ASSIGNMENT - 4 : DOCKER DESKTOP (Kubernetes)

Assignment date	18 November 2022
Team Id	PNT2022TMID04044
Maximum Marks	2 Marks

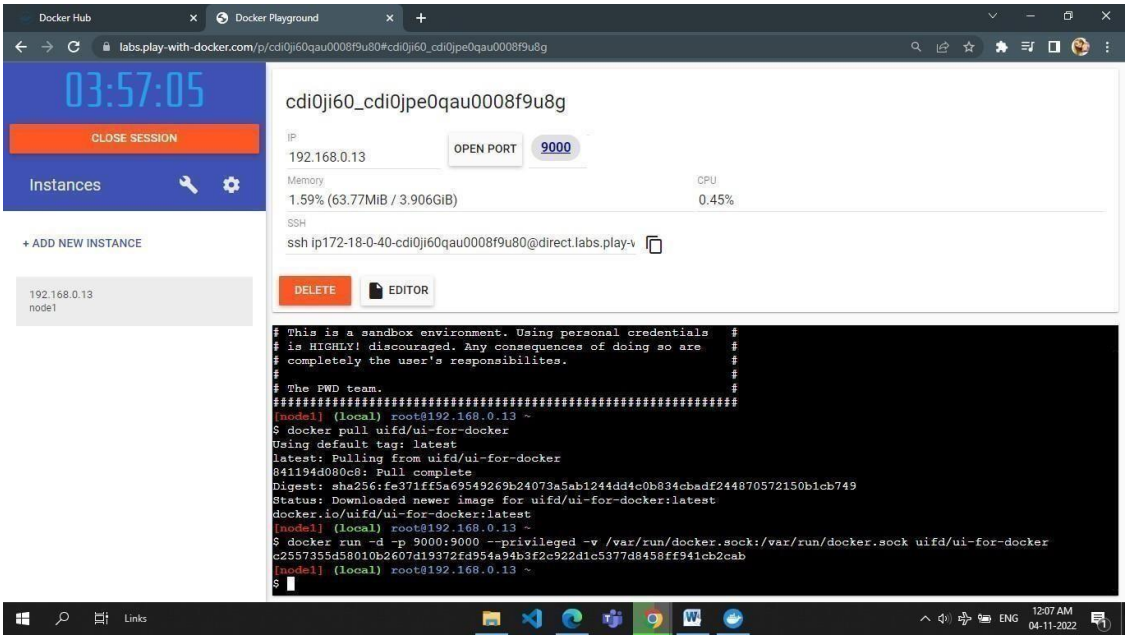
Question 1:

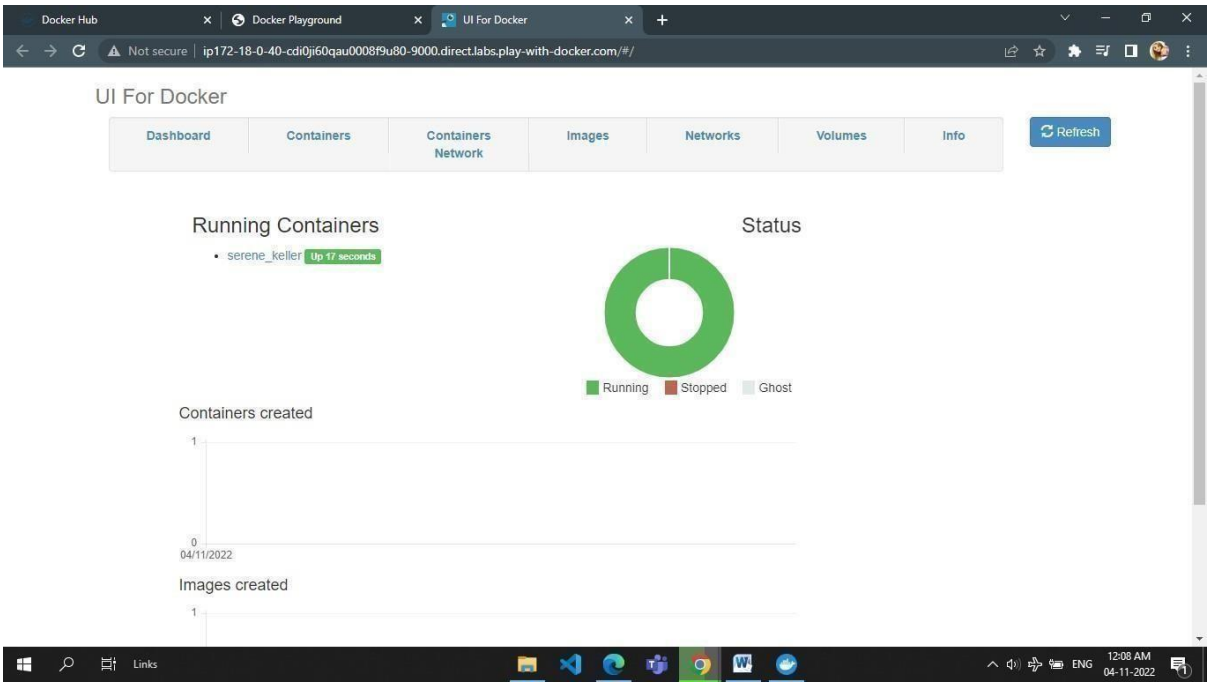
Pull an image from docker hub and run it on docker playground.

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:

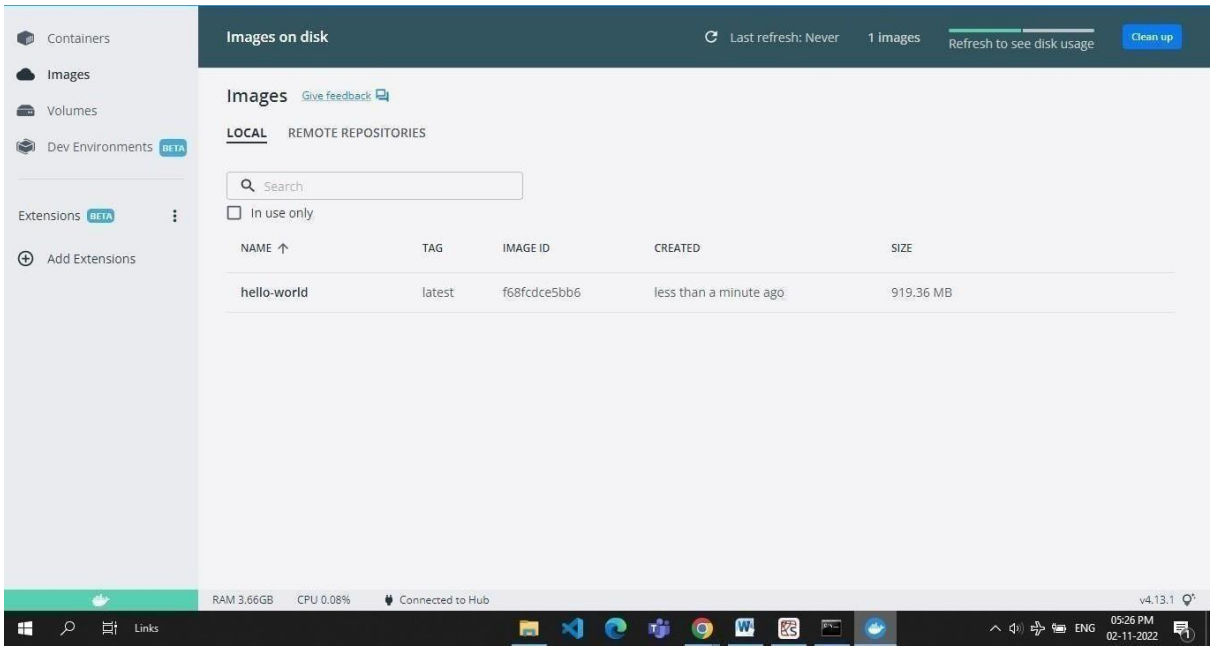
Create a docker file for the job portal app or hello world app and deploy it in docker desktop app. **Solution 2:**

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"]
```

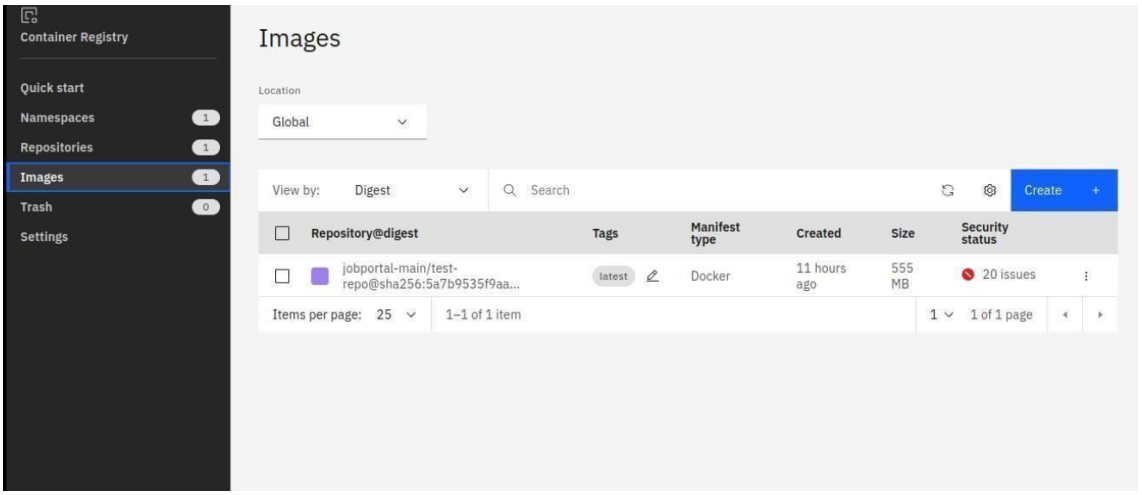


Question 3:

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

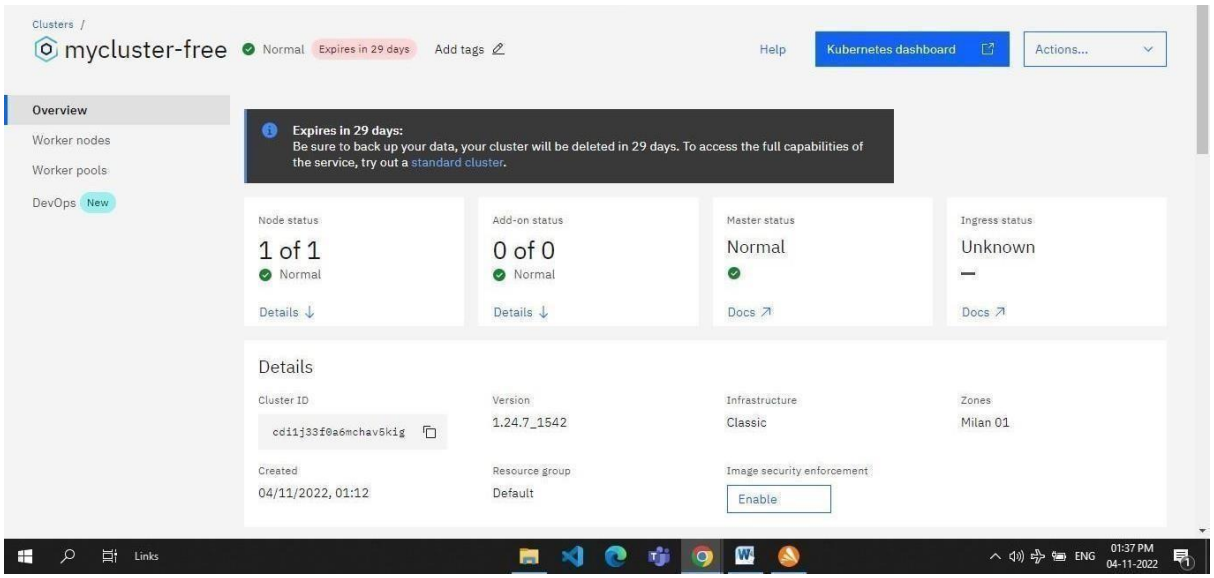


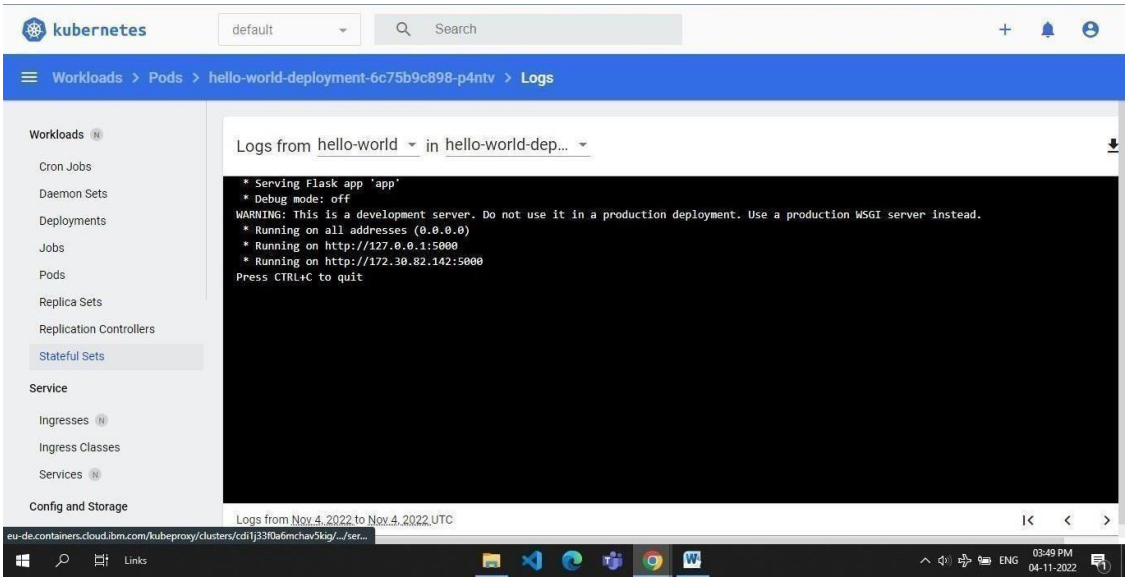
Question 4:

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

Solution 4:

```
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:
     replic as: 1 select
     or:
       matchLabels: app:
         helloworld
     template:
       meta da
       ta  :
       la be
       ls  :
           app: hello-
       world spec:
         containers:
          - name: hello-world image: au.icr.io/hello-worldapp/helloworld
            imagePullPolicy: Always ports:
          - containerPort: 5000
```


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


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