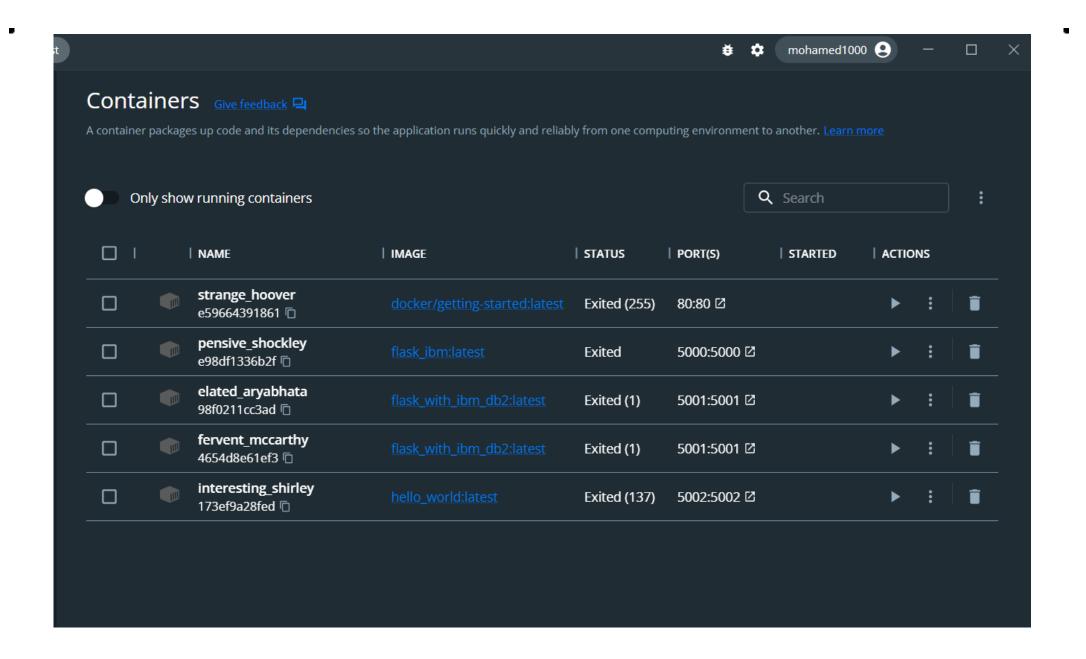
#### Upload Image To IBM Container

Team ID	PNT2022TMID03890	
Project Name	Smart Fashion Recommender Application	

#### **CREATING IMAGE IN DOCKER:**

## **CONTAINERISING THE IMAGE:**

```
C:\Users\musammil-pt5773\Desktop\Python>docker run -p 5000:5000 flask ibm
 * Serving Flask app 'Hello'
 * Debug mode: on
 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://172.17.0.2:5000
Press CTRL+C to quit
 * Restarting with stat
 * Debugger is active!
 * Debugger PIN: 883-075-625
172.17.0.1 - - [18/Nov/2022 12:23:13] "GET / HTTP/1.1" 200 -
172.17.0.1 - - [18/Nov/2022 12:23:13] "GET /static/images/adminad.jfif HTTP/1.1" 304 -
172.17.0.1 - - [18/Nov/2022 12:23:14] "GET /favicon.ico HTTP/1.1" 404 -
172.17.0.1 - - [18/Nov/2022 12:23:15] "GET / HTTP/1.1" 200 -
172.17.0.1 - - [18/Nov/2022 12:23:15] "GET /static/images/adminad.jfif HTTP/1.1" 304 -
172.17.0.1 - - [18/Nov/2022 12:23:18] "GET /login HTTP/1.1" 200 -
172.17.0.1 - - [18/Nov/2022 12:23:18] "GET /static/css/login.css HTTP/1.1" 200 -
172.17.0.1 - - [18/Nov/2022 12:23:18] "GET /static/images/gradient-cactus.jpg HTTP/1.1" 304 -
172.17.0.1 - - [18/Nov/2022 12:23:27] "POST /check HTTP/1.1" 302 -
172.17.0.1 - - [18/Nov/2022 12:23:28] "GET /admin HTTP/1.1" 200 -
172.17.0.1 - - [18/Nov/2022 12:23:47] "GET /logout HTTP/1.1" 302 -
172.17.0.1 - - [18/Nov/2022 12:23:47] "GET /login HTTP/1.1" 200 -
172.17.0.1 - - [18/Nov/2022 12:23:47] "GET /static/css/login.css HTTP/1.1" 304 -
172.17.0.1 - - [18/Nov/2022 12:23:47] "GET /static/images/gradient-cactus.jpg HTTP/1.1" 304 -
172.17.0.1 - - [18/Nov/2022 12:23:57] "POST /check HTTP/1.1" 302 -
172.17.0.1 - - [18/Nov/2022 12:23:57] "GET /home HTTP/1.1" 200 -
172.17.0.1 - - [18/Nov/2022 12:23:57] "GET /static/images/codetree.jpg HTTP/1.1" 200 -
SING THE IMAGE:
```



## IBM CLOUD CR LOGIN:

C:\Users\musammil-pt5773\Desktop\Python>ibmcloud login
API endpoint: https://cloud.ibm.com

Email> sec19cs069@sairamtap.edu.in

Password>
Authenticating...
Credentials were rejected.
Code: BXNIM0602E, message: The credentials you entered for the user 'sec19cs069@sairamtap.edu.in' are incorrect.

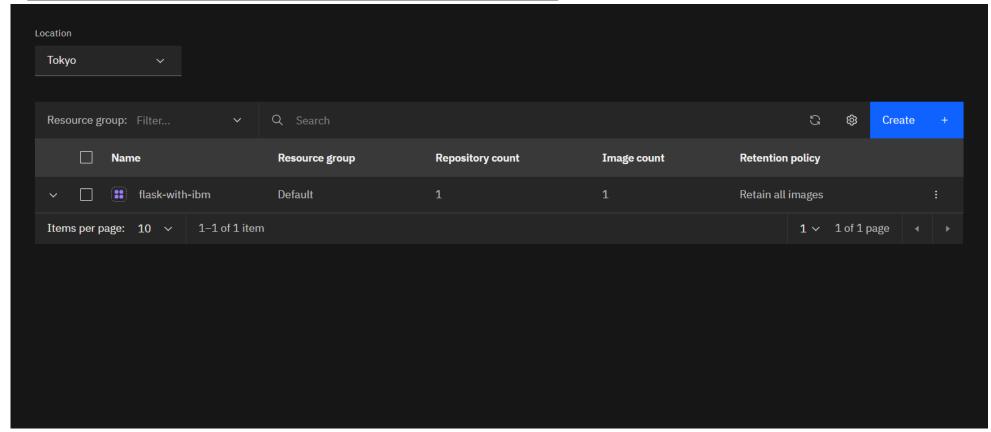
Password>
Authenticating...
Credentials were rejected.
Code: BXNIM0602E, message: The credentials you entered for the user 'sec19cs069@sairamtap.edu.in' are incorrect.

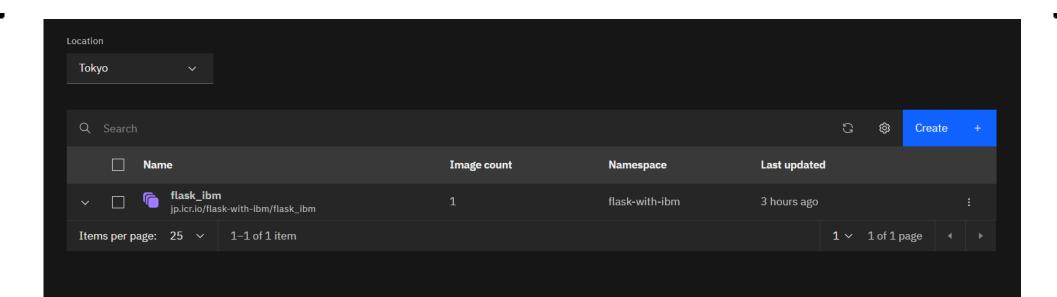
Password>
Authenticating...
Credentials were rejected.
Code: BXNIM0602E, message: The credentials you entered for the user 'sec19cs069@sairamtap.edu.in' are incorrect.

Password>
Authenticating...
OK

Targeted account Mohamed Musammil's Account (f573a30aa84f432a91a05468f825e886)

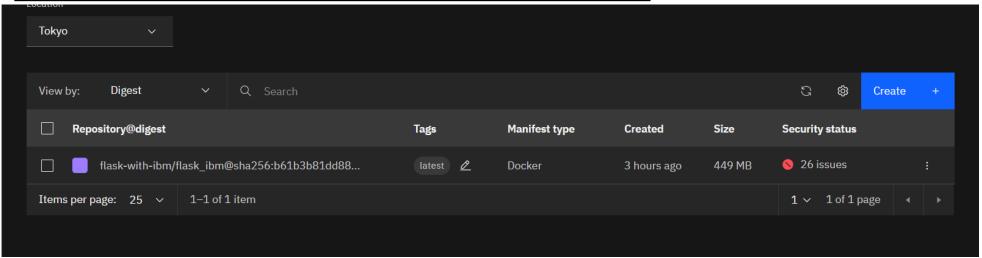
**CREATING REPOSITORY IN IBM CLOUD:** 





C:\Users\musammil-pt5773\Desktop\Python>kubectl -n kubernetes-dashboard describe serviceaccount admin-user admin-user kubernetes-dashboard Namespace: Labels: <none> Annotations: <none> Image pull secrets: <none> Mountable secrets: <none> admin-user-token Tokens: Events: <none> C:\Users\musammil-pt5773\Desktop\Python>kubectl -n kubernetes-dashboard describe secret admin-user-token admin-user-token Name: kubernetes-dashboard Namespace: Labels: <none> Annotations: kubernetes.io/service-account.name: admin-user kubernetes.io/service-account.uid: b2e55ca8-9e50-4092-bc93-8a45a5684b05

#### **UPLOAD IMAGE TO IBM CONTAINER REGISTRY:**



## **PUSHING IMAGE TO IBM CONTAINER REGISTRY:**

```
C:\Users\musammil-pt5773\Desktop\Python>kubectl -n kubernetes-dashboard describe serviceaccount admin-user
                     admin-user
                     kubernetes-dashboard
Namespace:
Labels:
                     <none>
Annotations:
                     <none>
Image pull secrets: <none>
Mountable secrets:
                     <none>
                     admin-user-token
Tokens:
Events:
                     <none>
C:\Users\musammil-pt5773\Desktop\Python>kubectl -n kubernetes-dashboard describe secret admin-user-token
              admin-user-token
Name:
              kubernetes-dashboard
Namespace:
Labels:
              <none>
Annotations: kubernetes.io/service-account.name: admin-user
              kubernetes.io/service-account.uid: b2e55ca8-9e50-4092-bc93-8a45a5684b05
C:\Users\musammil-pt5773\Desktop\Python>ibmcloud login
API endpoint: https://cloud.ibm.com
Email> sec19cs069@sairamtap.edu.in
Password>
Authenticating...
Credentials were rejected.
Code: BXNIM0602E, message: The credentials you entered for the user 'sec19cs069@sairamtap.edu.in' are incorrect.
Password>
Authenticating...
Credentials were rejected.
Code: BXNIM0602E, message: The credentials you entered for the user 'sec19cs069@sairamtap.edu.in' are incorrect.
Password>
Authenticating...
```

Targeted account Mohamed Musammil's Account (f573a30aa84f432a91a05468f825e886)

C:\Users\musammil-pt5773\Desktop\Python>kubectl -n kubernetes-dashboard describe serviceaccount admin-user

Name: admin-user

Namespace: kubernetes-dashboard

Labels: <none>
Annotations: <none>
Image pull secrets: <none>
Mountable secrets: <none>

Tokens: admin-user-token

Events: <none>

C:\Users\musammil-pt5773\Desktop\Python>kubectl -n kubernetes-dashboard describe secret admin-user-token

Name: admin-user-token Namespace: kubernetes-dashboard

Labels: <none>

Annotations: kubernetes.io/service-account.name: admin-user

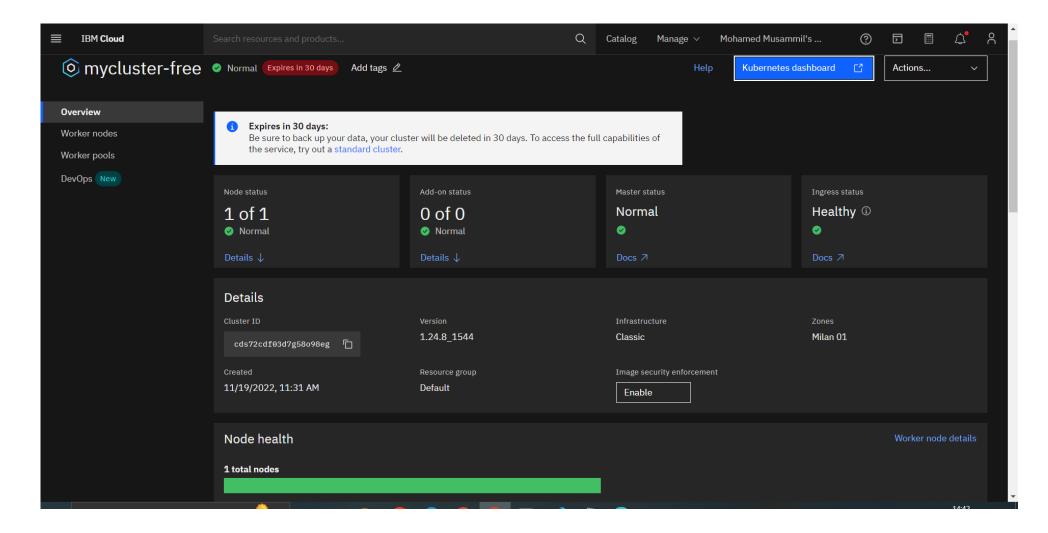
kubernetes.io/service-account.uid: b2e55ca8-9e50-4092-bc93-8a45a5684b05

Type: kuhannatas ja/samujsa assaunt takan

## **CREATING AND GENERATING SERVICE ACCOUNT IN KUBERNETES:**

C:\Users\musammil-pt5773\Desktop\Python>kubectl apply -f dashboard-adminuser.yaml serviceaccount/admin-user unchanged secret/admin-user-token created clusterrolebinding.rbac.authorization.k8s.io/admin-user unchanged

# **CREATING CLUSTER IN IBM CLOUD:**



l

```
:\Users\musammil-pt5773\Desktop\Python>ibmcloud cr login
Logging 'docker' in to 'jp.icr.io'...
Logged in to 'jp.icr.io'.
[+] Building 29.2s (11/11) FINISHED
Use 'docker scan' to run Snyk tests against images to find vulnerabilities and learn how to fix them
 :\Users\musammil-pt5773\Desktop\Python>docker run -p 5000:5000 flask ibm
 * Serving Flask app 'Hello'
 * Debug mode: on
 ARNING: 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://172.17.0.2:5000
 * Restarting with stat
 * Debugger is active!
 * Debugger PIN: 444-602-454
172.17.0.1 - - [19/Nov/2022 09:00:27] "GET / HTTP/1.1" 200 -
172.17.0.1 - - [19/Nov/2022 09:00:27] "GET /static/images/adminad.jfif HTTP/1.1" 200 -
172.17.0.1 - - [19/Nov/2022 09:00:27] "GET /favicon.ico HTTP/1.1" 404 -
```

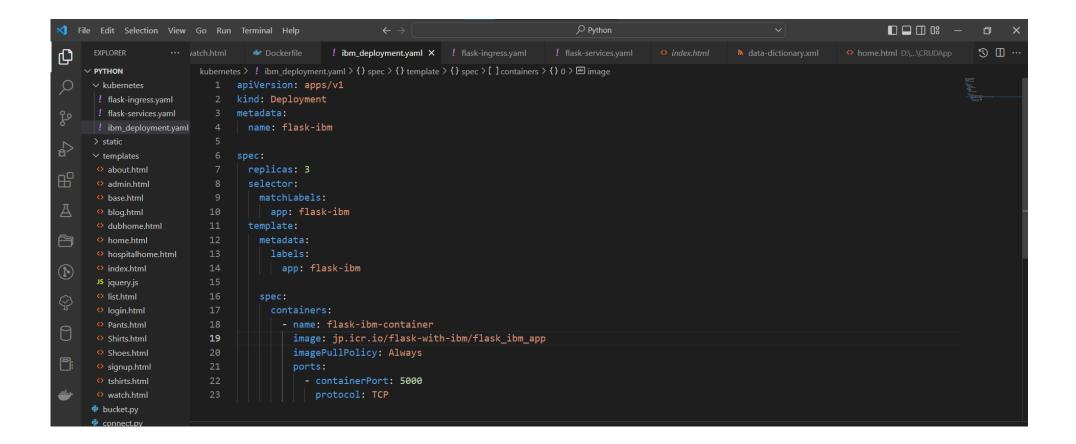
```
:\Users\musammil-pt5773\Desktop\Python>ibmcloud cr login
 ogging 'docker' in to 'jp.icr.io'...
 ogged in to 'jp.icr.io'.
  \Users\musammil-pt5773\Desktop\Python>docker tag flask_ibm jp.icr.io/flask-with-ibm/flask_ibm_app
 :\Users\musammil-pt5773\Desktop\Python>docker push jp.icr.io/flask-with-ibm/flask_ibm_app
Jsing default tag: latest
The push refers to repository [jp.icr.io/flask-with-ibm/flask ibm app]
fa633a880ff3: Preparing
89184a79e390: Preparing
60f225c40618: Preparing
Bee2800597ab: Preparing
ofc1deb8136e: Preparing
1f123186824c: Waiting
3d6eb1152931: Waiting
100796cdf3b1: Waiting
54acb5a6fa0b: Waiting
8d51c618126f: Waiting
9ff6e4d46744: Waiting
a89d1d47b5a1: Waiting
655ed1b7a428: Waiting
denied: You have exceeded your storage quota. Delete one or more images, or review your storage quota and pricing plan. For more information, see https://ibm.biz/BdPdFA.
::\Users\musammil-pt5773\Desktop\Python>docker push jp.icr.io/flask-with-ibm/flask_ibm_app
Using default tag: latest
The push refers to repository [jp.icr.io/flask-with-ibm/flask ibm app]
 a633a880ff3: Pushed
89184a79e390: Mounted from flask-with-ibm/flask_ibm
60f225c40618: Mounted from flask-with-ibm/flask ibm
3ee2800597ab: Mounted from flask-with-ibm/flask ibm
bfc1deb8136e: Mounted from flask-with-ibm/flask ibm
1f123186824c: Mounted from flask-with-ibm/flask ibm
3d6eb1152931: Mounted from flask-with-ibm/flask ibm
100796cdf3b1: Mounted from flask-with-ibm/flask ibm
54acb5a6fa0b: Mounted from flask-with-ibm/flask ibm
8d51c618126f: Mounted from flask-with-ibm/flask ibm
9ff6e4d46744: Mounted from flask-with-ibm/flask_ibm
a89d1d47b5a1: Mounted from flask-with-ibm/flask ibm
655ed1b7a428: Mounted from flask-with-ibm/flask_ibm
latest: digest: sha256:3c05e72b6f00fc7d462ab6f00105c48c270dec08352e71a07199921550e9e0bb size: 3053
```

```
C:\Users\musammil-pt5773\Desktop\Python>kubectl apply -f kubernetes/flask-services.yaml
service/flask-ibmapp-service configured
C:\Users\musammil-pt5773\Desktop\Python>kubectl apply -f kubernetes/flask-ingress.yaml
ingress.networking.k8s.io/flask-ibmapp-ingress unchanged
C:\Users\musammil-pt5773\Desktop\Python>kubectl apply -f kubernetes/ibm deployment.yaml
deployment.apps/flask-ibm unchanged
C:\Users\musammil-pt5773\Desktop\Python>kubectl get svc
NAME
                                                                 PORT(S)
                                                                                   AGE
                       TYPE
                                   CLUSTER-IP
                                                   EXTERNAL-IP
flask-app-service
                                   172.21.127.57
                                                                  5005:30036/TCP
                       NodePort
                                                                                   94m
                                                   <none>
flask-ibmapp-service
                                                                  5000:31036/TCP
                                                                                   64m
                       NodePort
                                   172.21.59.183
                                                   <none>
kubernetes
                                                                                   4h4m
                       ClusterIP
                                   172.21.0.1
                                                   <none>
                                                                 443/TCP
C:\Users\musammil-pt5773\Desktop\Python>kubectl get ing
NAME
                                        ADDRESS
                                HOSTS
                       CLASS
                                                  PORTS
                                                          AGE
flask-app-ingress
                       <none>
                                                  80
                                                          94m
flask-ibmapp-ingress
                                                          64m
                                                  80
                       <none>
C:\Users\musammil-pt5773\Desktop\Python>kubectl get nodes -o wide
                                           VERSION
MAME
                 STATUS
                         ROLES
                                   AGE
                                                         INTERNAL-IP
                                                                           EXTERNAL-IP
                                                                                            OS-IMAGE
                                                                                                                 KERNEL-V
ERSION
            CONTAINER-RUNTIME
10.144.183.253
                 Readv
                          <none>
                                   3h56m
                                           v1.24.7+IKS
                                                         10.144.183.253
                                                                           169.51.194.250
                                                                                            Ubuntu 18.04.6 LTS
                                                                                                                 4.15.0-1
94-generic
            containerd://1.6.8
```

