMBER 2022
Student Name	NIVETHA N
Student Roll Number	211219106006
Maximum Marks	2 Marks

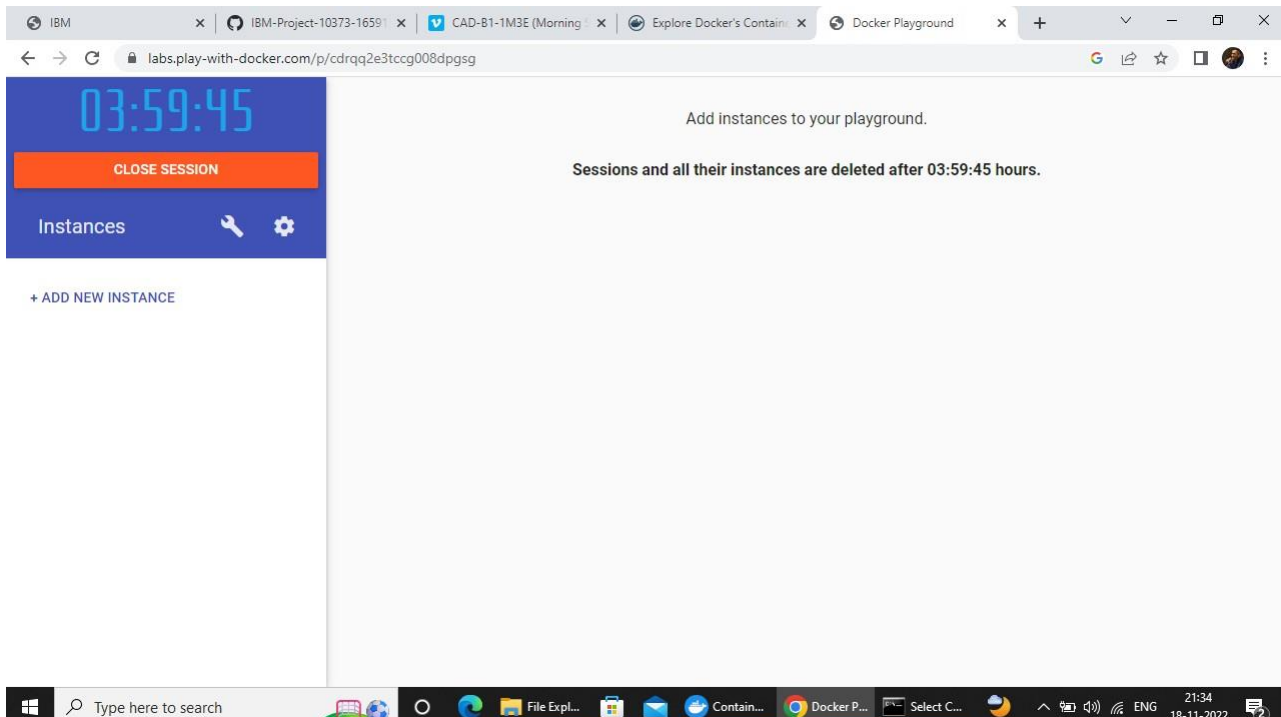
1. Pull an Image from docker hub and run it in docker playground.

```
Select Command Prompt
Microsoft Windows [Version 10.0.19044.2251]
(c) Microsoft Corporation. All rights reserved.

C:\Users\LENOVO>docker run -d -p 80:80 docker/getting-started
Unable to find image 'docker/getting-started:latest' locally
latest: Pulling from docker/getting-started
df9b9388f04a: Pull complete
5867cba5fcbcd: Pull complete
4b639e65cb3b: Pull complete
061ed9e2b976: Pull complete
0c19f3e8eeb1: Pull complete
4071be97c256: Pull complete
79b586f1a54b: Pull complete
0c9732f525d6: Pull complete
Digest: sha256:b558be874169471bd4e65bd6eac8c303b271a7ee8553ba47481b73b2bf597aee
Status: Downloaded newer image for docker/getting-started:latest
14a53be070cc39008c137fb144b8be1bf28bb99ceb64ba5c2de31262e9c897b4

C:\Users\LENOVO>docker version
Client:
 Cloud integration: v1.0.29
 Version: 20.10.21
 API version: 1.41
 Go version: go1.18.7
 Git commit: baeda1f
 Built: Tue Oct 25 18:08:16 2022
 OS/Arch: windows/amd64
 Context: default
 Experimental: true

Server: Docker Desktop 4.14.1 (91661)
Engine:
 Version: 20.10.21
 API version: 1.41 (minimum version 1.12)
 Go version: go1.18.7
 Git commit: 3056208
 Built: Tue Oct 25 18:00:19 2022
 OS/Arch: linux/amd64
 Experimental: false
 containerd:
 Version: 1.6.9
```



