TASK – 3 MINIKUBE DEPLOYMENT TASK

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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

```
tamilarasi@tamilarasi-Inspiron-15-3520:~$ kubectl create deployment r2 --image=tamilarasipalanivel2005/devops --port=80
deployment.apps/r2 created
tamilarasi@tamilarasi-Inspiron-15-3520:~$ kubectl get pods
NAME                READY   STATUS              RESTARTS   AGE
r2-ddb6dc5-xllqm    0/1     ContainerCreating   0          12s
tamilarasi@tamilarasi-Inspiron-15-3520:~$ kubectl get pods
NAME                READY   STATUS              RESTARTS   AGE
r2-ddb6dc5-xllqm    0/1     ContainerCreating   0          26s
tamilarasi@tamilarasi-Inspiron-15-3520:~$ kubectl get pods
NAME                READY   STATUS    RESTARTS   AGE
r2-ddb6dc5-xllqm    1/1     Running   0          56s
```

STEP 5: Expose the Deployment

Expose the deployment as a NodePort service:

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

STEP 6: Verify the Pod

Check the running pods:

kubectl get pods

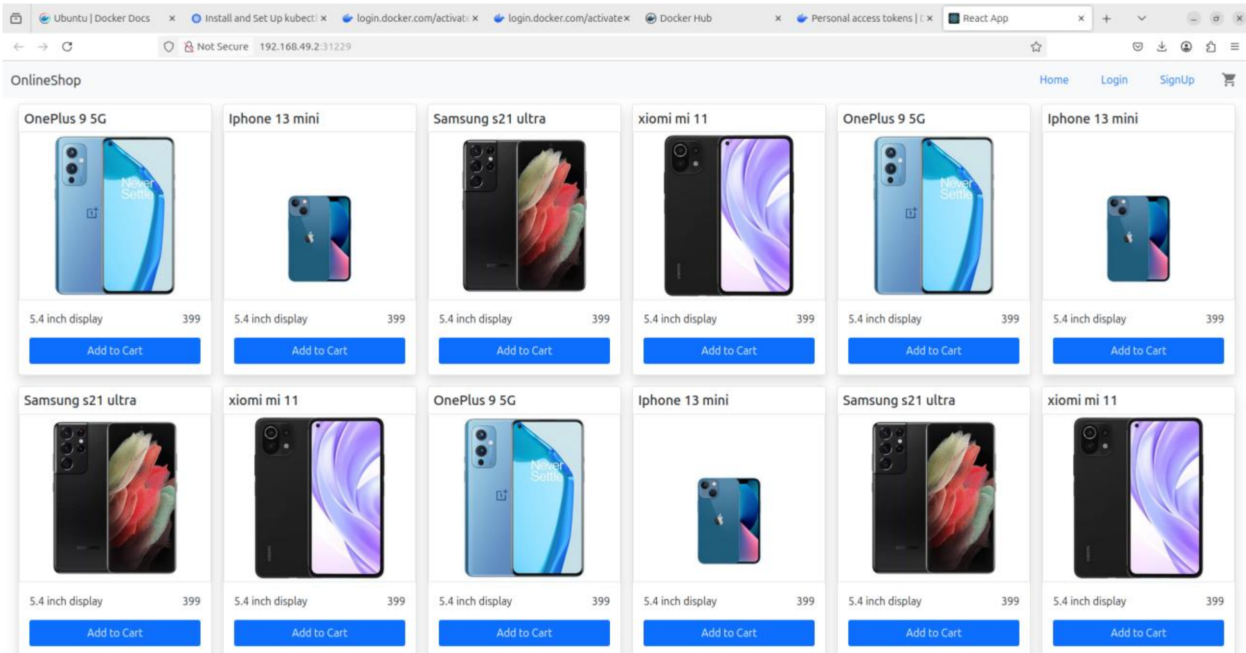
Step 7: Access the Service

Expose the service using Minikube and get the URL:

minikube service r1

```
tamilarasi@tamilarasi-Inspiron-15-3520:~$ kubectl expose deployment r2 --port=80 --type=NodePort
service/r2 exposed
tamilarasi@tamilarasi-Inspiron-15-3520:~$ minikube service r2
|-----------|------|-------------|--------------------------|
| NAMESPACE | NAME | TARGET PORT |            URL           |
|-----------|------|-------------|--------------------------|
| default   | r2   |          80 | http://192.168.49.2:31229 |
|-----------|------|-------------|--------------------------|
🎉  Opening service default/r2 in default browser...
```

STEP 8: Output in the Web Browser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Install and Set Up kubectl
login.docker.com/activate
Docker Hub
Personal access tokens
React App
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