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Advance DevOps lab

Experiment 4

Aim-
To install kubectl and execute kubectl commands to manage the kubernetes cluster and deploy your first kubernetes application.

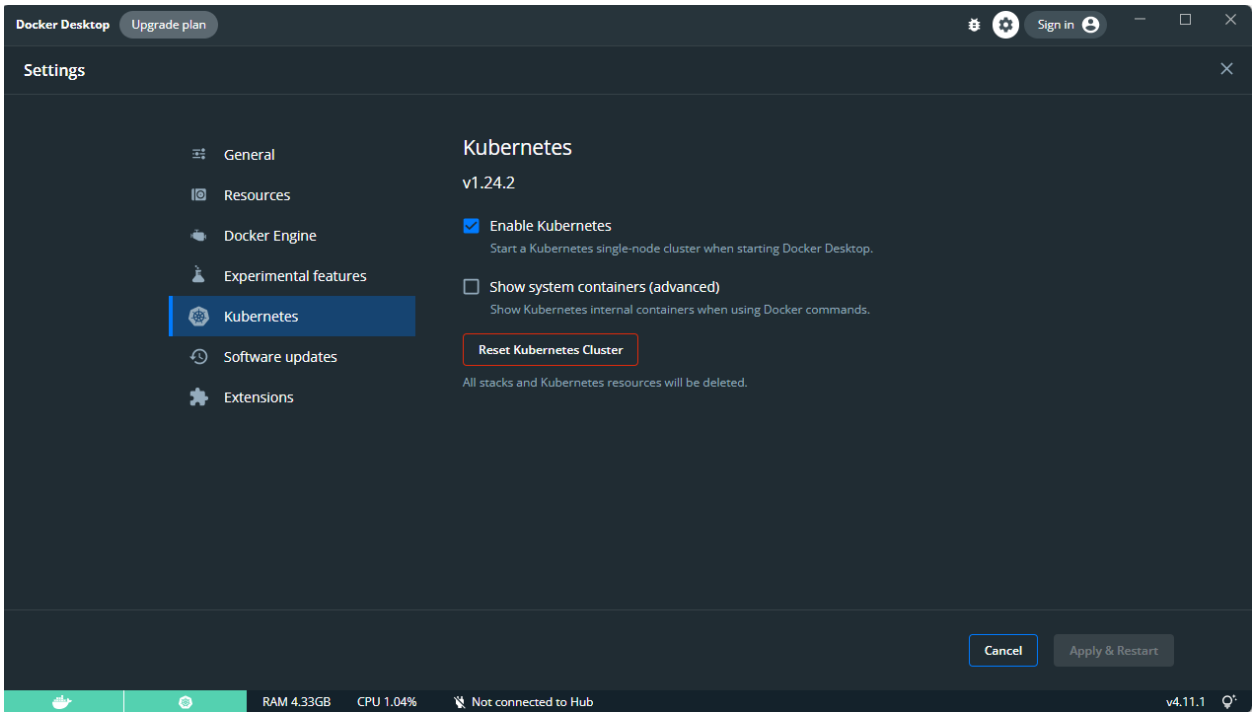
Theory-

Docker is an open platform for developing, shipping and running applications. Docker enables you to separate your applications from your infrastructure so you can deliver software quickly. With Docker you can manage your infrastructure in the same ways you manage your applications. By taking advantage of docker's methodologies for shipping, testing and deploying code quickly, you can significantly reduce the delay between writing code and running it in production.

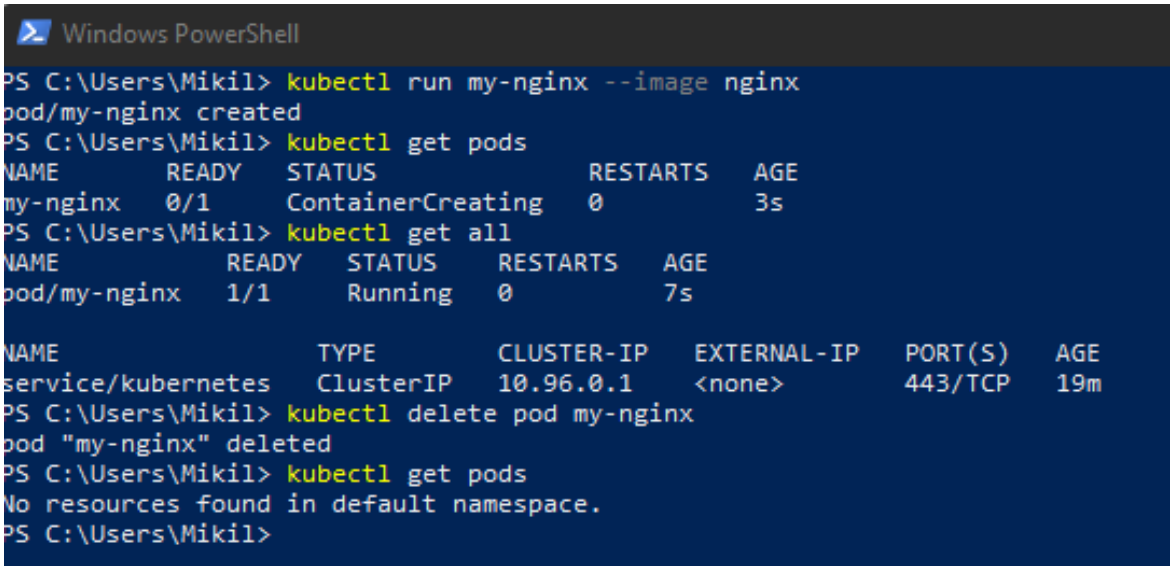
The kubernetes command-line tool, kubectl, allows you to run commands against kubernetes clusters. You can use kubectl to deploy applications, inspect and manage cluster resources and view logs.

Steps-

1. Install Docker Destop.
2. Enable Kubernetes in Docker Desktop.



3. Run these commands-
   Kubectl version –short
   Kubectl run my-nginx –image nginx
   Kubectl get pods
   Kubectl get all
   Kubectl delete pod my-nginx


Windows PowerShell
PS C:\Users\Mikil> kubectl run my-nginx --image nginx
pod/my-nginx created
PS C:\Users\Mikil> kubectl get pods
NAME   READY   STATUS   RESTARTS   AGE
my-nginx   0/1   ContainerCreating   0   3s
PS C:\Users\Mikil> kubectl get all
NAME   READY   STATUS   RESTARTS   AGE
pod/my-nginx   1/1   Running   0   7s

NAME   TYPE   CLUSTER-IP   EXTERNAL-IP   PORT(S)   AGE
service/kubernetes   ClusterIP   10.96.0.1   <none>   443/TCP   19m
PS C:\Users\Mikil> kubectl delete pod my-nginx
pod "my-nginx" deleted
PS C:\Users\Mikil> kubectl get pods
No resources found in default namespace.
PS C:\Users\Mikil>

Conclusion-

Thus we successfully installed and executed kubectl.