

E-Commerce Website Technical Architecture Document

Project Name: E-Commerce Website (Cross-Platform Responsive Web App)

Version: 1.0

Prepared For: Submission & GitHub Repository

Purpose: To describe the technical architecture, design, and components of the cross-platform e-commerce system.

System Overview:

The system is a responsive web-based e-commerce platform allowing users to browse products, add to cart, register/login, and complete checkout across Android, iOS, Windows, and macOS devices.

Architecture Overview:

Layer	Technology	Purpose
Frontend	React.js, Tailwind CSS	UI rendering & responsive design
Backend	Node.js, Express.js	API + business logic
Database	MongoDB Atlas	Data storage
Auth	JWT, bcrypt	Secure authentication
Hosting	Vercel (Frontend), Render (Backend)	CD and deployment

Future Enhancements:

- Producer dashboard & product uploads
- Payment gateway (UPI, Net Banking, Cards, COD)
- Shipment tracking system
- Inventory automation & recommendation engine