

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

Install Minikube on macOS

```
brew install minikube
```

```
brew install kubectl
```

```
devanksilswal@devanks-MacBook-Air ~ % docker --version
Docker version 29.0.1, build eedd969
devanksilswal@devanks-MacBook-Air ~ % brew install minikube

✓ JSON API cask.json
✓ JSON API formula.json
==> Fetching downloads for: minikube
✓ Bottle Manifest minikube (1.38.0)
✓ Bottle Manifest kubernetes-cli (1.35.0)
✓ Bottle kubernetes-cli (1.35.0)
✓ Bottle minikube (1.38.0)
==> Installing minikube dependency: kubernetes-cli
==> Pouring kubernetes-cli--1.35.0.arm64_tahoe.bottle.1.tar.gz
🍺 /opt/homebrew/Cellar/kubernetes-cli/1.35.0: 261 files, 62.0MB
==> Pouring minikube--1.38.0.arm64_tahoe.bottle.tar.gz
🍺 /opt/homebrew/Cellar/minikube/1.38.0: 11 files, 135.5MB
==> Running `brew cleanup minikube`...
Disable this behaviour by setting `HOMEBREW_NO_INSTALL_CLEANUP=1`.
Hide these hints with `HOMEBREW_NO_ENV_HINTS=1` (see `man brew`).
==> Caveats
zsh completions have been installed to:
  /opt/homebrew/share/zsh/site-functions
devanksilswal@devanks-MacBook-Air ~ % brew install kubectl

Warning: kubernetes-cli 1.35.0 is already installed and up-to-date.
To reinstall 1.35.0, run:
  brew reinstall kubernetes-cli
```

```
devanksilswal@devanks-MacBook-Air ~ % kubectl version --client
```

```
Client Version: v1.34.1
Kustomize Version: v5.7.1
```

```
devanksilswal@devanks-MacBook-Air ~ % minikube version
```

```
minikube version: v1.38.0
commit: de81223c61ab1bd97dcfcfa6d9d5c59e5da4a0cf
```

Start:

```
minikube start
```

```
devanksilswal@devanks-MacBook-Air ~ % minikube start

😄 minikube v1.38.0 on Darwin 26.2 (arm64)
✨ Automatically selected the docker driver
❗ Starting v1.39.0, minikube will default to "containerd" container runtime. See #21973 for more info.
🚀 Using Docker Desktop 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 ...
  > preloaded-images-k8s-v18-v1...: 243.03 MiB / 243.03 MiB 100.00% 2.73 Mi
  > gcr.io/k8s-minikube/kicbase...: 478.49 MiB / 478.49 MiB 100.00% 2.51 Mi
🔥 Creating docker container (CPUs=2, Memory=4000MB) ...
🌐 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
```

```
devanksilswal@devanks-MacBook-Air ~ % minikube status
```

```
minikube
type: Control Plane
host: Running
kubelet: Running
apiserver: Running
kubeconfig: Configured
```

Verify Kubernetes Cluster

```
kubectl get nodes
```

Expected output:

```
NAME      STATUS   ROLES      AGE   VERSION
```

```
minikube  Ready    control-plane  xx   v1.xx
```

```
[devanksilswal@devanks-MacBook-Air ~ % kubectl get nodes
NAME      STATUS   ROLES      AGE   VERSION
minikube  Ready    control-plane  2m   v1.35.0
```

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 |

```
devanksilswal@devanks-MacBook-Air ~ % kubectl get pods -A
```

| NAMESPACE | NAME | READY | STATUS | RESTARTS | AGE |
|-------------|----------------------------------|-------|---------|-------------|-------|
| kube-system | coredns-7d764666f9-tr2n6 | 1/1 | Running | 0 | 2m7s |
| kube-system | etcd-minikube | 1/1 | Running | 0 | 2m13s |
| kube-system | kube-apiserver-minikube | 1/1 | Running | 0 | 2m13s |
| kube-system | kube-controller-manager-minikube | 1/1 | Running | 0 | 2m14s |
| kube-system | kube-proxy-zx9c6 | 1/1 | Running | 0 | 2m7s |
| kube-system | kube-scheduler-minikube | 1/1 | Running | 0 | 2m13s |
| kube-system | storage-provisioner | 1/1 | Running | 1 (97s ago) | 2m12s |

```
devanksilswal@devanks-MacBook-Air ~ % minikube dashboard
```

💡 Enabling dashboard ...

- Using image docker.io/kubernetesui/dashboard:v2.7.0
- Using image docker.io/kubernetesui/metrics-scrapers:v1.0.8

💡 Some dashboard features require the metrics-server addon. To enable all features please run:

```
minikube addons enable metrics-server
```

💡 Verifying dashboard health ...

🚀 Launching proxy ...

💡 Verifying proxy health ...

🌐 Opening <http://127.0.0.1:50437/api/v1/namespaces/kubernetes-dashboard/services/http:kubernetes-dashboard:/proxy/> in your default browser...

```
devanksilswal@devanks-MacBook-Air ~ % minikube ssh

Linux minikube 6.12.54-linuxkit #1 SMP Tue Nov  4 21:21:47 UTC 2025 aarch64

The programs included with the Debian GNU/Linux system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*copyright.

Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent
permitted by applicable law.
docker@minikube:~$ █
```

```
[docker@minikube:~$ exit
logout
```

```
devanksilswal@devanks-MacBook-Air ~ % minikube stop

✋ Stopping node "minikube" ...
✋ Powering off "minikube" via SSH ...
1 node stopped.
```

```
devanksilswal@devanks-MacBook-Air ~ % minikube delete

🔥 Deleting "minikube" in docker ...
🔥 Deleting container "minikube" ...
🔥 Removing /Users/devanksilswal/.minikube/machines/minikube ...
💀 Removed all traces of the "minikube" cluster.
```