Assignment 4

Assignment date	5 November 2022
Student name	k.Muthu selvi
Student roll no	951319104036
Maximum Marks	2 Marks

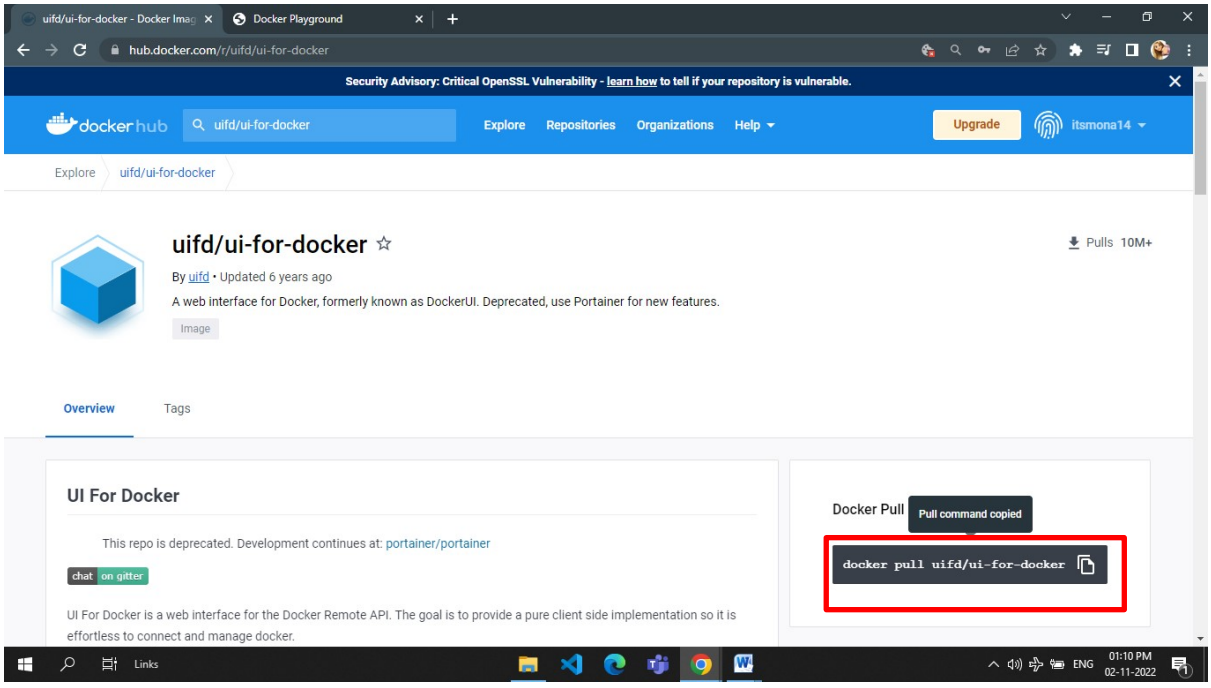
Question 1:

Pull an image from docker hub and run it on docker playground.

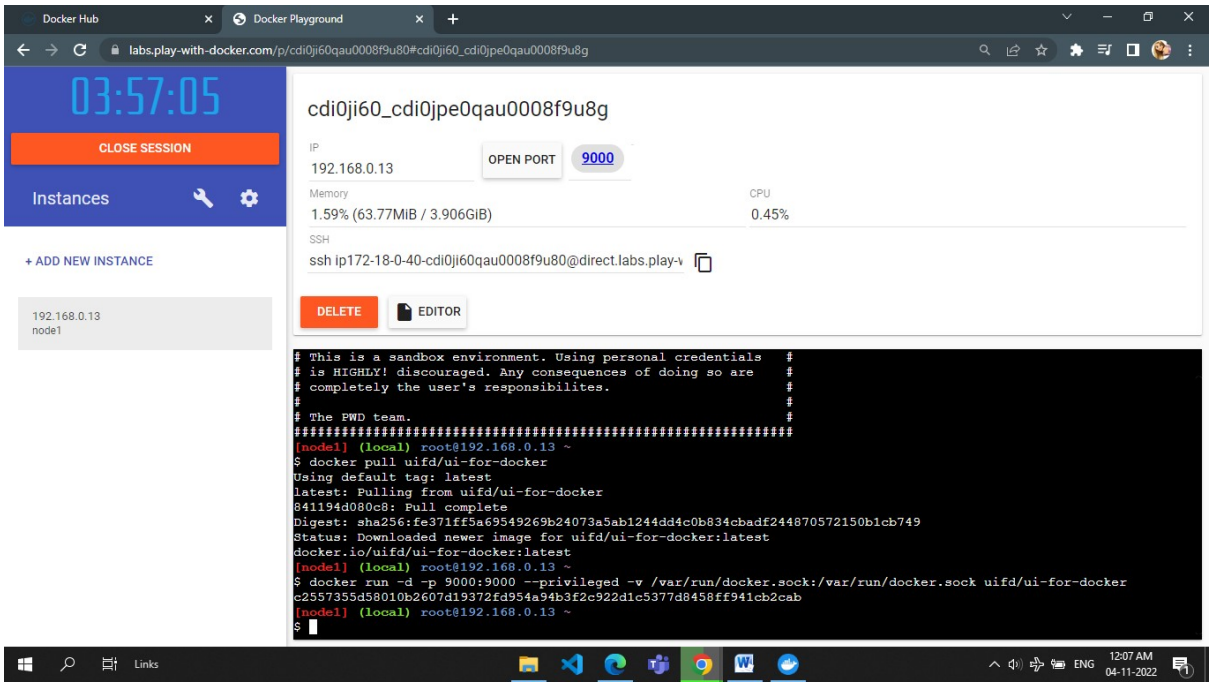
Solution 1: docker pull

uifd/ui-for-docker

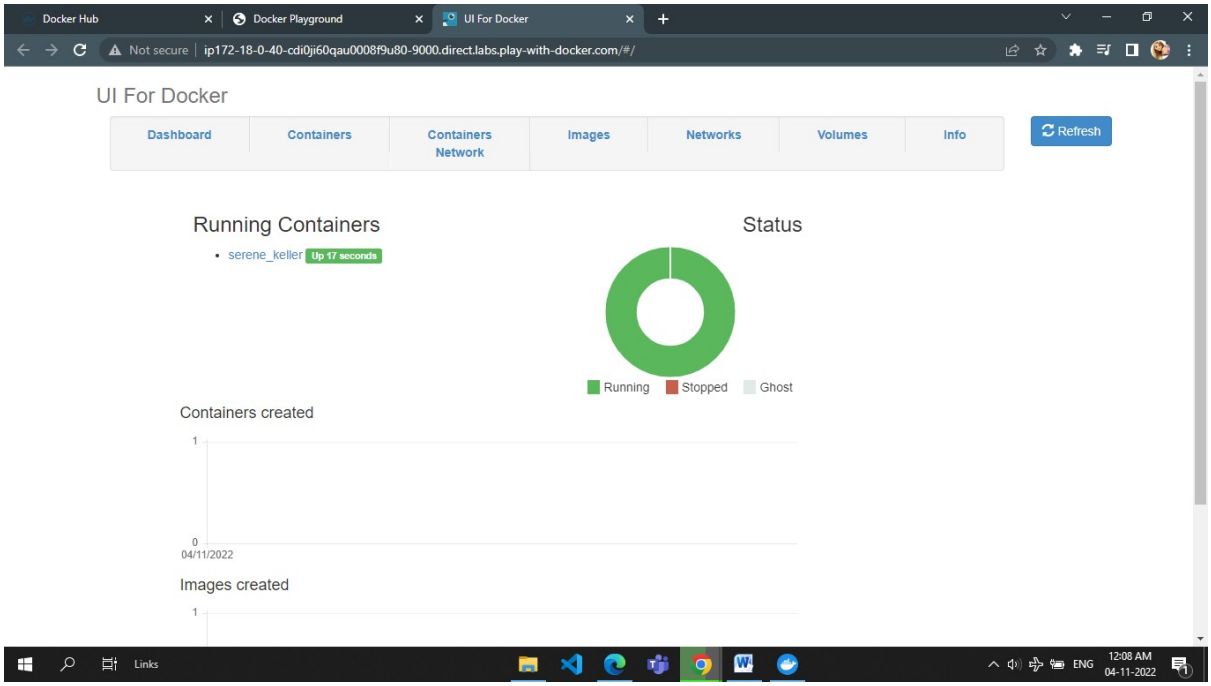
docker run -d -p 9000:9000 --privileged -v /var/run/docker.sock:/var/run/docker.sock uifd/ui-fordocker



Docker playground:



Docker UI:



Question 2:

Create a docker file for the job portal app or hello world app and deploy it in docker desktop app.

Solution 2:

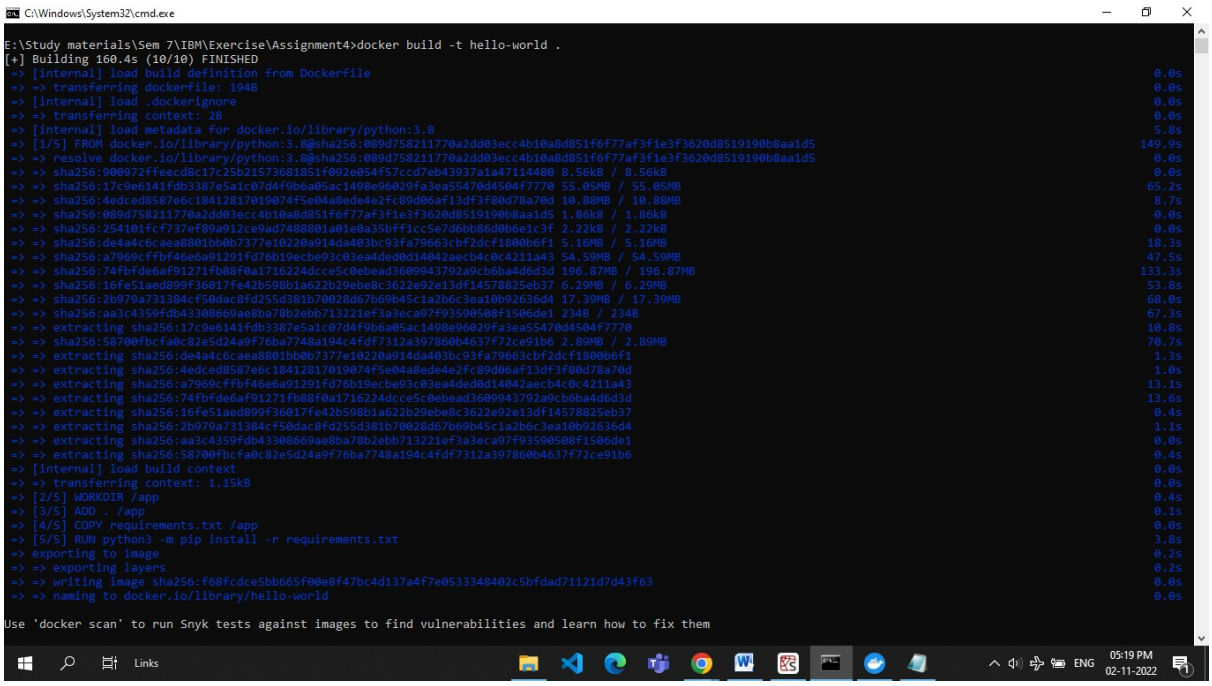
DockerFile

Dockerfile - Notepad

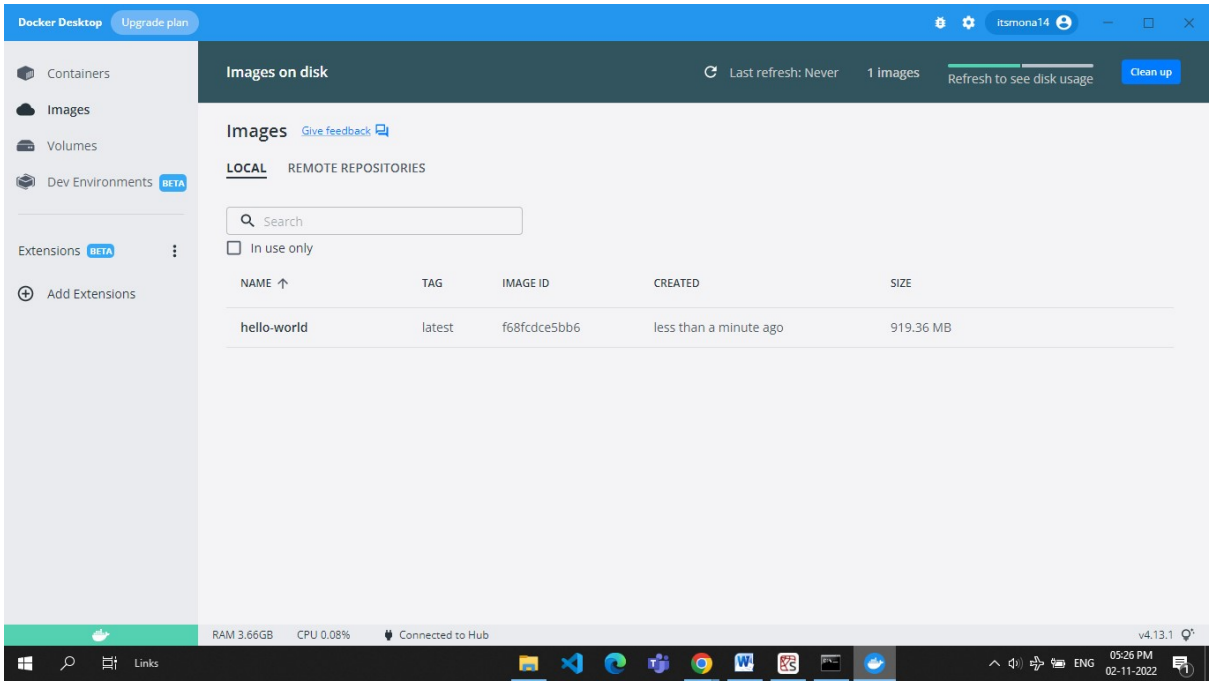
File Edit Format View Help

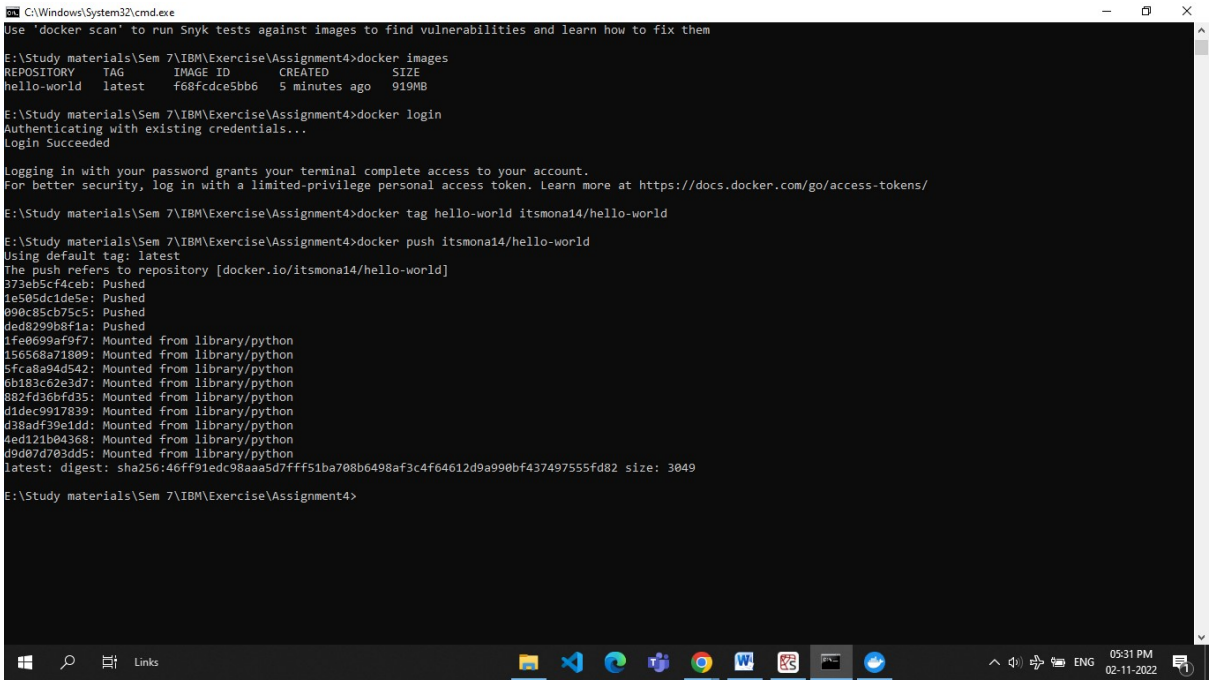
```
FROM python:3.8
WORKDIR /app
ADD . /app
COPY requirements.txt /app
RUN python3 -m pip install -r requirements.txt
EXPOSE 5000
CMD ["python","app.py"]
```

Bulid Docker image

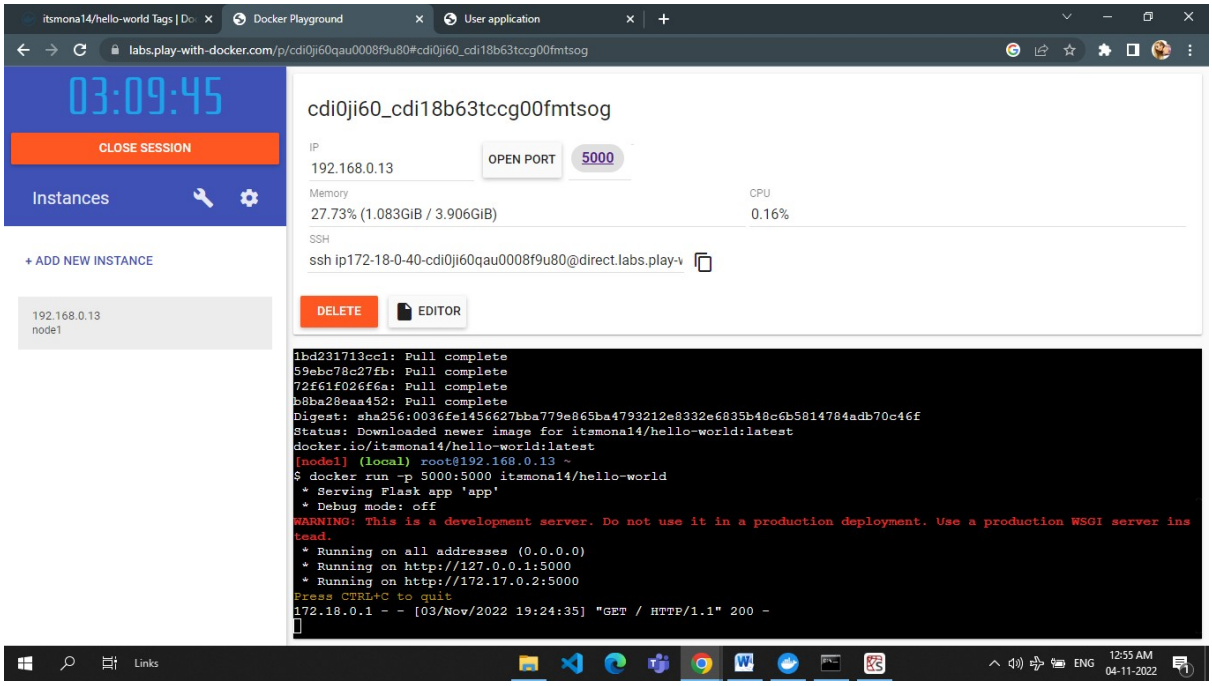


Deploy it on Docker hub





Tested it using Docker playground

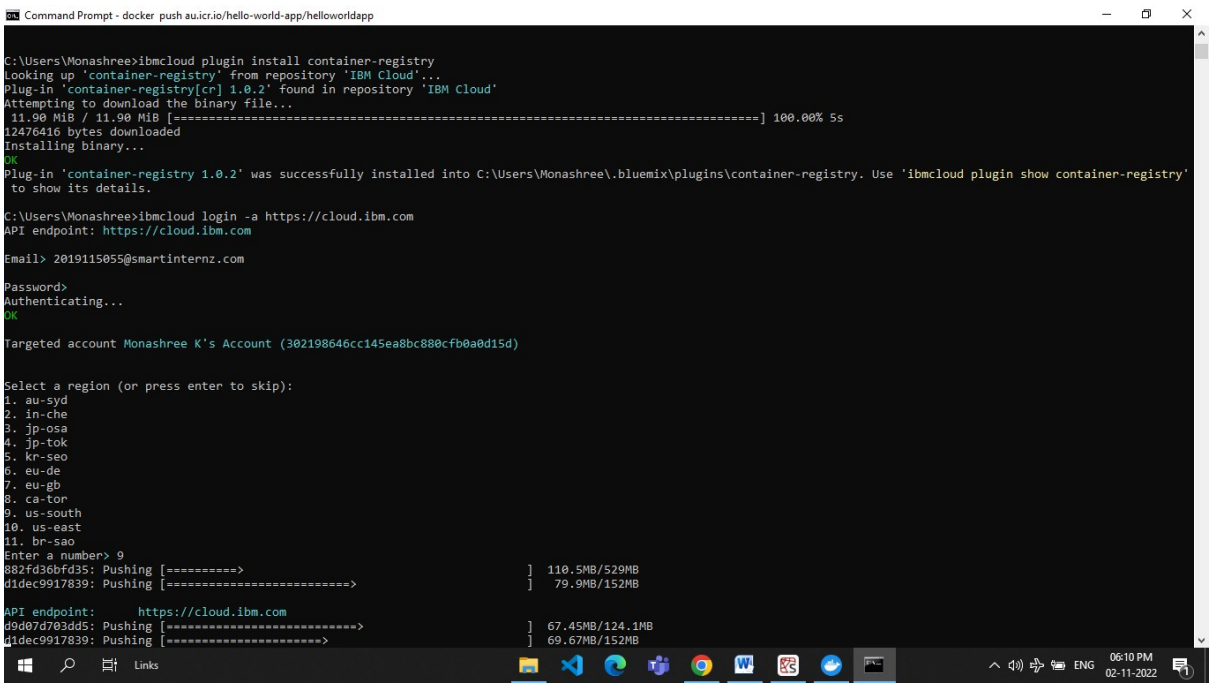


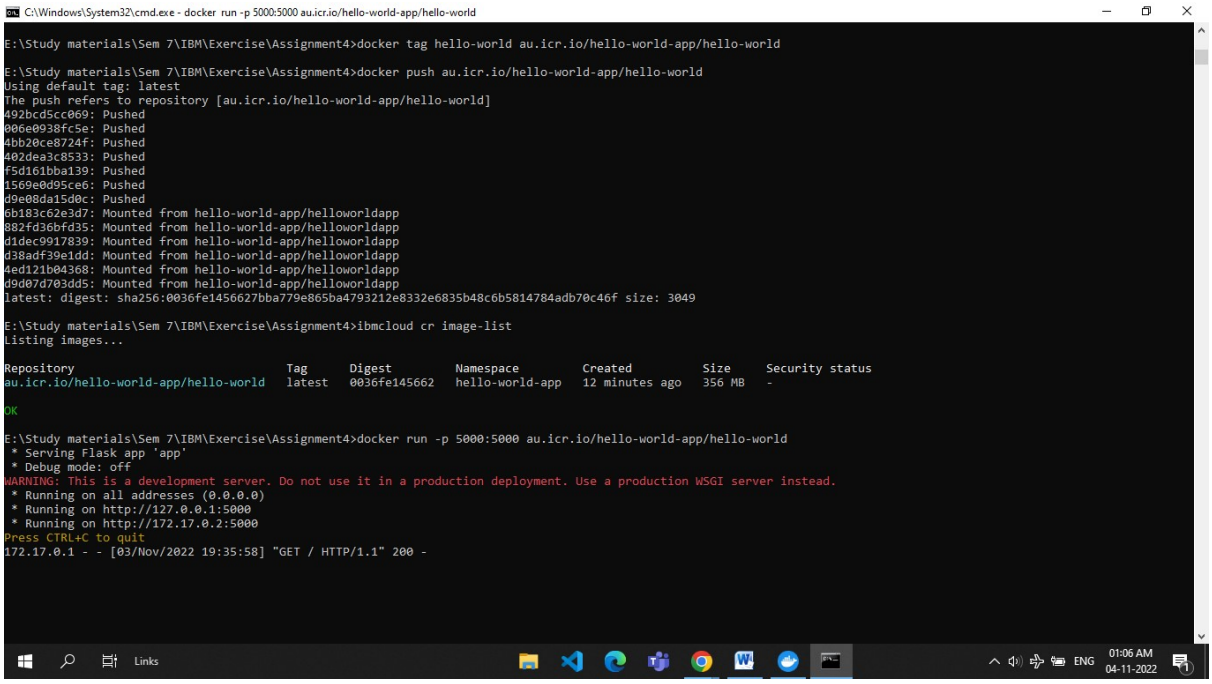
Question 3:

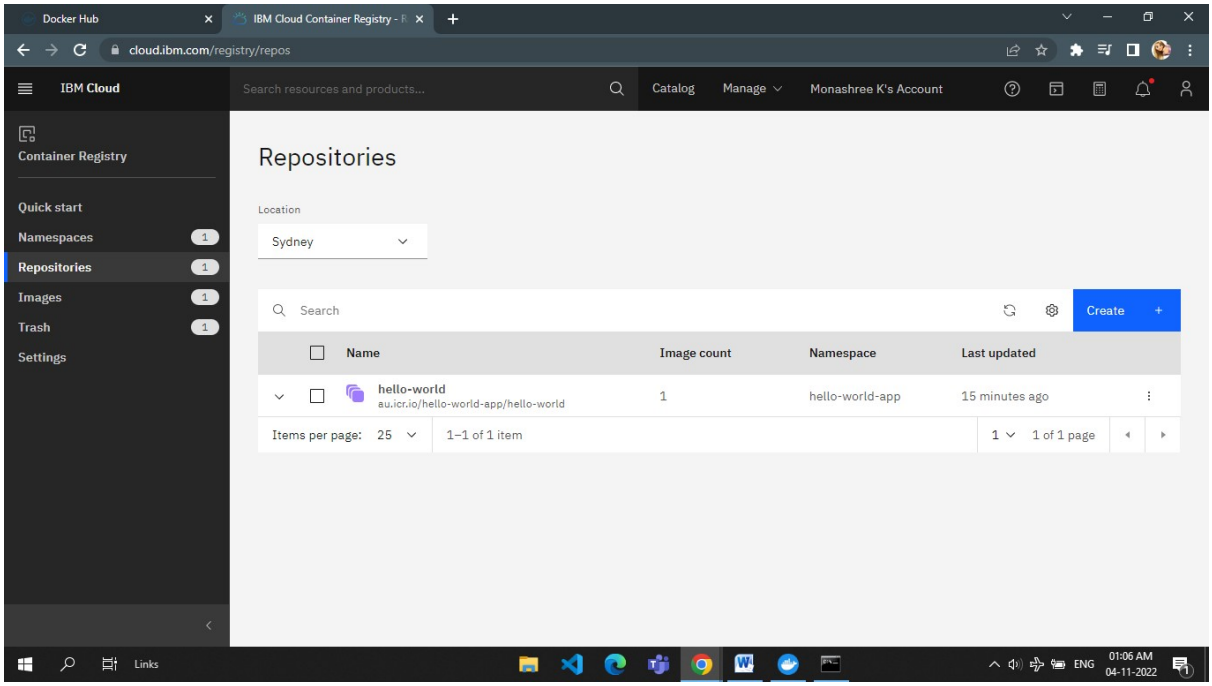
Create an IBM container registry and deploy helloworld app or job portal app.

Solution 3:

My image link: au.icr.io/hello-world-app/hello-world







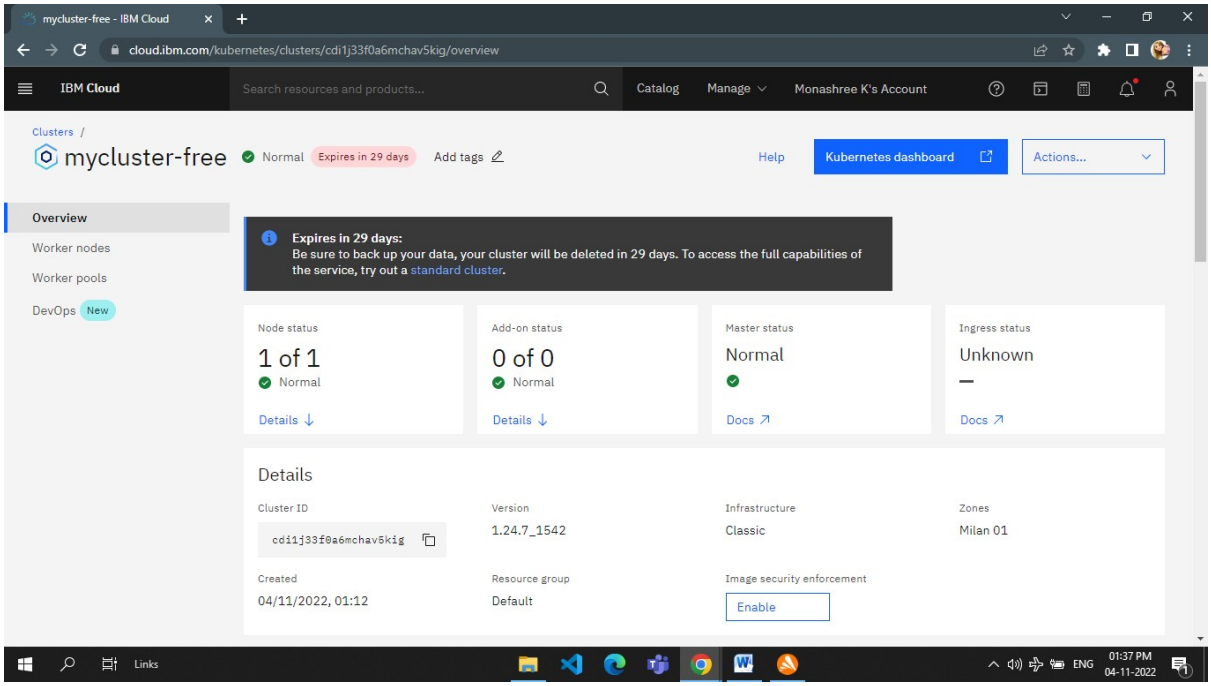
Question 4:

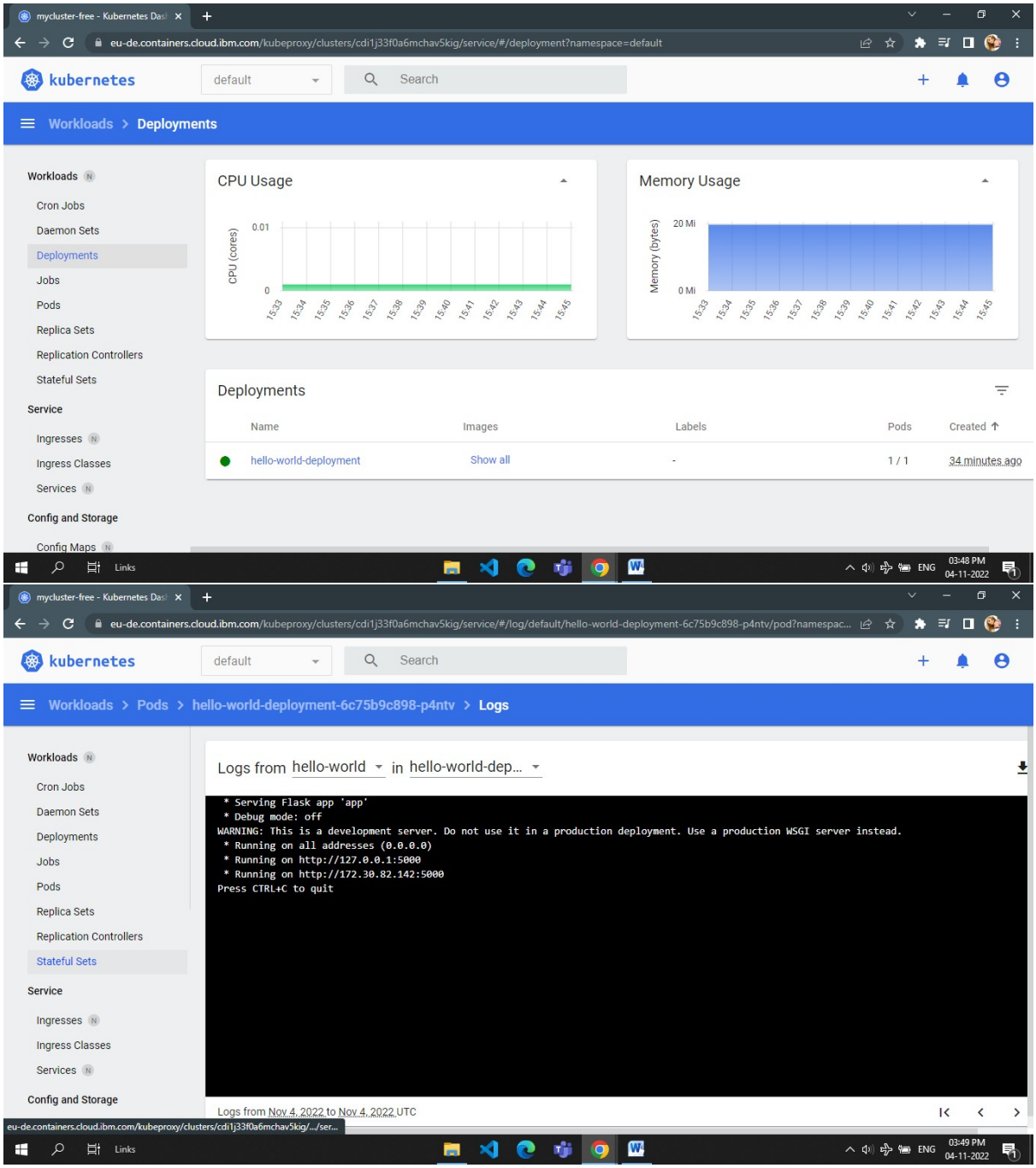
Create a kubernetes cluster in IBM cloud and deploy helloworld image or jobportal image and also expose the same app to run in nodeport.

