eComm - System Requirements

1. Project Overview

An eCommerce web application that enables users to act as either vendors (sellers) or buyers (customers), facilitating online marketplace transactions.

2. User Types and Roles

Buyers

- Browse products and categories
- Search for products
- View product details and vendor profiles
- View shopping cart (session-based)
- Register as buyer or vendor
- Login to existing account
- Receive order notifications
- Write product reviews

Vendors

Core vendor capabilities:

- Create and manage vendor profile/storefront
- Add, edit, and delete products
- Manage product inventory and stock levels
- Set product pricing and discounts
- Upload product images and descriptions
- Categorise products
- View customer reviews for their products
- Receive order and sales notifications

3. Functional Requirements

Authentication & Authorisation

- User registration with email verification
- Secure login with password hashing
- Password reset functionality
- Role-based access control (RBAC)
- Session management

Product Management

- Product CRUD operations (vendors)
- Product image upload (multiple images per product)

- Product variants (size, colour, etc.)
- Product categorisation and tagging

Shopping Cart & Checkout

- Add/remove items from cart
- Update item quantities
- Cart persistence for logged-in users
- Order confirmation and receipts

Review & Rating System

- Buyers can rate products (1-5 stars)
- Written reviews with character limits
- Review moderation by admins
- Helpful/not helpful voting on reviews
- Vendor cannot delete reviews
- Wholesale/bulk ordering
- API for third-party integrations