

Task 3 – Minikube Deployment Task

NAME: Elankumaran R

Roll No: 22CSR053

Step 1: Start minikube

```
elan@kumaran:~/portfolio$ minikube start
🐹 minikube v1.35.0 on Ubuntu 24.04 (amd64)
🌟 Using the docker driver based on existing profile
👍 Starting "minikube" primary control-plane node in "minikube" cluster
📦 Pulling base image v0.0.46 ...
🔄 Restarting existing docker container for "minikube" ...
🔧 Preparing Kubernetes v1.32.0 on Docker 27.4.1 ...
🔍 Verifying Kubernetes components...
   ▪ Using image docker.io/kubernetesui/dashboard:v2.7.0
   ▪ Using image gcr.io/k8s-minikube/storage-provisioner:v5
   ▪ Using image docker.io/kubernetesui/metrics-scraper:v1.0.8
```

Step 2: Install Kubectl

```
an@kumaran:~/portfolio$ 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     Time  Current
           Dload  Upload   Total   Spent    Left     Speed
0   138    100   138    0     0    251      0 --:--:-- --:--:-- --:--:--    251
0 54.6M    100 54.6M    0     0 4349k      0 0:00:12 0:00:12 --:--:-- 4895k
```

Step 3: Create Deployment

```
elan@kumaran:~$ kubectl create deployment elankumaran21 --image=elankumaran21/dev:latest --port=80
deployment.apps/elankumaran21 created
```

Step 4: Expose Deployment

```
elan@kumaran:~$ kubectl expose deployment elankumaran21 --port=80 --type=NodePort
service/elankumaran21 exposed
```

Step 5: Verify Pods

```
elan@kumaran:~$ kubectl get pods
NAME                                READY  STATUS   RESTARTS  AGE
elankumaran21-644697d7cb-2rhtg    1/1    Running  0         34s
```

Step 6: Access the Service

```
elan@kumaran:~$ minikube service elankumaran21
```

NAMESPACE	NAME	TARGET PORT	URL
default	elankumaran21	80	http://192.168.49.2:32269

🚀 Starting tunnel for service elankumaran21.

NAMESPACE	NAME	TARGET PORT	URL
default	elankumaran21		http://127.0.0.1:41935

Output:

