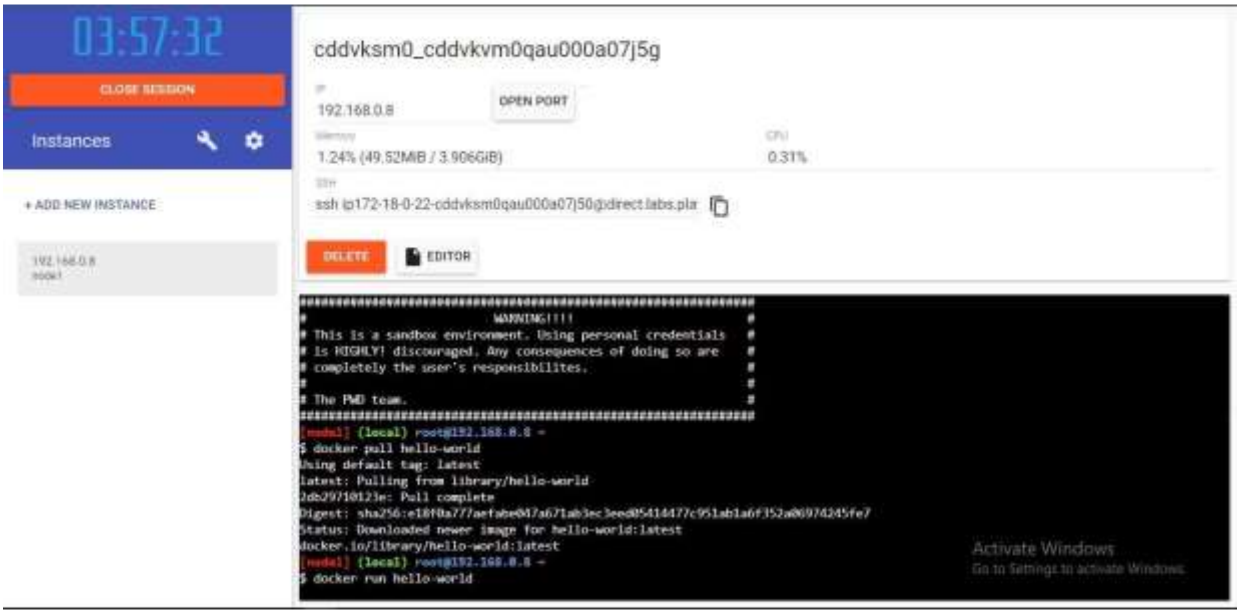
Assignment - 4

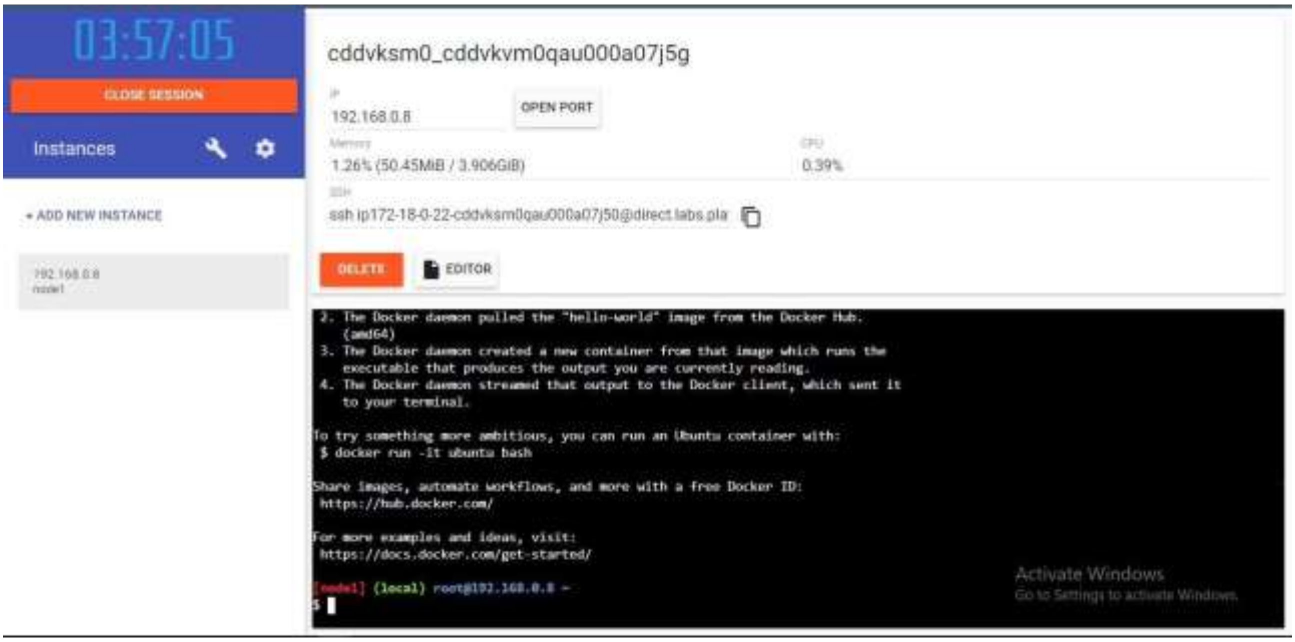
Assignment Date	07-11-2022
Student Name	PREMA AJ
Student Roll Number	113119UG03074
Maximum Marks	2 Marks
Team ID	PNT2022TMID22368

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
192.168.0.8
OPEN PORT
1.24% (49.52MiB / 3.906GiB)
0.31%
ssh ip172-18-0-22-cddvksm0qau000a07j50@direct.labs.pla
DELETE
EDITOR
Activate Windows
Go to Settings to activate Windows.

```
##########################################################