Solution 4:

https://raw.githubusercontent.com/itsmona14/IBM-Assignment-cloud/main/deployment.yaml

```
apiVersion: v1 kind:
Service metadata:
   name: hello-world-deployment
spec:    ports:    - port: 5000
targetPort: 5000    selector:
     app: hello-world
---
apiVersion: apps/v1 kind:
Deployment metadata:
   name: hello-world-deployment
spec:
   replicas: 1
selector:
matchLabels:
       app: hello-world
template:
metadata:
labels:
         app: hello-world
spec:        containers:
- name: hello-world
         image: au.icr.io/hello-world-app/hello-world
imagePullPolicy: Always          ports:
         - containerPort: 5000
```




mycluster-free - Kubernetes Das
eu-de.containers.cloud.ibm.com/kubeproxy/clusters/cdi1j33f0a6mchav5kig/service/#/deployment?namespace=default
kubernetes
default
Search
Workloads > Deployments
Workloads
Cron Jobs
Daemon Sets
Deployments
Jobs
Pods
Replica Sets
Replication Controllers
Stateful Sets
Service
Ingresses
Ingress Classes
Services
Config and Storage
Config Maps
CPU Usage
CPU (cores)
0.01
0
15:33 15:34 15:35 15:36 15:37 15:38 15:39 15:40 15:41 15:42 15:43 15:44 15:45
Memory Usage
Memory (bytes)
20 Mi
0 Mi
15:33 15:34 15:35 15:36 15:37 15:38 15:39 15:40 15:41 15:42 15:43 15:44 15:45
Deployments
Name
Images
Labels
Pods
Created
hello-world-deployment
Show all
-
1 / 1
34 minutes ago
Links
ENG
03:48 PM
04-11-2022
mycluster-free - Kubernetes Das
eu-de.containers.cloud.ibm.com/kubeproxy/clusters/cdi1j33f0a6mchav5kig/service/#/log/default/hello-world-deployment-6c75b9c898-p4ntv/pod?namespac...
kubernetes
default
Search
Workloads > Pods > hello-world-deployment-6c75b9c898-p4ntv > Logs
Workloads
Cron Jobs
Daemon Sets
Deployments
Jobs
Pods
Replica Sets
Replication Controllers
Stateful Sets
Service
Ingresses
Ingress Classes
Services
Config and Storage
Logs from hello-world in hello-world-dep...
* Serving Flask app 'app'
* Debug mode: off
WARNING: This is a development server. Do not use it in a production deployment. Use a production WSGI server instead.
* Running on all addresses (0.0.0.0)
* Running on http://127.0.0.1:5000
* Running on http://172.30.82.142:5000
Press CTRL+C to quit
Logs from Nov 4, 2022 to Nov 4, 2022 UTC
eu-de.containers.cloud.ibm.com/kubeproxy/clusters/cdi1j33f0a6mchav5kig/.../ser...
Links
ENG
03:49 PM
04-11-2022