

## Assignment -4

Assignment Date	3 November 2022
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Student Roll Number	720719110029
Maximum Marks	2 Marks

### Question 1:

Pull an image from Docker hub and run it in Docker playground.

The screenshot shows the Docker Playground interface. On the left, there's a sidebar with a clock showing 03:57:32, a 'CLOSE SESSION' button, and an 'Instances' section with a '+ ADD NEW INSTANCE' button. Below this, a list of instances shows '192.168.0.8 node1'. The main area displays the instance details for 'cddvksm0\_cddvkvm0qau000a07j5g'. It shows the IP '192.168.0.8', memory usage '1.24% (49.52MiB / 3.906GiB)', and CPU usage '0.31%'. The SSH command is 'ssh ip172-18-0-22-cddvksm0qau000a07j50@direct.labs.pla'. Below this, there are 'DELETE' and 'EDITOR' buttons. The terminal output shows a warning message, followed by the command '\$ docker pull hello-world', which successfully pulls the latest image from the Docker Hub. The output ends with '\$ docker run hello-world'.

The screenshot shows the Docker Playground interface after running the 'hello-world' container. The sidebar is the same. The main area displays the instance details for 'cddvksm0\_cddvkvm0qau000a07j5g'. The memory usage is now '1.26% (50.45MiB / 3.906GiB)' and CPU usage is '0.39%'. The terminal output shows a list of steps explaining the process: 1. The Docker daemon pulled the 'hello-world' image from the Docker Hub. 2. The Docker daemon created a new container from that image which runs the executable that produces the output you are currently reading. 3. The Docker daemon streamed that output to the Docker client, which sent it to your terminal. Below this, it says 'To try something more ambitious, you can run an Ubuntu container with: \$ docker run -it ubuntu bash'. It also provides links to Docker Hub and Docker documentation. The terminal ends with '\$'.

### QUESTION 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

☐

NAME

☐

agitated\_neumann  
918d20882039

icr.io/helloapp/ibm:latest

Exited (137)

49160:8080

☐

jolly\_turing  
b62c0712bdd3

jobportalapplication:latest

Running

1234:8000

4 minutes ago

Showing 2 items

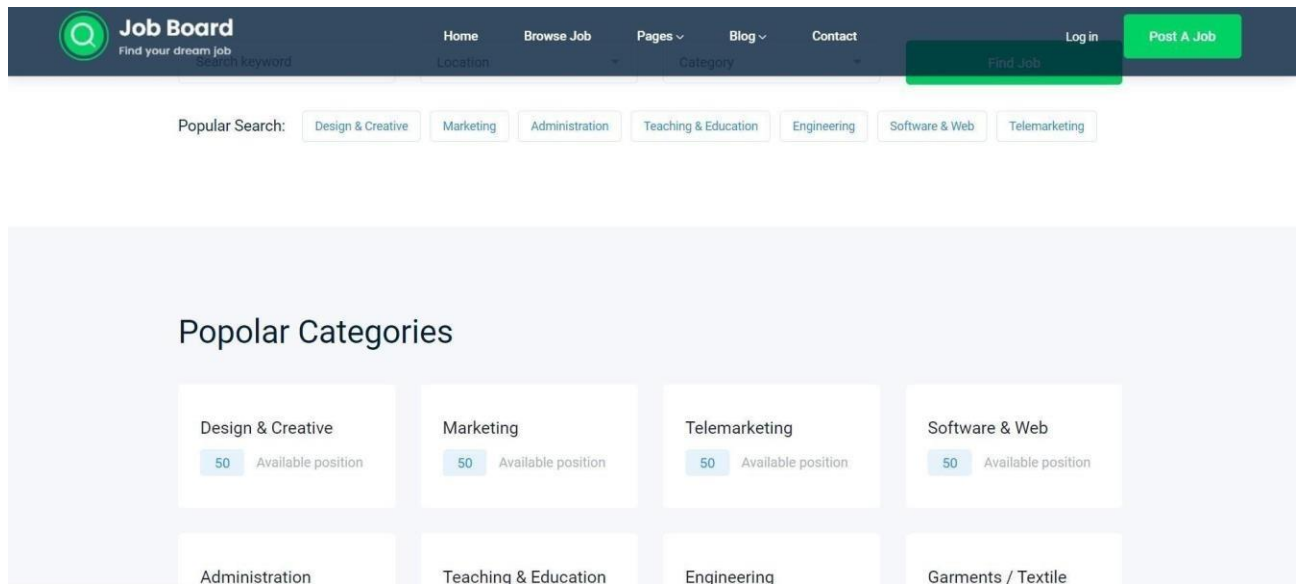
RAM 3.06GB

CPU 0.57%

Connected to Hub

v4.13.0

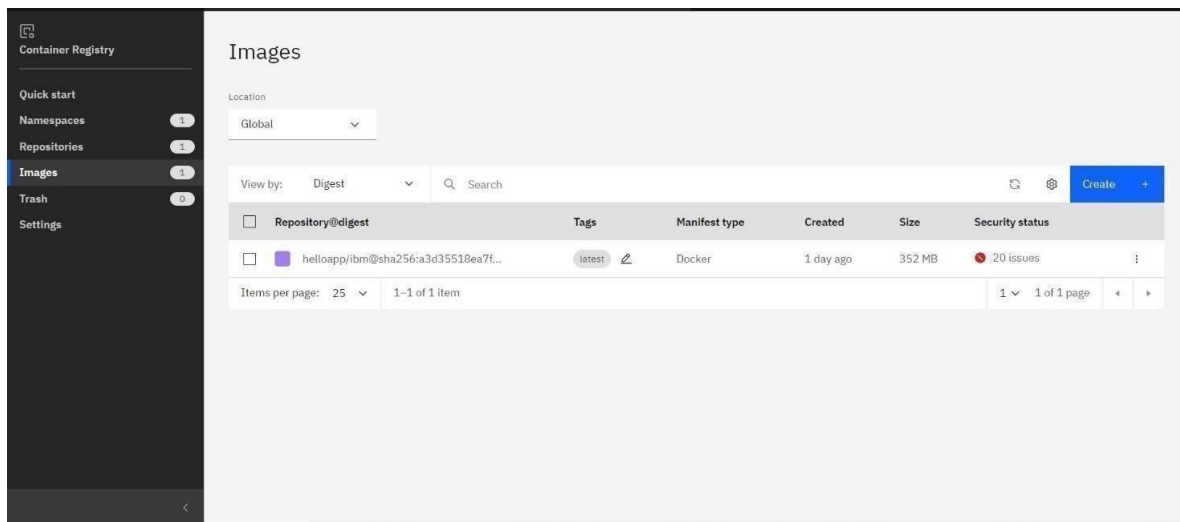
OUTPUT:



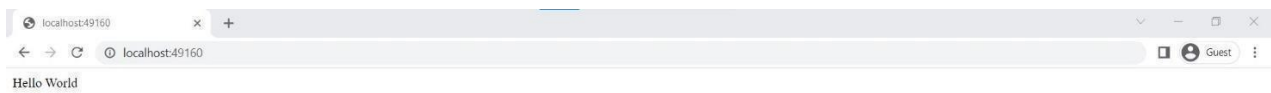
### **QUESTION-3:**

Create a IBM container registry and deploy hello-world app or jobportal app.

### **CONTAINER REGISTRY DEPLOYMENT:**



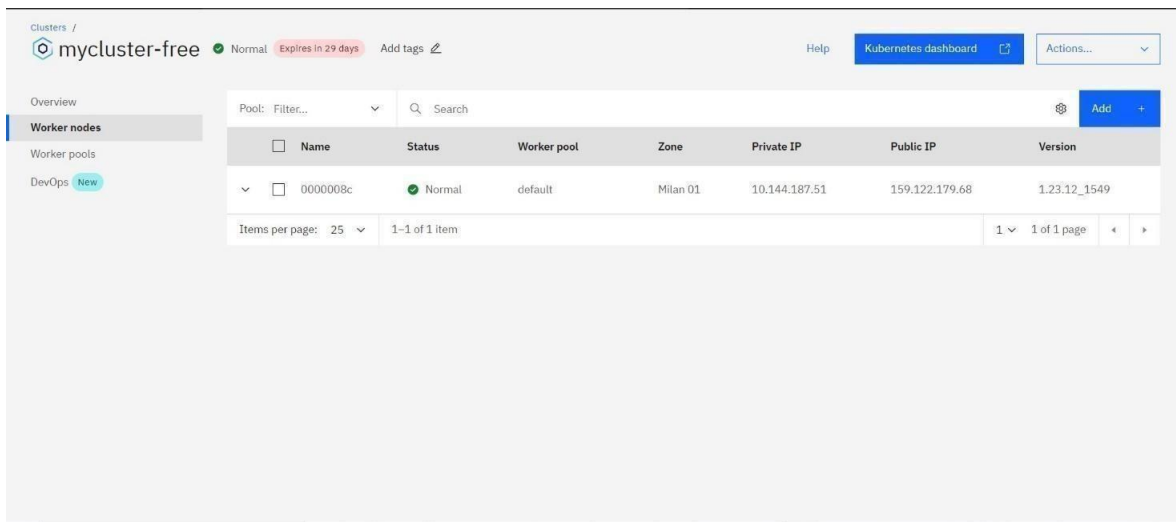
## **OUTPUT:**



## **QUESTION-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 PART:**



## Output:

