# Creating Kubernetes Cluster using IBM Cloud Container Registry



```
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: sha256:7e60b8c662fa6836bed998ea2f97a3a31e7ddfb131dd7096a2eecdc8288bbf27 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>    *                 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-RUNTIM
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://20.10.1
7
```



```
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:
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-RUNTIM
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://20.10.1
7

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

IBM Cloud

Container Registry

Quick start

Namespaces    2

Repositories    1

Images    1

Trash    2

Settings

# Repositories

Location

Tokyo

Search    Create +

| | Name | Image count | Namespace | Last updated | |
|---|---|---|---|---|---|
| | pda  jp.icr.io/pda-01/pda | 1 | pda-01 | 3 hours ago | ⋮ |

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kubernetes    default    Search

Workloads > Pods > Pda

Workloads  N

Cron Jobs

Daemon Sets

Deployments

Jobs

Pods

Replica Sets

Replication Controllers

Stateful Sets

Service  N

Ingresses

Services

Config and Storage

Config Maps  N

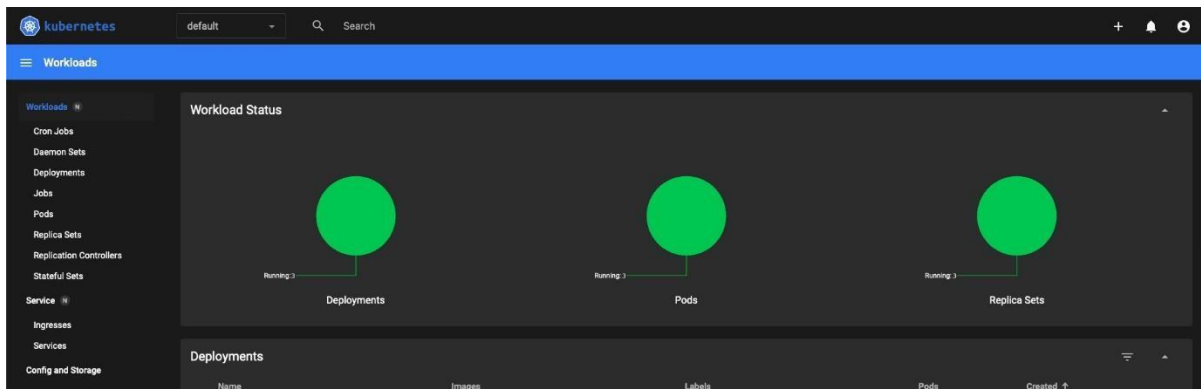Persistent Volume Claims  N

Secrets  N

Storage Classes

## CPU Usage

CPU (cores)

0.1

0.05

0

12:47 12:48 12:49 12:50 12:51 12:52 12:53 12:54 12:55 12:56 12:57 12:58 12:59

## Memory Usage

Memory (bytes)

10 Gi

5 Gi

0 Gi

12:47 12:48 12:49 12:50 12:51 12:52 12:53 12:54 12:55 12:56 12:57 12:58 12:59

## 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