

Creating Kubernetes Cluster using IBM Cloud Container Registry

```
C:\Windows\System32\cmd.exe
bfc1deb8136e: Mounted from mod-01/ibm-db2-docker
1f123186824c: Mounted from mod-01/ibm-db2-docker
3d6eb1152931: Mounted from mod-01/ibm-db2-docker
100796cdf3b1: Mounted from mod-01/ibm-db2-docker
54acb5a6fa0b: Mounted from mod-01/ibm-db2-docker
8d51c618126f: Mounted from mod-01/ibm-db2-docker
9ff6e4d46744: Mounted from mod-01/ibm-db2-docker
a89d1d47b5a1: Mounted from mod-01/ibm-db2-docker
655ed1b7a428: Mounted from mod-01/ibm-db2-docker
latest: digest: sha256:7e60b8c662fa6836bed998ea2f97a3a31e7ddfb131dd7096a2eecd8288bbf27 size: 3265

C:\Users\kishore kumar\Desktop\Pda>kubectl config get-contexts
CURRENT  NAME      CLUSTER  AUTHINFO  NAMESPACE
*        docker-desktop  docker-desktop  docker-desktop

C:\Users\kishore kumar\Desktop\Pda>kubectl apply -f kubernetes/ibm_deployment.yaml
deployment.apps/pda created

C:\Users\kishore kumar\Desktop\Pda>kubectl apply -f kubernetes/flask_service.yaml
service/flask-app-service created

C:\Users\kishore kumar\Desktop\Pda>kubectl apply -f kubernetes/flask_ingress.yaml
ingress.networking.k8s.io/pda-ingress created

C:\Users\kishore kumar\Desktop\Pda>kubectl get ing
NAME      CLASS  HOSTS      ADDRESS      PORTS      AGE
pda-ingress  <none>  *          192.168.65.4  80         25s

C:\Users\kishore kumar\Desktop\Pda>kubectl get svc
NAME      TYPE      CLUSTER-IP  EXTERNAL-IP  PORT(S)      AGE
flask-app-service  ClusterIP  10.97.238.223  <none>       5000/TCP     2m5s
kubernetes        ClusterIP  10.96.0.1      <none>       443/TCP      38h

C:\Users\kishore kumar\Desktop\Pda>kubectl get nodes -o wide
NAME      STATUS  ROLES      AGE  VERSION  INTERNAL-IP  EXTERNAL-IP  OS-IMAGE      KERNEL-VERSION  CONTAINER-RUNTIME
E
docker-desktop  Ready   control-plane  38h  v1.25.0   192.168.65.4  <none>       Docker Desktop  5.10.16.3-microsoft-standard-WSL2  docker://20.10.17
```

```
C:\Windows\System32\cmd.exe
C:\Users\kishore kumar\Desktop\Pda>kubectl describe svc flask-app-service
Name:         flask-app-service
Namespace:    default
Labels:       <none>
Annotations:  <none>
Selector:     app=pda
Type:         ClusterIP
IP Family Policy: SingleStack
IP Families:  IPv4
IP:           10.97.238.223
IPs:          10.97.238.223
Port:         <unset> 5000/TCP
TargetPort:   5000/TCP
Endpoints:    <none>
Session Affinity: None
Events:       <none>

C:\Users\kishore kumar\Desktop\Pda>kubectl describe svc pda
Error from server (NotFound): services "pda" not found

C:\Users\kishore kumar\Desktop\Pda>kubectl run flask-app-service --image=jp.icr.io/pda-01/pda
pod/flask-app-service created

C:\Users\kishore kumar\Desktop\Pda>kubectl apply -f kubernetes/ibm_deployment.yaml
deployment.apps/pda unchanged

C:\Users\kishore kumar\Desktop\Pda>kubectl apply -f kubernetes/flask_service.yaml
service/flask-app-service unchanged

C:\Users\kishore kumar\Desktop\Pda>kubectl apply -f kubernetes/flask_ingress.yaml
ingress.networking.k8s.io/pda-ingress unchanged

C:\Users\kishore kumar\Desktop\Pda>kubectl get nodes -o wide
NAME      STATUS  ROLES      AGE  VERSION  INTERNAL-IP  EXTERNAL-IP  OS-IMAGE      KERNEL-VERSION  CONTAINER-RUNTIME
E
docker-desktop  Ready   control-plane  38h  v1.25.0   192.168.65.4  <none>       Docker Desktop  5.10.16.3-microsoft-standard-WSL2  docker://20.10.17

C:\Users\kishore kumar\Desktop\Pda>
```

IBM Cloud Container Registry

Search resources and products...

Repositories

Location: Tokyo

Search

Create +

Name	Image count	Namespace	Last updated
pda [public.io/pda-01/pda]	1	pda-01	3 hours ago

Items per page: 25 1-1 of 1 item 1 1 of 1 page

IBM Cloud Container Registry

mycluster-free - Kubernetes

Home page

Welcome to week 7 - kish...

IBM-Project-49359-166081

eu-de.containers.cloud.ibm.com/kubeproxy/clusters/cda9cnf0752z51anvg/service/#/pod?namespace=default

kubernetes

default

Search

Workloads > Pods > Pda

Workloads

- Cron Jobs
- Daemon Sets
- Deployments
- Jobs
- Pods
- Replica Sets
- Replication Controllers
- Stateful Sets

Service

- Ingresses
- Services

Config and Storage

- Config Maps
- Persistent Volume Claims
- Secrets
- Storage Classes

CPU Usage

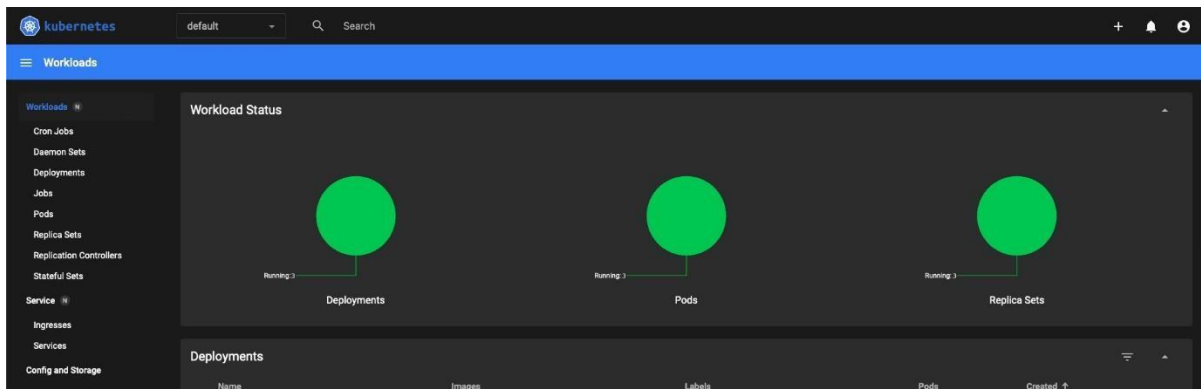
Memory Usage

Metadata

Name	Namespace	Created	Age	UID
pda	default	Nov 14, 2022	15 minutes ago	56656d67-1b15-4164-ad30-f2bd69535da0

Labels

run.pda



Team Id – PNT2022TMID27000

Project – Plasma Donar Application