**TASK 3**  
  
  
 Dhiya J  
 22CDR021

**PROCEDURE**1 **Clone the Repository**

* Clone the project repository from GitHub.
* Navigate into the project folder.

2 **Build the Docker Image**

* Create a Docker image for the React e-commerce app.
* Tag the image appropriately.

3 **Start Minikube**

* Initialize Minikube.
* Verify Minikube is running by checking its status.

4 **Load the Docker Image into Minikube**

* Load the locally built Docker image into Minikube.
* Verify the image is successfully loaded.

5 **Deploy the Application**

* Apply the Kubernetes deployment configuration.
* Verify the deployment and pods are running.

6 **Add a NodePort Service (if needed)**

* Apply the NodePort service configuration.
* This makes the app accessible externally.

7 **Fix Image Pull Issues (if necessary)**

* If Kubernetes attempts to pull the image from an external registry, patch the deployment to use the local image.
* Alternatively, run a pod manually with the local image and expose it using a NodePort service.
* Verify the services.

8 **Expose the Service & Access the App**

* Retrieve the Minikube IP address.
* Access the app through the exposed service.

9 **Push to GitHub**

* Initialize the Git repository (if not already done).
* Add the necessary Kubernetes and Docker files.
* Commit the changes with a message.
* Add the remote origin.
* Push the code to the GitHub repository.

**Website link:**

<http://192.168.49.2:30007>

**OUTPUT:**  
