

Assignment -4

Assignment Date	17 November 2022
Student Name	Rashmi E
Student Roll Number	310619104102
Maximum Marks	2 Marks

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



```
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
```

03:59:50

CLOSE SESSION

Instances  



+ ADD NEW INSTANCE

Add instances to your playground.

Sessions and all their instances are deleted after 03:59:50 hours.

03:52:14

CLOSE SESSION

Instances  

+ ADD NEW INSTANCE

192.168.0.28

node1

cdkk9m79_cdkkd5n91rrg00fsv1ng

IP

192.168.0.28

OPEN PORT


Memory

0.92% (37MiB / 3.906GiB)

CPU

0.80%

SSH

ssh ip172-18-0-5-cdkk9m791rrg00fsv1d0@direct.labs.play-

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 FWD team.                                                      #
#####
[node1] (local) root@192.168.0.28 ~
$
```

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
"docker tag" requires exactly 2 arguments.
See 'docker tag --help'.

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

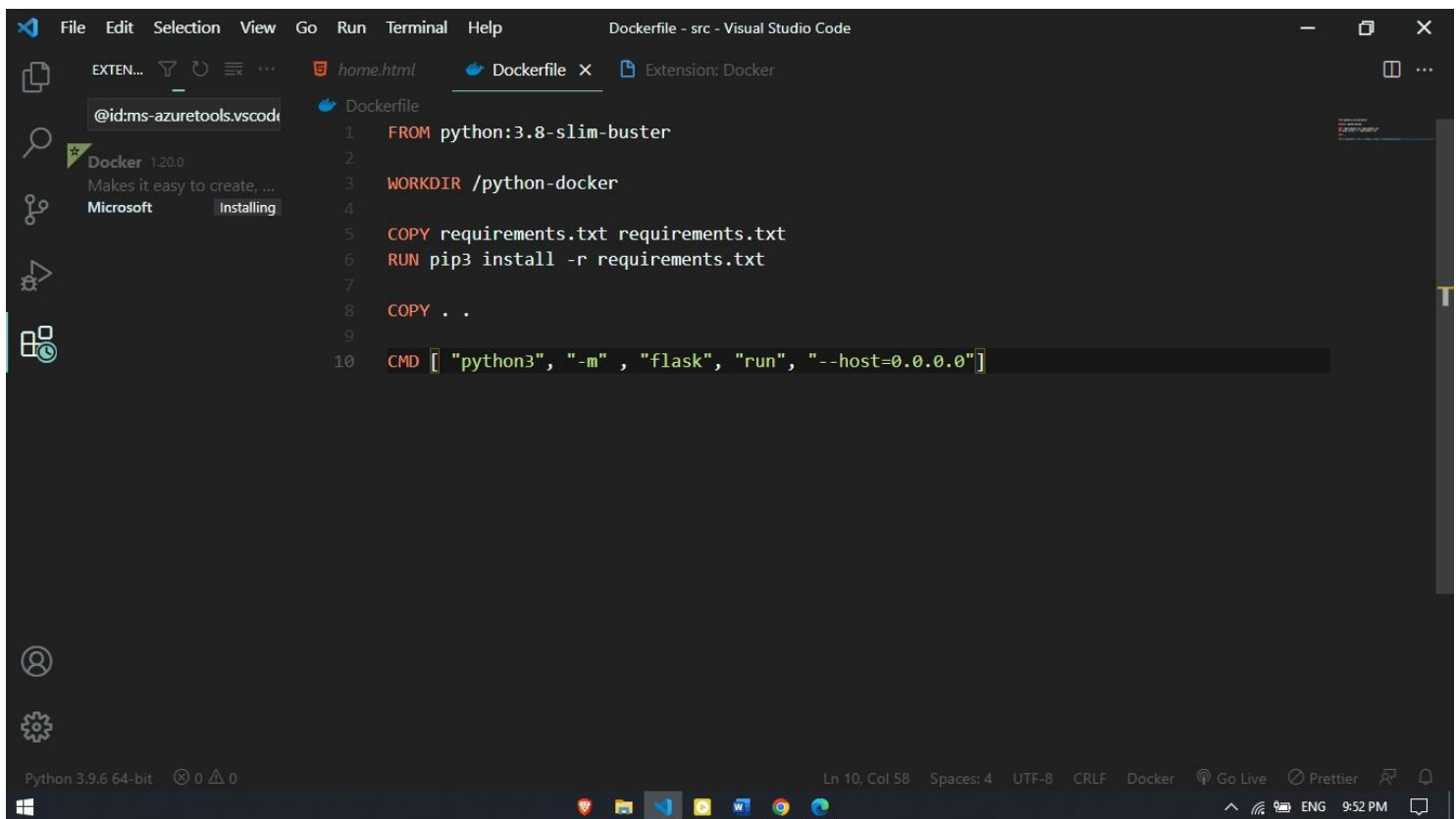
Create a tag TARGET_IMAGE that refers to SOURCE_IMAGE
PS C:\Users\Rakesh> docker tag alpine:latest
"docker tag" requires exactly 2 arguments.
See 'docker tag --help'.

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 screenshot shows the Visual Studio Code interface with a Dockerfile open. The file explorer on the left shows the Docker extension being installed. The Dockerfile content is as follows:

```
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 Python 3.9.6 64-bit environment is active, and the file is encoded in UTF-8 with CRLF line endings. The system tray shows the time as 9:52 PM.

Email address

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Sign up

Your Name

Your Email

Password

Repeat your password

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



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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
-> > 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@sha256:6e24a01788ffd8a4a99c1f4c357a96190b7efe47230c3bed184b8f4ad368fb9f
-> resolve docker.io/library/python:3.7-alpine@sha256:6e24a01788ffd8a4a99c1f4c357a96190b7efe47230c3bed184b8f4ad368fb9f
-> sha256:6e24a01788ffd8a4a99c1f4c357a96190b7efe47230c3bed184b8f4ad368fb9f 1.65kB / 1.65kB
-> sha256:c7f52e75c40f0208b22ee68c13d8377a1aafeb724a015c46293a7152c81bf 1.37kB / 1.37kB
-> sha256:dacc8ae014dc0f1128cd606a2ee06b8257daab07791c8780712adfc3a948 7.71kB / 7.71kB
-> sha256:47858ae13bf9c7c2b62cfaccdc8ce2524efef339df0cd08935c6587a376d68 673.19kB / 673.19kB
-> sha256:21d1eb95d7874516e8447cc3067820af49c4fb512abc36162c174c0d0c22bf50 11.16MB / 11.16MB
-> sha256:17ac4101fac6ced0418dc3e04584d013e58bffd5a585dff62f684807d10ac77e 230B / 230B
-> extracting sha256:47858ae13bf9c7c2b62cfaccdc8ce2524efef339df0cd08935c6587a376d68
-> sha256:a4cc00d82d4786274c2a21d71815bfc13e37a86d9fdb0d08fd08abe21971d18b 2.89MB / 2.89MB
-> extracting sha256:21d1eb95d7874516e8447cc3067820af49c4fb512abc36162c174c0d0c22bf50
-> extracting sha256:17ac4101fac6ced0416dc3e04584d013e58bffd5a585dff62f684807d10ac77e
-> extracting sha256:a4cc00d82d4786274c2a21d71815bfc13e37a86d9fdb0d08fd08abe21971d18b
-> [internal] load build context
-> > transferring context: 5.65kB
-> [2/5] WORKDIR /app
-> [3/5] RUN pip install pipenv
```


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.

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Kubernetes cluster

Author: IBM • Docs • API docs

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Learn more about the differences between plans in our docs.

Pricing plan

Standard

Summary

Kubernetes cluster

3 Worker nodes

Total estimated cost --/mo

Additional charges for networking and bandwidth might apply.
Actual monthly total will vary with tiered pricing.
Estimate does not include costs for integrations.

Create

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?

Clusters / mycluster

Preparing master, workers... Expires in 30 days Add tags

Help

Kubernetes dashboard

Actions...

Overview

Worker nodes

Worker pools

DevOps New

Expires in 30 days:
Be sure to back up your data, your cluster will be deleted in 30 days. To access the full capabilities of the service, try out a [standard cluster](#).

Node status

1 of 1

Pending

Details

Add-on status

0 of 0

Normal

Details

Master status

Deploying

Docs

Ingress status

Pending

Docs

Details

Cluster ID

cdlocfmf0p7m891r5cu0

Version

1.24.7_1542

Infrastructure

Classic

Zones

Milan 01

Created

11/9/2022, 4:21 PM

Resource group

Image security enforcement

Enable

IBM Cloud

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Container Registry

Quick start

Namespaces 1

Repositories 0

Images 0

Trash 0

Settings

Namespaces

Location

Global

Resource group: Filter...

Search

Create

	Name	Resource group	Repository count	Image count	Retention policy
	smartfashionapp	Default	0	0	Retain all images

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