

Assignment -4

Assignment Date	17 November 2022
Student Name	MONISHA P
Student Roll Number	310619104075
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
"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'.

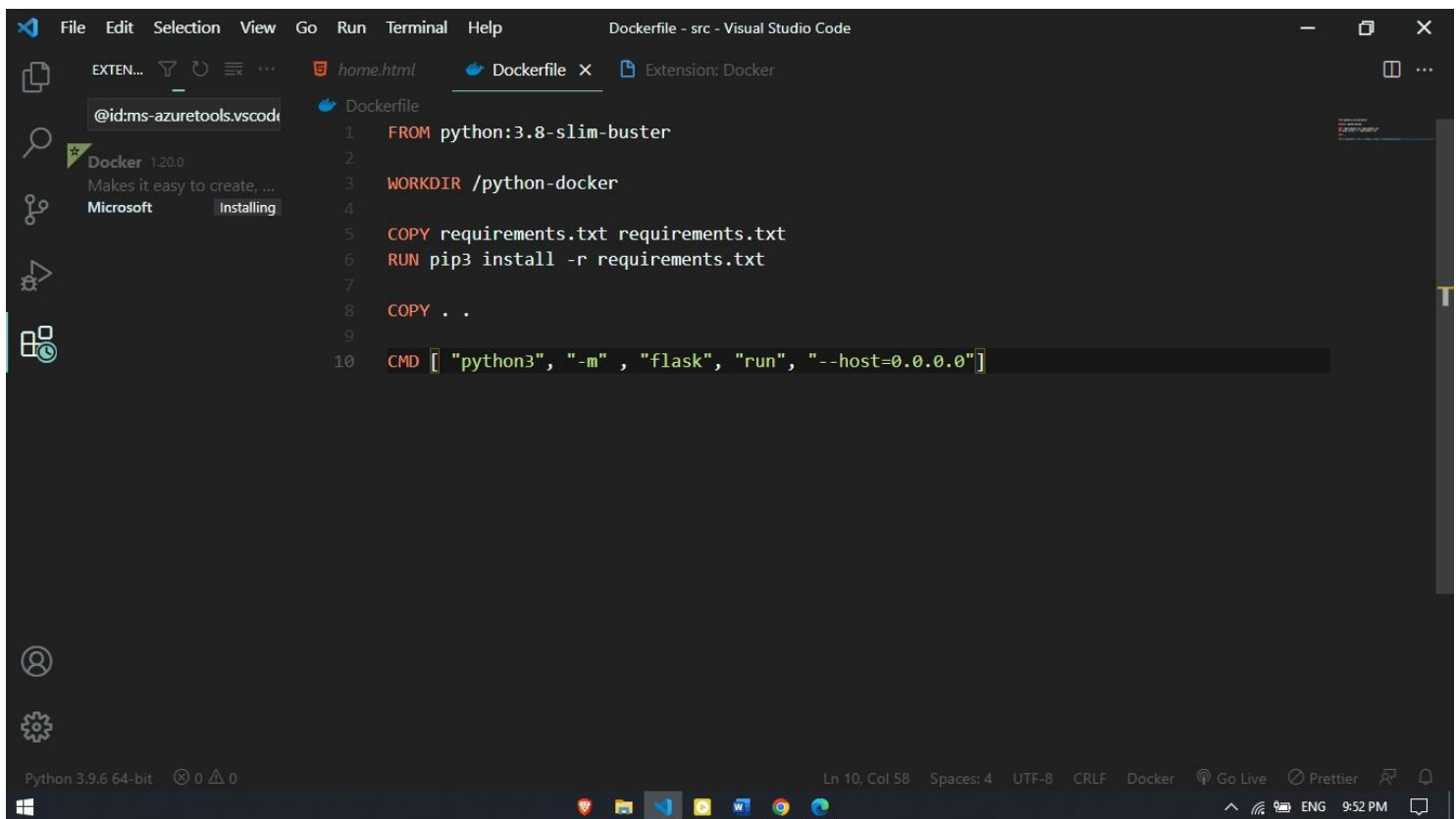
Usage:  docker tag SOURCE_IMAGE[:TAG] TARGET_IMAGE[:TAG]

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



```
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"]
```

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Password

Repeat your password

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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
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@sha256:6e24a01788ffd8a4a99c1f4c357a96190b7efe47230c3bed184b8f4ad368fb9f
38.4s
-> resolve docker.io/library/python:3.7-alpine@sha256:6e24a01788ffd8a4a99c1f4c357a96190b7efe47230c3bed184b8f4ad368fb9f
0.6s
-> sha256:6e24a01788ffd8a4a99c1f4c357a96190b7efe47230c3bed184b8f4ad368fb9f 1.65kB / 1.65kB
0.0s
-> sha256:c7f52e75c4d9f080b22ee68c13d8377a1aafeb724a015c4c293a7152c81bf 1.37kB / 1.37kB
0.0s
-> sha256:dacc8ae014dc0f11128c609a22ee08b257daab07791c8780712d4f3a9948 7.71kB / 7.71kB
0.0s
-> sha256:47858ae13bf9c7c2b62cfaccdc8ce2524efef339df0cd08935c6587a376d68 673.19kB / 673.19kB
2.7s
-> sha256:21d1eb95d7874516e8447cc3067820af49c4fb512abc36162c174c0d0c22bf50 11.16MB / 11.16MB
16.8s
-> sha256:17ac4101fac6ced0418dc3e04584d013e58bffd5a585dff62f684807d10ac77e 230B / 230B
3.1s
-> extracting sha256:47858ae13bf9c7c2b62cfaccdc8ce2524efef339df0cd08935c6587a376d68
5.8s
-> sha256:a4cc00d82d4786274c2a21d71815bfc13e37a86d9fdb0d08fd08abe21971d18b 2.89MB / 2.89MB
9.5s
-> extracting sha256:21d1eb95d7874516e8447cc3067820af49c4fb512abc36162c174c0d0c22bf50
2.6s
-> extracting sha256:17ac4101fac6ced0416dc3e04584d013e58bffd5a585dff62f684807d10ac77e
0.0s
-> extracting sha256:a4cc00d82d4786274c2a21d71815bfc13e37a86d9fdb0d08fd08abe21971d18b
1.0s
-> [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 displays the IBM Cloud console interface for creating a Kubernetes cluster. The top navigation bar includes the IBM Cloud logo, a search bar, and user account information. The main content area is titled 'Kubernetes cluster' and features a 'Create' button. Below this, there is a 'Plan details' section with a 'Standard' pricing plan. A right-hand sidebar provides a 'Summary' of the cluster configuration, showing 'Kubernetes cluster' and '3 Worker nodes'. At the bottom of the sidebar, the 'Total estimated cost' is displayed as '--/mo', with a 'Create' button below it.

IBM Cloud

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Kubernetes cluster

Author: IBM • Docs • API docs

Create About

Deliver your apps quicker across clouds with Red Hat OpenShift

Plan details

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

Items per page: 25

1-1 of 1 item

1 1 of 1 page