#                        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:e18f0a777aefabe047a671ab3ec3eed05414477c951ab1a6f352a06974245fe7
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
```



cddvksm0_cddvkvm0qau000a07j5g

IP
192.168.0.8

Memory
1.26% (50.45MiB / 3.906GiB)

CPU
0.39%

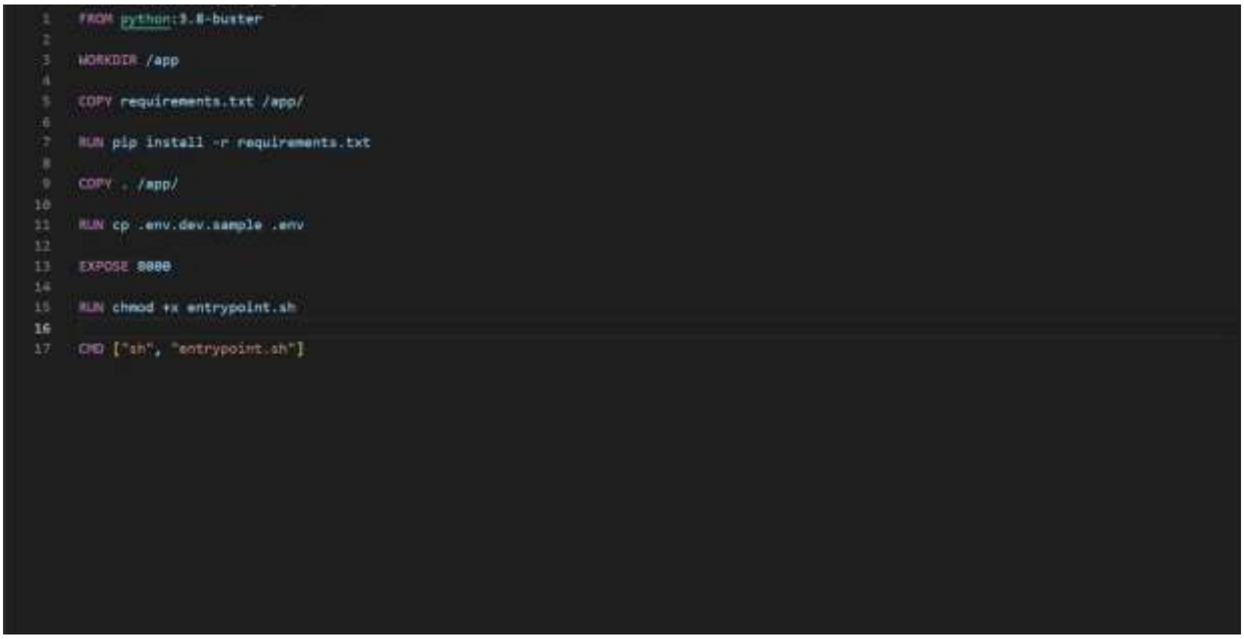
SSH
ssh ip172-18-0-22-cddvksm0qau000a07j50@direct.labs.pla

```
 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 ~
$ 
```

Question 2:

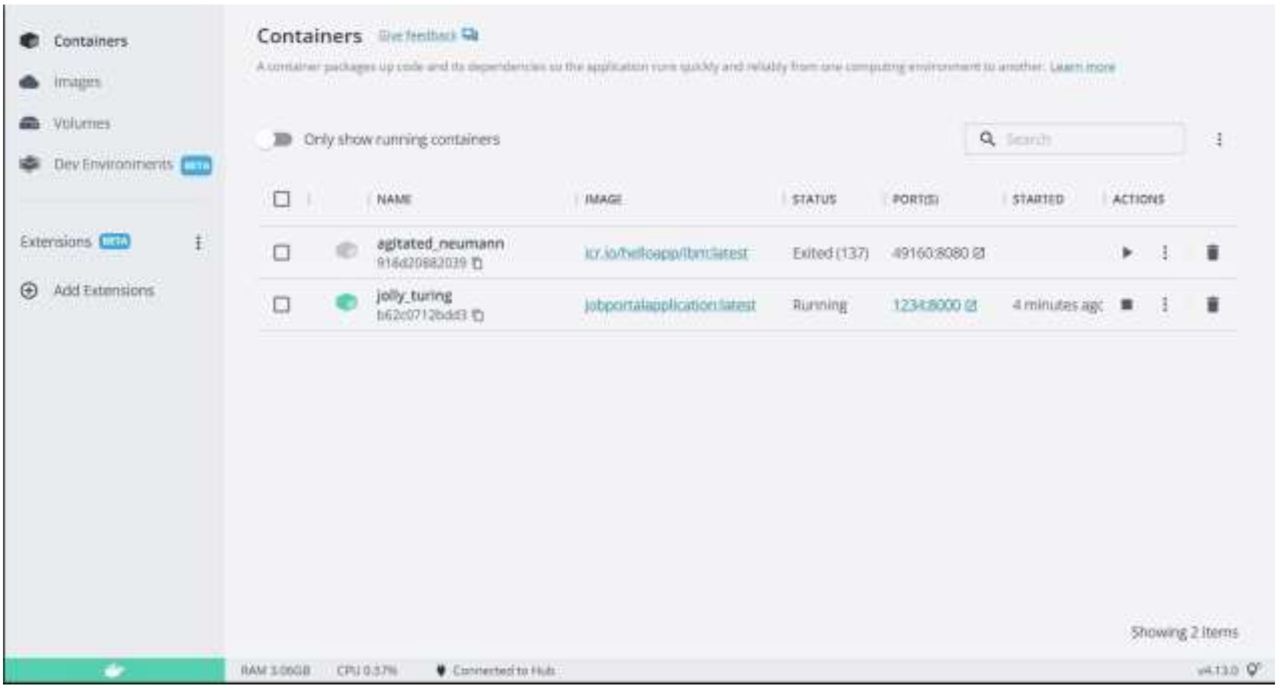
Create a docker file for the jobportal application and deploy it in Docker desktop application.

DOCKERFILE:



```
FROM python:3.8-buster

WORKDIR /app

COPY requirements.txt /app/

RUN pip install -r requirements.txt

COPY . /app/

RUN cp .env.dev.sample .env

EXPOSE 8000

RUN chmod +x entrypoint.sh

CMD ["sh", "entrypoint.sh"]
```

DEPLOYMENT OF JOBPORTAL APPLICATION:



Containers

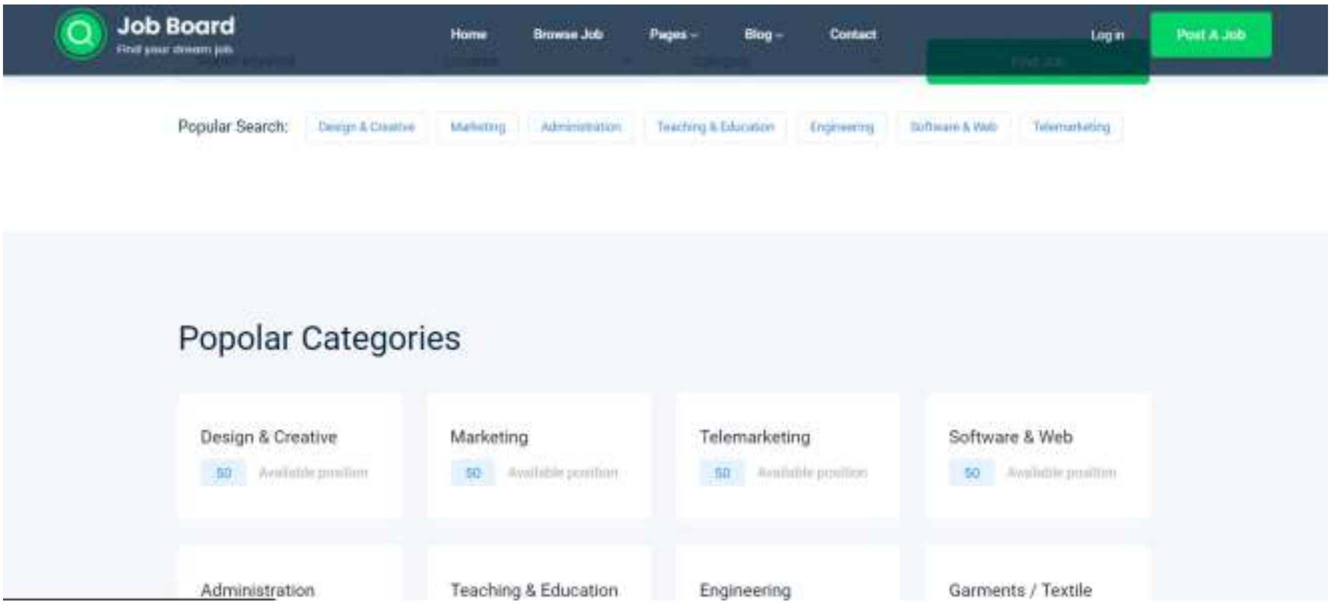
A container packages up code and its dependencies so the application runs quickly and reliably from one computing environment to another. Learn more

Only show running containers

NAME	IMAGE	STATUS	PORT(S)	STARTED
agitated_neumann 914d20882039	icr.io/helloapp/ibm:latest	Exited (137)	49160:8080	
jolly_turing b62c0712bdd3	jobportalapplication:latest	Running	1234:8000	4 minutes agc

Showing 2 items

OUTPUT:



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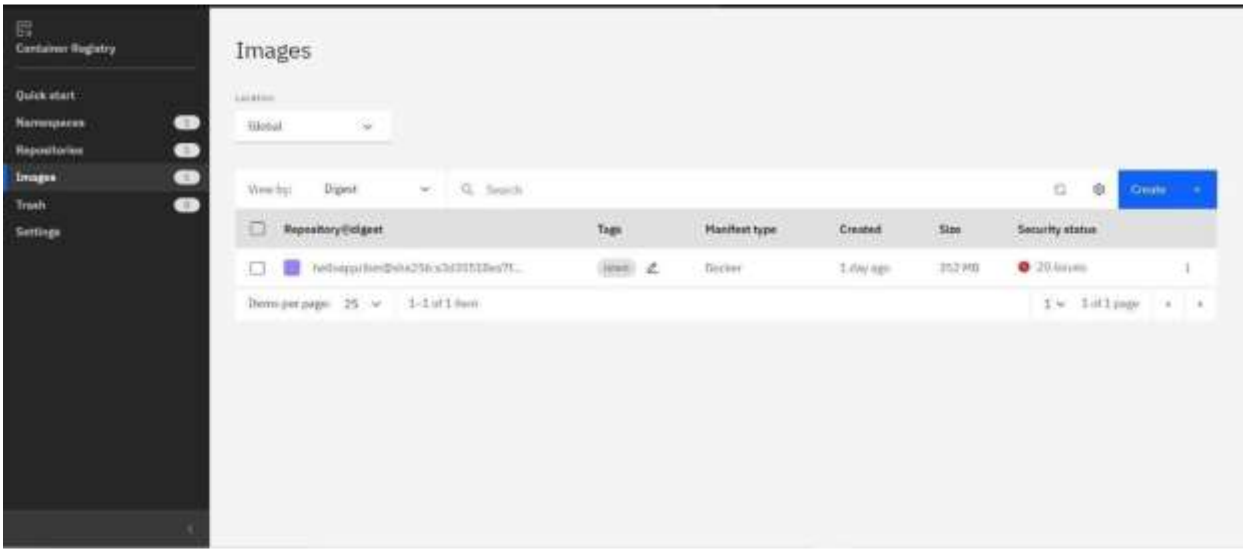
Question 3:

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

IBM CONTAINER REGISTRY DEPLOYMENT:



Images

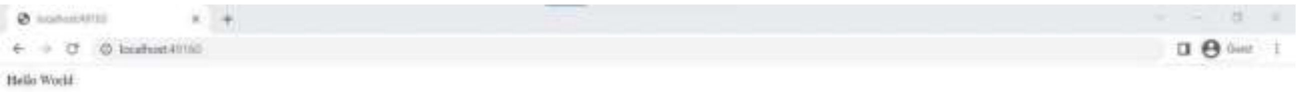
Location: Global

View by: Digest

☐	Repository@digest	Tags	Manifest type	Created	Size	Security status
☐	[illegible]	latest	Docker	1 day ago	352 MB	● 20 issues

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

OUTPUT:

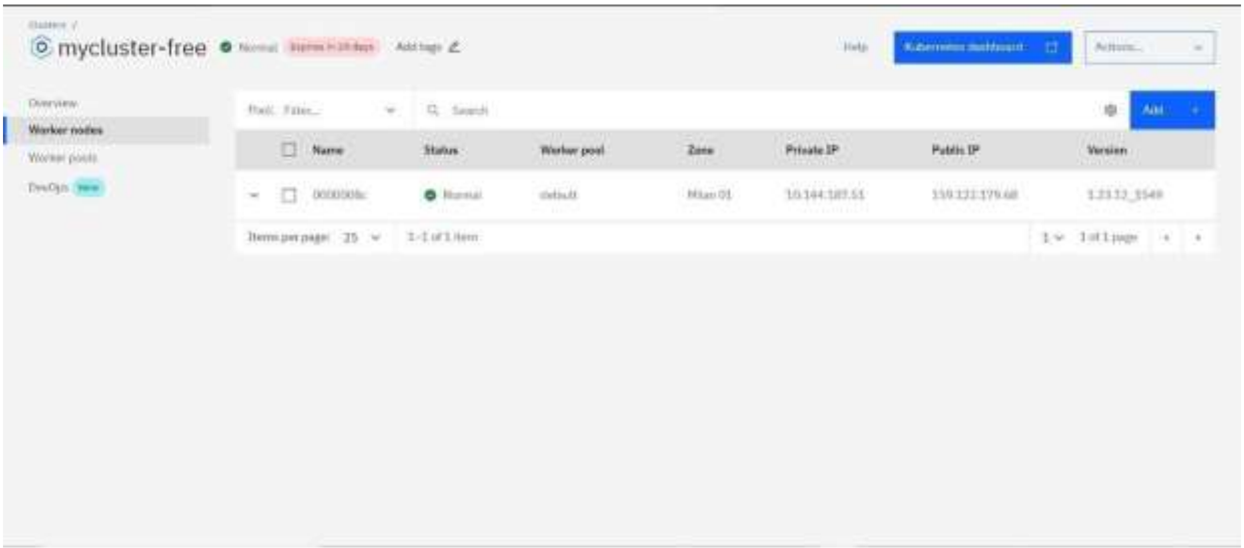


Hello World

Question 4:

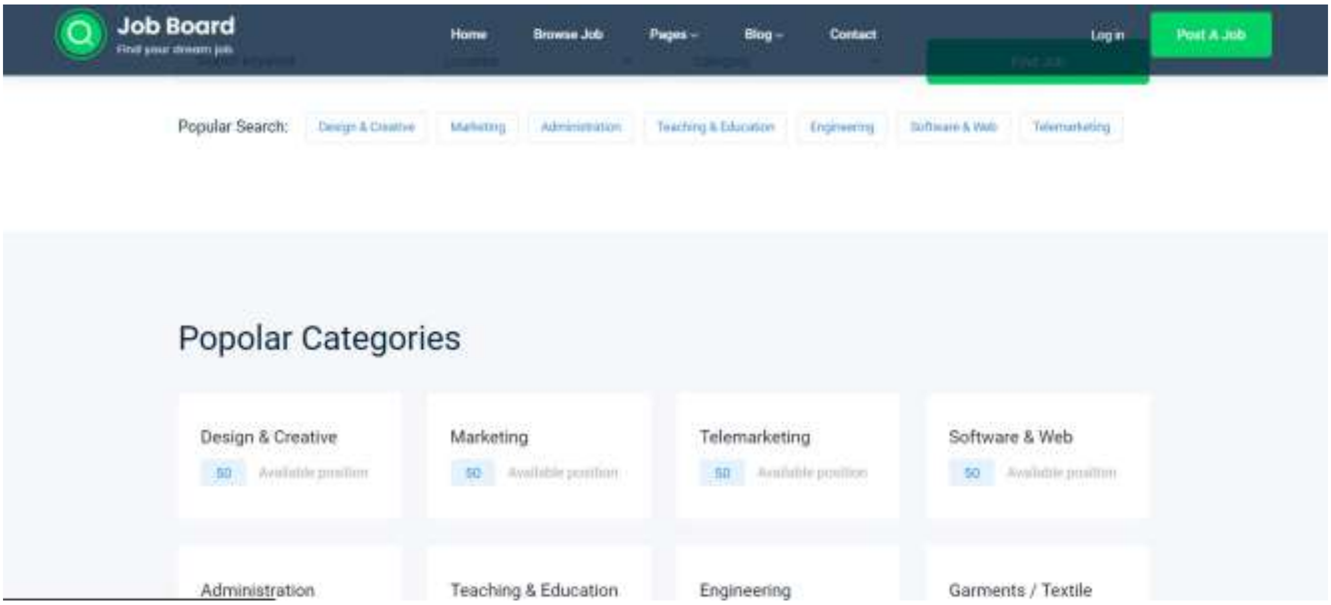
Create a Kubernetes cluster in IBM cloud and deploy helloworld image or jobportal image and also expose the same app to run in nodeport.

Creating kubernetes cluster in IBM cloud and exposing nodeport:



Name	Status	Worker pool	Zone	Private IP	Public IP	Version
0000008c	● Normal	default	Milan 01	10.144.187.51	159.122.179.68	1.23.12_1549

Output:



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