ASSIGNMENT-4

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

BUILT AN DOCKER IMAGE

```
C:\Users\musammil-pt5773\Desktop\Hello_world>docker build -t hello_world .
[+] Building 35.7s (11/11) FINISHED
 => [internal] load build definition from Dockerfile                                                0.1s
 => => transferring dockerfile: 184B                                                                0.0s
 => [internal] load .dockerignore                                                                   0.0s
 => => transferring context: 2B                                                                     0.0s
 => [internal] load metadata for docker.io/library/python:3.10.6                                   30.1s
 => [auth] library/python:pull token for registry-1.docker.io                                       0.0s
 => [internal] load build context                                                                   0.0s
 => => transferring context: 941B                                                                   0.0s
 => [1/5] FROM docker.io/library/python:3.10.6@sha256:745efdfb7e4aac9a8422bd8c62d8bc35a693e8979a240d29677cb03e6aa  0.0s
 => CACHED [2/5] WORKDIR /app                                                                       0.0s
 => [3/5] COPY requirements.txt ./                                                                  0.1s
 => [4/5] RUN pip install -r requirements.txt                                                       4.9s
 => [5/5] COPY . .                                                                                  0.1s
 => exporting to image                                                                              0.2s
 => => exporting layers                                                                             0.2s
 => => writing image sha256:a7dbd8150241a2be3ab2687eaed6a80971e4ed0d82040db40041b596edcda9d0        0.0s
 => => naming to docker.io/library/hello_world                                                      0.0s

Use 'docker scan' to run Snyk tests against images to find vulnerabilities and learn how to fix them

C:\Users\musammil-pt5773\Desktop\Hello_world>docker run -p 5002:5002 hello_world
```

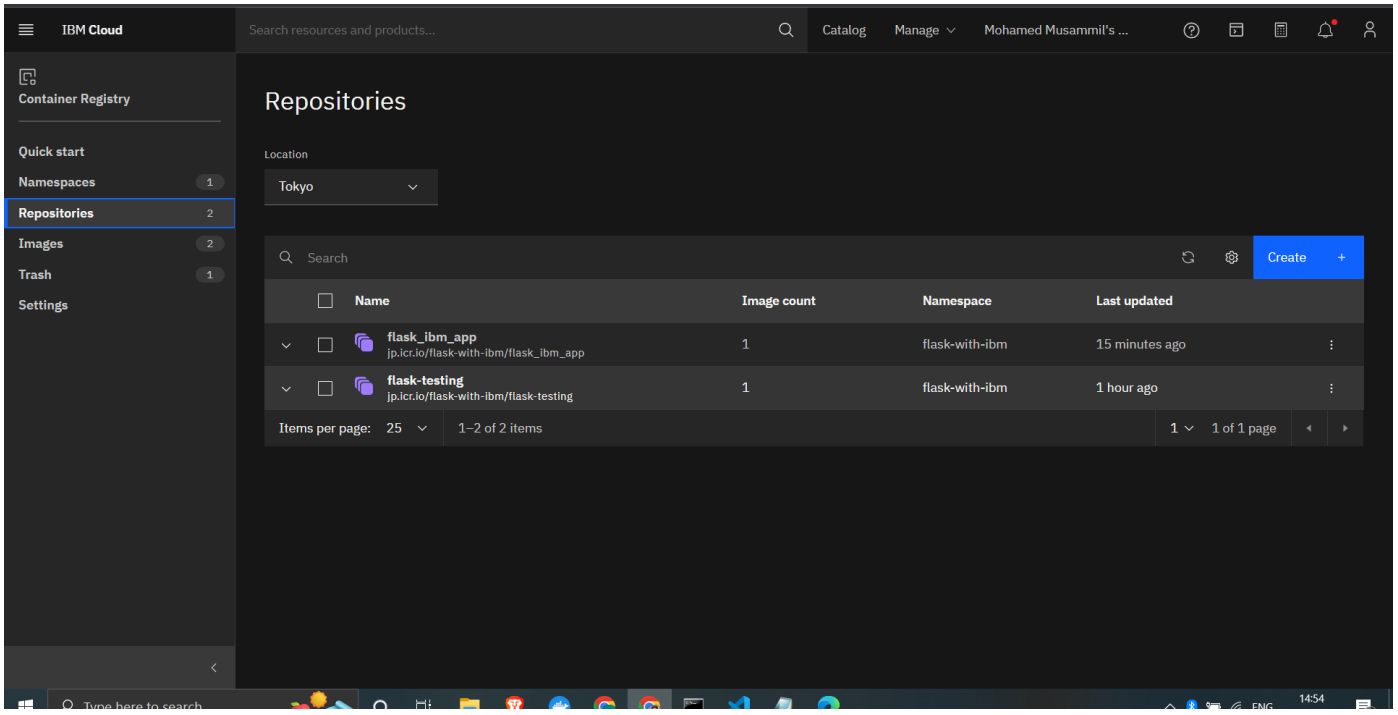
```
Use 'docker scan' to run Snyk tests against images to find vulnerabilities and learn how to fix them

C:\Users\musammil-pt5773\Desktop\Hello_world>docker run -p 5002:5002 hello_world
 * 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://127.0.0.1:5002
 * Running on http://172.17.0.2:5002
Press CTRL+C to quit
```

