**Assignment – 4**

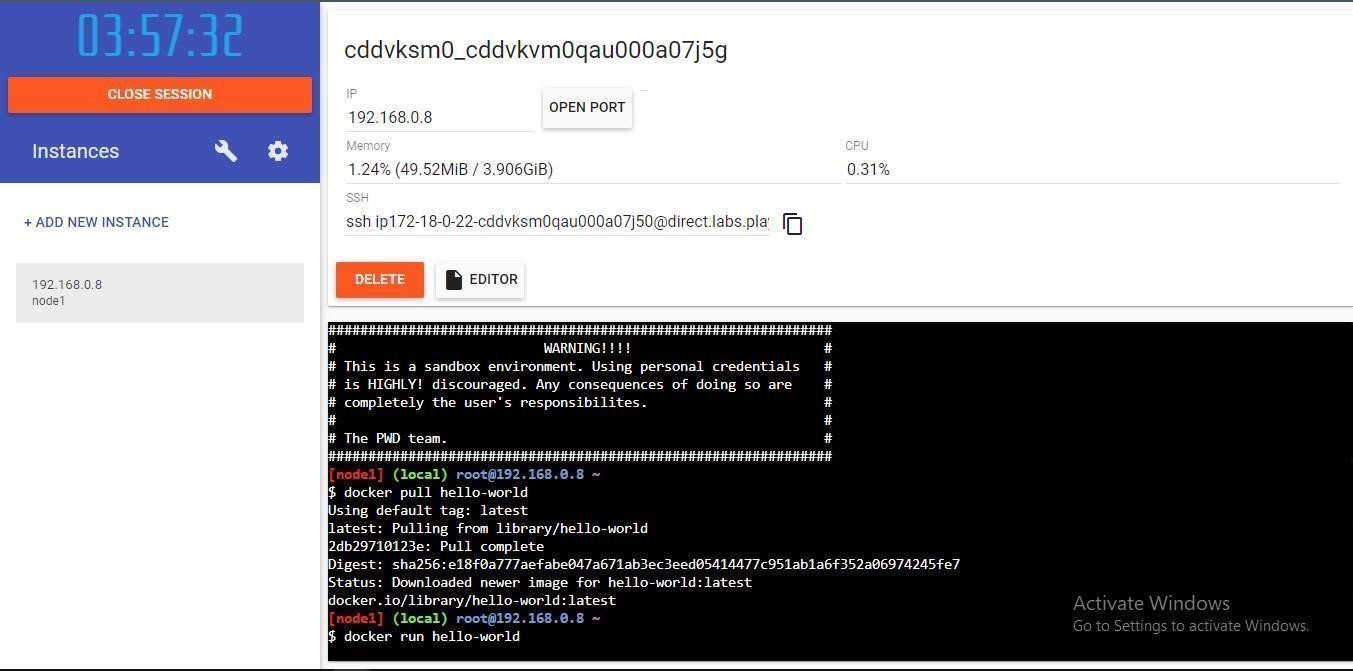
|  |  |
| --- | --- |
| Assignment Date | 22 October 2022 |
| Student Name | **Aishwarya.B** |
| Student Roll Number | 311019104005 |
| Maximum Marks | 2 marks |

**Question-1:**

Pull an Image from docker hub and run it in docker playground.

**Solution:**

* Pull an image *uifd/ui-for-docker* from the docker hub
* This image is used for viewing and managing the docker engine
* Use docker pull image\_name and docker run -it image\_name commands to ● Run the above image in the Docker Playground



**Question-2:**

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

**Solution:**

* Create a docker file for build and deploy flask app.
* Use docker build -t image\_name. In the current directory to start building the
* docker image and deploy in our local docker
* Use docker run -p 5000:5000 image\_name to run in local system

**CODE**

FROM ubuntu/apache2

FROM python

COPY ./requirements.txt /flaskApp/requirements.txt

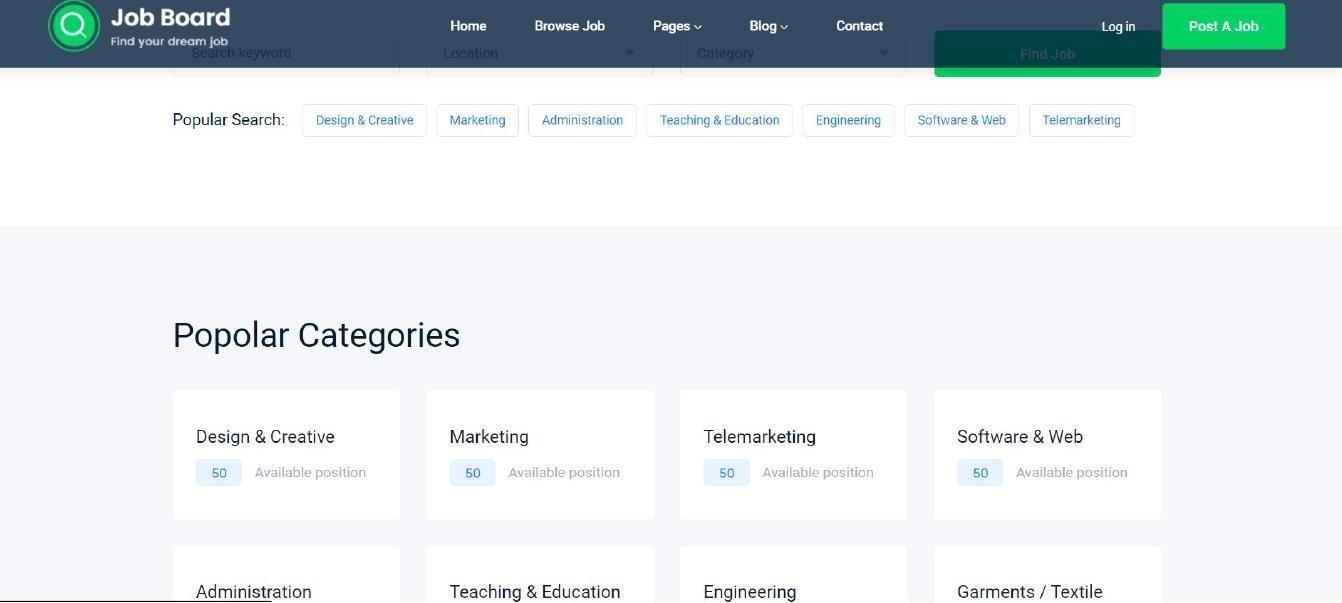
WORKDIR /flaskApp

RUN pip install -r requirements.txt

COPY . /flaskApp

ENTRYPOINT [ "python" ]

CMD ["app.py" ]

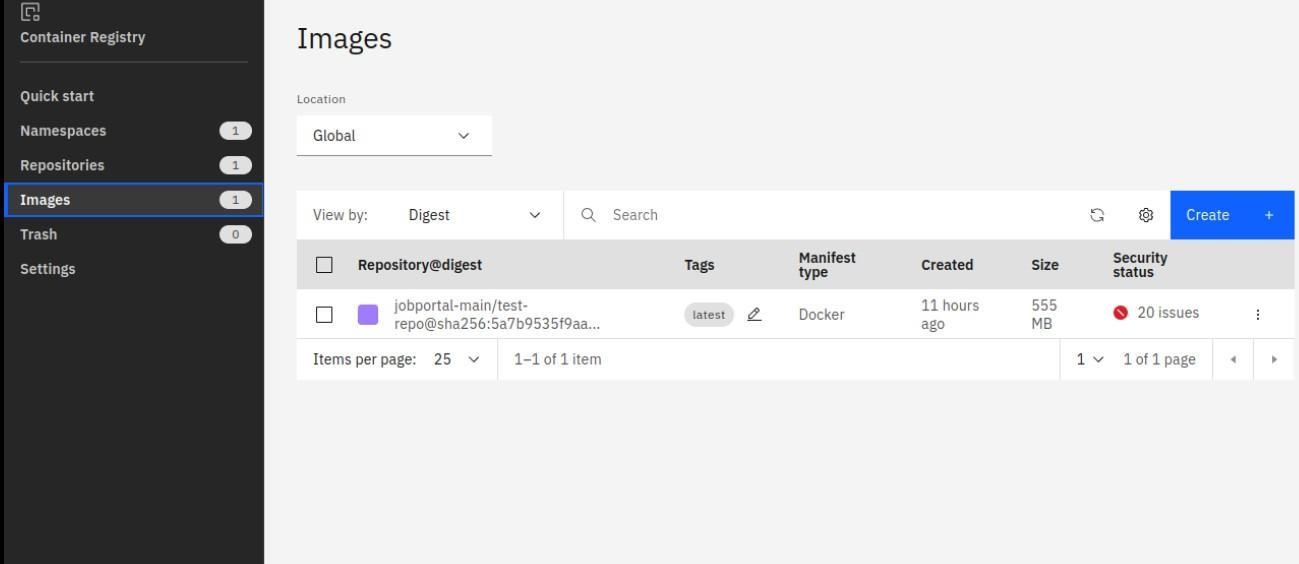


**Question-3:**

Create a IBM container registry and deploy hello world app or job portal app.

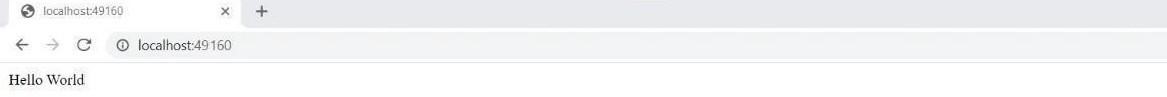
**Solution:**

* Log into IBM cloud
* Create a container registry
* Using IBM Cloud CLI, install the container registry plugin in our system
* Push our docker image into the created container registry using docker push So, our job portal app is deployed in the IBM container registry



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.

**Solution:**

* Log into IBM cloud
* Create a kubernete
* Using IBM Cloud CLI, install the ks plugin in our system
* Create a cluster in the kubernetes
* Now, go to the kubernetes dashboard where we need to create a service based on a ● yml file (given below)
* In that file, we have to mention *which image we are going to use* and the *app name*
* Take the public IP address and Nodeport since we exposed the *flask app in nodeport*
* Finally, we got the url address where our flask app is hosted

**CODE**:

apiVersion: v1 kind: Service metadata: name: job-portal-app spec: selector:

app: job-portal-app ports: - port: 5000 type: NodePort

---

apiVersion: apps/v1

kind: Deployment

metadata:

name: job-portal-app labels:

app: job-portal-app spec: selector: matchLabels: app: job-portal-app

replicas: 1 template: metadata: labels:

app: job-portal-app spec: containers:

* name: job-portal-app image: image\_name ports:
* containerPort: 5000 env:
* name: DISABLE\_WEB\_APP value: "false"

