

Assignment -4

Assignment Date	14 November 2022
Student Name	PAVALAKODI R
Student Roll Number	422419205024
Maximum Marks	2 Marks

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

```
Microsoft Windows [Version 10.0.19044.2251]
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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]
1617cfa55dd: Pushed
36de10a434ef: Pushed
6437b1170b0b: Pushed
13fb8799144c: Pushed
a12586ed027f: Pushed
latest: digest: sha256:8c353fea0ce30e79d03e487d31f3a37eb5aae5127bde9580387e74e77c5952a2 size: 1366

C:\Users\Shivam>
```

03:52:53

CLOSE SESSION

Instances

+ ADD NEW INSTANCE

192.168.0.8
node1

cds3ko60_cds3ls791rrg00arp2l0

IP
192.168.0.8

OPEN PORT

Memory
1.14% (45.45MiB / 3.906GiB)

CPU
0.29%

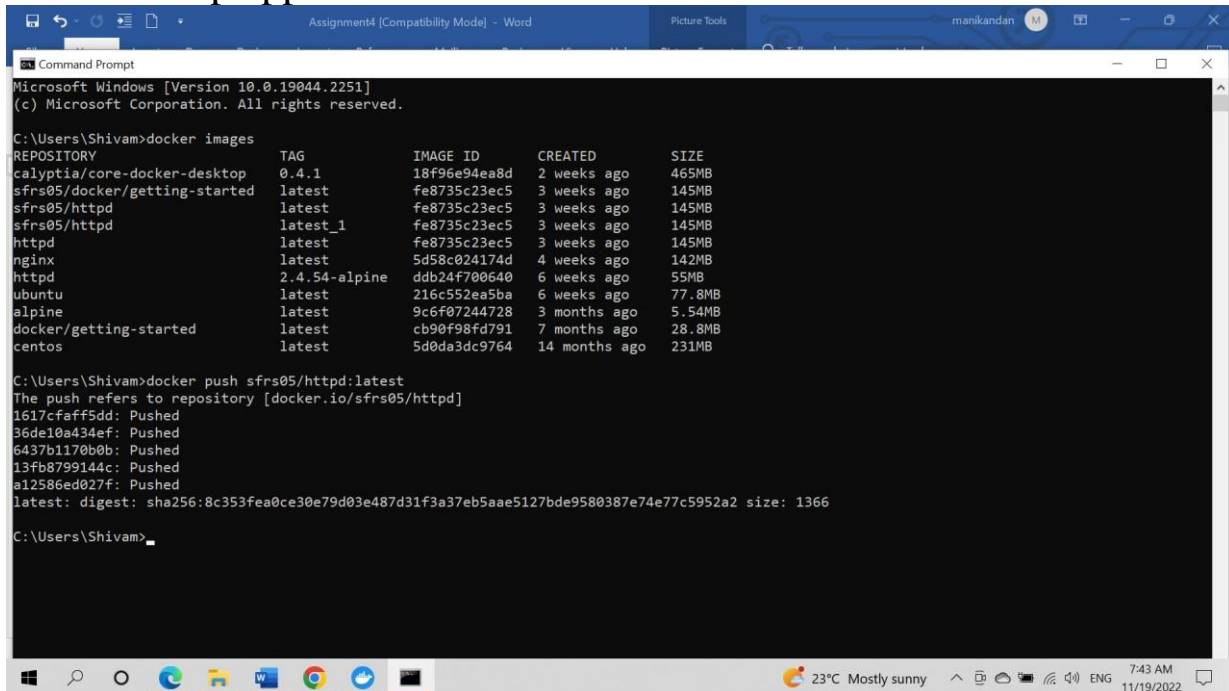
SSH
ssh ip172-18-0-37-cds3ko60qau000ahdohg@direct.labs.pla

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.



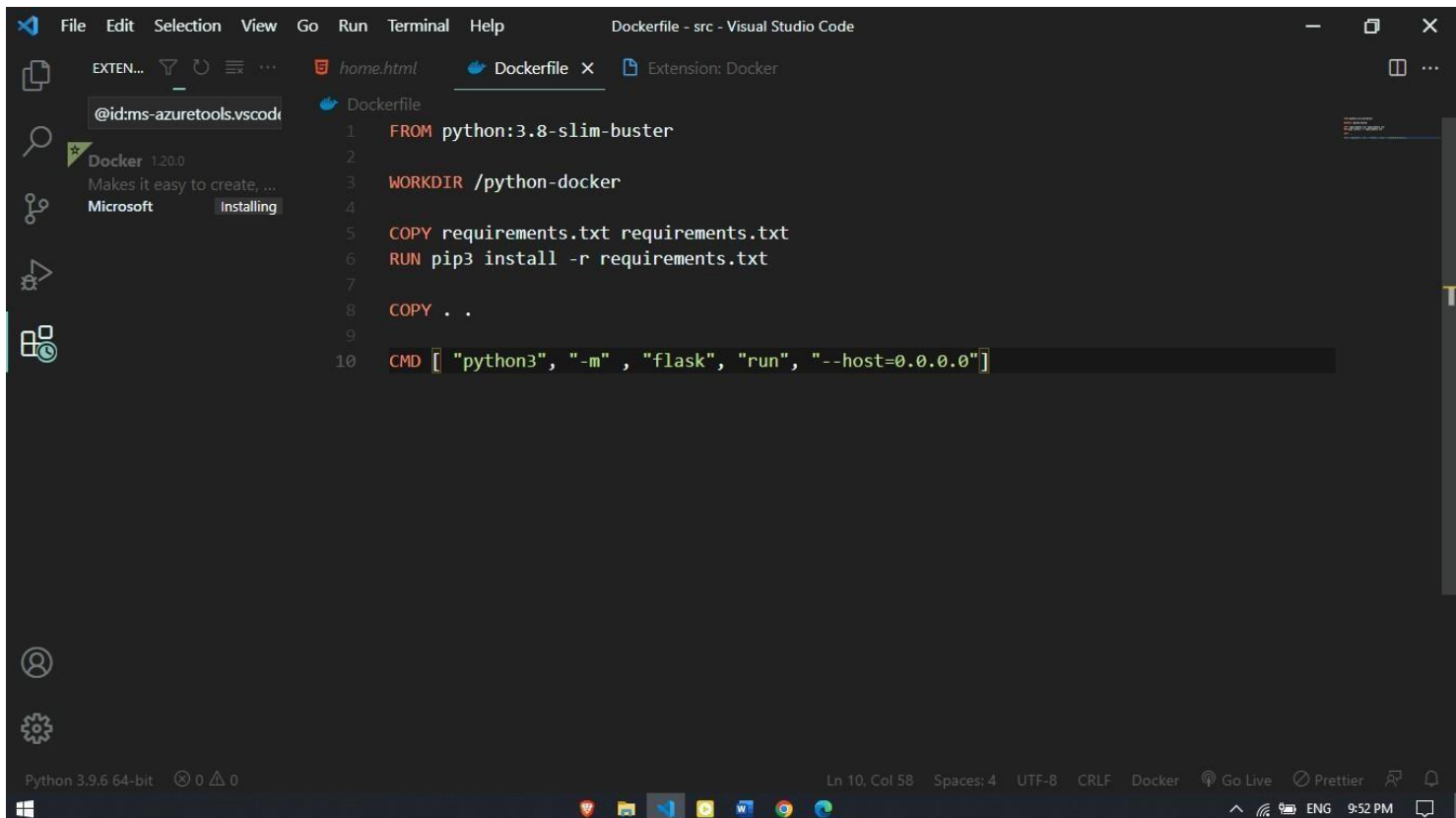
```
Microsoft Windows [Version 10.0.19044.2251]
(c) Microsoft Corporation. All rights reserved.

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            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]
1617cfaff5dd: Pushed
36de10a434ef: Pushed
6437b1170b0b: Pushed
13fb8799144c: Pushed
a12586ed027f: Pushed
latest: digest: sha256:8c353fea0ce30e79d03e487d31f3a37eb5aae5127bde9580387e74e77c5952a2 size: 1366

C:\Users\Shivam>
```

Dockerfile



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

Dockerfile
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"]

Python 3.9.6 64-bit 0 0 0 Ln 10, Col 58 Spaces: 4 UTF-8 CRLF Docker Go Live Prettier ENG 9:52 PM
```

JOB FINDER

Latest job searching

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 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@sha256:6a24a81708ff08a4a99c1f4c357a96190b7efe47230c3bed184b8f4ad368fb9f 30.4s
=> => resolve docker.io/library/python:3.7-alpine@sha256:6a24a81708ff08a4a99c1f4c357a96190b7efe47230c3bed184b8f4ad368fb9f 0.6s
=> => sha256:6a24a81708ff08a4a99c1f4c357a96190b7efe47230c3bed184b8f4ad368fb9f 1.65kB / 1.65kB 0.0s
=> => sha256:c7f521e75er40f0260cb2ee68c13d0337a1aafeb724e015c4629347152c01bf 1.37kB / 1.37kB 0.0s
=> => sha256:caace8ae014d1c9f31128c0a96a2ee9bbb257daab97791c86700712ed7a30948 7.71kB / 7.71kB 0.0s
=> => sha256:47858ae013bf9c7c2b62cfacdc9ce2524efef339df0c0ed8935c6587a376d00 673.19kB / 673.19kB 2.7s
=> => sha256:21d1eb95d7874516e0447cc3067020af49c4fb512abc36162c174c0d0c22bf50 11.16MB / 11.16MB 16.8s
=> => sha256:17ac4101fac6ced0416der3e04584d913e58bdf5a585dff62f684807d10ac77e 230B / 230B 3.1s
=> => extracting sha256:47858ae013bf9c7c2b62cfacdc9ce2524efef339df0c0ed8935c6587a376d00 5.8s
=> => sha256:a4cc00d82d4786274c2a21d71815bfc13e37a8ed9fbd0d08fde08abe21971d18b 2.80MB / 2.80MB 9.5s
=> => extracting sha256:21d1eb95d7874516e0447cc3067020af49c4fb512abc36162c174c0d0c22bf50 2.6s
=> => extracting sha256:17ac4101fac6ced0416der3e04584d913e58bdf5a585dff62f684807d10ac77e 0.0s
=> => extracting sha256:a4cc00d82d4786274c2a21d71815bfc13e37a8ed9fbd0d08fde08abe21971d18b 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
```

```
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'.

OK

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'.

OK

C:\Users\Rakesh\Downloads\flask_hello_docker-master\flask_hello_docker-master>docker images
REPOSITORY          TAG          IMAGE ID       CREATED        SIZE
myapp                1.0-recover  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 refers to repository [icr.io/smartfashionapp/ibm]
879dc0a7d13a: Preparing
45ca8a7778a1: Preparing
428a6604882f: Preparing
c49c12d42c1e: Preparing
ed37f306c964: Preparing
31e0f81c5bec: Waiting
b3aedc2981e3: 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.

IBM Cloud

Search resources and products...

Container Registry

Quick start

Namespaces 1

Repositories 0

Images 0

Trash 0

Settings

Namespaces

Location

Global

Resource group: Filter... Search

Create +

<input type="checkbox"/>	Name	Resource group	Repository count	Image count	Retention policy
<input type="checkbox"/>	sfrs05	Default	0	0	

Items per page: 25 1-1 of 1 item 1 1 of 1 page

23°C Mostly sunny 8:01 AM 11/19/2022

IBM Cloud

Search resources and products...

Clusters / mycluster Normal Expires in 18 days Add tags

Help Kubernetes dashboard Actions...

Overview

Worker nodes

Worker pools

DevOps New

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

1 of 1

Normal

Details ↓

Add-on status

0 of 0

Normal

Details ↓

Master status

Normal

Docs ↗

Ingress status

Healthy ⓘ

Docs ↗

Details

Cluster ID	Version	Infrastructure	Zones
cdkachmf0em2vcdffjphg	1.24.7_1542	Classic	Milan 01

23°C Mostly sunny 7:59 AM 11/19/2022