

Crypto-Powered eCommerce Platform Blueprint

■ Project Overview:

Goal:

Build a secure, scalable, and user-friendly eCommerce platform where:

- Users can buy products using various cryptocurrencies
- Vendors/clients can sell and receive payment in their preferred crypto
- System supports real-time crypto conversion and wallet management

■ Project Phases:

1. Requirement Analysis

- What cryptos are supported?
- Do you need automatic conversion?
- Will you support custodial or non-custodial wallets?
- Will KYC/AML be required?
- Will it be multi-vendor or single-seller?

2. Tech Stack Selection

Frontend: React.js (Next.js), Tailwind CSS or Material UI

Backend: Node.js + Express, MongoDB or PostgreSQL, Redis

Authentication: Firebase Auth or JWT

Blockchain: Coinbase Commerce, Binance Pay, NOWPayments

Optional: Smart Contracts, IPFS for images

3. Database Design

Entities: Users, Vendors, Products, Orders, Payments

4. Design & UI/UX

Tools: Figma or Adobe XD

Pages: Homepage, Product listing, Product details, Vendor/User Dashboard, Checkout, etc.

5. Development Roadmap

Backend: Auth, CRUDs, Order Mgmt, Payment APIs

Frontend: Responsive UI, Cart/Checkout, Wallet Connect

6. Crypto Integration Steps

- Choose a Payment Gateway
- Create API Keys & Webhooks
- Implement Payment Flow (MetaMask/Web3)
- Handle Payment Confirmation

7. Admin Panel

- Manage users, vendors, orders, payouts, analytics

8. Security

- HTTPS, Helmet, Rate Limit, XSS/CSRF protection, Wallet validation

9. Deployment

- Frontend: Vercel/Netlify
- Backend: Railway/Render/AWS
- DB: MongoDB Atlas/AWS RDS

■ Documentation

README Structure:

1. Title & Description
2. Tech Stack
3. Install & Run Instructions
4. API Docs