Assignment -4

Assignment Date	19 November 2022
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Team ID	PNT2022TMID51358
Maximum Marks	2 Marks

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

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


```
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


```dockerfile
FROM python:3.8-slim-buster

WORKDIR /python-docker

COPY requirements.txt requirements.txt
RUN pip3 install -r requirements.txt

COPY . .

CMD [ "python3", "-m" , "flask", "run", "--host=0.0.0.0"]
```

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JOB FINDER

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

```
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@sha256:6e24a01708ffd8a4a99c1f4c357a96190b7efe47230c3bed184b8f4ad368fb9f   30.4s
 => => resolve docker.io/library/python:3.7-alpine@sha256:6e24a01708ffd8a4a99c1f4c357a96190b7efe47230c3bed184b8f4ad368fb9f   0.6s
 => => sha256:6e24a01708ffd8a4a99c1f4c357a96190b7efe47230c3bed184b8f4ad368fb9f 1.65kB / 1.65kB            0.0s
 => => sha256:c7f521e75ec40f0260cb22ee68c13d0337a1aafeb724e015c4629347152c01bf 1.37kB / 1.37kB            0.0s
 => => sha256:caace8ae014d1c9f31120c0a96a2ee9bbb257daab97701c86780712ed7e30948 7.71kB / 7.71kB            0.0s
 => => sha256:47858aee13bf9c7c2b62cfaccdc9ce2524efef339df0c0ed8935c6587a376d60 673.19kB / 673.19kB        2.7s
 => => sha256:21d1eb95d7874516e8447cc3067020af49c4fb512abc36162c174c0d0c22bf50 11.16MB / 11.16MB         16.8s
 => => sha256:17ac4101fac6ced0416dec3e04584d913e58bfd5a585dff62f684807d10ac77e 230B / 230B                3.1s
 => => extracting sha256:47858aee13bf9c7c2b62cfaccdc9ce2524efef339df0c0ed8935c6587a376d60                 5.8s
 => => extracting sha256:a4cc00d82d4786274c2a21d71815bfc13e37a86d9fbd0d08fd08abe21971d18b 2.89MB / 2.89MB   9.5s
 => => extracting sha256:21d1eb95d7874516e8447cc3067020af49c4fb512abc36162c174c0d0c22bf50                 2.6s
 => => extracting sha256:17ac4101fac6ced0416dec3e04584d913e58bfd5a585dff62f684807d10ac77e                 0.0s
 => => extracting sha256:a4cc00d82d4786274c2a21d71815bfc13e37a86d9fbd0d08fd08abe21971d18b                 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
```

```
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-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 refers to repository [icr.io/smartfashionapp/ibm]
879dc0a7d13a: Preparing
45ca0a7778a1: Preparing
420a6604882f: Preparing
c49c12d42c1e: Preparing
ed37f306c964: Preparing
31e0f81c5bec: Waiting
b3aede2981e3: Waiting
6666686122fd: Waiting
994393dc58e7: Waiting
```
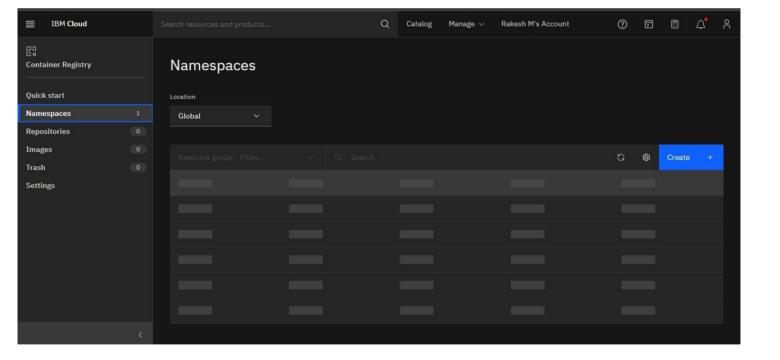

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Container Registry

Quick start

Namespaces   1

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Settings

Namespaces

Location

Global

Resource group: Filter...   Search   Create +

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.

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   Add-on status   Master status   Ingress status
1 of 1   **0 of 0**   **Deploying** ⓘ   **Pending**
↻ Pending   ● Normal   ↻   ↻

Details ↓   Details ↓   Docs ↗   Docs ↗

Details

Cluster ID   Version   Infrastructure   Zones
`cdlocfmf0p7m891r5cu0` ⧉   1.24.7_1542   Classic   Milan 01

Created   Resource group   Image security enforcement
11/9/2022, 4:21 PM   Enable

⬚
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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