C:\Users\musammil-pt5773\Desktop\Python>\_

```
::\Users\musammil-pt5773\Desktop\Python>
:\Users\musammil-pt5773\Desktop\Python>ibmcloud ks cluster config --cluster cds72cdf03d7g58o98eg
The configuration for cds72cdf03d7g58o98eg was downloaded successfully.
Added context for cds72cdf03d7g58o98eg to the current kubeconfig file.
You can now execute 'kubectl' commands against your cluster. For example, run 'kubectl get nodes'.
If you are accessing the cluster for the first time, '\mathsf{kubectl'} commands might fail for a few seconds while RBAC synchronizes.
 :\Users\musammil-pt5773\Desktop\Python>ibmcloud ks cluster ls
                                                               Workers
                                        State
                                                 Created
                                                                         Location Version
                                                                                                  Resource Group Name
                                                                                                                        Provider
nycluster-free cds72cdf03d7g58o98eg normal 3 hours ago 1
                                                                         ams03
                                                                                    1.24.8 1544
                                                                                                  Default
                                                                                                                         classic
::\Users\musammil-pt5773\Desktop\Python>kubectl config current-context
mycluster-free/cds72cdf03d7g58o98eg
::\Users\musammil-pt5773\Desktop\Python>kubect apply -f kubernetes/ibm deployment.yaml
'kubect' is not recognized as an internal or external command.
operable program or batch file.
C:\Users\musammil-pt5773\Desktop\Python>kubectl apply -f kubernetes/ibm deployment.yaml
deployment.apps/flask-ibm created
::\Users\musammil-pt5773\Desktop\Python>kubectl apply -f kubernetes/flask-services.yaml
service/flask-ibmapp-service created
C:\Users\musammil-pt5773\Desktop\Python>kubectl apply -f kubernetes/flask-ingres.yaml
error: the path "kubernetes/flask-ingres.yaml" does not exist
:\Users\musammil-pt5773\Desktop\Python>kubectl apply -f kubernetes/flask-ingress.yaml
ingress.networking.k8s.io/flask-ibmapp-ingress created
C:\Users\musammil-pt5773\Desktop\Python>ibmcloud login
API endpoint: https://cloud.ibm.com
Region: jp-tok
Email> sec19cs069@sairamtap.edu.in
Password>
Authenticating...
Credentials were rejected.
Code: BXNIM0602E, message: The credentials you entered for the user 'sec19cs069@sairamtap.edu.in' are incorrect.
Password>
Authenticating...
```



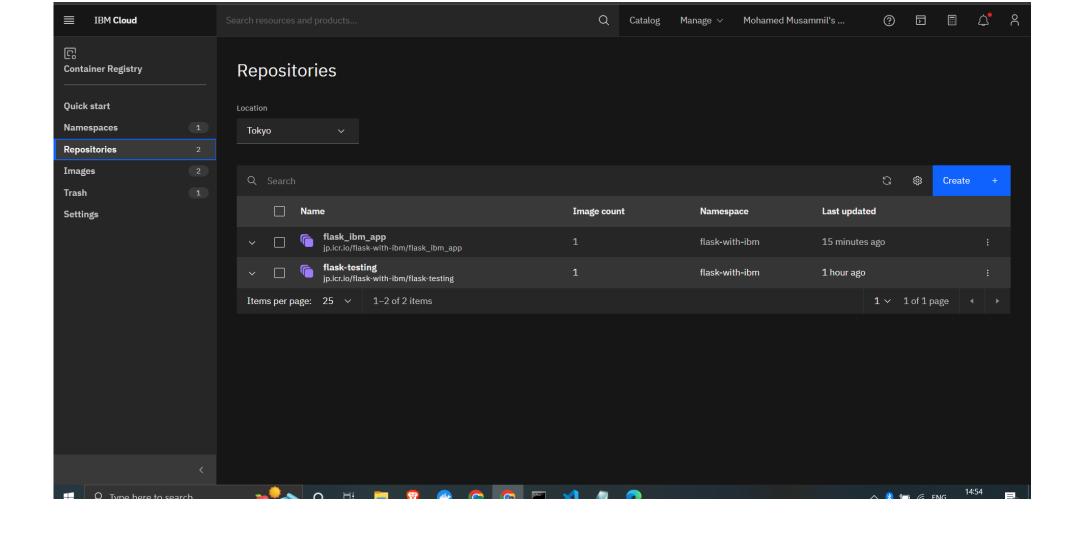


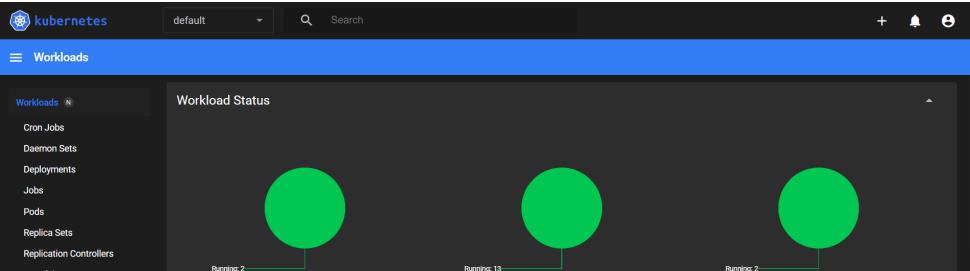
## **DEPLOY IN KUBERNETES CLUSTER**

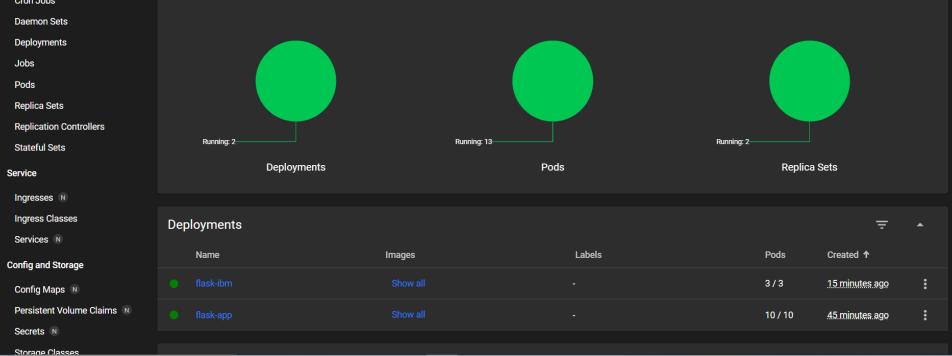
```
Password>
Authenticating...
Targeted account Mohamed Musammil's Account (f573a30aa84f432a91a05468f825e886)
API endpoint:
                 jp-tok
 legion:
                 sec19cs069@sairamtap.edu.in
Jser:
                 Mohamed Musammil's Account (f573a30aa84f432a91a05468f825e886)
Account:
 lesource group:
                 No resource group targeted, use 'ibmcloud target -g RESOURCE GROUP'
 F API endpoint:
Org:
Space:
 :\Users\musammil-pt5773\Desktop\Python>kubectl apply -f kubernetes/ibm deployment.yaml
deployment.apps/flask-ibm unchanged
 :\Users\musammil-pt5773\Desktop\Python>kubectl get svc
                                CLUSTER-IP
NAME
                     TYPE
                                               EXTERNAL-IP PORT(S)
flask-app-service
                     ClusterIP 172.21.127.57 <none>
                                                             5005/TCP
flask-ibmapp-service ClusterIP 172.21.59.183 <none>
                                                             5000/TCP 7m18s
                     ClusterIP 172.21.0.1
                                                             443/TCP 3h7m
 :\Users\musammil-pt5773\Desktop\Python>kubectl get ing
                    CLASS
                             HOSTS ADDRESS PORTS AGE
flask-app-ingress
                                              80
                    <none>
flask-ibmapp-ingress <none>
                                               80
                                                      7m16s
 :\Users\musammil-pt5773\Desktop\Python>kubectl get nodes -o wide
               STATUS ROLES AGE VERSION INTERNAL-IP
                                                                                                                            CONTAINER-RUNTIME
                                                                    EXTERNAL-IP
                                                                                    OS-IMAGE
                                                                                                        KERNEL-VERSION
10.144.183.253 Ready
                       <none> 179m v1.24.7+IKS 10.144.183.253 169.51.194.250 Ubuntu 18.04.6 LTS 4.15.0-194-generic containerd://1.6.8
 :\Users\musammil-pt5773\Desktop\Python>
```

```
C:\Users\musammil-pt5773\Desktop\Python>kubectl apply -f kubernetes/flask-services.yaml
service/flask-ibmapp-service configured
C:\Users\musammil-pt5773\Desktop\Python>kubectl apply -f kubernetes/flask-ingress.yaml
ingress.networking.k8s.io/flask-ibmapp-ingress unchanged
C:\Users\musammil-pt5773\Desktop\Python>kubectl apply -f kubernetes/ibm deployment.yaml
deployment.apps/flask-ibm unchanged
C:\Users\musammil-pt5773\Desktop\Python>kubectl get svc
NAME
                                   CLUSTER-IP
                                                                 PORT(S)
                       TYPE
                                                   EXTERNAL-IP
                                                                                  AGE
flask-app-service
                                                                 5005:30036/TCP
