

## Creating Kubernetes Cluster using IBM Cloud Container Registry

```
C:\Windows\System32\cmd.e x + v
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
5bacb5a6fa0b: Mounted from mod-01/ibm-db2-docker
8d51c610126f: 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: sha256:7e60b8c662fa6836bed998ea2f97a3a31e7ddf131dd7096a2eecd8288bbf27 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-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://20.10.1
7
```

```
C:\Windows\System32\cmd.e x + v
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-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://20.10.1
7

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



