

Lab Exercise 7- Install Minikube on Linux (Ubuntu /MacOS/Windows)

Install Minikube on Linux (Ubuntu)

```
sudo apt install -y docker.io # Ubuntu  
  
sudo systemctl start docker  
  
sudo systemctl enable docker  
  
sudo usermod -aG docker $USER  
  
newgrp docker
```

Step 2: Install kubectl

```
curl -LO https://storage.googleapis.com/kubernetes-release/release/\$\(curl -s https://storage.googleapis.com/kubernetes-release/release/stable.txt\)/bin/linux/amd64/kubectl  
  
chmod +x kubectl  
  
sudo mv kubectl /usr/local/bin/
```

Verify:

```
kubectl version --client
```

Step 3: Install Minikube

```
curl -LO https://storage.googleapis.com/minikube/releases/latest/minikube-linux-amd64  
  
chmod +x minikube-linux-amd64  
  
sudo mv minikube-linux-amd64 /usr/local/bin/minikube
```

Verify:

```
minikube version
```

Step 4: Start Minikube

```
minikube start --driver=docker
```

Check Status:

```
minikube status
```

Install Minikube on Windows**Prerequisites**

- Docker Desktop installed
- Enable WSL2

Install Minikube

```
choco install minikube -y
```

OR download exe:

```
https://github.com/kubernetes/minikube/releases/latest
```

Start:

```
minikube start
```

Install Minikube on macOS

```
brew install minikube
```

```
brew install kubectl
```

Start:

```
minikube start
```

Verify Kubernetes Cluster

```
kubectl get nodes
```

Expected output:

NAME	STATUS	ROLES	AGE	VERSION
minikube	Ready	control-plane	xx	v1.xx

```
PS C:\Users\HP> docker --version
Docker version 28.3.2, build 578ccf6
PS C:\Users\HP> |
```

```
PS C:\Users\HP> wsl -l -v
NAME                STATE            VERSION
* docker-desktop     Running          2
Ubuntu-22.04         Running          2
PS C:\Users\HP> wsl -d Ubuntu-22.04
root@Shivang:/mnt/c/Users/HP# |
```

```
PS C:\Users\HP> wsl -d Ubuntu-22.04
root@Shivang:/mnt/c/Users/HP# docker ps
CONTAINER ID IMAGE      COMMAND   CREATED    STATUS     PORTS      NAMES
root@Shivang:/mnt/c/Users/HP# curl -LO https://dl.k8s.io/release/$(curl -L -s https://dl.k8s.io/release/stable.txt)/bin/linux/amd64/kubectl
  % Total   % Received % Xferd  Average Speed   Time   Time Current
          Dload  Upload Total Spent   Left Speed
100  138  100  138    0     0  219      0  --:--:-- 0:00:09 0:00:09 219
100 55.8M 100 55.8M  0     0  6010k    0  0:00:09 0:00:09 0:00:09 7565k
root@Shivang:/mnt/c/Users/HP# sudo install kubectl /usr/local/bin/kubectl
root@Shivang:/mnt/c/Users/HP# kubectl version --client
Client Version: v1.35.0
Kustomize Version: v5.7.1
root@Shivang:/mnt/c/Users/HP# curl -LO https://storage.googleapis.com/minikube/releases/latest/minikube-linux-amd64
  % Total   % Received % Xferd  Average Speed   Time   Time Current
          Dload  Upload Total Spent   Left Speed
100 128M 100 128M    0     0 1474k    0  0:01:29 0:01:29 0:01:29 5051k
root@Shivang:/mnt/c/Users/HP# sudo install minikube-linux-amd64 /usr/local/bin/minikube
root@Shivang:/mnt/c/Users/HP# |
```

```
root@Shivang:/mnt/c/Users/HP# minikube version
minikube version: v1.38.0
commit: de81223c61ab1bd97dcfcfa6d9d5c59e5da4a0cf
root@Shivang:/mnt/c/Users/HP# |
```

```
PS C:\Users\HP> wsl -d Ubuntu-22.04 -u shivang
Welcome to Ubuntu 22.04.5 LTS (GNU/Linux 6.6.87.2-microsoft-standard-WSL2 x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:     https://landscape.canonical.com
 * Support:        https://ubuntu.com/pro

System information as of Mon Feb  9 20:03:26 IST 2026

 System load:  0.01           Processes:          41
 Usage of /:   0.3% of 1006.85GB  Users logged in:   1
 Memory usage: 10%           IPv4 address for eth0: 172.22.242.177
 Swap usage:   0%             |
```

This message is shown once a day. To disable it please create the /home/shivang/.hushlogin file.

```
shivang@Shivang:/mnt/c/Users/HP$ minikube start --driver=docker
minikube v1.38.0 on Ubuntu 22.04 (kvm/amd64)
* Using the docker driver based on user configuration
! Starting v1.39.0, minikube will default to "containerd" container runtime. See #21973 for more info.
* Using Docker driver with root privileges
👍 Starting "minikube" primary control-plane node in "minikube" cluster
Pulling base image v0.0.49 ...
Downloading Kubernetes v1.35.0 preload ...
> gcr.io/k8s-minikube/kicbase...: 514.16 MiB / 514.16 MiB 100.00% 6.52 Mi
> preloaded-images-k8s-v18-v1...: 271.45 MiB / 271.45 MiB 100.00% 2.18 Mi
🔥 Creating docker container (CPUs=2, Memory=3072MB) ...
Preparing Kubernetes v1.35.0 on Docker 29.2.0 ...
🔗 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
shivang@Shivang:/mnt/c/Users/HP$ |
```

```
shivang@Shivang:/mnt/c/Users/HP$ kubectl get nodes
NAME      STATUS   ROLES      AGE   VERSION
minikube  Ready    control-plane   23s   v1.35.0
shivang@Shivang:/mnt/c/Users/HP$ |
```

Useful Minikube Commands (Lab Ready)

Command	Purpose
minikube dashboard	Open K8s UI
minikube stop	Stop cluster
minikube delete	Delete cluster
minikube ssh	Access node
kubectl get pods -A	View all pods