

Assignment -4

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Maximum Marks	2 Marks

Question-1:

Pull an image from the docker hub and run it in the docker playground

```
> docker pull hello-world
Using default tag: latest
latest: Pulling from library/hello-world
Digest: sha256:faa03e786c97f07ef34423fccceec2398ec8a5759259f94d99078f264e9d7af
Status: Image is up to date for hello-world:latest
docker.io/library/hello-world:latest
> docker run hello-world

Hello from Docker!
This message shows that your installation appears to be working correctly.

To generate this message, Docker took the following steps:
 1. The Docker client contacted the Docker daemon.
 2. The Docker daemon pulled the "hello-world" image from the Docker Hub.
    (arm64v8)
 3. The Docker daemon created a new container from that image which runs the
    executable that produces the output you are currently reading.
 4. The Docker daemon streamed that output to the Docker client, which sent it
    to your terminal.

To try something more ambitious, you can run an Ubuntu container with:
$ docker run -it ubuntu bash

Share images, automate workflows, and more with a free Docker ID:
https://hub.docker.com/

For more examples and ideas, visit:
https://docs.docker.com/get-started/
```

Question-2:

Create a docker file for the job portal application and deploy it in docker desktop

A terminal window with a dark background and three colored window control buttons (red, yellow, green) at the top left. It displays a Dockerfile with 17 lines of code, each preceded by a line number from 1 to 17.

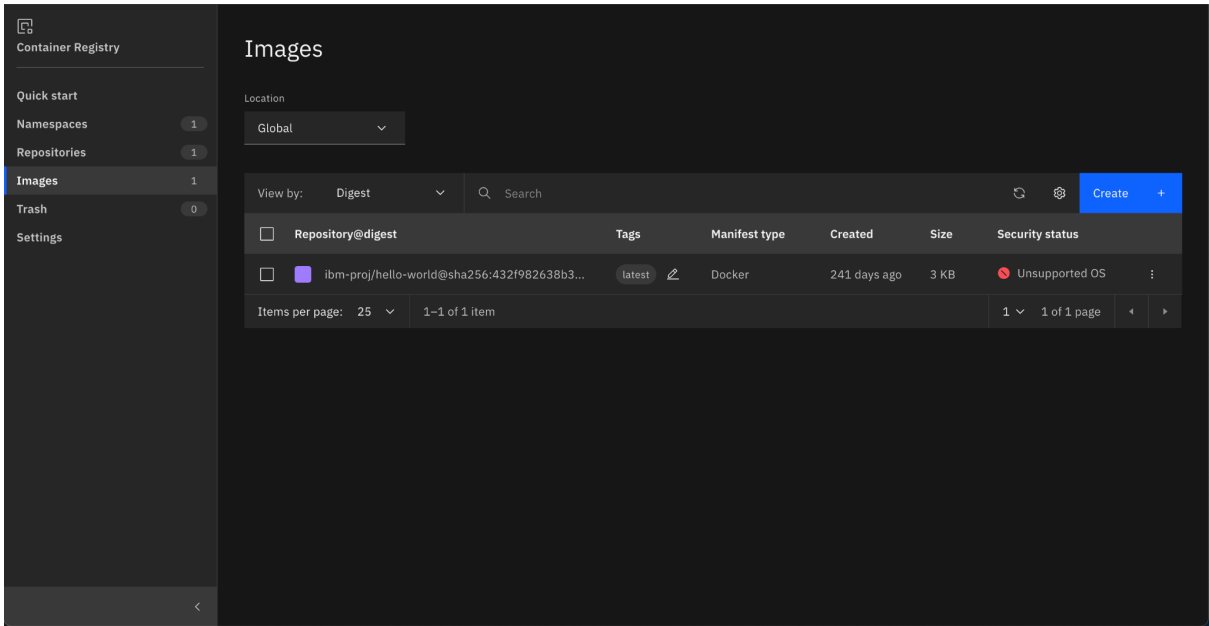
```
1 FROM python:3.8
2
3 WORKDIR /app
4
5 COPY requirements.txt /app/
6
7 RUN pip install -r requirements.txt
8
9 COPY . /app/
10
11 RUN cp .env.dev.sample .env
12
13 EXPOSE 8080
14
15 RUN chmod +x entrypoint.sh
16
17 CMD ["sh", "entrypoint.sh"]
```

```
> docker images
```

REPOSITORY	TAG	IMAGE ID	CREATED	SIZE
jenkins/jenkins	alpine	945a0cfe1c07	2 months ago	262MB
ubuntu	latest	21735dab04ba	2 months ago	69.2MB
hello-world	latest	46331d942d63	8 months ago	9.14kB
icr.io/ibm-proj/hello-world	latest	46331d942d63	8 months ago	9.14kB
jobportal	latest	281099761321	8 months ago	9.14kB
gcr.io/k8s-minikube/kicbase	v0.0.26	f155e4723c40	14 months ago	976MB

Question-3:

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



Question-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 Kubernetes dashboard. The cluster is named 'mycluster-free' and is in a 'Normal' state, with a green status icon and a red 'Expires in 30 days' warning. The dashboard shows a table of worker nodes. The table has columns for Name, Status, Worker pool, Zone, Private IP, Public IP, and Version. There is one node listed with ID '00000065', status 'Normal', worker pool 'default', zone 'Milan 01', private IP '10.144.194.237', public IP '169.51.205.32', and version '1.24.7_1543'. The left sidebar shows navigation options: Overview, Worker nodes (selected), Worker pools, and DevOps (marked as 'New'). The top navigation bar includes the IBM Cloud logo, a search bar, and links to Catalog, Manage, and the user's account (Ganesh Kumar K's Account).

Name	Status	Worker pool	Zone	Private IP	Public IP	Version
00000065	Normal	default	Milan 01	10.144.194.237	169.51.205.32	1.24.7_1543