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Roll no :22ISR001

minikube start

Creates a single-node Kubernetes cluster in a VM or container.

```
abinaya@ABINAYA:~$ 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" ...
❗  Failing to connect to https://registry.k8s.io/ from both inside the minikube container and host machine
💡  To pull new external images, you may need to configure a proxy: https://minikube.sigs.k8s.io/docs/reference/networking/proxy/
🐳  Preparing Kubernetes v1.32.0 on Docker 27.4.1 ...
🔎  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
```

Creating deployment:

```
abinaya@ABINAYA:~$ kubectl create deployment t3 --image=abinayabalusamy/capstone --port=80
deployment.apps/t3 created
```

Display pods:

```
abinaya@ABINAYA:~$ kubectl get pods
NAME                    READY   STATUS             RESTARTS        AGE
t3-86b65c994f-6976l     1/1     Running            0               11s
tas3-6c6c5b9b6-px927    1/1     Running            1 (6m26s ago)   40m
task3-d57688848-ksg4s   0/1     CrashLoopBackOff   14 (28s ago)    45m
```

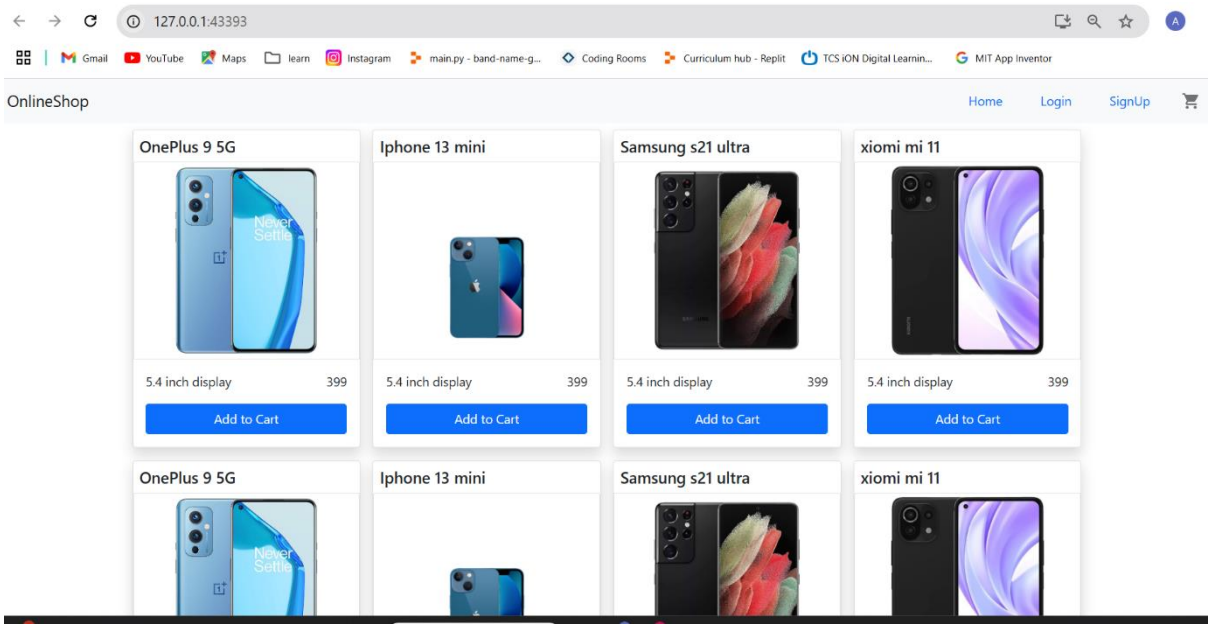
Expose deployment:

```
abinaya@ABINAYA:~$ kubectl expose deployment t3 --type=NodePort --port=80
service/t3 exposed
```

Minikube Service:

```
abinaya@ABINAYA:~$ kubectl get svc
NAME         TYPE        CLUSTER-IP       EXTERNAL-IP   PORT(S)          AGE
kubernetes   ClusterIP   10.96.0.1        <none>        443/TCP          57m
t3           NodePort    10.111.169.142   <none>        80:31699/TCP     10s
tas3         NodePort    10.105.90.187    <none>        3000:31413/TCP   37m
task3        NodePort    10.111.49.10     <none>        80:31791/TCP     39m
abinaya@ABINAYA:~$ minikube service t3
|-----------|------|-------------|---------------------------|
| NAMESPACE | NAME | TARGET PORT |            URL            |
|-----------|------|-------------|---------------------------|
| default   | t3   |          80 | http://192.168.49.2:31699 |
|-----------|------|-------------|---------------------------|
🏃  Starting tunnel for service t3.
|-----------|------|-------------|------------------------|
| NAMESPACE | NAME | TARGET PORT |          URL           |
|-----------|------|-------------|------------------------|
| default   | t3   |             | http://127.0.0.1:43393 |
|-----------|------|-------------|------------------------|
🎉  Opening service default/t3 in default browser...
👉  http://127.0.0.1:43393
❗  Because you are using a Docker driver on linux, the terminal needs to be open to run it.
```

Output :


127.0.0.1:43393
Gmail
YouTube
Maps
learn
Instagram
main.py - band-name-g...
Coding Rooms
Curriculum hub - Replit
TCS iON Digital Learnin...
MIT App Inventor
OnlineShop
Home
Login
SignUp
OnePlus 9 5G
5.4 inch display
399
Add to Cart
Iphone 13 mini
5.4 inch display
399
Add to Cart
Samsung s21 ultra
5.4 inch display
399
Add to Cart
xiomi mi 11
5.4 inch display
399
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Iphone 13 mini
Samsung s21 ultra
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