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BATCH : B2 DEVOPS

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
```

```
✓ JSON API cask.jws.json
✓ JSON API formula.jws.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
brew install kubectl
  /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
Bash completion has been installed to:
/opt/homebrew/etc/bash_completion.d
```

START:

```
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% 7.95 Mi
> gcr.io/k8s-minikube/kicbase...: 478.49 MiB / 478.49 MiB 100.00% 3.79 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
```

VERIFY KUBERNETES CLUSTER

```
kubectl get nodes
```

Expected output:

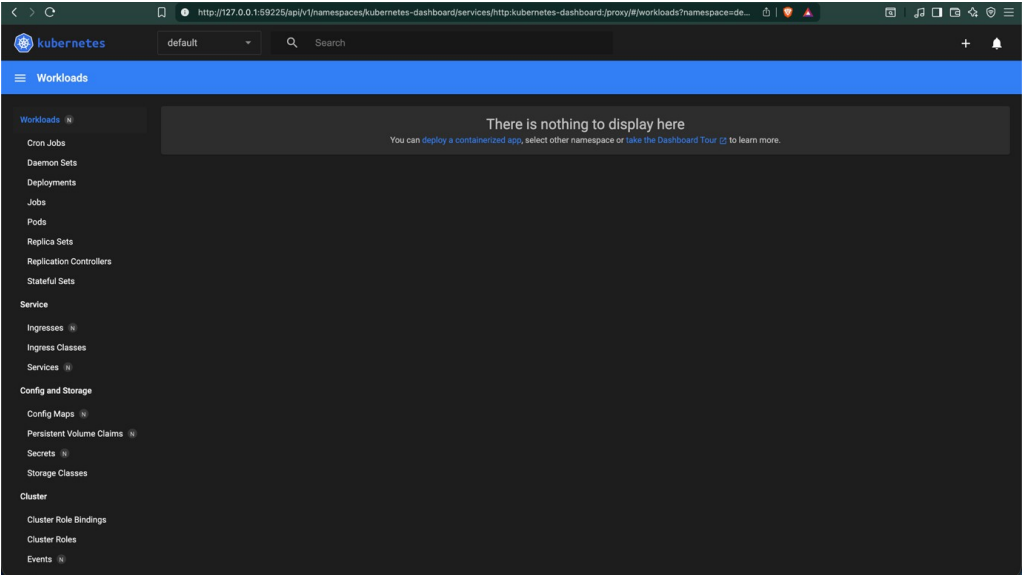
NAME	STATUS	ROLES	AGE	VERSION
minikube	Ready	control-plane	xx	v1.xx

NAME	STATUS	ROLES	AGE	VERSION
minikube	Ready	control-plane	113s	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

```
Enabling dashboard ...
  - Using image docker.io/kubernetes/dashboard:v2.7.0
  - Using image docker.io/kubernetes/metrics-scraper: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://127.0.0.1:59225/api/v1/namespaces/kubernetes-dashboard/services/http:kubernetes-dashboard:/proxy/ in your default browser...
```



```
Linux minikube 6.12.65-linuxkit #1 SMP Thu Jan 15 14:58:53 UTC 2026 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:~$ ls  
docker@minikube:~$ ls -a  
..  .bash_history  .bash_logout  .bashrc  .profile  .ssh  .sudo_as_admin_successful  
docker@minikube:~$ █
```

NAMESPACE	NAME	READY	STATUS	RESTARTS	AGE
kube-system	coredns-7d764666f9-7x6vh	1/1	Running	1 (3m58s ago)	4m33s
kube-system	etcd-minikube	1/1	Running	1 (3m56s ago)	4m39s
kube-system	kube-apiserver-minikube	1/1	Running	1 (3m53s ago)	4m39s
kube-system	kube-controller-manager-minikube	1/1	Running	1 (4m3s ago)	4m39s
kube-system	kube-proxy-4njjn	1/1	Running	1 (4m3s ago)	4m33s
kube-system	kube-scheduler-minikube	1/1	Running	1 (4m3s ago)	4m39s
kube-system	storage-provisioner	1/1	Running	1 (4m3s ago)	4m38s
kubernetes-dashboard	dashboard-metrics-scraper-5565989548-9slf7	1/1	Running	0	2m21s
kubernetes-dashboard	kubernetes-dashboard-b84665fb8-w8tnh	1/1	Running	0	2m21s

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

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