

Date	30-09-2022
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Student Roll Number	194028
Maximum Marks	2 Marks

Assignment- 4

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

03:57:32

CLOSE SESSION

Instances

+ ADD NEW INSTANCE

192.168.0.8
node1

cddvksm0_cddvkvm0qau000a07j5g

IP: 192.168.0.8

OPEN PORT

Memory: 1.24% (49.52MiB / 3.906GiB)

CPU: 0.31%

SSH

ssh ip172-18-0-22-cddvksm0qau000a07j50@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 responsibilites.                 #
# The PwD team.                                           #
#####
[node1] (local) root@192.168.0.8 ~
$ docker pull hello-world
Using default tag: latest
latest: Pulling from library/hello-world
2db29710123e: Pull complete
Digest: sha256:c18f0a777aefab047a671ab3ec3eed05414477c951ab1a6f352a06974245fe7
Status: Downloaded newer image for hello-world:latest
docker.io/library/hello-world:latest
[node1] (local) root@192.168.0.8 ~
$ docker run hello-world

```

Activate Windows

Go to Settings to activate Windows.

03:57:05

CLOSE SESSION

Instances

+ ADD NEW INSTANCE

192.168.0.8
node1

cddvksm0_cddvkvm0qau000a07j5g

IP
192.168.0.8

OPEN PORT

Memory
1.26% (50.45MiB / 3.906GiB)

CPU
0.39%

SSH
ssh ip172-18-0-22-cddvksm0qau000a07j50@direct.labs.pla

DELETE

EDITOR

2. The Docker daemon pulled the "hello-world" image from the Docker Hub.
(amd64)

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/>

[node1] (local) root@192.168.0.8 ~
\$

Activate Windows
Go to Settings to activate Windows.

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

DOCKER FILE:

```

1 FROM python:3.8-buster
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"]

```

DEPLOYMENT OF JOBPORTAL APPLICATION:

Containers

Images

Volumes

Dev Environments BETA

Extensions BETA

Add Extensions

Containers [Give feedback](#)

A container packages up code and its dependencies so the application runs quickly and reliably from one computing environment to another. [Learn more](#)

☐ Only show running containers

Search

	NAME	IMAGE	STATUS	PORT(S)	STARTED	ACTIONS
<input type="checkbox"/>	<div>agitated_neumann</div> <div>918d20882039</div>	icr.io/helloapp/lbm:latest	Exited (137)	49160:8080		▶ ⋮ 🗑
<input type="checkbox"/>	<div>jolly_turing</div> <div>b62c0712bdd3</div>	jobportalapplication:latest	Running	1234:8000	4 minutes ago	■ ⋮ 🗑

Showing 2 items

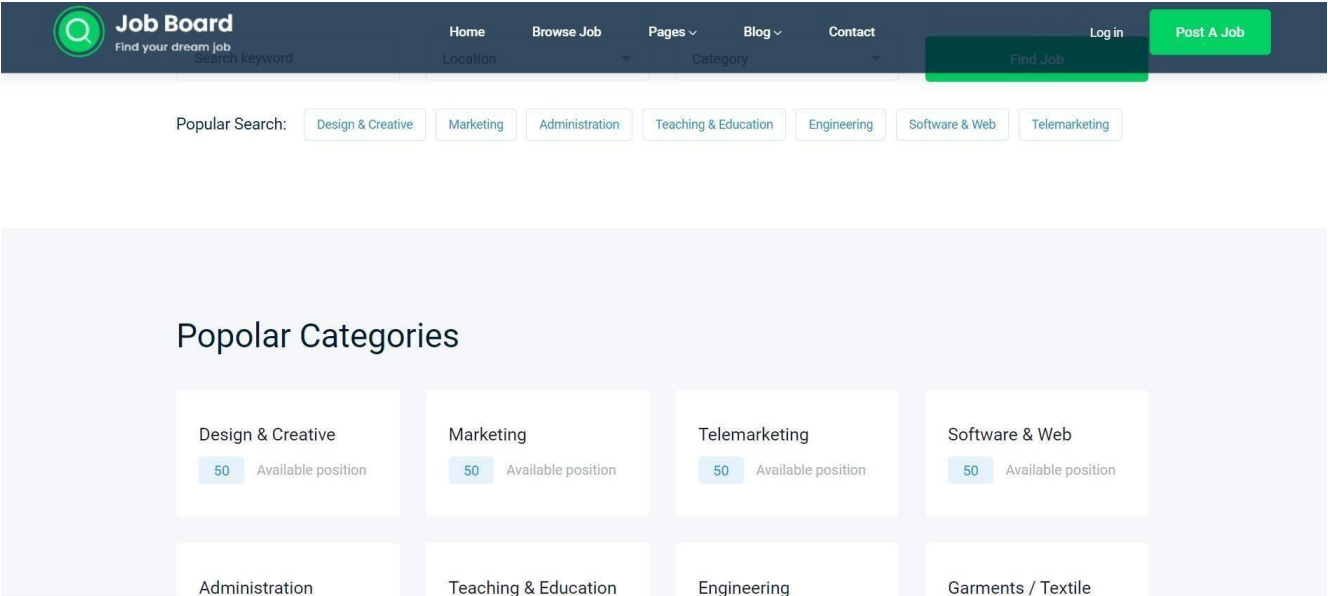
RAM 3.06GB

CPU 0.57%

Connected to Hub

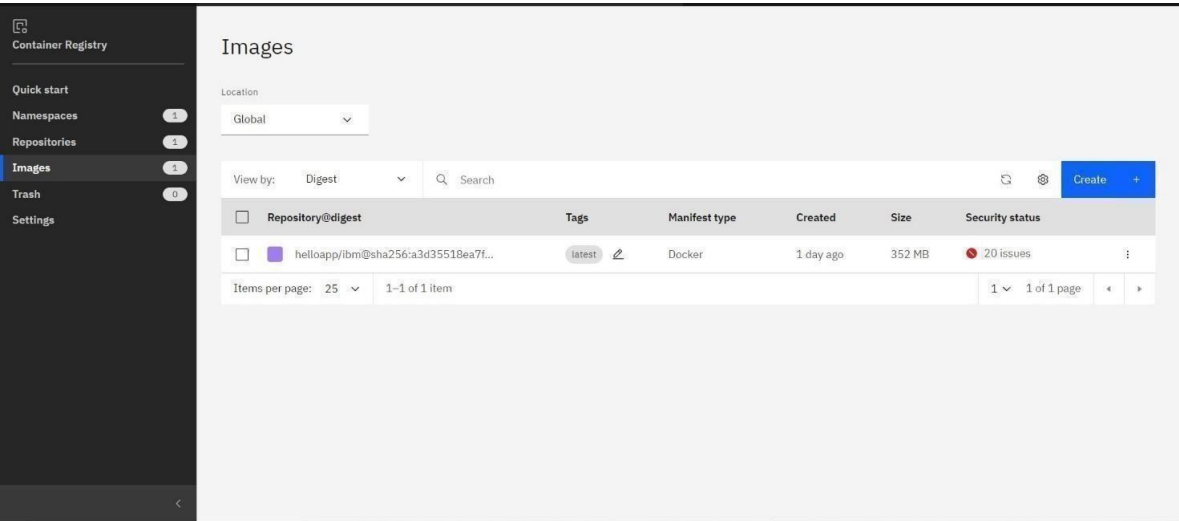
v4.13.0

OUTPUT:

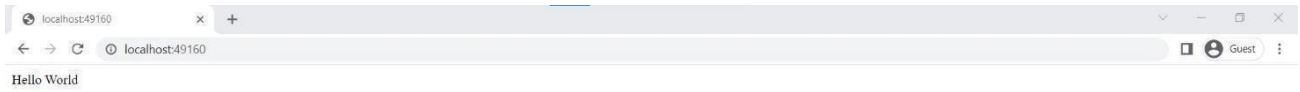


3.Create a IBM container registry and deploy hello-world app or job port app.IBM

CONTAINER REGISTRY DEPLOYMENT:



OUTPUT:



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.

Creating Kubernetes cluster in IBM cloud and exposing node port:

A screenshot of the IBM Cloud Clusters dashboard. The page title is 'Clusters / mycluster-free'. It shows a single worker node in a table. The table has columns: Name, Status, Worker pool, Zone, Private IP, Public IP, and Version. The node name is '0000008c', status is 'Normal', worker pool is 'default', zone is 'Milan 01', private IP is '10.144.187.51', public IP is '159.122.179.68', and version is '1.23.12_1549'. There are also filters, a search bar, and an 'Add' button at the top of the table.

<input type="checkbox"/>	Name	Status	Worker pool	Zone	Private IP	Public IP	Version
<input type="checkbox"/>	0000008c	Normal	default	Milan 01	10.144.187.51	159.122.179.68	1.23.12_1549

Output:

