



**SRI LANKA INSTITUTE OF ADVANCED TECHNOLOGICAL  
EDUCATION**

WEB PROGRAMMING GROUP PROJECT FINAL REPORT

**Fashion E-Commerce Platform**

**WP-1024**

Department of Information Technology

Advanced Technological Institute

Kegalle

2022

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Submission Date – 18/11/2024

# **Project Report Structure**

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## **Abstract**

The Zulo E-commerce website is designed to provide a smooth and efficient online shopping experience, allowing users to browse, select, and purchase a wide variety of products. Built using PHP, HTML, CSS, and JavaScript, the project aims to create a responsive, user-friendly interface with essential e-commerce functionalities. Key features include user authentication, enabling secure login and registration; a wishlist function for saving favorite items; and an order history page that helps users track their past purchases.

The website's development methodology involves a structured, modular approach, integrating HTML, CSS, and Bootstrap for front-end design, while PHP handles back-end processing and user session management. JavaScript adds interactivity and real-time validation on the front end. Font Awesome is used to improve UI aesthetics with icons, while Bootstrap ensures a responsive layout across devices.

In testing, Zulo demonstrated effective functionality across all primary features, providing a seamless shopping experience from product browsing to checkout. This project showcases a fully functional e-commerce model that is visually appealing and user-centric.

## Content Guidelines

### Introduction

Zulo is an e-commerce website built to provide a smooth, efficient, and user-friendly shopping experience. The platform allows users to explore a variety of products, add items to their cart, and complete their purchases securely. Additionally, it offers features such as user authentication, a wishlist, order history, and product search, ensuring that users can easily navigate and personalize their shopping experience.

**Objectives:** The primary objectives of this project are:

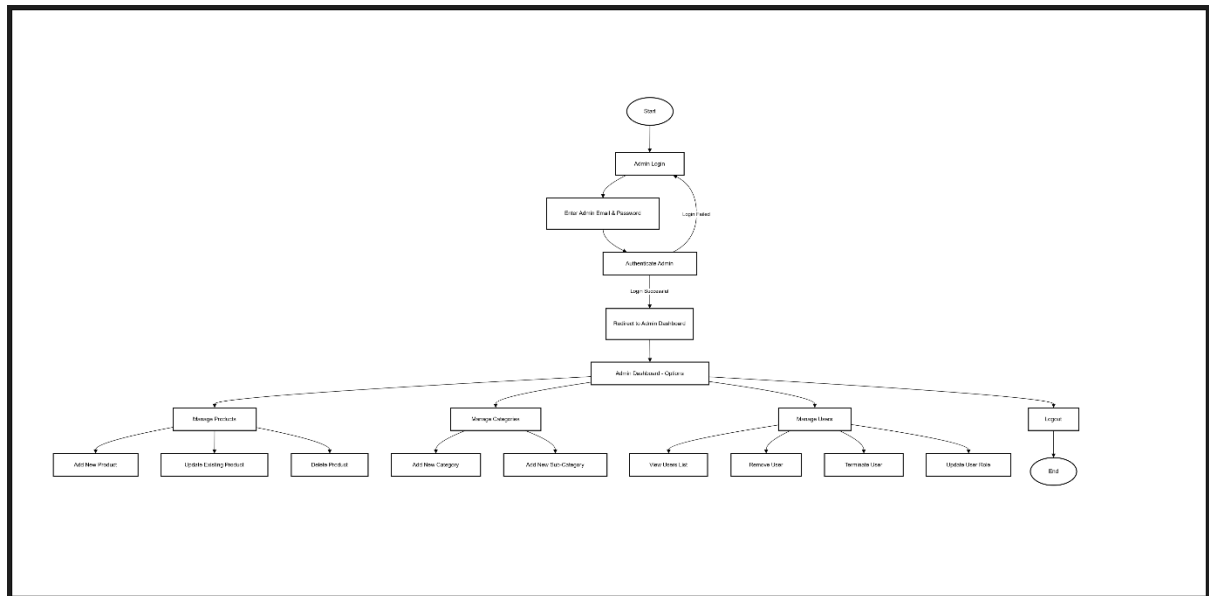
1. To create a secure, easy-to-use online shopping platform.
2. To allow users to manage their favorite items with a wishlist.
3. To enable customers to review their past purchases through an order history.
4. To ensure a responsive design that works seamlessly across different devices.

**Technologies Used:** The project is developed using:

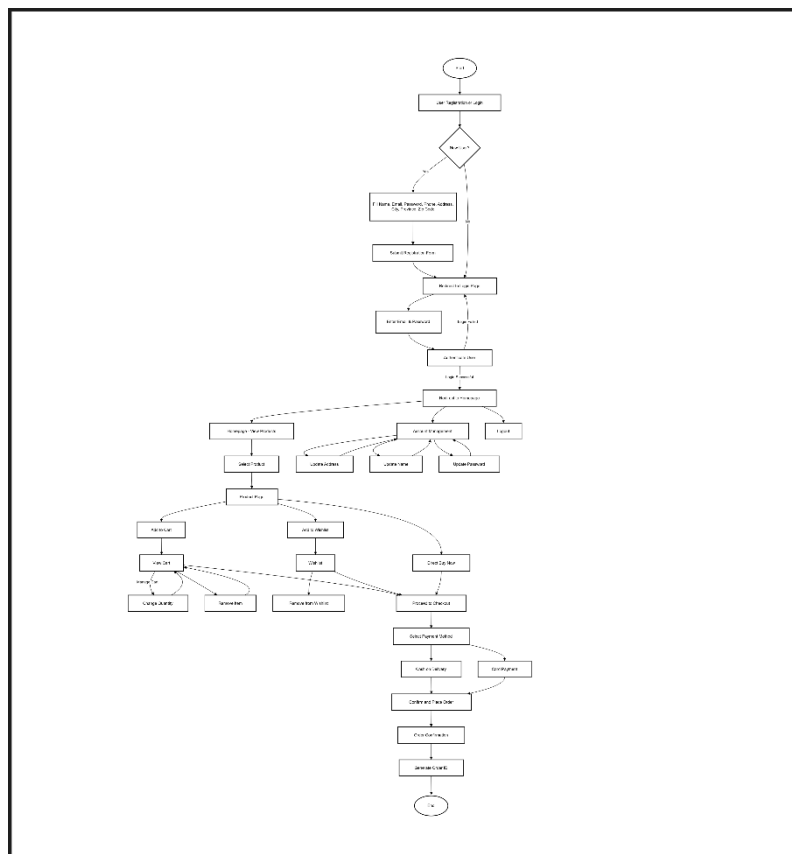
- **PHP:** For server-side scripting and handling user sessions.
- **MySQL:** To store data such as user accounts, product details, and orders.
- **HTML & CSS:** For creating the structure and styling of the website.
- **JavaScript:** For interactive elements and improving user experience.
- **Bootstrap:** To ensure a responsive and mobile-friendly layout.
- **Font Awesome:** For icons that enhance visual appeal.

## Flow Chart

- Admin Flowchart

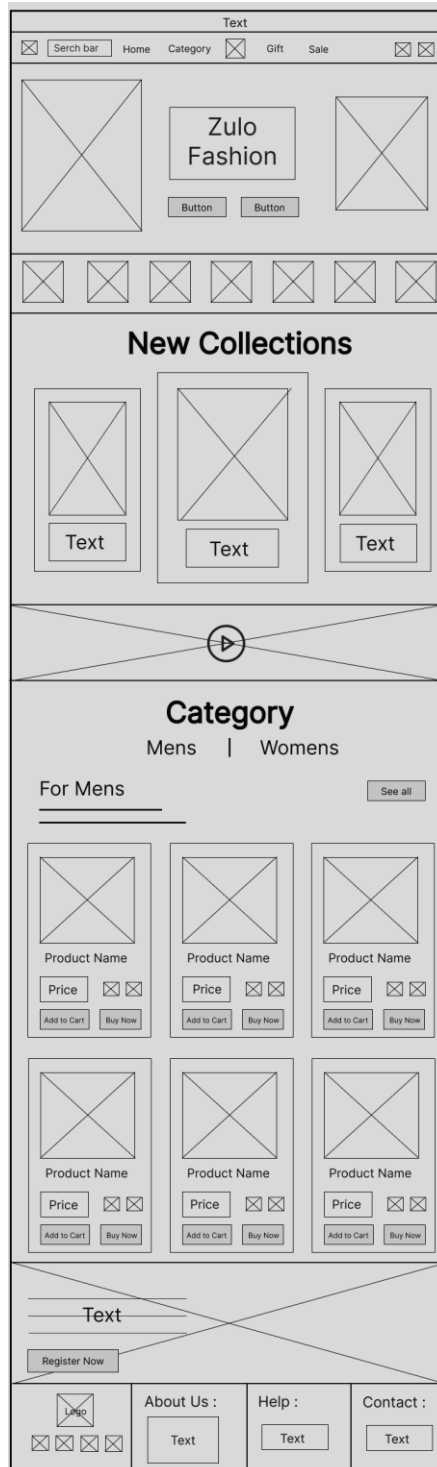


- User Flowchart

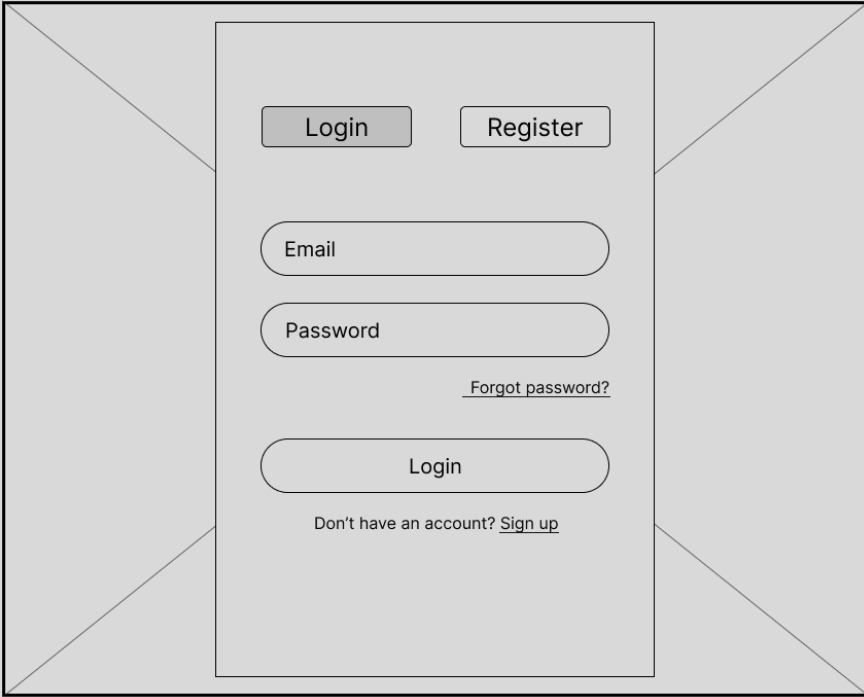


# Wireframes

- Home Page

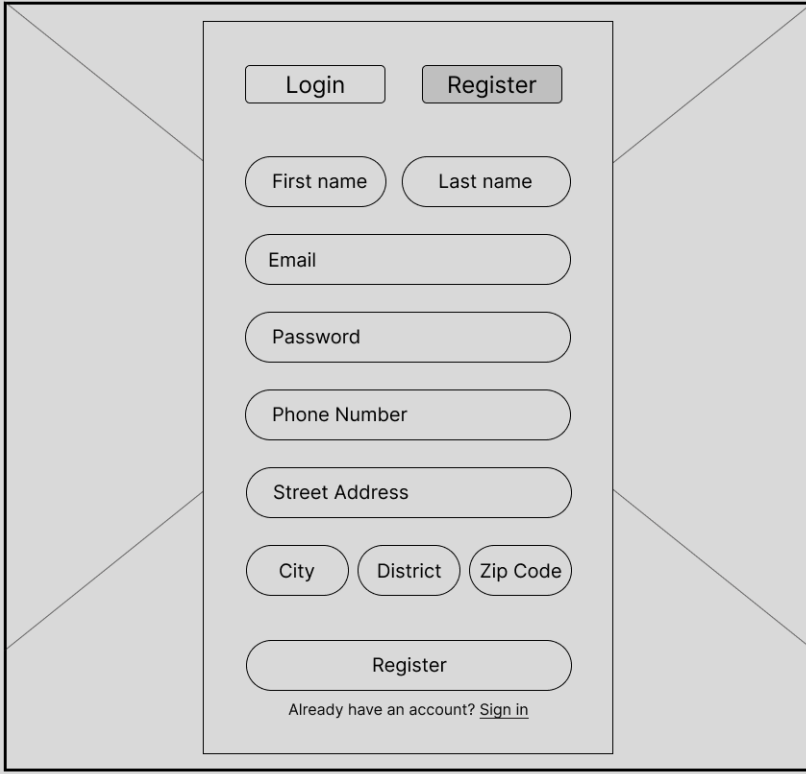


- **Login Page**



A wireframe of a login page. It features a central white rectangular area on a light gray background. At the top of this area are two buttons: "Login" and "Register". Below these are two rounded rectangular input fields labeled "Email" and "Password". To the right of the "Password" field is a link labeled "Forgot password?". Below the input fields is a large rounded rectangular button labeled "Login". At the bottom of the central area is the text "Don't have an account? [Sign up](#)".

- **Register Page**



A wireframe of a register page. It features a central white rectangular area on a light gray background. At the top of this area are two buttons: "Login" and "Register". Below these are several rounded rectangular input fields: "First name", "Last name", "Email", "Password", "Phone Number", and "Street Address". Below "Street Address" are three smaller rounded rectangular input fields: "City", "District", and "Zip Code". At the bottom of the central area is a large rounded rectangular button labeled "Register". Below the button is the text "Already have an account? [Sign in](#)".

- **UserPage\_OrderHistory**

Text						
	<input type="text" value="Serch bar"/>	<a href="#">Home</a>	<a href="#">Category</a>		<a href="#">Gift</a>	<a href="#">Sale</a>
						<a href="#">User@gmail.com</a> <input type="button" value="Logout"/>
<b>My Account</b>						
<a href="#">Profile</a> <a href="#">Oder History</a> <a href="#">Wishlist</a> <a href="#">Security</a> <a href="#">Dashboard</a>						
Oder Date	Product	Quantity	Total Amount	Payment Status	Actions	
<input type="text" value="Date"/>	<div> <input type="text" value="Product Name"/> <input type="text" value="Price"/> </div>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<a href="#">View Details</a>	
<input type="text" value="Date"/>	<div> <input type="text" value="Price"/> </div>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<a href="#">View Details</a>	
<input type="text" value="Date"/>	<div> <input type="text" value="Price"/> </div>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<a href="#">View Details</a>	
Get connected with us on social networks:						
<div> </div>		<b>About Us :</b> <input type="text" value="Text"/>	<b>Help :</b> <input type="text" value="Text"/>	<b>Contact :</b> <input type="text" value="Text"/>		

- **UserPage\_Profile**

Text					
	<input type="text" value="Serch bar"/>	<a href="#">Home</a>	<a href="#">Category</a>		<a href="#">Gift</a>
					<a href="#">Sale</a>
<b>My Account</b>					
<a href="#">Profile</a> <a href="#">Oder History</a> <a href="#">Wishlist</a> <a href="#">Security</a> <a href="#">Dashboard</a>					
<b>Profile Picture</b> <div> JPG or PNG no larger than 5 MB  <input type="button" value="Choose File"/> <input type="button" value="No File Chosen"/> <input type="button" value="Submit"/> </div>			<b>Account Details</b>		
			First Name <input type="text"/>	Last Name <input type="text"/>	
			Email <input type="text"/>		
			Phone Number <input type="text"/>	Address <input type="text"/>	
			City <input type="text"/>	Postal Code <input type="text"/>	
			Country <input type="text"/>	Province <input type="text"/>	
			<input type="button" value="Save Changes"/>		
Get connected with us on social networks:					
<div> </div>		<b>About Us :</b> <input type="text" value="Text"/>	<b>Help :</b> <input type="text" value="Text"/>	<b>Contact :</b> <input type="text" value="Text"/>	



- **UserPage\_Security**

Search bar

Home

Category

Gift

Sale

User@gmail.comLogout

My Account

ProfileOder HistoryWishlistSecurity

Change Password

Current Password

New Password

Confirm Password

Save

Two-Factor Authentication

Text

On

Off

SMS Number

Security Preferences

Text

Text

Text

Text

Delete Account

Text

I understand, delete my account

Get connected with us on social networks:

Logo

About Us :

Text

Help :

Text

Contact :

Text

- **UserPage\_Wishlist**

Search bar

Home

Category

Gift

Sale

User@gmail.comLogout

My Account

ProfileOder HistoryWishlistSecurity

Items	Action
<div><div></div><div>Product Name</div><div>Price</div></div>	<div>Remove</div>
<div><div></div><div>Product Name</div><div>Price</div></div>	<div>Remove</div>
<div><div></div><div>Product Name</div><div>Price</div></div>	<div>Remove</div>

Get connected with us on social networks:

Logo

About Us :

Text

Help :

Text

Contact :

Text

- **Dashboard**

Text	<input type="text" value="Search"/>	
CORE	<h1>Text</h1> <div><input type="text" value="Text"/></div> <div>Text<div><input type="text"/></div><div><input type="button" value="Submit"/></div></div>	
Dashboard		
Home		
Manage <span>▼</span>		
User		
Products		
Category		
Sub Category		
Logged in as: Username@gmail.com	Text	Text
<input type="button" value="Logout"/>		

[illegible]

Text	<div>Search</div>
CORE	<div>Text</div>
Dashboard	
Home	
Manage	Text
User	
Products	Text
Category	
Sub Category	Text
	<div>select</div>
Logged in as: Username@gmail.com	
<div>log out</div>	
Text	<div>TextText</div>

Text

Search

core

Dashboard

Home

Manage

User

Products

Category

Sub Category

Text

Text

All

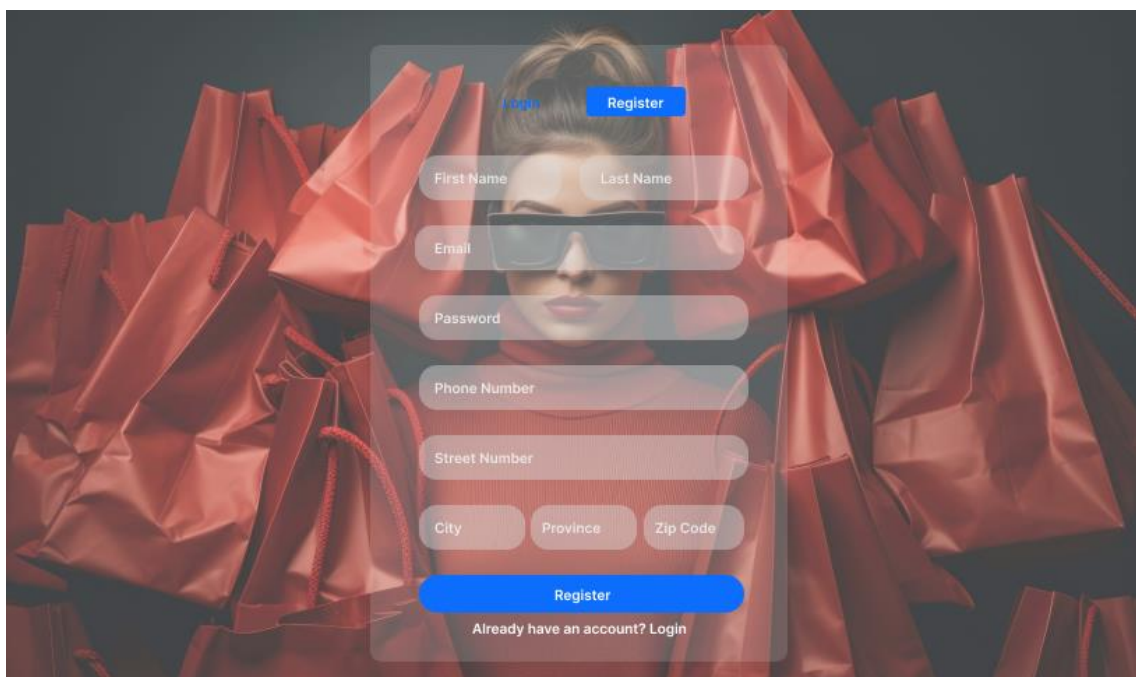
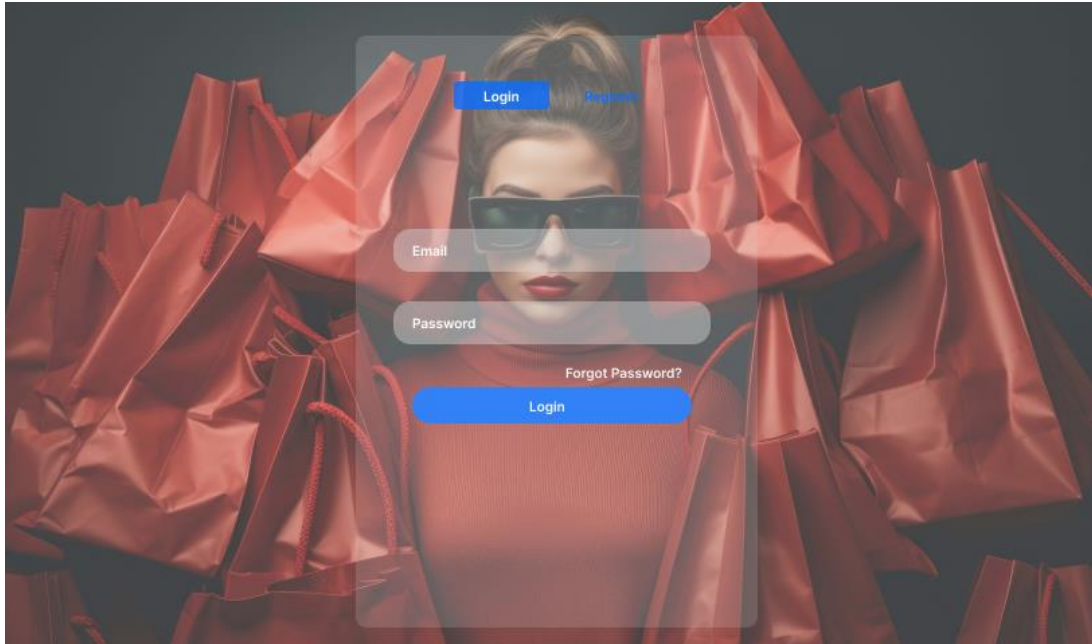
Name	Phone Number	Address	City	Postal Code	Province	Roll	Active	Actions
<input checked="" type="checkbox"/> UserName Email	Text	Text	Text	Text	Text	Text	<input type="checkbox"/>	<button>Edit</button>
<input checked="" type="checkbox"/> UserName Email	Text	Text	Text	Text	Text	Text	<input type="checkbox"/>	<button>Edit</button>
<input checked="" type="checkbox"/> UserName Email	Text	Text	Text	Text	Text	Text	<input type="checkbox"/>	<button>Edit</button>
<input checked="" type="checkbox"/> UserName Email	Text	Text	Text	Text	Text	Text	<input type="checkbox"/>	<button>Edit</button>
<input checked="" type="checkbox"/> UserName Email	Text	Text	Text	Text	Text	Text	<input type="checkbox"/>	<button>Edit</button>

Logged in as:  
Username@gmail.com

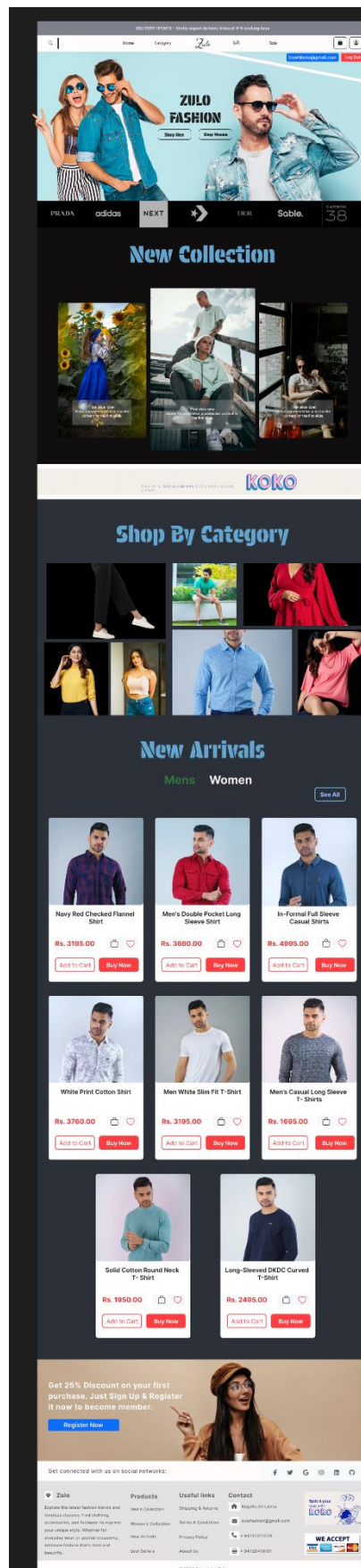
Log Out

## Design Specifications

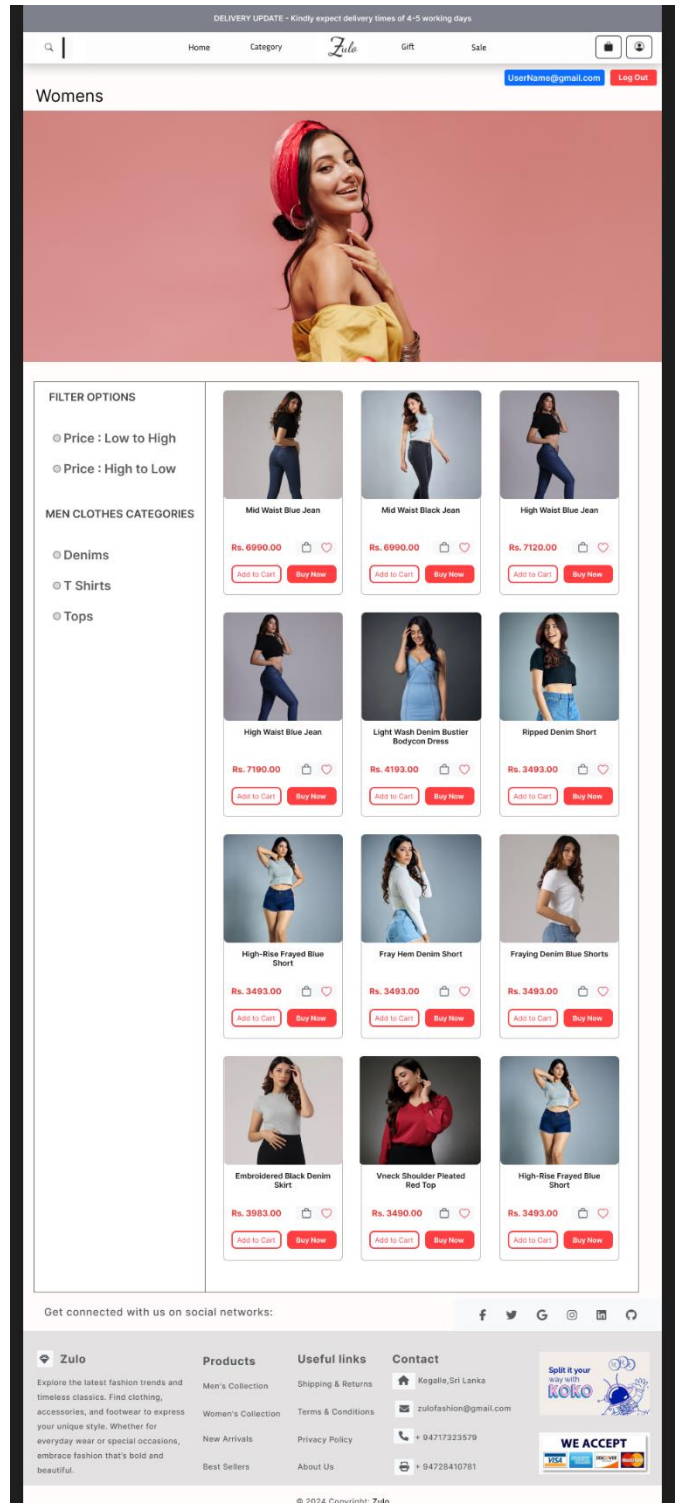
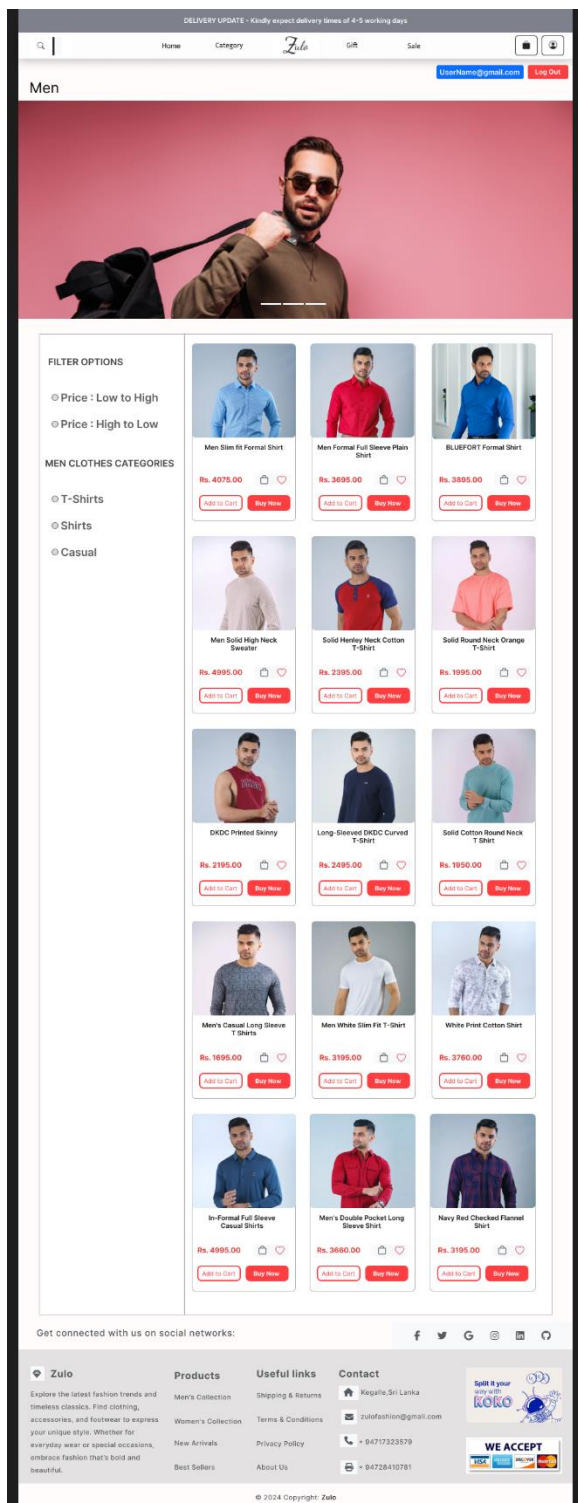
- **Login and Register Page**



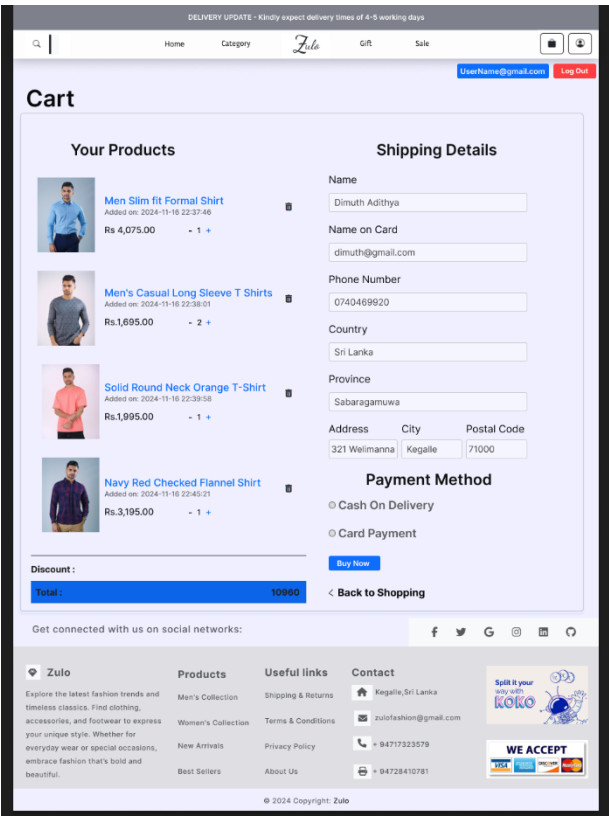
- Home Page



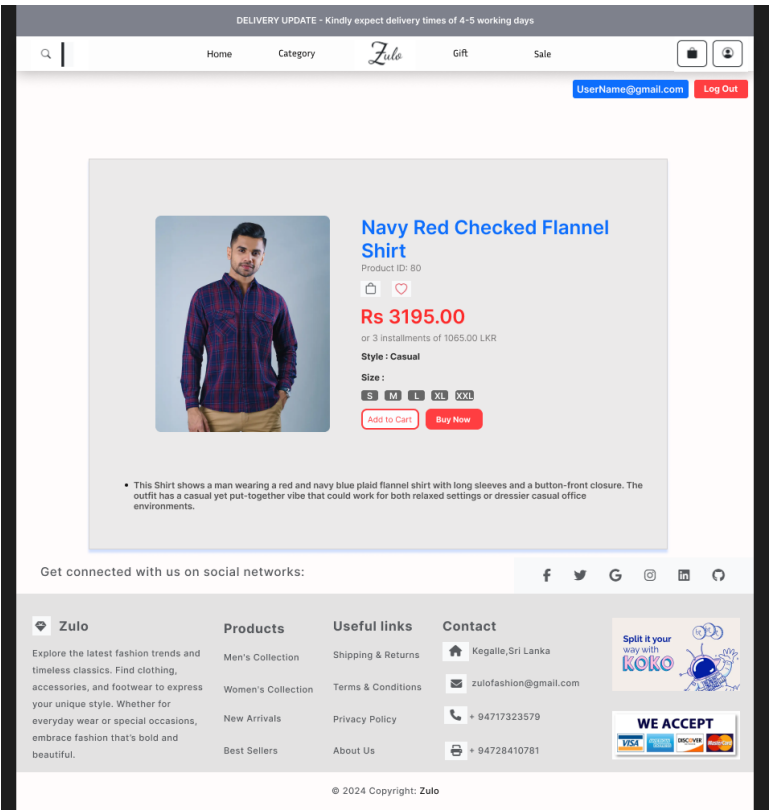
- Men and Women Pages



- Cart Page



- Product Card



- Account\_Profile

DELIVERY UPDATE - Kindly expect delivery times of 4-5 working days

HomeCategoryZuloGiftSale

UserName@gmail.comLog Out

My Account

ProfileOrder HistoryWishlistSecurityDashboard

Profile Picture

JPG or PNG no larger than 5 MB

Choose FileNo File ChosenSubmit

Account Details

First NameLast Name

DimuthAdithya

Email

dimuthadithya@gmail.com

Phone NumberAddress

0715374181315, Walimannathota, Kegalle

CityPostal Code

Kegalle71000

CountryProvince

Sri LankaSabaragamuwa

Save Changes

Get connected with us on social networks:

Zulo

Explore the latest fashion trends and timeless classics. Find clothing, accessories, and footwear to express your unique style. Whether for everyday wear or special occasions, embrace fashion that's bold and beautiful.

Products

Men's Collection

Women's Collection

New Arrivals

Best Sellers

Useful links

Shipping & Returns

Terms & Conditions

Privacy Policy

About Us

Contact

Kegalle, Sri Lanka

zuloofashion@gmail.com

+ 94717323579

+ 94728410781

Split it your way with KOKO

WE ACCEPT

© 2024 Copyright: Zulo

- Account\_OrderHistory

DELIVERY UPDATE - Kindly expect delivery times of 4-5 working days

HomeCategoryZuloGiftSale

UserName@gmail.comLog Out

My Account

ProfileOrder HistoryWishlistSecurity

Oder Date	Product	Quantity	Total Amount	Payment Status	Actions
November 15, 2024	<div><div>Men Slim Fit Formal Shirt</div><div>Rs 4,075.00</div><div>Solid Round Neck Orange T-Shirt</div><div>Rs 1,965.00</div></div>	3	Rs 10,145.00		<a href="#">View Details</a>
November 14, 2024	<div><div>Navy Red Checked Flannel Shirt</div><div>Rs 3,195.00</div></div>	1	Rs 3,195.00		<a href="#">View Details</a>
November 8, 2024	<div><div>Men's Double Pocket Long Sleeve Shirt</div><div>Rs 3,600.00</div></div>	2	Rs 7,320.00		<a href="#">View Details</a>
November 2, 2024	<div><div>Men's Casual Long Sleeve T Shirts</div><div>Rs 1,695.00</div><div>Men's Double Pocket Long Sleeve Shirt</div><div>Rs 3,600.00</div></div>	2	Rs 5,355.00		<a href="#">View Details</a>

Get connected with us on social networks:

Zulo

Explore the latest fashion trends and timeless classics. Find clothing, accessories, and footwear to express your unique style. Whether for everyday wear or special occasions, embrace fashion that's bold and beautiful.

Products

Men's Collection

Women's Collection

New Arrivals

Best Sellers

Useful links

Shipping & Returns

Terms & Conditions

Privacy Policy

About Us

Contact

Kegalle, Sri Lanka

zuloofashion@gmail.com

+ 94717323579

+ 94728410781

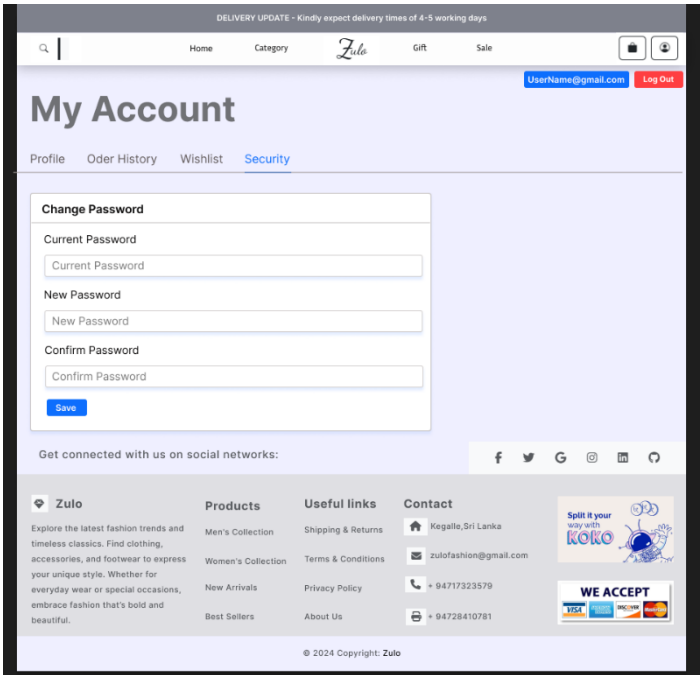
Split it your way with KOKO

WE ACCEPT

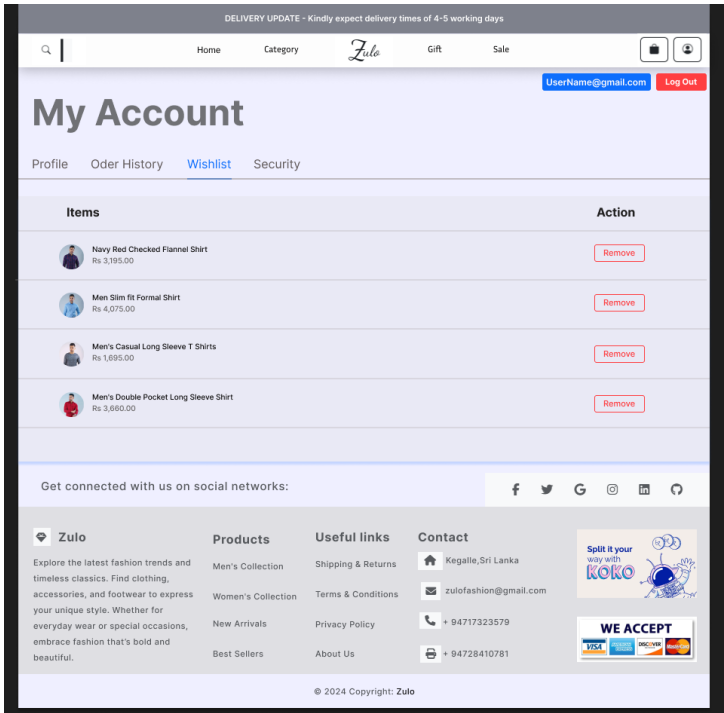
© 2024 Copyright: Zulo



- **Acoount\_Security**

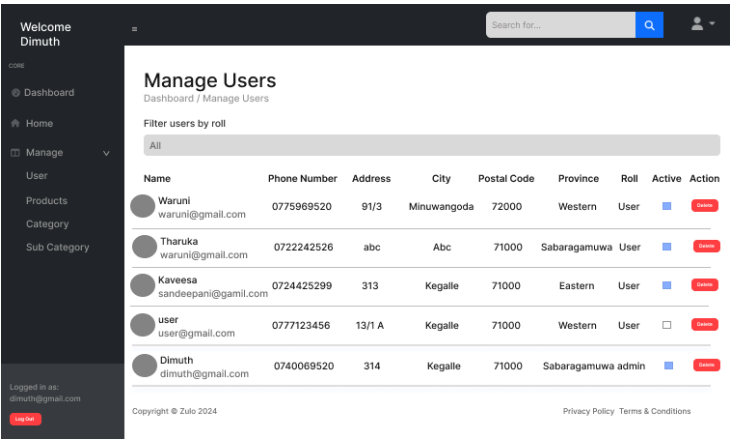
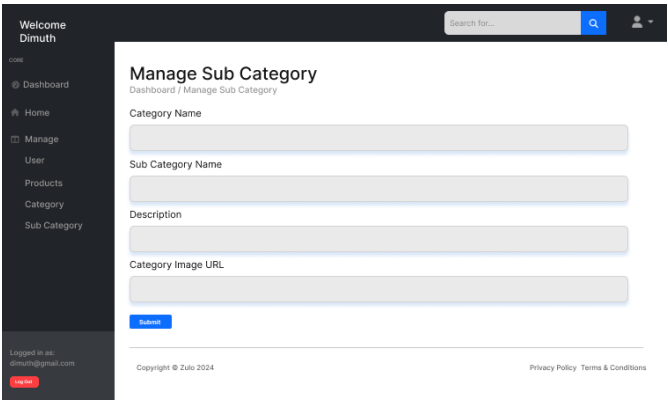
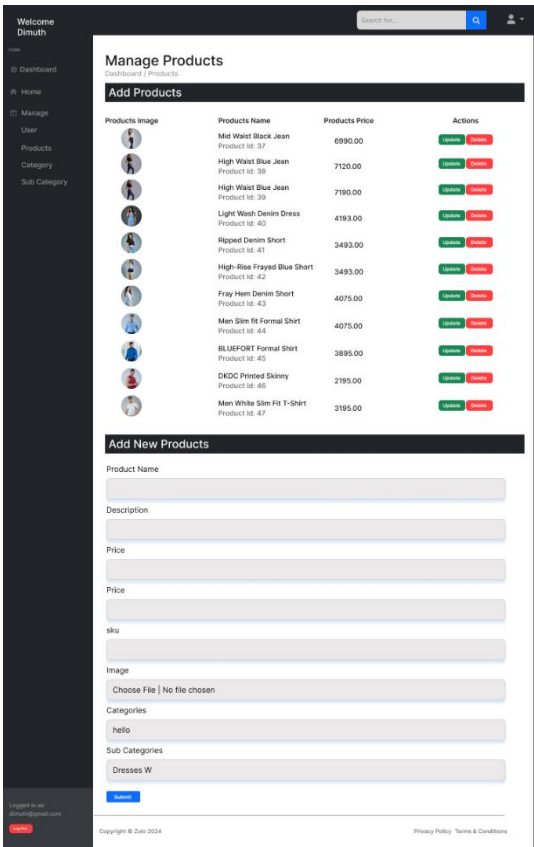
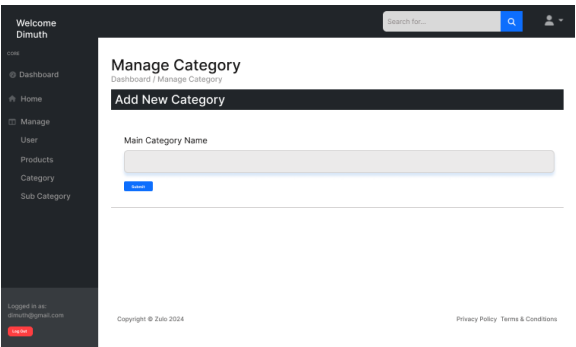
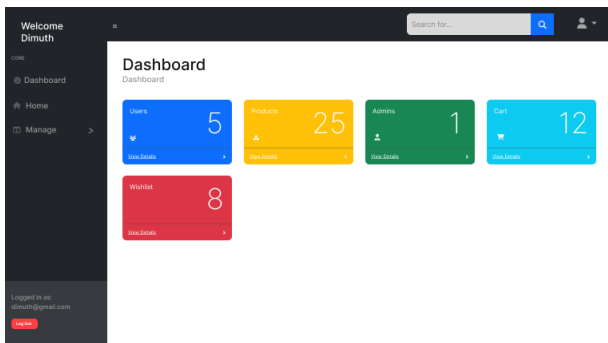


- **Account\_Wishlist**





- Dashboard



## **Individual Component Details**

### **Project scope**

- Login and Registration
- Manage Products and Display Products
- Checkout
- User Account Handling and Admin Management

### **Login and Registration**

- C - Add a new user to the database when they register.
- R - Verify user credentials during login.  
all user details display in the admin dashboard.
- U - Change the status field to mark the account as suspended.  
Modify the user type for a specific user.
- D - Remove a user account completely from the database.

### **Manage Products and Display Products**

- C - Insert new products into the database through the admin panel.
- R - Display all products for the admin to manage.
- U - Allow the admin to update product details.
- D - Remove products that are no longer needed from the database.

### **Checkout**

- C - Add products to the cart when the user selects them.
- R - Show all items in the cart for the user to review.

- U - Change the quantity of items in the cart.
- D - Remove products from the cart when the user deletes them.

### **User Account Management and Wishlist**

- C - Add an item to the user's wishlist.
- R - Display all the items in the user's wishlist.
- U - User account profile update.
- D - Remove an item from the user's wishlist.

## Conclusion

The **Zulo E-commerce website** has been successfully developed with features that enhance user experience and ensure robust functionality. Achievements include:

- A responsive and user-friendly design, utilizing **Bootstrap** for cross-device compatibility.
- Efficient handling of e-commerce operations such as product browsing, wishlist management, and order history tracking.
- Integration of **PHP** and **MySQL** for secure user authentication and data management.
- Implementation of lazy loading using **lazysizes** for optimized performance.
- Use of **Sharp** for efficient image processing and improved visuals.

## Challenges Faced and Solutions

- **Challenge:** Optimizing page load times for a better user experience.  
**Solution:** Implemented lazy loading with the **lazysizes** library, reducing initial load times for media-rich pages.
- **Challenge:** Ensuring compatibility across various devices and screen sizes.  
**Solution:** Designed the layout using **Bootstrap**, which provided responsive templates and adaptive elements.
- **Challenge:** Managing large numbers of product images efficiently.  
**Solution:** Integrated the **Sharp** library for image resizing and optimization.

## Future Improvements and Additional Features

- **Integration of a payment gateway** to enable real-time online transactions securely.
- **Enhanced search functionality** with advanced filtering options for better navigation.
- **AI-driven product recommendations** to personalize the shopping experience.
- **Multi-language support** to cater to a global audience.
- **Admin dashboard** for efficient management of inventory, orders, and user activities.

## References

- **Bootstrap Official Documentation** - For responsive design and layout customization.  
*Website:* <https://getbootstrap.com>
- **PHP Manual** - For backend development and session management.  
*Website:* <https://www.php.net/manual>
- **MySQL Documentation** - For database setup and query handling.  
*Website:* <https://dev.mysql.com/doc>
- **Sharp Library Guide** - For image processing and optimization.  
*Website:* <https://sharp.pixelplumbing.com>
- **Lazysizes Library Documentation** - For lazy loading implementation.  
*Website:* <https://afarkas.github.io/lazysizes>
- **W3Schools Tutorials** - For HTML, CSS, and JavaScript basics.  
*Website:* <https://www.w3schools.com>
- **Font Awesome Icon Guide** - For adding icons to the user interface.  
*Website:* <https://fontawesome.com>