

Project Proposal

GoMall

I. Introduction

GoMall is a web application that allows users to browse, purchase, and sell products online. Compared to traditional in-person shopping, our platform provides more convenience for both buyers and sellers by saving time, expanding reach, and enabling transactions anytime, anywhere.

II. Target user

- General customers: customers can browse and purchase items conveniently than giving time and effort to visit multiple physical stores.
- Small and medium vendors: reaching new customers is often difficult due to limited marketing and physical presence. Through this platform, they can display their products to a broader audience.

III. Environment

- The web application will be accessible through web browsers such as Chrome, Firefox, Safari, and Edge. It is designed to work across multiple devices, with optimal experience on personal computers.
- The web application is planned to be deployed on Render.com, as this platform supports both static front-end and full-stack web apps, with automatic deployment via GitHub. However, we may consider other hosting options (Firebase Hosting or VPS services) if project requirements change or Render becomes unsuitable.

IV. Key features

1. Customers

- **Register / Login:** Users can create an account using their email, phone number, username, and password.
- **AI Search Functionality:** Users can input search queries in a chat-like interface, and an AI suggests relevant products based on the query.
- **Product Searching:** The search bar provides suggestions, include thumbnails, prices, and highlighted keywords, as users type. Users can navigate results using the keyboard for quick access.

- **Filtering:** Users can filter products by criteria such as price, brand, color, size, and more to narrow down results. Each filter shows the number of matching items, and users can clear filters easily. This helps customers find the right product efficiently and improves conversion rates.
- **View Product Details:** Each product page displays images, descriptions and specifications.
- **Shopping Cart:** Allows users to add products to the cart, update quantities, remove items, and view total prices in real time. All actions are handled directly within the cart interface
- **Checkout – Shipping Address and Payment Method Selection:** Users can select or change the shipping address and payment method from predefined lists. The system uses default settings (saved address, cash on delivery) and allows adjustments during checkout.
- **Customer Personalization:** Stores personal information such as addresses, preferred payment methods, and order history to streamline future purchases and enhance the user experience.
- **Product Rating and Comment:** After receiving an order, users can rate products with stars and write reviews, optionally with images. Sellers can respond to these comments to improve interaction.

2. Sellers

- **Register / Sign up to become a seller:** Once registered, sellers can manage their products, track sales, and interact with customers
- **Product management:** allows sellers to add new products, delete products, update product information, view the number of products sold, check the quantity of products in stock, view feedback of customers and respond to customer reviews of products
- **Track sold orders progress:** The tracking process includes the following stages: the order is being packed, the order has been handed over to the shipper, the shipper is delivering the order, the customer has either successfully received the order or the delivery has failed. In case of a failed delivery, the shop will handle the issue through measures such as placing a new order or offering compensation.

- **Statistics:** The customer statistics feature includes revenue reports, the top 5 best-selling products, the top 5 customers with the highest purchases, inventory quantities, and more.

3. Administrators

- **User Management:** view lists of all customers and sellers registered on the platform, with the ability to drill down into detailed profiles for each user. Furthermore, sellers can register to join the platform, and admins can approve or reject their applications
- **Product Category Management:** The admin and users can view all products listed on the platform, with filters for categories, price range, or seller
- **System Statistics:** Admins can view order statistics and total revenue for each shop, with commission calculations. It is also identifies trending products to suggest to users.