ASSIGNMENT NO. : 4

NAME : SANDHIYA.S

REGISTER NO. : 211519104136

PROJECT NAME : PLASMA DONOR APPLICATION

DOMAIN NAME : CLOUD APPLICATION DEVELOPMENT

TEAM ID : PNT2022TMID25930

# ASSIGNMENT -4 : DOCKER DESKTOP (Kubernet)

| | |
|---|---|
| Assignment date | 04 November 2022 |
| Student name | Sushmitha Singh D |
| Student roll no | 113119UG04104 |
| Maximum Marks | 2 Marks |

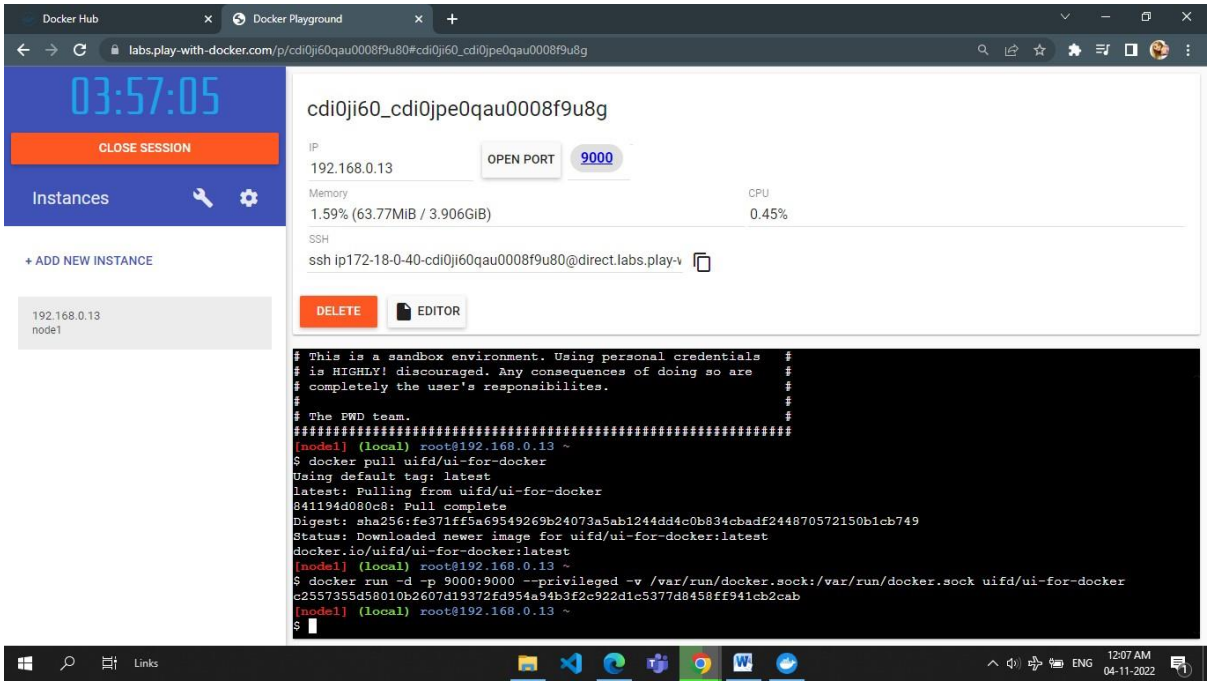
**Question 1:**

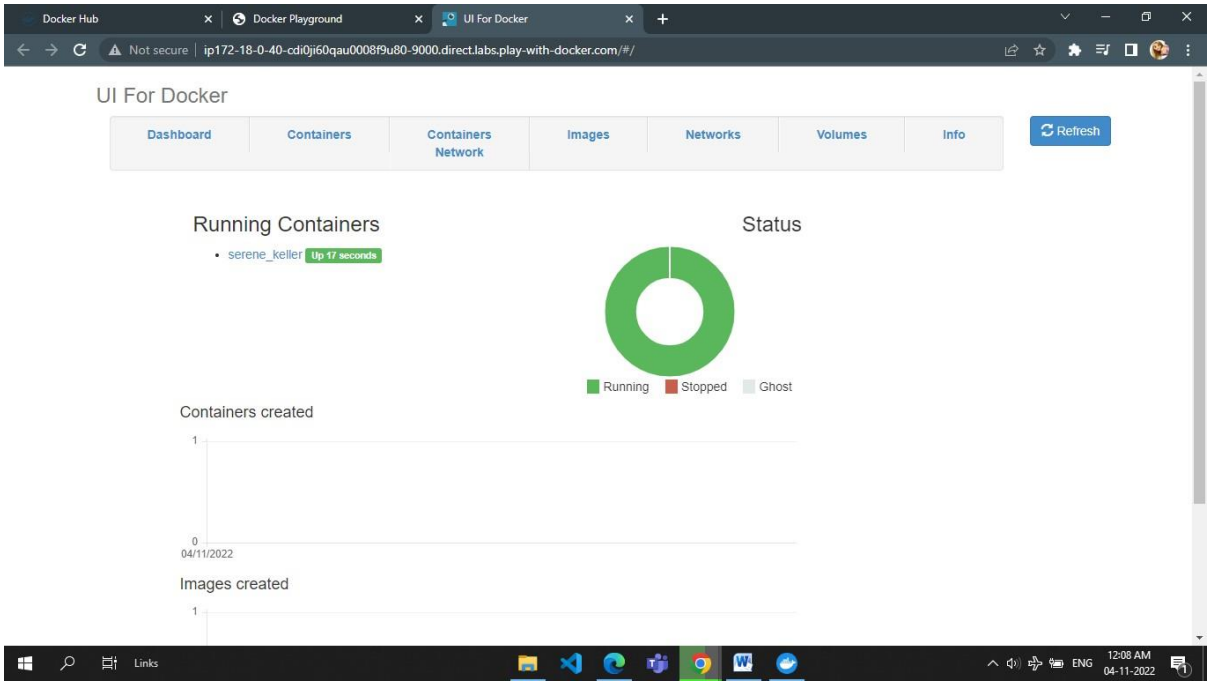
Pull an image from docker hub and run it on docker playground.

**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-for-docker






**Question 2:**

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

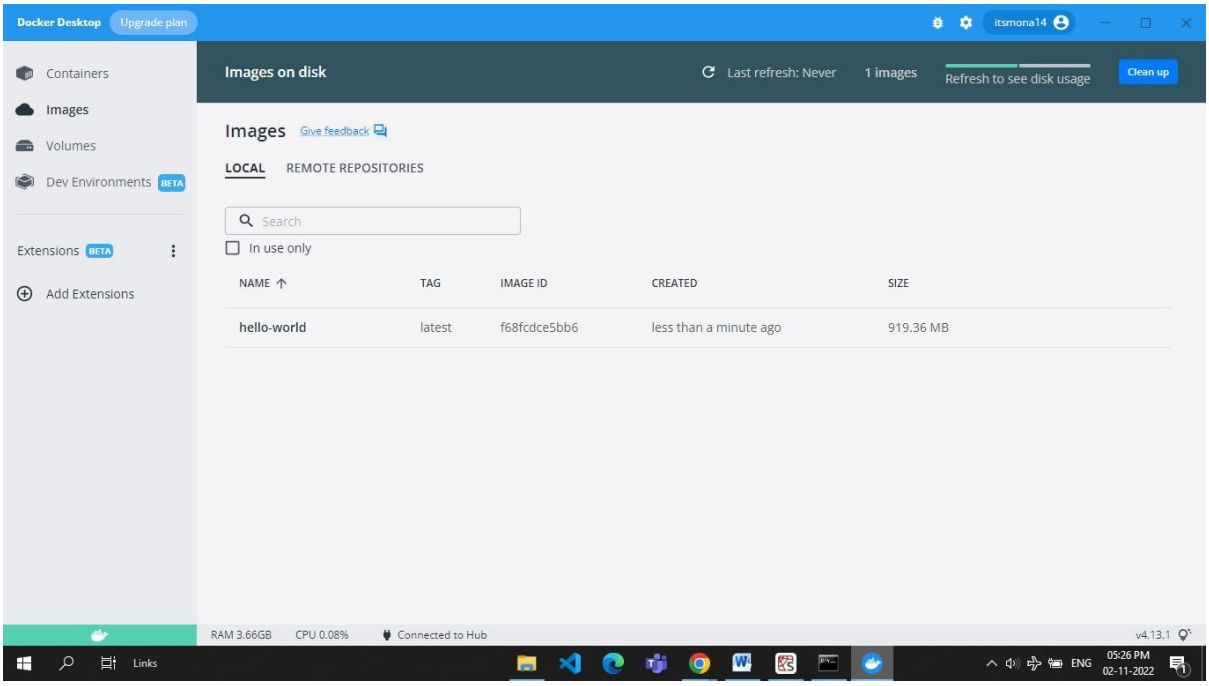
**Solution 2:**

**Docker file**

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"]
```

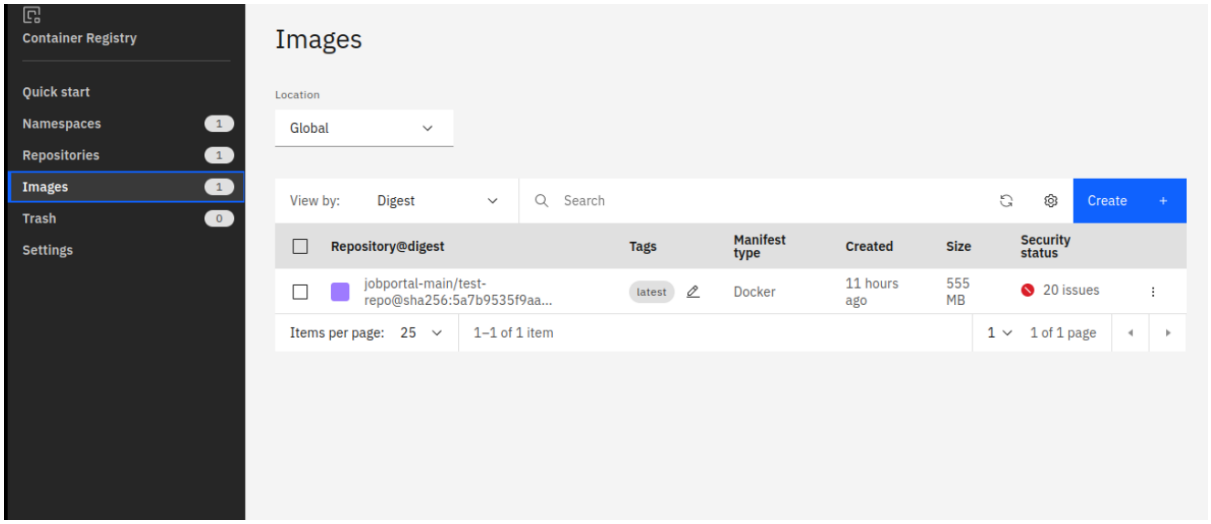



## Question 3:

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

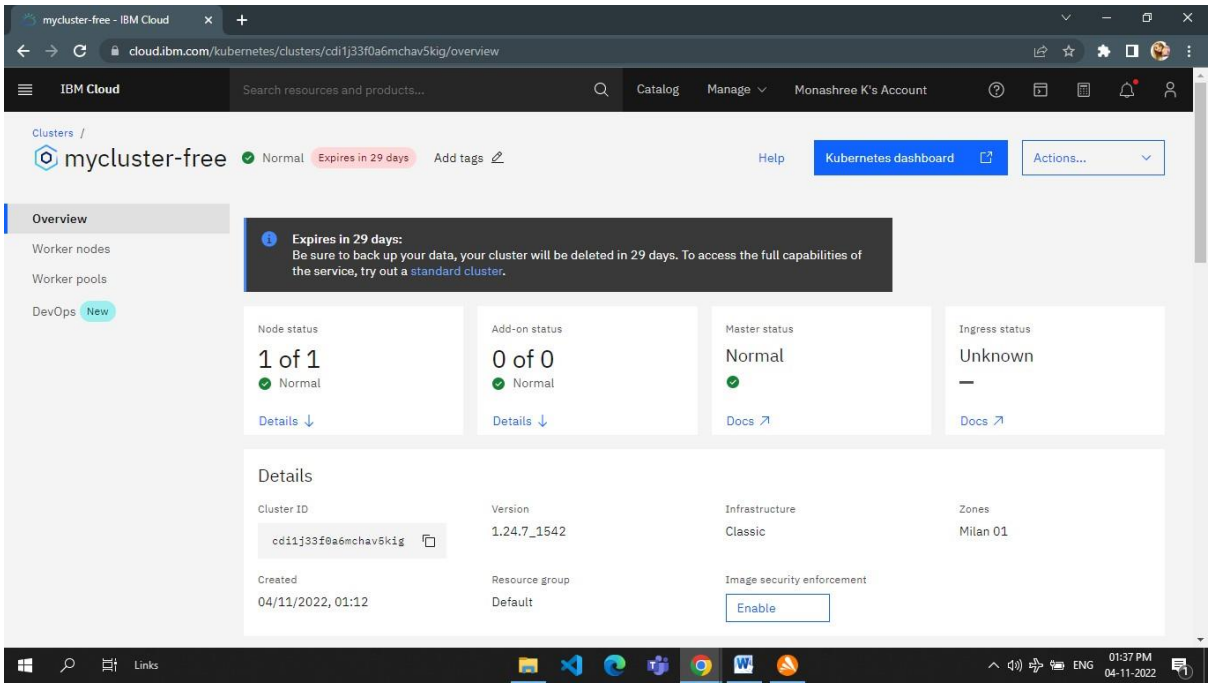


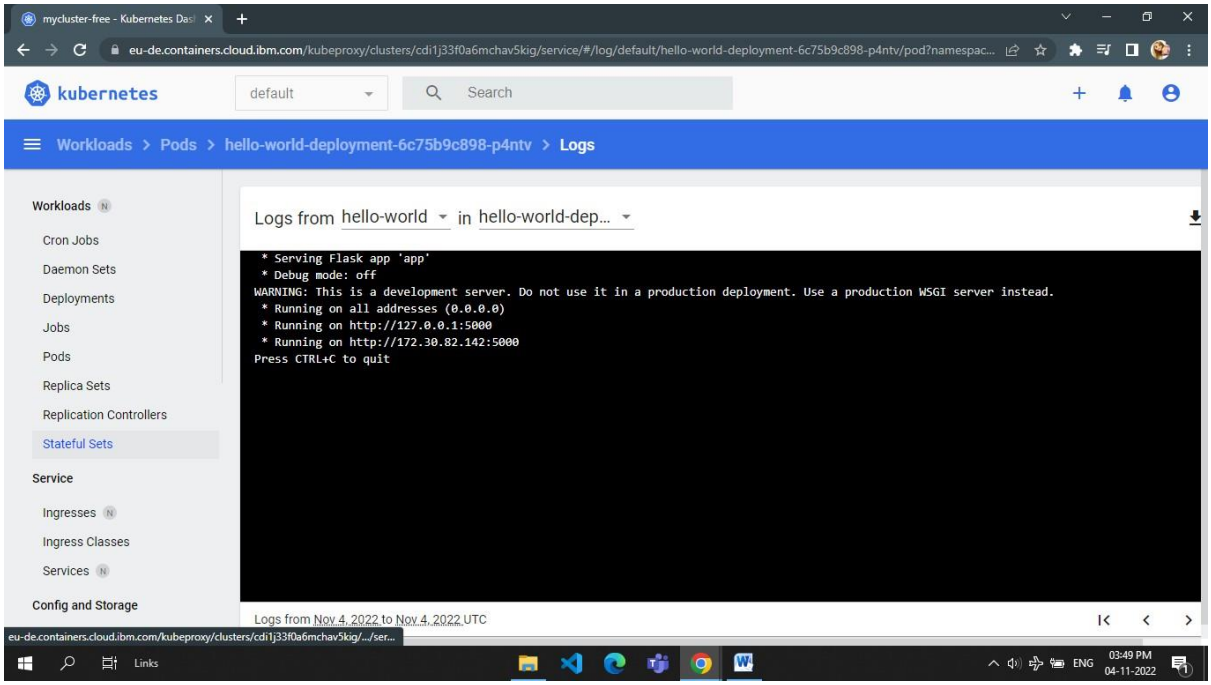
**Question 4:**

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

**Solution 4:**

```
apiVersion:
v1kind:
Service
metadata:
     name: hello-world-
  deploymentspec:
     ports:
     - port: 5000
       targetPort:
     5000selector:
       app: hello-world
  ---
  apiVersion:
  apps/v1kind:
  Deployment
  metadata:
     name: hello-world-
  deploymentspec:
     replic
     as: 1
     select
     or:
       matchLabels:
         app: hello-
     worldtemplate:
       meta
         da
         ta
         :
         la
         be
         ls
         :
           app: hello-
       worldspec:
         containers:
         - name: hello-world
           image: au.icr.io/hello-world-app/hello-
           worldimagePullPolicy: Always
           ports:
           - containerPort: 5000
```


mycluster-free - IBM Cloud
cloud.ibm.com/kubernetes/clusters/cdi1j33f0a6mchav5kig/overview
IBM Cloud
Search resources and products...
Catalog
Manage
Monashree K's Account
Clusters /
mycluster-free
Normal
Expires in 29 days
Add tags
Help
Kubernetes dashboard
Actions...
Overview
Worker nodes
Worker pools
DevOps
New
Expires in 29 days:
Be sure to back up your data, your cluster will be deleted in 29 days. To access the full capabilities of the service, try out a standard cluster.
Node status
1 of 1
Normal
Details
Add-on status
0 of 0
Normal
Details
Master status
Normal
Docs
Ingress status
Unknown
Docs
Details
Cluster ID
cdi1j33f0a6mchav5kig
Version
1.24.7_1542
Infrastructure
Classic
Zones
Milan 01
Created
04/11/2022, 01:12
Resource group
Default
Image security enforcement
Enable
Links
ENG
01:37 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