

Assignment Date	11-11-2022
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Student Roll Number	311019205037
Maximum Marks	2 Marks
Team ID	PNT2022TMID27406

Question 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 responsibilities.
#
# The PMO team.
#####
[redacted] (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:e18f0a777aefabe047a671ab3ec3eed05414477c951ab1a6f352a06974245fe7
Status: Downloaded newer image for hello-world:latest
docker.io/library/hello-world:latest
[redacted] (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.

Question 2:

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

DOCKERFILE:

```
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 8000
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

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

Showing 2 items

RAM 3.06GB CPU 0.57%

Connected to Hub

v4.13.0


## OUTPUT:

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<b>Administration</b>	<b>Teaching &amp; Education</b>	<b>Engineering</b>	<b>Garments / Textile</b>

### Question 3:


**Container Registry**

[Quick start](#)
[Namespaces](#)
[Repositories](#)
[Images](#)
[Trash](#)
[Settings](#)

### Images

Location  
 Global

View by: Digest

<input type="checkbox"/>	Repository@digest	Tags	Manifest type	Created	Size	Security status	
<input type="checkbox"/>	helloapp/ibm@sha256:a3d35518ea7f...	latest	Docker	1 day ago	352 MB	20 issues	!

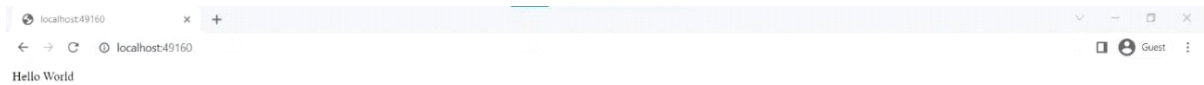
Items per page: 25
 1-1 of 1 item
 1 1 of 1 page

Create a IBM container registry and deploy

helloworld app or jobportapp.IBM CONTAINER

REGISTRY DEPLOYMENT:

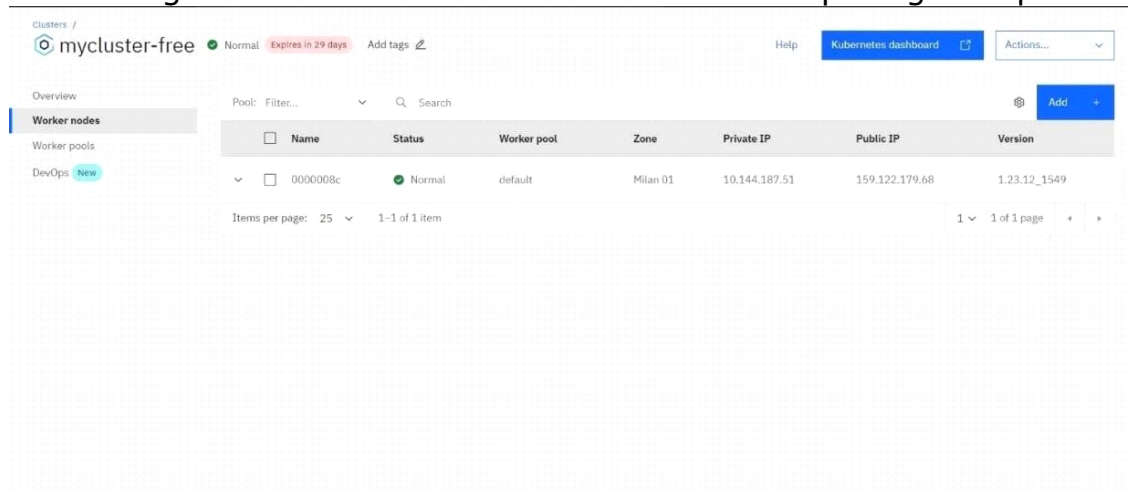
OUTPUT:




#### 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.

Creating kubernetes cluster in IBM cloud and exposing nodeport:



Output:



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50 Available position

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50 Available position

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50 Available position

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Engineering

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