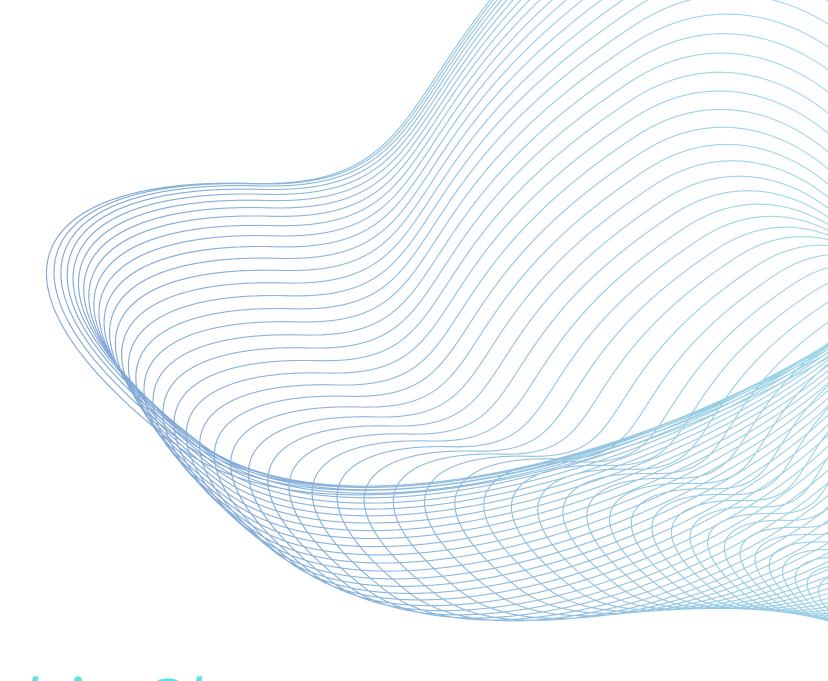


Online Retail Store

Assignment-1

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Objective

To develop an online retail store that allows customers to browse and purchase products from a plethora of categories, including personal goodies, electronics, home appliances, and more.

#Important Note

The project's scope is limited to the following features(below), and any additional requirements will be evaluated and considered for inclusion in future phases of development.

Project Scope

- Customer account management-> Allowing customers to create a new account, log in, view their order history, and edit their profile(personal information like name, address, etc.)
- Product catalog management-> inclusive of the ability to add, edit, and delete products from the catalog.
- Order management-> including the ability to view and track orders, update order status, and generate invoices.
- *Inventory management->* Tracking the availability of products in real-time and updating the product inventory on the website accordingly.

- Shopping cart and checkout functionality-> Allowing customers to add items to their cart and proceed to checkout to complete their purchase.
- Secure payment gateway integration-> Supporting multiple users to access the payment portal (concurrency) while maintaining Atomicity.
- Search and filtering functionality-> Allowing customers to search for a specific product from the inventory seamlessly.
- Confirmation & Verification-> An order confirmation and shipping notification email to customers upon completing their order.
- Website Maintainance->A backend admin panel will allow store staff to manage products, orders, customers, and other website content.

Functional Requirements

- Customer account-> Customers should be able to create a new account, log in to their existing ones, view their order history, and track the status of their current orders.
- Product Browsing and Search-> Customers should be able to browse products by category and subcategory and search for products by keywords. Products should contain relevant information such as name, description, price, and image.
- Shopping cart-> Customers should be able to manage their Shopping carts, like adding products to their shopping cart, viewing the contents of their cart, and updating the quantity of items in the cart. It must also support product deletion & checking for its availability before its addition to the cart.

- Checkout-> The Checkout process for the Shopping cart should be as seamless as possible. Customers should be able to proceed to checkout and modify/enter their shipping and billing information. It must be noted that the checkout process should be secure and must protect customersensitive information.
- Payment-> The Transaction process should follow the basic principles of atomicity & concurrency.
- Order confirmation and shipping notification-> Customers should receive an email confirmation of their order and a shipping notification email once their order has been shipped.
- Order Tracking-> Customers should be able to track the status of their order and should be notified of the expected delivery date.

- Promotions and Offers->The website should have a feature to apply offers
 & discounts on products or orders.
- Back-end Admin Portal-> Store staff should be able to manage products, orders, customers, and other website content through a back-end admin portal.

#Important Note

This is just an exhaustive list, capturing the basic requirements of the online retail store.

The actual functional requirements will depend on the requirement and features of the store.

Technical Requirements

- Database-> MySQL will be used as the primary database management system to store and manage customer information, product information, and order information.
- Programming language-> A server-side programming language such as PHP,
 Python, or Ruby will handle the application logic and interact with the database.
- Web servers-> A web server such as Apache or Nginx will host the website and handle incoming HTTP requests.
- Front-end framework-> A front-end framework such as React, Angular, or Vue.js will create the user interface and handle client-side interactions.