The screenshot shows the IBM Docker Playground interface. On the left, a sidebar lists five instances: manager1 (192.168.0.26), manager2 (192.168.0.24), manager3 (192.168.0.28), manager4 (192.168.0.27), and manager5 (192.168.0.25). The main area displays details for the selected instance 'cdrqq2e3_cdrqqjm0qau000ahd9d0', including its IP (192.168.0.26), memory usage (1.04% / 41.71 MiB / 3.906 GiB), CPU usage (0.41%), and an SSH command. Below this, a terminal window shows a warning message: 'WARNING!!!! 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.' followed by the prompt '\$'.

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

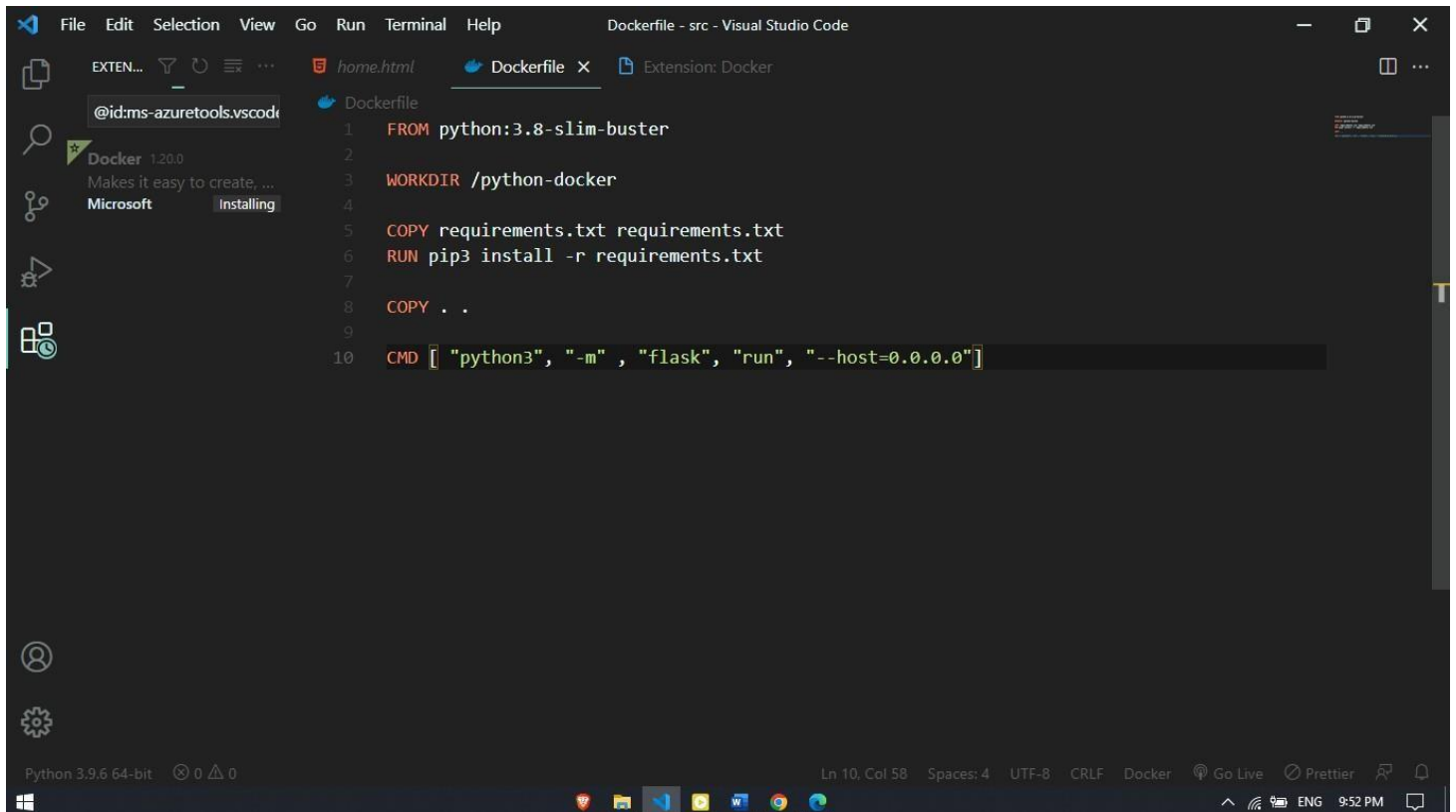
```

Windows PowerShell
PS C:\Users\Rakesh> docker images
REPOSITORY TAG IMAGE ID CREATED SIZE
ibm/alpine latest 9c6f07244728 3 months ago 5.54MB
alpine latest 9c6f07244728 3 months ago 5.54MB
PS C:\Users\Rakesh> docker push ibm/alpine
Using default tag: latest
The push refers to repository [docker.io/ibm/alpine]
994393dc58e7: Preparing
denied: requested access to the resource is denied
PS C:\Users\Rakesh> docker tag alpine:latest
"docker tag" requires exactly 2 arguments.
See 'docker tag --help'.

Usage: docker tag SOURCE_IMAGE[:TAG] TARGET_IMAGE[:TAG]

Create a tag TARGET_IMAGE that refers to SOURCE_IMAGE
PS C:\Users\Rakesh> docker tag alpine:latest saravanan/alpine
PS C:\Users\Rakesh> docker images
REPOSITORY TAG IMAGE ID CREATED SIZE
ibm/alpine latest 9c6f07244728 3 months ago 5.54MB
alpine latest 9c6f07244728 3 months ago 5.54MB
saravanan/alpine latest 9c6f07244728 3 months ago 5.54MB
PS C:\Users\Rakesh> docker tag alpine:latest saravanan0310/alpine
PS C:\Users\Rakesh> docker push saravanan0310/alpine
Using default tag: latest
The push refers to repository [docker.io/saravanan0310/alpine]
994393dc58e7: Pushed
  
