

TASK 3

Step 1: Clone the web application's repository to your local machine.

Step 2: Navigate to the project directory and build the Docker image using `cd E-Commerce` and `docker build -t ecommerce:latest`.

Step 3: Apply the Kubernetes deployment and service configuration files using `kubectl apply -f` to deploy the resources.

Step 4: Verify the status of deployments and pods using `kubectl get deployments` and `kubectl get pods`

Step 5: Load the locally built Docker image into Minikube using `minikube image load`

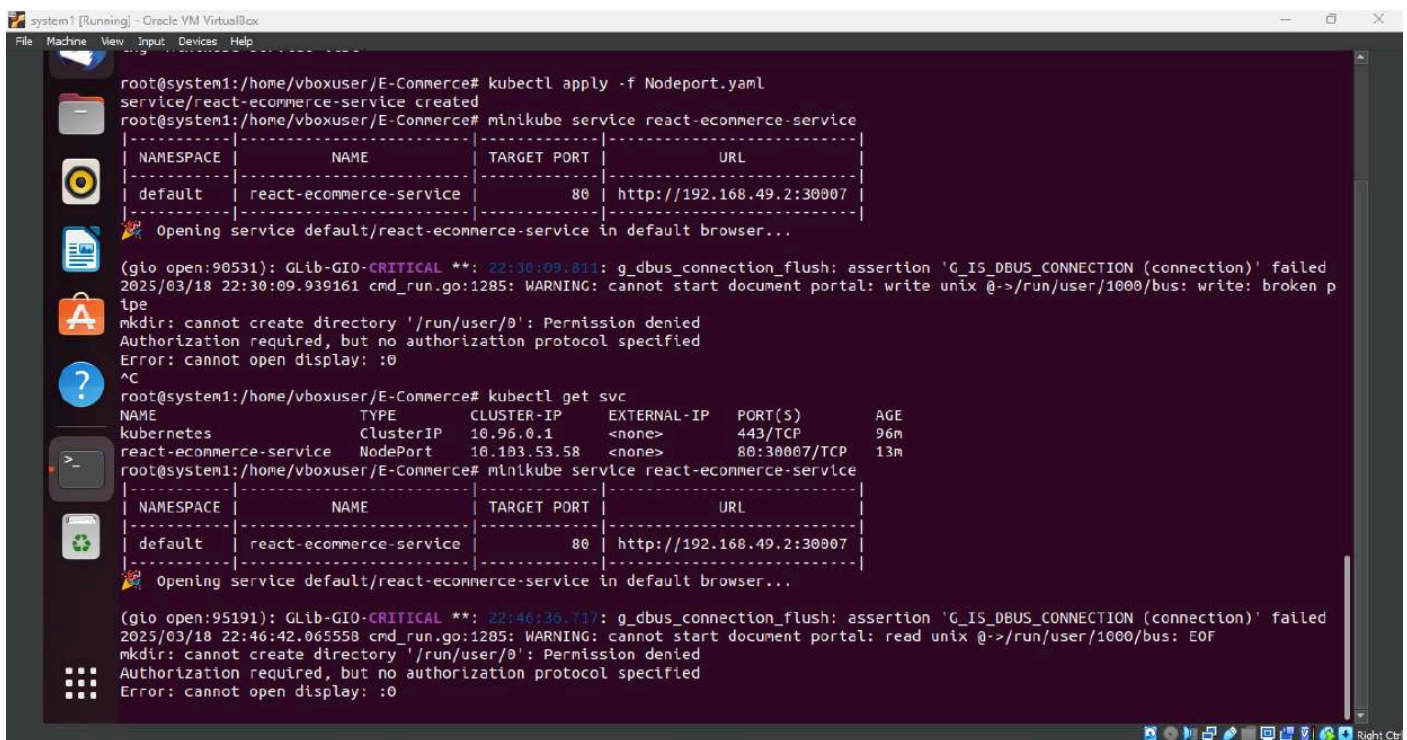
Step 6: Expose the application by applying a service configuration using `kubectl apply -f Nodeport.yml`

Step 7: Verify the deployed pods and services using `kubectl get pods`.

Step 8: Reapply the deployment configuration using `kubectl apply -f deployment.yml`

Step 9: Start the Minikube service to access the application using `minikube service react-ecommerce-service`

Step 10: Verify and re-expose the service.



```
root@system1:/home/vboxuser/E-Commerce# kubectl apply -f Nodeport.yml
service/react-ecommerce-service created
root@system1:/home/vboxuser/E-Commerce# minikube service react-ecommerce-service
|-----|
| NAMESPACE |          NAME          | TARGET PORT |          URL          |
|-----|
| default   | react-ecommerce-service |          80  | http://192.168.49.2:30007 |
|-----|
Opening service default/react-ecommerce-service in default browser...

(gio open:90531): GLib-GIO-CRITICAL **: 22:30:09.811: g_dbus_connection_flush: assertion 'G_IS_DBUS_CONNECTION (connection)' failed
2025/03/18 22:30:09.939161 cmd_run.go:1285: WARNING: cannot start document portal: write unix @->/run/user/1000/bus: write: broken p
ipe
mkdir: cannot create directory '/run/user/0': Permission denied
Authorization required, but no authorization protocol specified
Error: cannot open display: :0
^C
root@system1:/home/vboxuser/E-Commerce# kubectl get svc
NAME                TYPE        CLUSTER-IP   EXTERNAL-IP   PORT(S)          AGE
kubernetes          ClusterIP   10.96.0.1    <none>        443/TCP          96m
react-ecommerce-service NodePort    10.183.53.58 <none>        80:30007/TCP     13m
root@system1:/home/vboxuser/E-Commerce# minikube service react-ecommerce-service
|-----|
| NAMESPACE |          NAME          | TARGET PORT |          URL          |
|-----|
| default   | react-ecommerce-service |          80  | http://192.168.49.2:30007 |
|-----|
Opening service default/react-ecommerce-service in default browser...

(gio open:95191): GLib-GIO-CRITICAL **: 22:46:36.717: g_dbus_connection_flush: assertion 'G_IS_DBUS_CONNECTION (connection)' failed
2025/03/18 22:46:42.065558 cmd_run.go:1285: WARNING: cannot start document portal: read unix @->/run/user/1000/bus: EOF
mkdir: cannot create directory '/run/user/0': Permission denied
Authorization required, but no authorization protocol specified
Error: cannot open display: :0
```

Output:

