

DevOps

Day 3

Date: 19.03.2025

Topics Covered: Minikube and mysql Installations

Minikube

Installing the kubectl

```
sanchay@SANCHAY:~$ curl -LO https://dl.k8s.io/release/v1.32.0/bin/linux/amd64/kubectl
% Total    % Received % Xferd Average Speed   Time    Time     Time  Current
           Dload  Upload   Total   Spent    Left   Speed
100 138    100    138     0     0    71      0  0:00:01  0:00:01 --:--:--    71
100 54.6M 100 54.6M     0     0 522k      0  0:01:47  0:01:47 --:--:--  978k
sanchay@SANCHAY:~$ sudo install -o root -g root -m 0755 kubectl /usr/local/bin/kubectl
sanchay@SANCHAY:~$ kubectl version --client
error: unknown command "version\u00a0--client" for "kubectl"
sanchay@SANCHAY:~$ chmod +x kubectl
mkdir -p ~/.local/bin
mv ./kubectl ~/.local/bin/kubectl
```

Kubectl installation

Startin and deploying minikube

```
sanchay@SANCHAY:~$ minikube start
🐳 minikube v1.35.0 on Ubuntu 24.04 (amd64)
🔧 Using the docker driver based on existing profile
👉 Starting "minikube" primary control-plane node in "minikube" cluster
📶 Pulling base image v0.0.46 ...
🔄 Restarting existing docker container for "minikube" ...
🔧 Preparing Kubernetes v1.32.0 on Docker 27.4.1 ...
🔍 Verifying Kubernetes components...
   ▪ Using image gcr.io/k8s-minikube/storage-provisioner:v5
🌞 Enabled addons: storage-provisioner, default-storageclass
🏁 Done! kubectl is now configured to use "minikube" cluster and "default" namespace by default
```

Started kubectl

```
sanchay@SANCHAY:~$ minikube status
minikube
type: Control Plane
host: Running
kubelet: Running
apiserver: Running
kubeconfig: Configured
```

Minikube status

Kubectl pods

```
sanchay@SANCHAY:~$ kubectl get pods -n kube-system
NAME                                READY   STATUS    RESTARTS   AGE
coredns-668d6bf9bc-qg9kn            1/1     Running   1 (109s ago)  46h
etcd-minikube                        1/1     Running   1 (109s ago)  46h
kube-apiserver-minikube              1/1     Running   1 (109s ago)  46h
kube-controller-manager-minikube     1/1     Running   1 (109s ago)  46h
kube-proxy-cfzlr                     1/1     Running   1 (109s ago)  46h
kube-scheduler-minikube              1/1     Running   1 (109s ago)  46h
storage-provisioner                  1/1     Running   4 (53s ago)   46h
```

Getting kubectl pods

Mysql installation

```
sanchay@SANCHAY:/mnt/c/Users/sanch$ sudo mysql -u root -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 11
Server version: 8.0.41-0ubuntu0.24.04.1 (Ubuntu)

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owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> ^C
mysql> exit
Bye
```

Authenticating mysql

Pipelines:

These are the stages that are executed

pipeline {

agent any

tools {maven 'mvn'}

stages {

stage('scm') {

steps {

git 'https://github.com/Sanchay1054/WarProject.git'

}

```
}  
stage('build') {  
    steps {  
        sh "mvn clean"  
        sh "mvn install"  
    }  
}  
  
stage('build to images') {  
    steps {  
        script{  
            sh 'docker build -t sanchaym/simplewebapp .'  
        }  
    }  
}  
  
stage('push to hub') {  
    steps {  
        script{  
            withDockerRegistry(credentialsId: 'Docker', url:  
'https://index.docker.io/v1/') {  
                sh 'docker push sanchaym/simplewebapp'  
            }  
        }  
    }  
}  
  
}  
  
}
```