```

Dockerfile



The image shows a screenshot of the Visual Studio Code editor interface. The title bar at the top reads "Dockerfile - src - Visual Studio Code". The menu bar includes File, Edit, Selection, View, Go, Run, Terminal, and Help. The Explorer sidebar on the left shows a file named "Dockerfile" selected. The Docker extension is visible in the sidebar, showing version 1.20.0 and a status of "Installing". The main editor area displays the content of the Dockerfile, which is a multi-line text file with the following instructions:

```
1 FROM python:3.8-slim-buster
2
3 WORKDIR /python-docker
4
5 COPY requirements.txt requirements.txt
6 RUN pip3 install -r requirements.txt
7
8 COPY . .
9
10 CMD ["python3", "-m", "flask", "run", "--host=0.0.0.0"]
```

The status bar at the bottom indicates the current file is "Dockerfile" and shows various settings like "Ln 10, Col 58", "Spaces: 4", "UTF-8", "CRLF", and "Go Live". The system tray at the bottom right shows the date and time as "ENG 9:52 PM".

Email address

Password

Sign in

Not a member? [n p](#)

Sign up

Your Name

Your Email

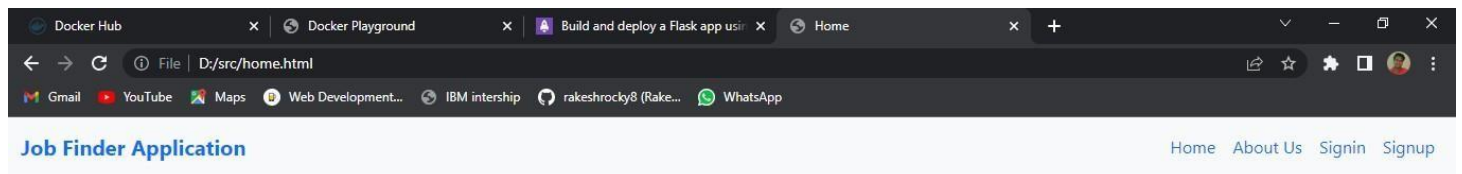
Password

Repeat your password



I agree all statements in [Terms of service](#)





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

```
C:\Windows\System32\cmd.exe - docker build.
Microsoft Windows [Version 10.0.19044.2130]
(c) Microsoft Corporation. All rights reserved.

C:\Users\Rakesh\Downloads\flask_hello_docker-master\flask_hello_docker-master>docker build .
[+] Building 66.3s (7/10)
=> [internal] load build definition from Dockerfile 2.9s
=> => transferring dockerfile: 199B 0.5s
=> [internal] load .dockerignore 3.1s
=> => transferring context: 2B 0.1s
=> [internal] load metadata for docker.io/library/python:3.7-alpine 14.9s
=> [auth] library/python:pull token for registry-1.docker.io 0.0s
=> [1/5] FROM docker.io/library/python:3.7-alpine:sha256:6a24a01708ff08a4a99c1f4c357a06190b7efe47230c3bed184b8f4ad368fb9f 30.4s
=> => resolve docker.io/library/python:3.7-alpine:sha256:6a24a01708ff08a4a99c1f4c357a06190b7efe47230c3bed184b8f4ad368fb9f 0.5s
=> => sha256:6a24a01708ff08a4a99c1f4c357a06190b7efe47230c3bed184b8f4ad368fb9f 1.65kB / 1.65kB 0.0s
=> => sha256:c7f521e75er40f0260cb22ee08c13d0337a1aafeb724e015c4620347152c01bf 1.37kB / 1.37kB 0.0s
=> => sha256:caace8ae014d1c9f31128c0a96a2ee9bbb257daab97791c86780712ed7e30948 7.71kB / 7.71kB 0.0s
=> => sha256:47858ae13bf9c7c2b62cfacdc9ce2524efef339df0c0ed0935c6587a376d60 673.19kB / 673.19kB 2.7s
=> => sha256:21d1eb95d7874516e8447cc3067020af49c4fb512abc36162c174c0d0c22bf50 11.16MB / 11.16MB 16.8s
=> => sha256:17ac4101fac6ced0416der3e04584d913e58bfd5a585dff62f684807d10ac77e 230B / 230B 3.1s
=> => extracting sha256:47858ae13bf9c7c2b62cfacdc9ce2524efef339df0c0ed0935c6587a376d60 5.8s
=> => sha256:a4cc00d82d4786274c2a21d71815bfc13e37a86d9fb0000f008abe21971d18b 2.89MB / 2.89MB 9.5s
=> => extracting sha256:21d1eb95d7874516e8447cc3067020af49c4fb512abc36162c174c0d0c22bf50 2.6s
=> => extracting sha256:17ac4101fac6ced0416der3e04584d913e58bfd5a585dff62f684807d10ac77e 0.8s
=> => extracting sha256:a4cc00d82d4786274c2a21d71815bfc13e37a86d9fb0000f008abe21971d18b 1.8s
=> [internal] load build context 1.9s
=> => transferring context: 5.65kB 0.3s
=> [2/5] WORKDIR /app 2.5s
=> [3/5] RUN pip install pipenv 13.7s
```

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.

The screenshot shows the IBM Cloud console interface for a Kubernetes cluster. The browser address bar displays the URL: `cloud.ibm.com/kubernetes/clusters/cdqv3v9f05cs516njeb0/overview`. The page header includes the IBM Cloud logo, a search bar, and navigation links for Catalog, Manage, and the user account (Majnu p's Account). The cluster name is "majnu", and its status is "Normal". A warning banner indicates the cluster will expire in 29 days.

The left sidebar contains navigation links: Overview (selected), Worker nodes, Worker pools, and DevOps (marked as New).

The main content area displays the following status metrics:

- Node status:** 1 of 1, Normal
- Add-on status:** 0 of 0, Normal
- Master status:** Normal
- Ingress status:** Healthy

Each metric has a "Details" link. Below these metrics is a "Details" section with the following information:

Cluster ID	Version	Infrastructure	Zones
cdqv3v9f05cs516njeb0	1.24.8_1544	Classic	Milan 01

Created	Resource group	Image security enforcement
11/17/2022, 2:04 PM	Default	<input type="button" value="Enable"/>

The Windows taskbar at the bottom shows the system clock as 22:03 on 18-11-2022, along with various application icons including Docker Desktop and VS Code.

