TASK – 3 MINIKUBE DEPLOYMENT TASK

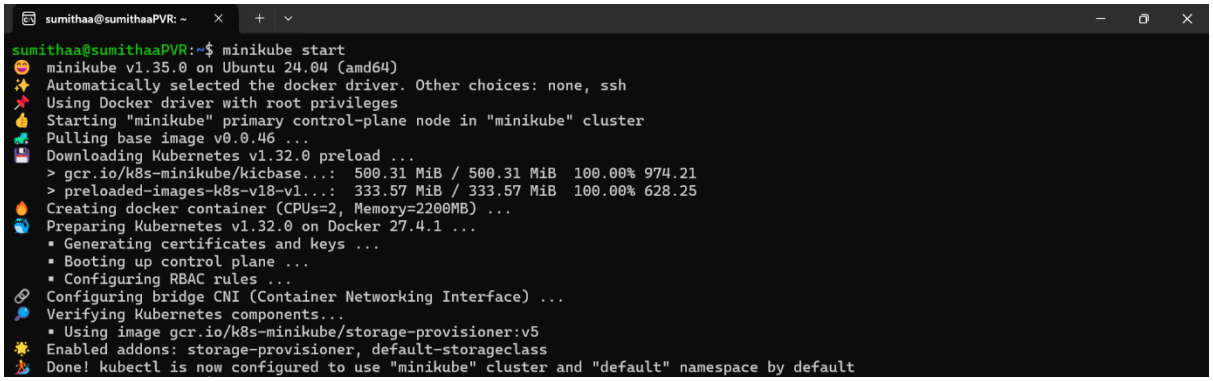
NAME:SUMITHAA P V R

ROLL N0:22CSR212

STEP 1: Start Minikube

Start the Minikube cluster using the following command:

minikube start



This initializes the Minikube cluster using Docker as the driver.

STEP 2: Install Kubectl

Since kubectl is not found,install it with the following command:

sudo snap install kubectl –classic

Alternatively, you can download it using curl:

curl -LO "https://dl.k8s.io/release/$(curl -L -s https://dl.k8s.io/release/stable.txt)/bin/linux/amd64/kubectl" sudo install -o root -g root -m 0755 kubectl /usr/local/bin/kubectl

STEP 3: Verify kubectl Installation

Check the client version to confirm successful installation:

Kubectl version -client

STEP 4: Create a Deployment

Create a deployment named `r1` with the image ‘sumithaapvr/newrepo1’:

kubectl create deployment r1 --image=sumithaapvr/newrepo1 --port=80

STEP 5: Expose the Deployment

Expose the deployment as a NodePort service:

kubectl expose deployment r1 --port=80 --type=NodePort

```
sumithaa@sumithaaPVR:~$ kubectl expose deployment.apps/r1 --port=80 --type=NodePort
service/r1 exposed
```

STEP 6: Verify the Pod

Check the running pods:

kubectl get pods

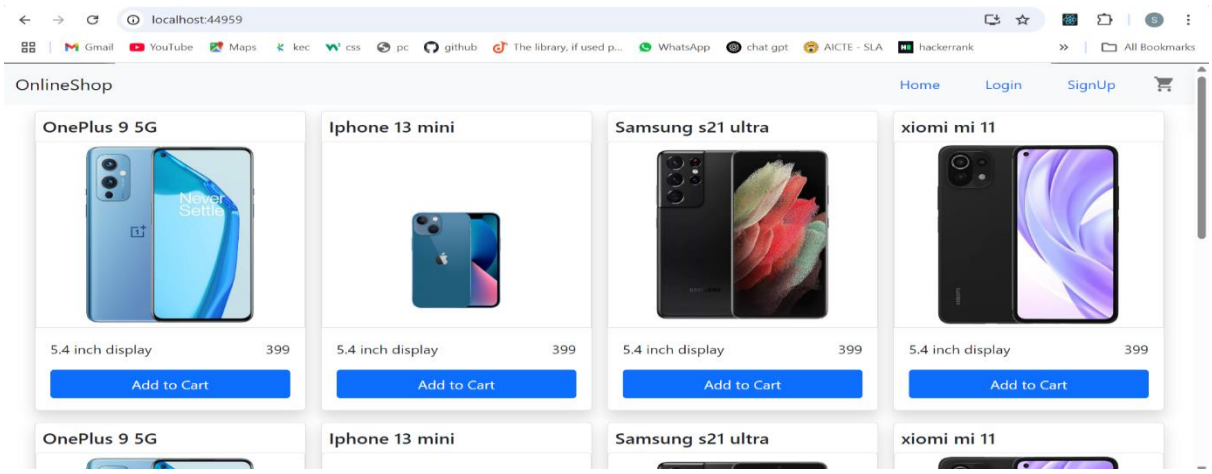
Step 7: Access the Service

Expose the service using Minikube and get the URL:

minikube service r1

```
sumithaa@sumithaaPVR:~$ minikube service r1
|-----------|------|-------------|------------------------|
| NAMESPACE | NAME | TARGET PORT |          URL           |
|-----------|------|-------------|------------------------|
| default   | r1   |          80 | http://192.168.49.2:31394 |
|-----------|------|-------------|------------------------|
🏃  Starting tunnel for service r1.
|-----------|------|-------------|------------------------|
| NAMESPACE | NAME | TARGET PORT |          URL           |
|-----------|------|-------------|------------------------|
| default   | r1   |             | http://127.0.0.1:44959 |
|-----------|------|-------------|------------------------|
🎉  Opening service default/r1 in default browser...
👉  http://127.0.0.1:44959
❗  Because you are using a Docker driver on linux, the terminal needs to be open to run it.
```

STEP 8: Output in the Web Browser



DockerHub: