

Software Requirements Specification

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Objective and Scope

To build a web-based ecommerce platform where users can view products, manage a shopping cart, place orders, and complete payments securely. The system should provide a smooth user experience for online shopping with a simple and scalable architecture.

The scope of the product includes the following basic features:

Customer can browse products, add them to cart, and place an order.

Backend handles cart updates, order creation, and integrates with a payment system.

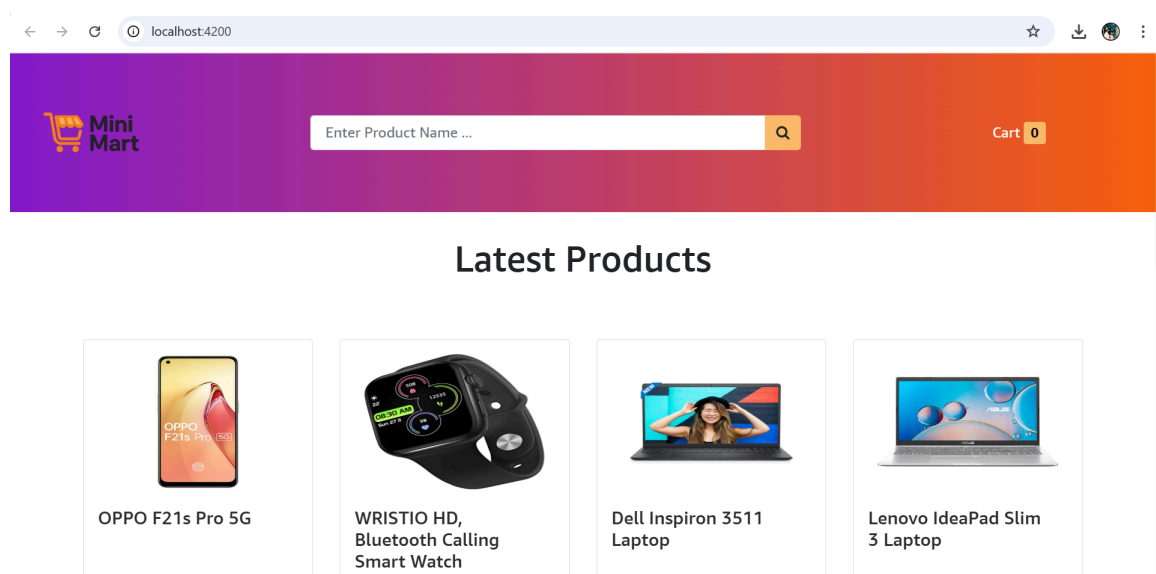
Project End Users

Use (Customer): Browse Products, Add to Cart, Place Order, View Orders.

Features

User Features

- Product: View All Products, Search Products, View Details
- Cart: Add to Cart, View Cart, Remove from Cart
- Order: Place Order, Checkout Page, View Confirmation



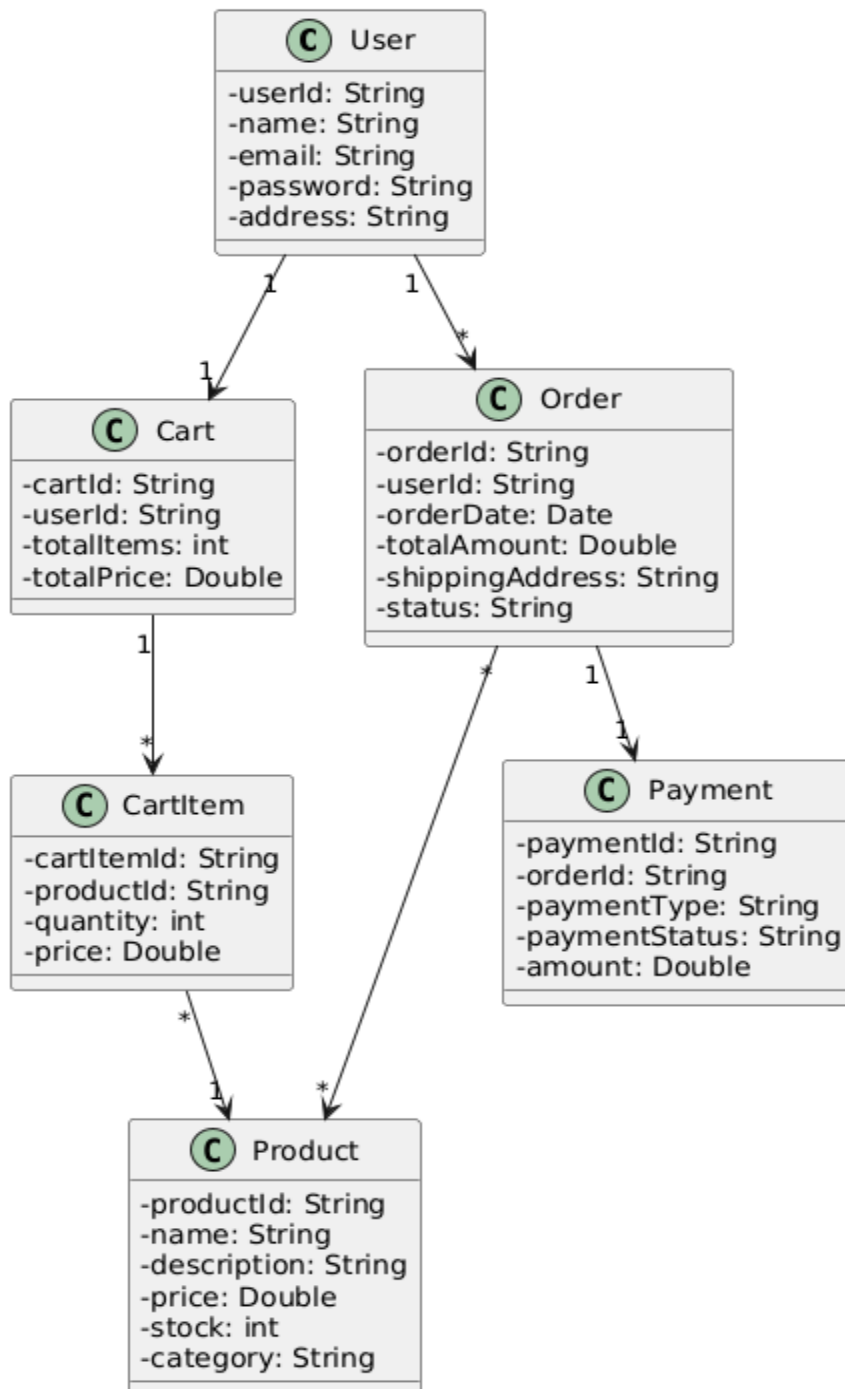
Functional Requirements

- System shall allow users to browse all available products
- System shall allow users to view product details
- System shall allow users to search products
- System shall allow users to add products to their cart
- System shall allow users to view and manage their cart items
- System shall allow users to place an order from the cart
- System shall show a checkout page before confirming order
- System shall store order details in MongoDB

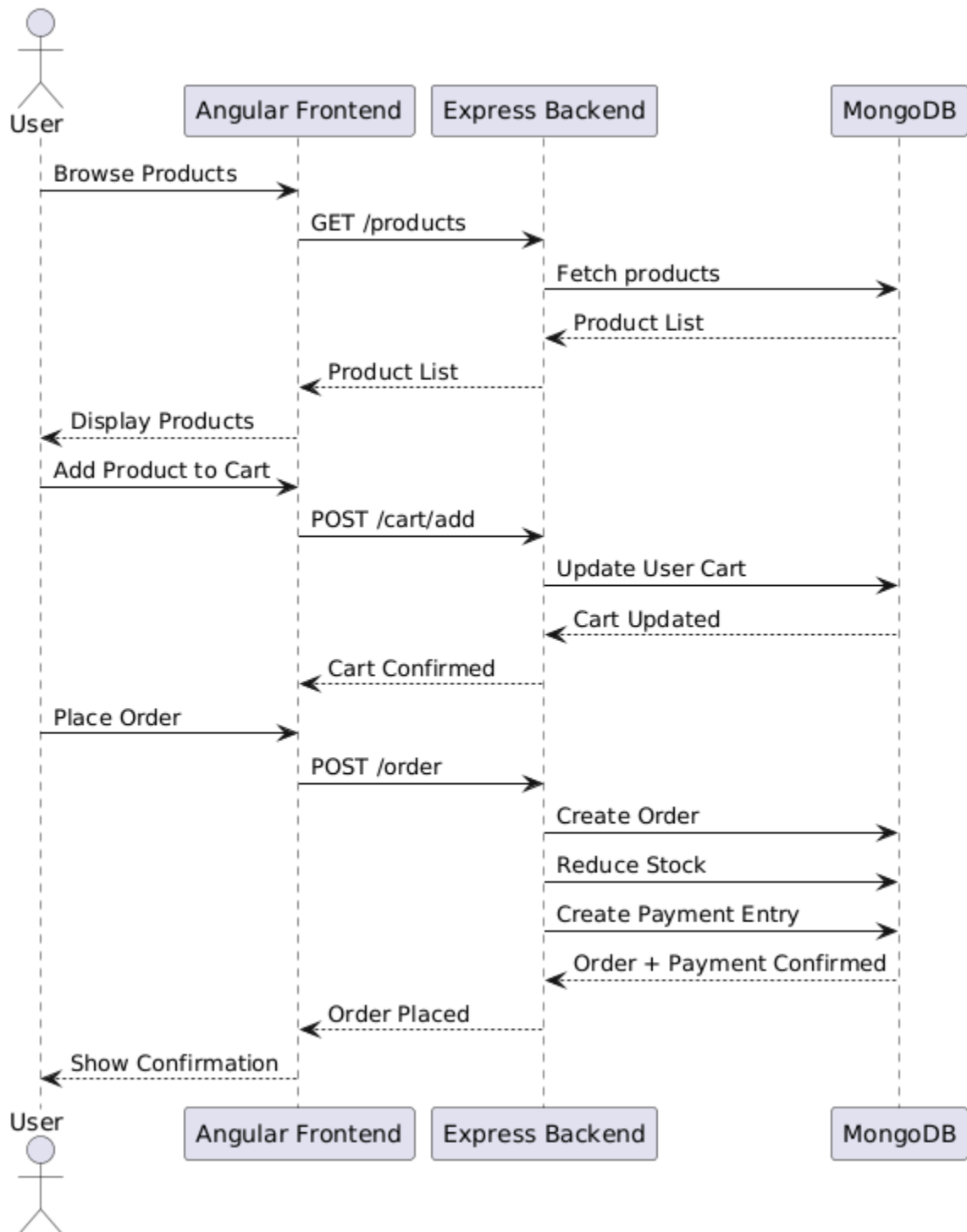
Non Functional Requirements

- Application should load product pages in under 3 seconds
- System should support 100+ concurrent users
- Passwords and sensitive info must be encrypted
- System must be responsive across mobile, tablet, and desktop
- Payment module must comply with security standards like PCI-DSS
- REST API endpoints should follow proper naming and versioning
- MongoDB should ensure data persistence and atomic transactions for orders

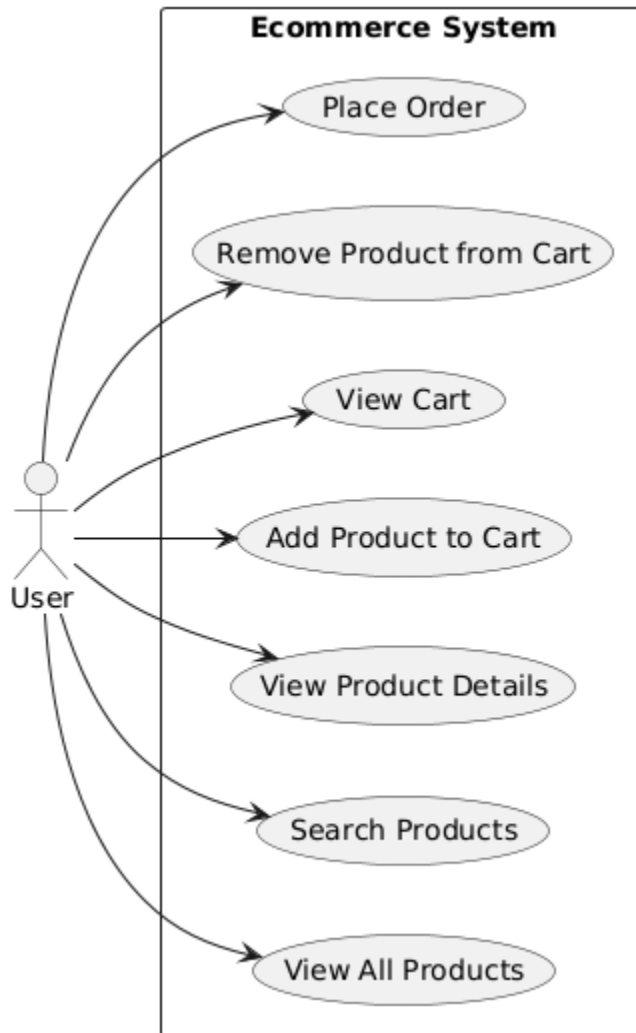
Class Diagram



Sequence Diagram



Use Case Diagram



Activity Diagram

