E-Commerce Product Page

📌 Project Overview

This is a **simple e-commerce product catalog** built using **React, React Router, Context API, and Tailwind CSS**. Users can:
✅ View a list of products
✅ Add products to the cart
✅ Remove products from the cart
✅ View total price in the cart
✅ Navigate between pages

This project follows **React best practices**, such as:
✔ **Component-based architecture**
✔ **Global state management using Context API & useReducer**
✔ **React Router for navigation**
✔ **Tailwind CSS for styling**

📁 Project Structure

```
ecommerce-app/
│── public/
│── src/
│   ├── components/        # Reusable UI components
│   │   ├── Navbar.jsx
│   │   ├── ProductCard.jsx
│   │   ├── Cart.jsx
│   │── pages/             # Page-level components
│   │   ├── Home.jsx
│   │   ├── CartPage.jsx
│   │── context/           # Global state (CartContext)
│   │   ├── CartContext.jsx
│   │── App.js             # Main App component
│   ├── main.jsx           # ReactDOM entry point
│── package.json           # Dependencies
```

◆ Key Features & Functionality

1️⃣ Displaying Products (Home Page)

The **Home Page** displays a list of products. Each product card shows:

- **Product name**
- **Price**
- **"Add to Cart" button**

Functionality:
📌 Clicking "Add to Cart" updates the global cart state via Context API.

2️⃣ Managing the Shopping Cart (Cart Page)

The **Cart Page** displays:

- **List of items added to the cart**
- **Total price calculation**
- **"Remove from Cart" button for each item**

Functionality:
📌 Clicking "Remove" updates the cart state and removes the item.

3️⃣ Global State Management (CartContext)

Instead of **prop drilling**, we use **Context API + useReducer** to manage the cart.
✔ **useContext** for global access
✔ **useReducer** for cart operations (`ADD_TO_CART`, `REMOVE_FROM_CART`)

4️⃣ Navigation (React Router)

✔ **Navbar component** provides links to **Home** and **Cart Page**.
✔ **React Router** is used for **client-side navigation**.

🛠 Tech Stack & Libraries Used

Technology	Purpose
React	UI Development
React Router	Page Navigation
Context API + useReducer	Global State Management
Tailwind CSS	Styling & Responsive Design