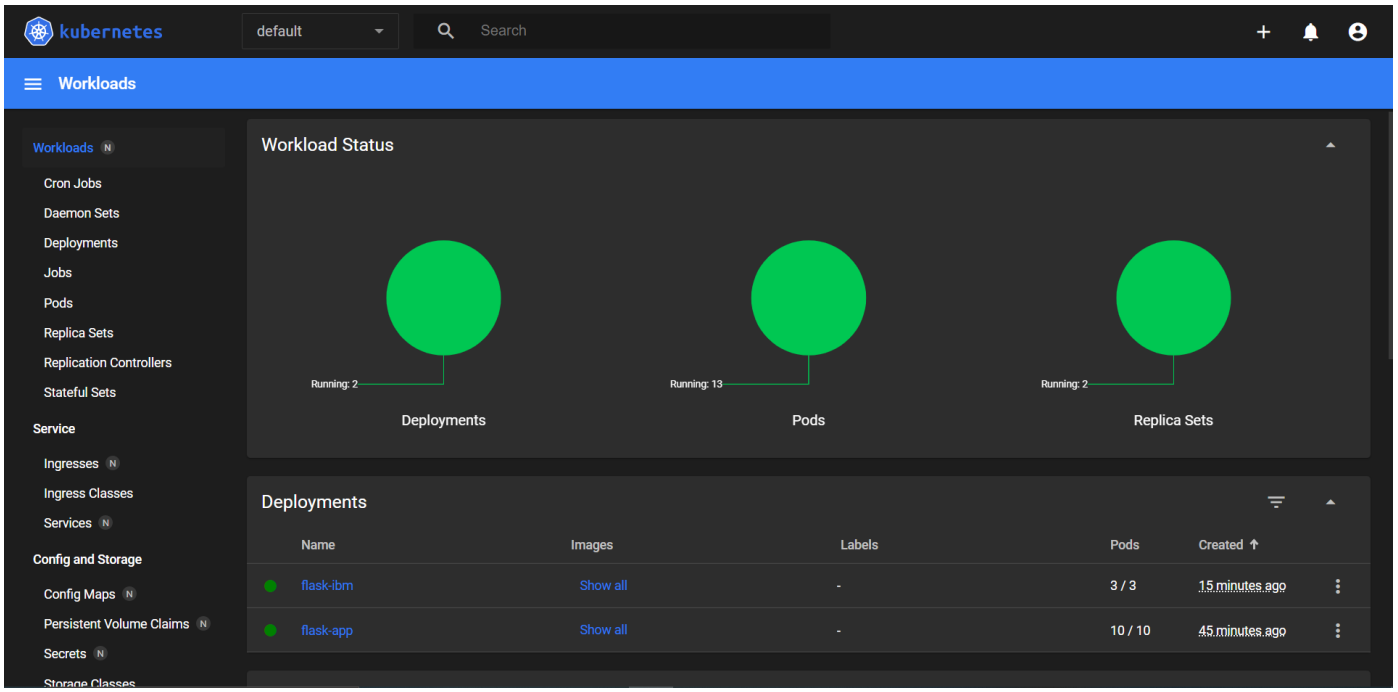
RUNNING IN DOCKER:

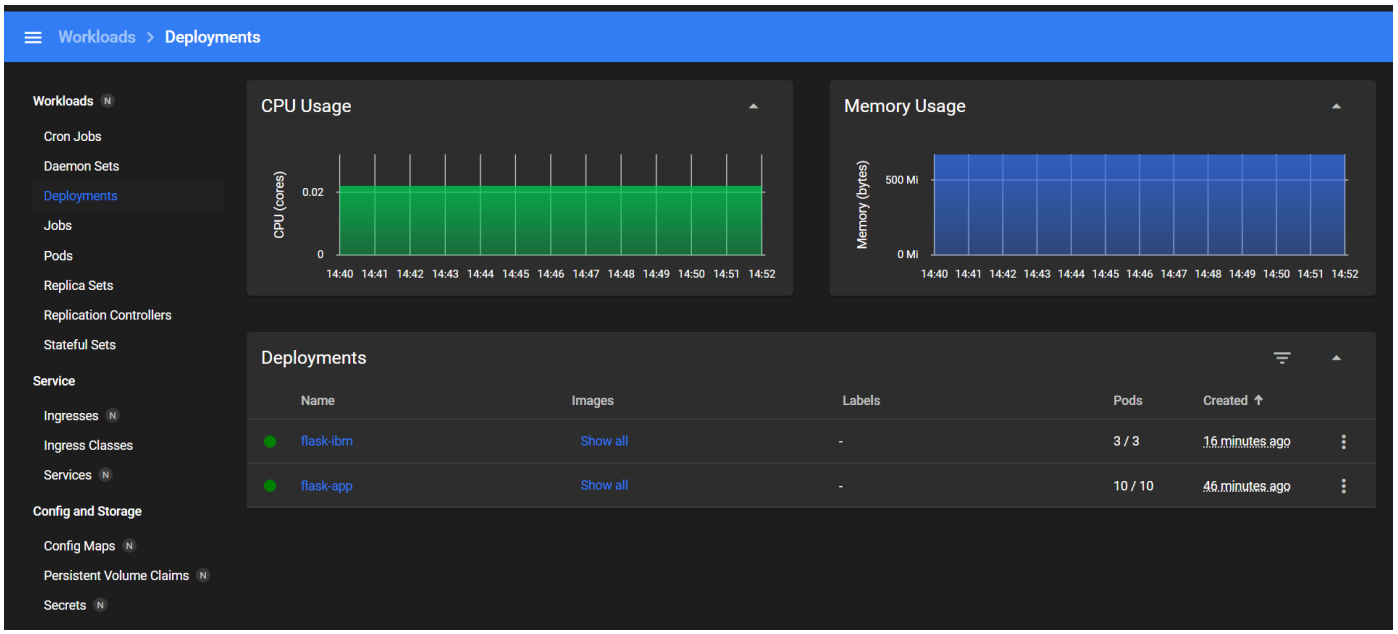
Hello World

2. CREATE AN IBM CONTAINER REGISTRY AND DEPLOY

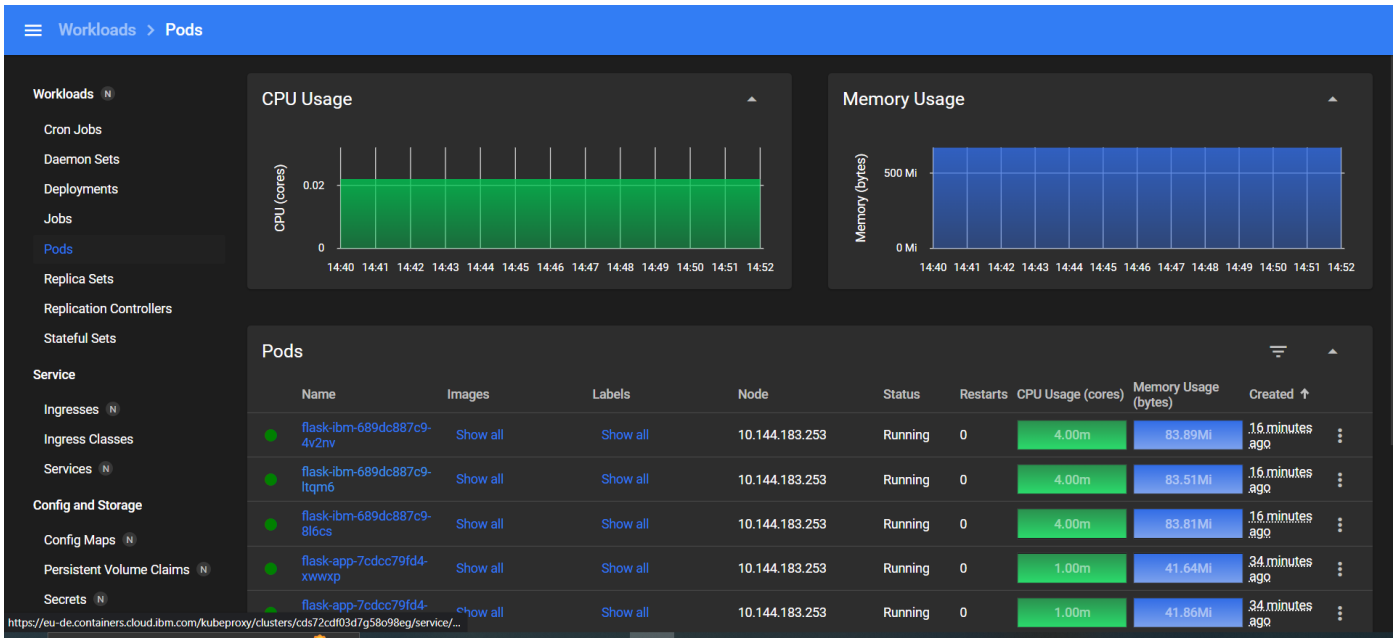


3.Create a IBM container registry and deploy helloworld app or jobportalapp.





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.


Workloads > Pods
Workloads
Cron Jobs
Daemon Sets
Deployments
Jobs
Pods
Replica Sets
Replication Controllers
Stateful Sets
Service
Ingresses
Ingress Classes
Services
Config and Storage
Config Maps
Persistent Volume Claims
Secrets
CPU Usage
CPU (cores)
0.02
0
14:40 14:41 14:42 14:43 14:44 14:45 14:46 14:47 14:48 14:49 14:50 14:51 14:52
Memory Usage
Memory (bytes)
500 Mi
0 Mi
14:40 14:41 14:42 14:43 14:44 14:45 14:46 14:47 14:48 14:49 14:50 14:51 14:52
Pods
Name Images Labels Node Status Restarts CPU Usage (cores) Memory Usage (bytes) Created
flask-ibm-689dc887c9-4v2nv Show all Show all 10.144.183.253 Running 0 4.00m 83.89Mi 16 minutes ago
flask-ibm-689dc887c9-ltqm6 Show all Show all 10.144.183.253 Running 0 4.00m 83.51Mi 16 minutes ago
flask-ibm-689dc887c9-8l6cs Show all Show all 10.144.183.253 Running 0 4.00m 83.81Mi 16 minutes ago
flask-app-7cdcc79fd4-xwwxp Show all Show all 10.144.183.253 Running 0 1.00m 41.64Mi 34 minutes ago
flask-app-7cdcc79fd4- Show all Show all 10.144.183.253 Running 0 1.00m 41.86Mi 34 minutes ago
https://eu-de.containers.cloud.ibm.com/kubeproxy/clusters/cds72cdf03d7g58o98eg/service/...