

## Full Stack E-Commerce Website Project (React + Node.js + MongoDB + Stripe)

This document contains a ready-to-run full-stack e-commerce project scaffold with:

Frontend: React (Vite) — product browsing, filtering, cart, checkout UI

Backend: Node.js + Express — auth (JWT), products API, cart, orders, Stripe integration

Database: MongoDB (Atlas recommended)

Payment: Stripe (test keys)

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### File Structure Overview:

backend/

- server.js
- models (User, Product, Order)
- routes (auth, products, orders)
- middleware (JWT auth)

frontend/

- App.jsx
  - pages (Home, Product, Cart, Checkout)
  - API configuration
  - Stripe integration
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### Core Features:

- User authentication (register/login)
  - Product listing & filtering
  - Cart system
  - Secure checkout using Stripe
  - Orders stored in MongoDB
  - JWT based authentication
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## Run Instructions:

### 1. Backend:

- cd backend
- create .env file
- npm install
- npm run dev

### 2. Frontend:

- cd frontend
  - npm install
  - npm run dev
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## Deployment:

Frontend → Netlify, GitHub Pages

Backend → Render, Railway, Heroku

Database → MongoDB Atlas

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## GitLab Deployment:

1. git init
  2. git remote add origin
  3. git add .
  4. git commit -m "Initial commit"
  5. git push -u origin main
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## Enhancements:

- Admin panel
- Pagination
- Cloudinary for image uploads

- Order tracking

- Webhooks for Stripe

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Prepared & Converted for PDF Download.