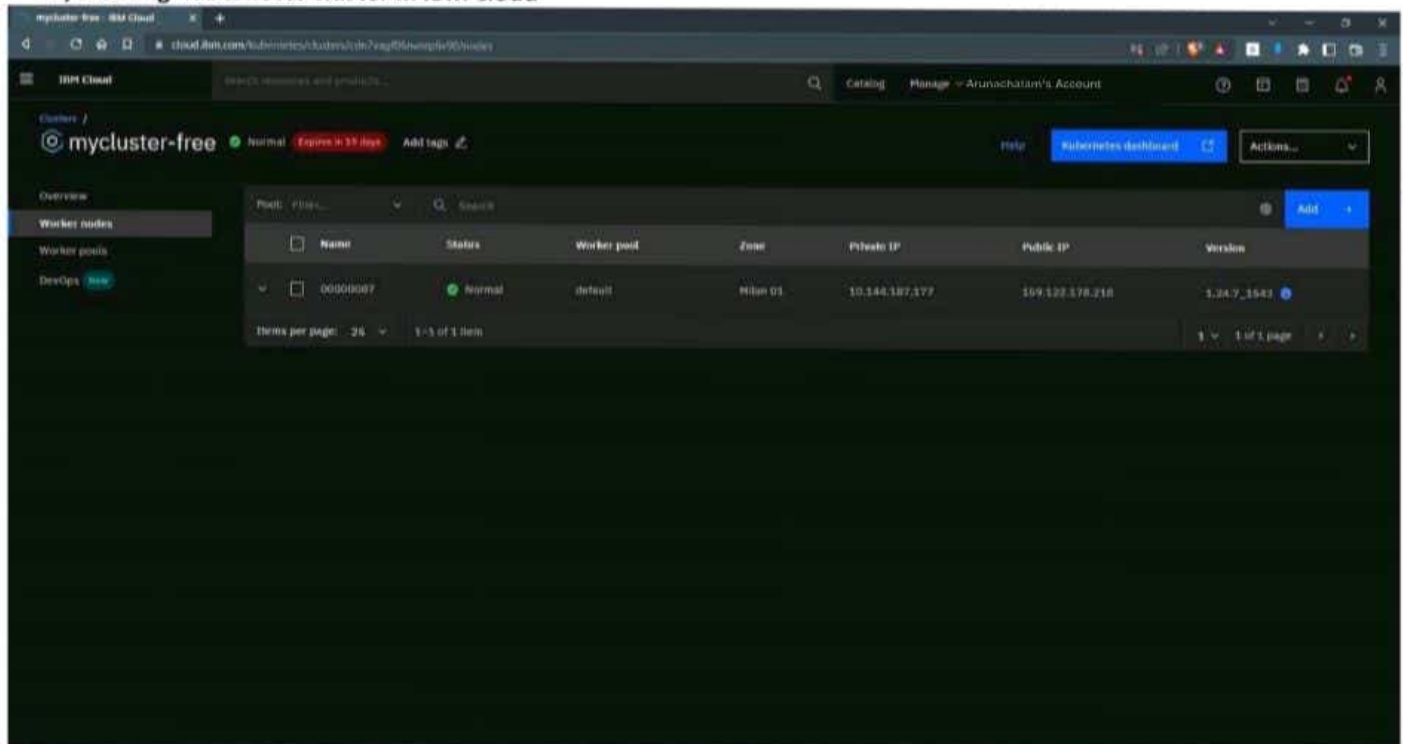


Create a Kubernetes cluster in IBM cloud and deploy helloworld image or jobportal image or any other image and also expose the same app to run in nodeport.

1) Creating Kubernetes cluster in IBM cloud



2) deploy helloworld image or jobportal image and also expose the same app to run in nodeport

```
Windows PowerShell

Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS C:\Users\Arunach\Desktop\Assignment4> ibmcloud login -a cloud.ibm.com -r eu-de -g Default
API endpoint: https://cloud.ibm.com

Email> mdyaseen.246@gmail.com

Password>
Authenticating...
OK

Targeted account Mohamed Yaseen's Account (b16c6751380c4cf5b9c374e8dd38ae18)
Targeted resource group Default
Targeted region eu-de

API endpoint: https://cloud.ibm.com
Region: eu-de
User: mdyaseen.246@gmail.com
Account: Mohamed Yaseen's Account (b16c6751380c4cf5b9c374e8dd38ae18)
Resource group: Default
CF API endpoint:
Org:
Space:
PS C:\Users\Arunach\Desktop\Assignment4> kubectl apply -f .\kubernetes\ibm_deployment.yaml
deployment.apps/ibm-project created
PS C:\Users\Arunach\Desktop\Assignment4> |
```

mycluster-free - Kubernetes Dashboard

eu-de.containers.cloud.ibm.com/kubeptray/clusters/ukb39080um7d9g1x10/service/default/workloads?namespace=default

Workloads

Workload Status

Running 2 Deployments Running 6 Pods Running 1 Replica Sets

Deployments

Name	Images	Labels	Pods	Created ↑
mycluster-free	Show all		3 / 3	an hour ago
longhorn-deployment	Show all	Show all	1 / 1	3 hours ago

Pods

Name	Images	Labels	Node	Status	Restarts	CPU Usage (cores)	Memory Usage (bytes)	Created ↑
mycluster-free	Show all	Show all	10.144.185.70	Running	0	1.0000	100.0000	an hour ago

mycluster-free - Kubernetes Dashboard

eu-de.containers.cloud.ibm.com/kubeptray/clusters/ukb39080um7d9g1x10/service/default/workloads?namespace=default/container-mycluster-free

Workloads > Pods > mycluster-free > Logs

Logs from mycluster-free in mycluster-free

```
* Serving static 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://172.30.25.155:5000
Press CTRL+C to quit
```

Logs from Nov 22, 2022 to Nov 22, 2022 UTC

```
Windows PowerShell

Targeted region eu-de

API endpoint:      https://cloud.ibm.com
Region:           eu-de
User:             mdyaseen.246@gmail.com
Account:          Mohamed Yaseen's Account (b16c6751380c4cf5b9c374e8dd38ae18)
Resource group:   Default
CF API endpoint:
Org:
Space:
PS C:\Users\Arunach\Desktop\Assignment4> kubectl apply -f .\kubernetes\ibm_deployment.yaml
deployment.apps/ibm-project created
PS C:\Users\Arunach\Desktop\Assignment4> kubectl get ing
NAME          CLASS  HOSTS  ADDRESS  PORTS  AGE
flask-app-ingress  <none> *      80      186m
PS C:\Users\Arunach\Desktop\Assignment4> kubectl expose deployment mycluster-free --type=NodePort --name=flask-service
service/flask-service exposed
PS C:\Users\Arunach\Desktop\Assignment4> kubectl proxy
Starting to serve on 127.0.0.1:8001
PS C:\Users\Arunach\Desktop\Assignment4> kubectl get svc
NAME                TYPE        CLUSTER-IP    EXTERNAL-IP  PORT(S)          AGE
flask-app-service   NodePort    172.21.169.184 <none>       5000:32672/TCP   110m
flask-service       NodePort    172.21.258.81  <none>       5000:32015/TCP   117s
ibmproject          NodePort    172.21.91.42   <none>       3000:30960/TCP   3h34m
kubernetes          ClusterIP   172.21.0.1     <none>       443/TCP          4h1m
mycluster-free-service NodePort    172.21.163.161 <none>       5000:31134/TCP   92m
yaseen-project-service ClusterIP   172.21.65.168  <none>       5000/TCP         119m
PS C:\Users\Arunach\Desktop\Assignment4> |
```

