

### Task 3

## CREATING A MINIKUBE SERVICE TO HANDLE CONTAINERS

```
archita@DESKTOP-U3693UJ:~$ curl -LO https://storage.googleapis.com/minikube/releases/latest/minikube_latest_amd64.deb
% Total    % Received % Xferd Average Speed   Time    Time     Time  Current
           Dload  Upload   Total   Spent    Left    Speed
100 37.0M  100 37.0M    0     0 1368k      0  0:00:27  0:00:27 --:--:-- 1311k

archita@DESKTOP-U3693UJ:~$ sudo dpkg -i minikube_latest_amd64.deb
Selecting previously unselected package minikube.
(Reading database ... 42869 files and directories currently installed.)
Preparing to unpack minikube_latest_amd64.deb ...
Unpacking minikube (1.35.0-0) ...
Setting up minikube (1.35.0-0) ...
```

### STARTING MINIKUBE:

```
archita@DESKTOP-U3693UJ:~$ 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...: 133.81 MiB / 333.57 MiB   40.11% 739.64 K
> preloaded-images-k8s-v18-v1...: 333.57 MiB / 333.57 MiB 100.00% 716.85
> gcr.io/k8s-minikube/kicbase...: 500.31 MiB / 500.31 MiB 100.00% 821.02
🔥 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
💡 kubectl not found. If you need it, try: 'minikube kubectl -- get pods -A'
🎉 Done! kubectl is now configured to use "minikube" cluster and "default" namespace by default
```

### INSTALLING KUBECTL:

```
archita@DESKTOP-U3693UJ:~$ curl -LO "https://dl.k8s.io/release/$(curl -L -s https://dl.k8s.io/release/stable.txt)/bin/linux/amd64/kubectl"
chmod +x kubectl
sudo mv kubectl /usr/local/bin/
kubectl version --client
% Total    % Received % Xferd Average Speed   Time    Time     Time  Current
           Dload  Upload   Total   Spent    Left    Speed
100 138    100 138     0     0   231      0  0:00:01  0:00:01 --:--:-- 231
100 54.6M  100 54.6M    0     0 1773k      0  0:00:31  0:00:31 --:--:-- 3583k
Client Version: v1.32.1
Kustomize Version: v5.5.0
```

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#### FINAL OUTPUT:

```
asvita@DESKTOP-MTASIFM:~$ kubectl apply -f task1.txt
deployment.apps/test unchanged
asvita@DESKTOP-MTASIFM:~$ kubectl apply -f task2.txt
service/test-service unchanged
asvita@DESKTOP-MTASIFM:~$ minikube service test-service
```

| NAMESPACE | NAME         | TARGET PORT | URL                       |
|-----------|--------------|-------------|---------------------------|
| default   | test-service | http/80     | http://192.168.49.2:31210 |

```
🚀 Starting tunnel for service test-service.
```

| NAMESPACE | NAME         | TARGET PORT | URL                    |
|-----------|--------------|-------------|------------------------|
| default   | test-service |             | http://127.0.0.1:34609 |

```
🌐 Opening service default/test-service in default browser...
👉 http://127.0.0.1:34609
! Because you are using a Docker driver on linux, the terminal needs to be open to run it.
```

