

## DevOps-Day 03:

### Tasks Completed:

- I have installed minikube and executed several commands.
- 
- <https://kubernetes.io/docs/tasks/tools/install-kubectl-linux/>
- `curl -LO https://dl.k8s.io/release/v1.32.0/bin/linux/amd64/kubectl`
- `sudo install -o root -g root -m 0755 kubectl /usr/local/bin/kubectl`
- `chmod +x kubectl`
- `mkdir -p ~/.local/bin`
- `mv ./kubectl ~/.local/bin/kubectl`
- `kubectl version --client`
- <https://kubernetes.io/docs/tasks/tools/install-kubectl-linux/>
- 
- <https://dl.k8s.io/release/v1.32.0/bin/linux/amd64/kubectl>
- 
- `sudo install -o root -g root -m 0755 kubectl /usr/local/bin/kubectl`
- 
- 
- `chmod +x kubectl`
- `mkdir -p ~/.local/bin`
- `mv ./kubectl ~/.local/bin/kubectl`
- 
- `kubectl version --client`
- <https://minikube.sigs.k8s.io/docs/start/?arch=%2Fwindows%2Fx86-64%2Fstable%2F.exe+download>
- <https://github.com/kubernetes/minikube/releases/latest/download/minikube-linux-amd64>
- `sudo install minikube-linux-amd64 /usr/local/bin/minikube && rm minikube-linux-amd64`
- `minikube start`
- `minikube start`
- `minikube status`
- 
- `kubectl get pod`
- 
- `kubectl get deploy`
- `kubectl get replica`
- `kubectl get pod -o wide`

- version: '3'
- 
- services:
- web:
- image: nginx:latest
- ports:
- - 80:80
- 
- db:
- image: mysql:latest
- environment:
- - MYSQL\_ROOT\_PASSWORD=secret
- docker exec -it david-db-1 /bin/bash

### **Step 1: Download Minikube Binary**

- Downloaded the latest Minikube binary compatible with Linux (amd64 architecture).

### **Step 2: Install Minikube**

- Installed the Minikube binary by moving it to the system's executable path, making it accessible from anywhere.

### **Step 3: Cleanup**

- Deleted the downloaded Minikube file to keep the directory clean.

```
niki@NIKILPRASANNA: ~  
To run a command as administrator (user "root"), use "sudo <command>".  
See "man sudo_root" for details.  
  
Welcome to Ubuntu 24.04.2 LTS (GNU/Linux 5.15.167.4-microsoft-standard-WSL2 x86_64)  
  
 * Documentation:  https://help.ubuntu.com  
 * Management:    https://landscape.canonical.com  
 * Support:        https://ubuntu.com/pro  
  
System information as of Fri Mar 21 04:57:53 UTC 2025  
  
System load: 0.69          Processes:              55  
Usage of /:  0.3% of 1006.85GB   Users logged in:       0  
Memory usage: 10%           IPv4 address for eth0: 172.27.193.142  
Swap usage:  0%  
  
This message is shown once a day. To disable it please create the  
/home/nikil/.hushlogin file.  
niki@NIKILPRASANNA:~$ 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 56 0 0:00:02 0:00:02 --:--:-- 56  
100 54.6M 100 54.6M 0 0 2796k 0 0:00:20 0:00:20 --:--:-- 4464k  
niki@NIKILPRASANNA:~$ sudo install -o root -g root -m 0755 kubectl /usr/local/bin/kubectl  
[sudo] password for niki:  
niki@NIKILPRASANNA:~$ chmod +x kubectl  
niki@NIKILPRASANNA:~$ mkdir -p ~/.local/bin  
mv ./kubectl ~/.local/bin/kubectl  
niki@NIKILPRASANNA:~$ kubectl version --client  
Client Version: v1.32.0  
Kustomize Version: v5.5.0  
niki@NIKILPRASANNA:~$ curl -LO "https://github.com/kubernetes/minikube/releases/latest/download/minikube-linux-amd64"  
% Total    % Received % Xferd Average Speed   Time    Time     Time  Current  
           Dload  Upload   Total   Spent    Left   Speed  
0 0 0 0 0 0 0 0 0:00:00 0:00:00 --:--:-- 0  
0 0 0 0 0 0 0 0 0:00:01 0:00:01 --:--:-- 0  
100 119M 100 119M 0 0 2590k 0 0:00:47 0:00:47 --:--:-- 1976k  
niki@NIKILPRASANNA:~$ sudo install minikube-linux-amd64 /usr/local/bin/minikube  
niki@NIKILPRASANNA:~$ rm minikube-linux-amd64  
niki@NIKILPRASANNA:~$ minikube start  
  
% Total    % Received % Xferd Average Speed   Time    Time     Time  Current  
           Dload  Upload   Total   Spent    Left   Speed  
100 119M 100 119M 0 0 1926k 0 0:01:03 0:01:03 --:--:-- 4389k  
niki@NIKILPRASANNA:~$ sudo install minikube-linux-amd64 /usr/local/bin/minikube  
niki@NIKILPRASANNA:~$ rm minikube-linux-amd64  
niki@NIKILPRASANNA:~$ minikube start  
  
minikube v1.35.0 on Ubuntu 24.04 (amd64)  
 * Automatically selected the docker driver. Other choices: none, ssh  
 * Using Docker driver with root privileges  
 * Starting "minikube" primary control-plane node in "minikube" cluster  
 * Pulling base image v0.0.46 ...  
 * Downloading Kubernetes v1.32.0 preload ...  
   > preloaded-images-k8s-v18-v1...: 138.70 MiB / 333.57 MiB  41.58% 1.38 MiB  
   > preloaded-images-k8s-v18-v1...: 333.57 MiB / 333.57 MiB 100.00% 2.38 MiB  
   > gcr.io/k8s-minikube/kicbase...: 500.31 MiB / 500.31 MiB 100.00% 2.62 MiB  
 * Creating docker container (CPUs=2, Memory=2200MB) ...  
 * Preparing Kubernetes v1.32.0 on Docker 27.4.1 ...  
   * Generating certificates and keys ...  
   * Booting up control plane ...  
   * Configuring RBAC rules ...  
 * Configuring bridge CNI (Container Networking Interface) ...  
 * 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  
niki@NIKILPRASANNA:~$ minikube status  
! Executing "docker container inspect minikube --format={{.State.Status}}" took an unusually long time: 6.709003999s  
 * Restarting the docker service may improve performance.  
minikube  
type: Control Plane  
host: Running  
kubelet: Running  
apiserver: Running  
kubeconfig: Configured  
  
niki@NIKILPRASANNA:~$ kubectl get pod  
No resources found in default namespace.  
niki@NIKILPRASANNA:~$ kubectl get node
```

```
niki@NIKILPRASANNA: ~  
To run a command as administrator (user "root"), use "sudo <command>".  
See "man sudo_root" for details.  
  
Welcome to Ubuntu 24.04.2 LTS (GNU/Linux 5.15.167.4-microsoft-standard-WSL2 x86_64)  
  
 * Documentation:  https://help.ubuntu.com  
 * Management:    https://landscape.canonical.com  
 * Support:       https://ubuntu.com/pro  
  
System information as of Fri Mar 21 04:57:53 UTC 2025  
  
System load: 0.69          Processes:            55  
Usage of /: 0.3% of 1006.85GB   Users logged in:      0  
Memory usage: 10%          IPv4 address for eth0: 172.27.193.142  
Swap usage: 0%  
  
This message is shown once a day. To disable it please create the  
/home/niki/.hushlogin file.  
niki@NIKILPRASANNA:~$ 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 56 0 0:00:02 0:00:02 --:--:-- 56  
100 54.6M 100 54.6M 0 0 2796k 0 0:00:20 0:00:20 --:--:-- 4464k  
niki@NIKILPRASANNA:~$ sudo install -o root -g root -m 0755 kubectl /usr/local/bin/kubectl  
[sudo] password for niki:  
niki@NIKILPRASANNA:~$ chmod +x kubectl  
niki@NIKILPRASANNA:~$ mkdir -p ~/.local/bin  
mv ./kubectl ~/.local/bin/kubectl  
niki@NIKILPRASANNA:~$ kubectl version --client  
Client Version: v1.32.0  
Kustomize Version: v5.5.0  
niki@NIKILPRASANNA:~$ curl -LO "https://github.com/kubernetes/minikube/releases/latest/download/minikube-linux-amd64"  
% Total    % Received % Xferd  Average Speed   Time    Time     Time  Current  
           Dload  Upload   Total   Spent    Left   Speed  
0 0 0 0 0 0 0 0 0:00:00 0:00:00 --:--:-- 0  
0 0 0 0 0 0 0 0 0:00:01 0:00:01 --:--:-- 0  
100 119M 100 119M 0 0 2590k 0 0:00:47 0:00:47 --:--:-- 1976k  
niki@NIKILPRASANNA:~$ sudo install minikube-linux-amd64 /usr/local/bin/minikube  
niki@NIKILPRASANNA:~$ rm minikube-linux-amd64  
niki@NIKILPRASANNA:~$ minikube start
```