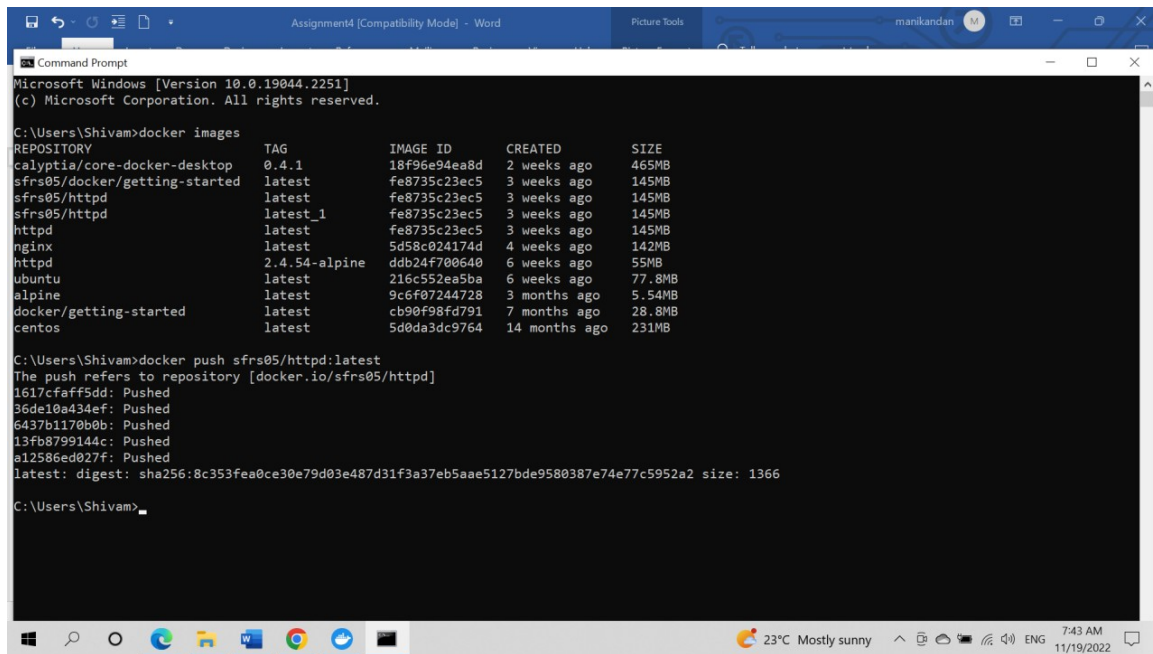


Assignment -4

Assignment Date	14 November 2022
Student Name	Revathi A
Student Roll Number	422419205031
Maximum Marks	2 Marks

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

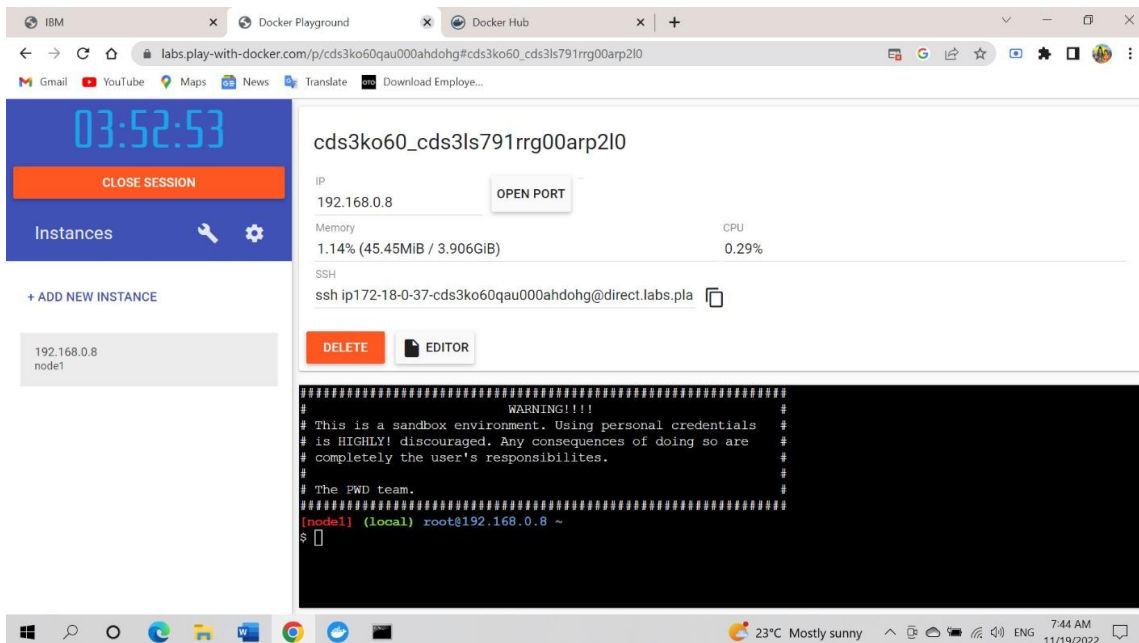


```
Microsoft Windows [Version 10.0.19044.2251]
(c) Microsoft Corporation. All rights reserved.

C:\Users\Shivam>docker images
REPOSITORY          TAG                 IMAGE ID            CREATED             SIZE
calyptia/core-docker-desktop  0.4.1              18f96e94ea8d       2 weeks ago        465MB
sfrs05/docker/getting-started  latest             fe8735c23ec5       3 weeks ago        145MB
sfrs05/httpd          latest             fe8735c23ec5       3 weeks ago        145MB
sfrs05/httpd          latest_1           fe8735c23ec5       3 weeks ago        145MB
httpd                 latest             fe8735c23ec5       3 weeks ago        145MB
nginx                 latest             5d58c024174d       4 weeks ago        142MB
httpd                 2.4.54-alpine     ddb24f700640       6 weeks ago        55MB
ubuntu                latest             216c552ea5ba       6 weeks ago        77.8MB
alpine                latest             9c6f07244728       3 months ago       5.54MB
docker/getting-started  latest             cb90f98fd791       7 months ago       28.8MB
centos                 latest             5d0da3dc9764       14 months ago      231MB

C:\Users\Shivam>docker push sfrs05/httpd:latest
The push refers to repository [docker.io/sfrs05/httpd]
1617cfa5dd: Pushed
36de10a434ef: Pushed
6437b1170b0b: Pushed
13fb8799144c: Pushed
a12586ed027f: Pushed
latest: digest: sha256:8c353fea0ce30e79d03e487d31f3a37eb5aae5127bde9580387e74e77c5952a2 size: 1366

C:\Users\Shivam>
```



IBM Docker Playground

labs.play-with-docker.com/p/cds3ko60qau000ahdohg#cds3ko60_cds3ls791rrg00arp210

03:52:53

CLOSE SESSION

Instances

+ ADD NEW INSTANCE

192.168.0.8 node1

cds3ko60_cds3ls791rrg00arp210

IP: 192.168.0.8 OPEN PORT

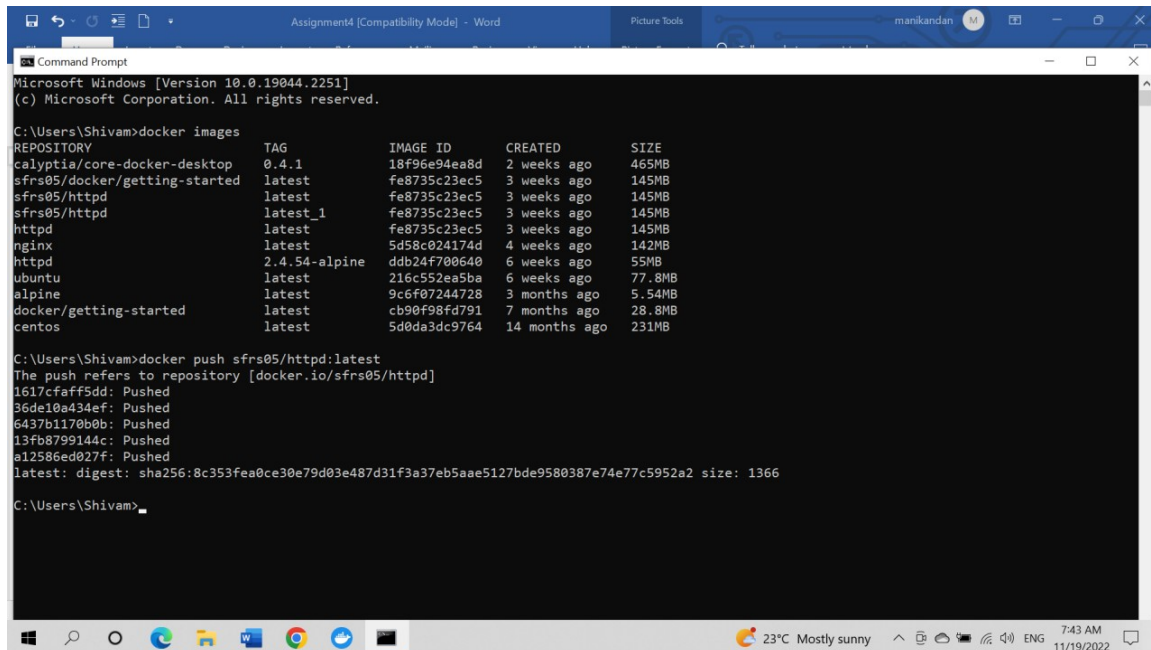
Memory: 1.14% (45.45MiB / 3.906GiB) CPU: 0.29%

SSH: ssh ip172-18-0-37-cds3ko60qau000ahdohg@direct.labs.pla

DELETE EDITOR

```
##### WARNING!!!! #####
# This is a sandbox environment. Using personal credentials #
# is HIGHLY discouraged. Any consequences of doing so are #
# completely the user's responsibilities. #
#####
# The PWD team. #
#####
[node1] (local) root@192.168.0.8 ~
$
```

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



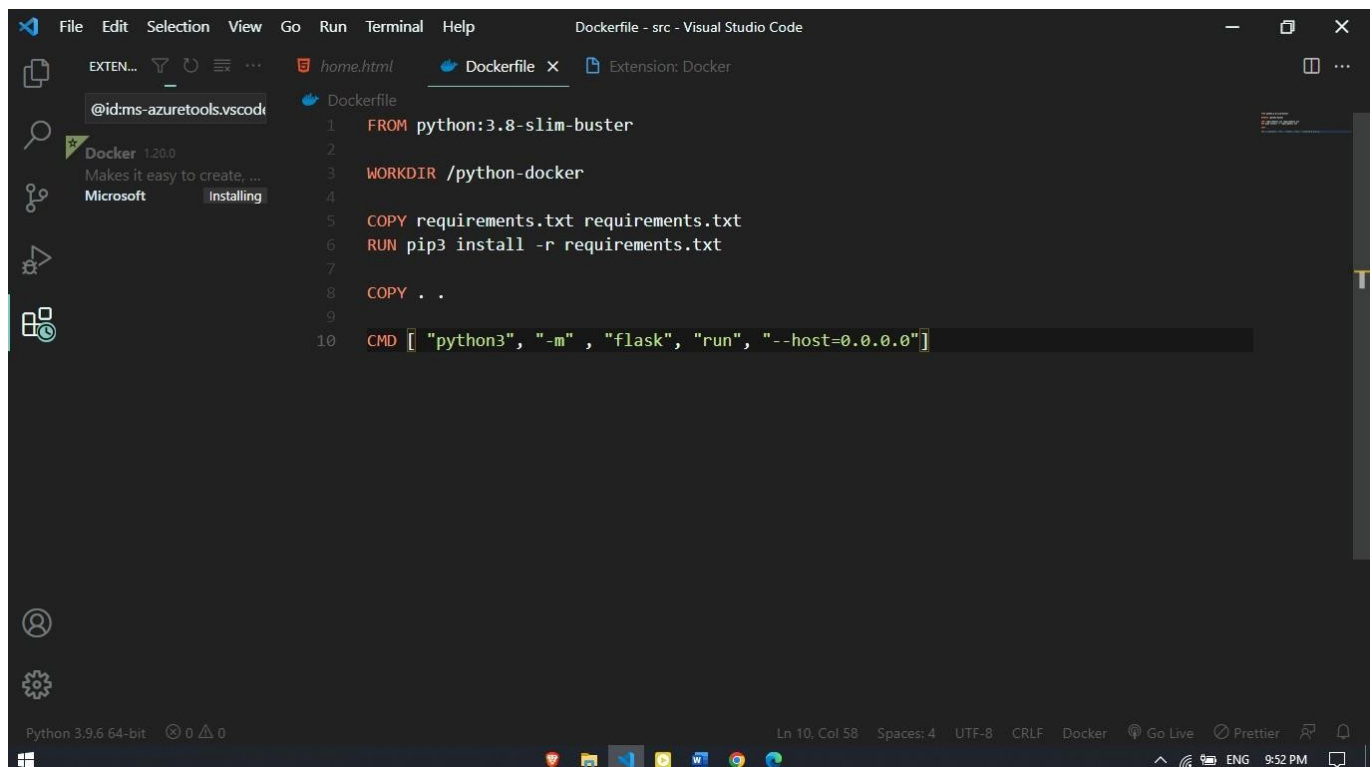
```
Microsoft Windows [Version 10.0.19044.2251]
(c) Microsoft Corporation. All rights reserved.

C:\Users\Shivam>docker images
REPOSITORY          TAG                 IMAGE ID            CREATED             SIZE
calyptia/core-docker-desktop  0.4.1             18f96e94ea8d       2 weeks ago        465MB
sfrs05/docker/getting-started  latest            fe8735c23ec5       3 weeks ago        145MB
sfrs05/httpd         latest            fe8735c23ec5       3 weeks ago        145MB
sfrs05/httpd         latest_1          fe8735c23ec5       3 weeks ago        145MB
httpd                latest            fe8735c23ec5       3 weeks ago        145MB
nginx                latest            5d58c024174d       4 weeks ago        142MB
httpd                2.4.54-alpine     ddb24f700640       6 weeks ago        55MB
ubuntu               latest            216c552ea5ba       6 weeks ago        77.8MB
alpine               latest            9c6f07244728       3 months ago       5.54MB
docker/getting-started  latest            cb90f98f4791       7 months ago       28.8MB
centos                latest            5d0da3dc9764       14 months ago      231MB

C:\Users\Shivam>docker push sfrs05/httpd:latest
The push refers to repository [docker.io/sfrs05/httpd]
1617cfa55dd: Pushed
36de10a434ef: Pushed
6437b1170b0b: Pushed
13fb8799144c: Pushed
a12586ed027f: sha256:8c353fea0ce30e79d03e487d31f3a37eb5aae5127bde9580387e74e77c5952a2 size: 1366
latest: digest: sha256:8c353fea0ce30e79d03e487d31f3a37eb5aae5127bde9580387e74e77c5952a2 size: 1366

C:\Users\Shivam>
```

Dockerfile



```
File Edit Selection View Go Run Terminal Help Dockerfile - src - Visual Studio Code
EXTEN... Dockerfile x Extension: Docker
@id:ms-azuretools.vscod
Docker 1.20.0
Makes it easy to create, ...
Microsoft Installing

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"]
```

JOB FINDER

Latest job searching

Email address

Password

[Sign in](#)

Not a member? [Signup](#)

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 hello world app or job portal app.

```
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
=> => transferring dockerfile: 199B
=> [internal] load .dockerignore
=> => transferring context: 2B
=> [internal] load metadata for docker.io/library/python:3.7-alpine
=> [auth] library/python:pull token for registry-1.docker.io
=> [1/5] FROM docker.io/library/python:3.7-alpine@sha256:6e24a01708ffdb8a4a99c1f4c357a96190b7efe47238c3bed184b8f4ad368fb9f
=> => resolve docker.io/library/python:3.7-alpine@sha256:6e24a01708ffdb8a4a99c1f4c357a96190b7efe47238c3bed184b8f4ad368fb9f
=> => sha256:6e24a01708ffdb8a4a99c1f4c357a96190b7efe47238c3bed184b8f4ad368fb9f 1.65kB / 1.65kB
=> => sha256:c7f521e75ec40f0268cb22ee68c13d0337a1aefeb724e015c4629347152c01bf 1.37kB / 1.37kB
=> => sha256:caace88e01dd1c9f31128c0a96a2ee90bb257daab97791c86780712e47e30948 7.71kB / 7.71kB
=> => sha256:47858aee13bf9c72b62cfacdc0c2524fef339df0ced0935c557a376d60 075.19kB / 075.19kB
=> => sha256:21d1eb95d7874516e8447cc3867020af49c4fb512abc36162c174c0d0c22bf50 11.16MB / 11.16MB
=> => sha256:17ac4101fac6ced0416dec3e04584d913e50bf45a505dffa2f684807d10ac77e 230B / 230B
=> => extracting sha256:47858aee13bf9c72b62cfacdc0c2524fef339df0ced0935c557a376d60
=> => sha256:a4cc00d82d4786274c2a21d71815bfc13e37a06d9fbd0008fd08abe21971d10b 2.89MB / 2.89MB
=> => extracting sha256:21d1eb95d7874516e8447cc3867020af49c4fb512abc36162c174c0d0c22bf50
=> => extracting sha256:17ac4101fac6ced0416dec3e04584d913e50bf45a505dffa2f684807d10ac77e
=> => extracting sha256:a4cc00d82d4786274c2a21d71815bfc13e37a06d9fbd0008fd08abe21971d10b
=> [internal] load build context
=> => transferring context: 5.65kB
=> [2/5] WORKDIR /app
=> [3/5] RUN pip install pipenv
```

```
C:\Windows\System32\cmd.exe - docker push icr.io/smartfashionapp/ibm
Space:

C:\Users\Rakesh\Downloads\flask_hello_docker-master\flask_hello_docker-master>ibmcloud cr region-set global
The region is set to 'global', the registry is 'icr.io'.

C:\Users\Rakesh\Downloads\flask_hello_docker-master\flask_hello_docker-master>ibmcloud cr login
Logging 'docker' in to 'icr.io'...
Logged in to 'icr.io'.

C:\Users\Rakesh\Downloads\flask_hello_docker-master\flask_hello_docker-master>docker images
REPOSITORY          TAG                 IMAGE ID            CREATED             SIZE
myapp                1.0-recovere       95232a1151f8       18 minutes ago     97.9MB
myapp                1.0-recovered      95232a1151f8       18 minutes ago     97.9MB
icr.io/smartfashionapp/app  ibm                95232a1151f8       18 minutes ago     97.9MB
saravanan0310/alpine    latest            9c6f07244728       3 months ago       5.54MB
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

C:\Users\Rakesh\Downloads\flask_hello_docker-master\flask_hello_docker-master>docker tag myapp icr.io/smartfashionapp/ibm
Error parsing reference: "icr.io/smartfashionapp/ibm:" is not a valid repository/tag: invalid reference format

C:\Users\Rakesh\Downloads\flask_hello_docker-master\flask_hello_docker-master>docker tag myapp icr.io/smartfashionapp/ibm
Error response from daemon: No such image: myapp:latest

C:\Users\Rakesh\Downloads\flask_hello_docker-master\flask_hello_docker-master>docker tag 95232a1151f8 icr.io/smartfashionapp/ibm

C:\Users\Rakesh\Downloads\flask_hello_docker-master\flask_hello_docker-master>docker push icr.io/smartfashionapp/ibm
Using default tag: latest
The push refs to repository [icr.io/smartfashionapp/ibm]
879dc8a7d13a: Preparing
45ca0a7778a1: Preparing
420a6604882f: Preparing
c49c12d42c1e: Preparing
ed37f306c964: Preparing
31e0f81c5bec: Waiting
b3aed02981e3: Waiting
6666686122fd: Waiting
994393dc58e7: Waiting
```

4. Create a Kubernetes cluster in IBM cloud and deploy hello world image or job portal image and also expose the same app to run in node port.

The screenshot shows the IBM Cloud Container Registry interface. The left sidebar contains a navigation menu with 'Namespaces' selected, showing a count of 1. The main area is titled 'Namespaces' and shows a table with one namespace named 'sfrs05' in the 'Default' resource group. The table has columns for Name, Resource group, Repository count, Image count, and Retention policy. A 'Create' button is visible in the top right corner of the namespace list.

Name	Resource group	Repository count	Image count	Retention policy
sfrs05	Default	0	0	

The screenshot shows the IBM Cloud Kubernetes cluster overview page for a cluster named 'mycluster'. The cluster is in a 'Normal' state and expires in 18 days. The page displays various status metrics: 1 of 1 worker nodes (Normal), 0 of 0 add-ons (Normal), Normal master status, and Healthy ingress status. A 'Kubernetes dashboard' button is available. Below the status metrics, a 'Details' section shows the cluster ID, version (1.24.7_1542), infrastructure type (Classic), and zone (Milan 01).

Expires in 18 days: Be sure to back up your data, your cluster will be deleted in 18 days. To access the full capabilities of the service, try out a [standard cluster](#).

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

Cluster ID	Version	Infrastructure	Zones
cdkachmf0em2vcdffjphg	1.24.7_1542	Classic	Milan 01