                      NodePort
                                   172.21.127.57
                                                                                  94m
                                                   <none>
flask-ibmapp-service
                      NodePort
                                  172.21.59.183
                                                                 5000:31036/TCP
                                                   <none>
                                                                                  64m
kubernetes
                      ClusterIP
                                  172.21.0.1
                                                                 443/TCP
                                                                                  4h4m
                                                   <none>
C:\Users\musammil-pt5773\Desktop\Python>kubectl get ing
                                       ADDRESS
                                                  PORTS
MAME
                      CLASS
                                HOSTS
                                                          AGE
flask-app-ingress
                       <none>
                                                  80
                                                          94m
flask-ibmapp-ingress
                       <none>
                                                  80
                                                          64m
C:\Users\musammil-pt5773\Desktop\Python>kubectl get nodes -o wide
                                           VERSION
                                                         INTERNAL-IP
NAME
                 STATUS
                         ROLES
                                   AGE
                                                                          EXTERNAL-IP
                                                                                           OS-IMAGE
                                                                                                                KERNEL-V
ERSION
            CONTAINER-RUNTIME
10.144.183.253
                 Ready
                          <none>
                                   3h56m
                                          v1.24.7+IKS
                                                         10.144.183.253
                                                                          169.51.194.250
                                                                                           Ubuntu 18.04.6 LTS
                                                                                                                4.15.0-1
94-generic
            containerd://1.6.8
```

::\Users\musammil-pt5773\Desktop\Python>\_







#### **■ Workloads > Deployments**

Workloads N

Cron Jobs

Daemon Sets

Deployments

Jobs

Pods

Replica Sets

**Replication Controllers** 

Stateful Sets

#### Service

Ingresses N

Ingress Classes

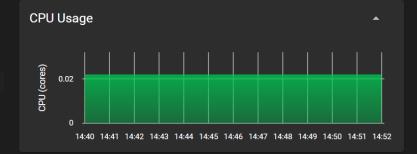
Services N

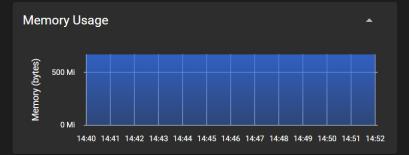
#### Config and Storage

Config Maps N

Persistent Volume Claims N

Secrets N





Dep	oloyments				포	•
	Name	Images	Labels	Pods	Created ↑	
				3/3	16 minutes ago	:
				10 / 10	46.minutes.ago	:

