



EYECACHE WEBSITE project proposal

Team AD

pramodya dewmini
[Team leader]

Table of Contents

| | |
|---|----|
| Team Members | 1 |
| Member contribution for this project | 2 |
| EyeCache website | 4 |
| 1. About | 4 |
| 2. Analysis of the Problem | 4 |
| 2.1 Context & Motivation | 4 |
| 2.2 Objectives | 5 |
| 3. A Synopsis of the Literature | 5 |
| 4. Both Functional and Non-Functional Requirements | 5 |
| 4.1 Functional requirements | 5 |
| 4.2 Non-Functional Requirements | 6 |
| 5. Designing a GUI and Wireframes | 6 |
| 5.1 The Home Page | 6 |
| 5.2 The Shop Page | 6 |
| 5.3 Listing of Products | 7 |
| 5.4 The Cart Page | 7 |
| Extra Pages | 8 |
| 5.5 Wireframes for Planning Web Designs | 9 |
| 6.Admin Dashboard | 12 |
| 7. Database Architecture and Details | 21 |
| 7.1 Table Overview | 21 |
| 7.2. Database Tables | 22 |
| 8. Processes and Use Cases | 23 |
| 8.1 Student Workflow | 23 |
| 8.2 Administration Workflow | 23 |
| 9. Technical Stack | 24 |
| 10. Security & Data Management | 25 |
| 11. Future Enhancements | 25 |

Team Members

1. 36034 - S. A. F.Fernandopulle
2. 37176 - Bandara R. R. K. N
3. 36710 - Premarathna W.A.N.N
4. 37226 - B.S.S.T.Cooray
5. 36561 - Udakumbura N.S
6. 37222 - S.M.Asfaq
7. 37209 - D.V.P.D.Kumarasiri(Team leader)
8. 36334 - W.M.I.D.Gnathilaka

Member contribution for this project

| Branch | Updated | Check status | Behind | Ahead | Pull request |
|----------------------|----------------|--------------|--------|---------|--------------|
| main-37209 | 1 hour ago | | | Default | ... |
| shop-37228 | 1 minute ago | | 7 | 1 | ... |
| 36561-Navodya | 8 minutes ago | | 7 | 3 | ... |
| Nipuni(cart)-36710 | 9 minutes ago | | 6 | 3 | ... |
| Dashboard-36034 | 9 minutes ago | | 7 | 3 | ... |
| Contact-us_37176 | 10 minutes ago | | 12 | 1 | ... |
| Login/Register-36334 | 11 minutes ago | | 17 | 1 | ... |
| admin-panel-37226 | 11 minutes ago | | 16 | 1 | ... |
| aboutus-37222 | yesterday | | 32 | 0 | ... |

| Student ID | Name | Contribution |
|------------|---------------------------------|--|
| 36034 | S. A. F. Fernandopulle | Dashboard |
| 37176 | Bandara R. R. K. N | Contact Us Page |
| 36710 | Premarathna W. A. N. N | Cart Page |
| 37226 | B. S. S. T. Cooray | Admin Panel |
| 36561 | Udakumbura N. S. | Product Pages (8 individual product pages) |
| 37222 | S. M. Asfaq | About Us Page |
| 37209 | D. V. P. D. Kumarasiri (Leader) | Home Page, Database Integration & Handling, Documentation, UI Design |
| 36334 | W. M. I. D. Gnathilaka | Login & Register Pages |
| 37228 | P.N. Dissanayake | Shop page with all products showing |

EyeCache website

1. About

EyeCache is an online store that caters specifically to NSBM students and makes it easy to connect with stylish apparel. Students can browse, buy, and keep track of college-appropriate apparel on the website.

To make shopping easy, EyeCache combines a strong database structure, a fast user interface, and safe backend procedures. It also gives administrators a wide range of tools to handle orders, inventory, and client questions.

The platform will be able to grow into mobile apps and advanced analytics in the future because of its scalable architecture, user-friendly design, and emphasis on students.

2. Analysis of the Problem

2.1 Context & Motivation

On campus, students may struggle to obtain fashionable yet reasonably priced apparel.

Traditional stores don't have a major website and are very time-consuming to visit. EyeCache handles this by:

- Offering a combined clothing inventory that is suited to students.

- Reducing the time and effort needed to purchase well-liked products
- Providing flexible payment and delivery alternatives

2.2 Objectives

- Establish a user-friendly online clothes store
- Provide a secure shopping cart and checkout procedure
- For orders and products, use role-based administrative management
- Ensure database integrity and security

3. A Synopsis of the Literature

Numerous studies back up the significance of campus-specific e-commerce platforms:

1. Student-focused apps boost engagement and purchases by 30% because they are pertinent
2. Including responsive design enhances accessibility, especially on mobile devices
3. Relational databases are used to promote data consistency for inventory and orders

EyeCache adheres to these best practices by offering NSBM students a personalised experience.

4. Both Functional and Non-Functional Requirements

4.1 Functional requirements

1. User registration, login, and profile management
2. A product catalogue with filtering options for size, colour, and category
3. Adding, deleting, and changing items in shopping carts
4. Numerous ways to pay at the register
5. Order tracking and history
6. Admin dashboard for product, order, and message management

4.2 Non-Functional Requirements

- A simple and adaptable graphical user interface
- Secure authentication and hashing of passwords
- Outstanding functionality for speedy product searches and acquisitions
- Scalable database architecture for future expansion

5. Designing a GUI and Wireframes

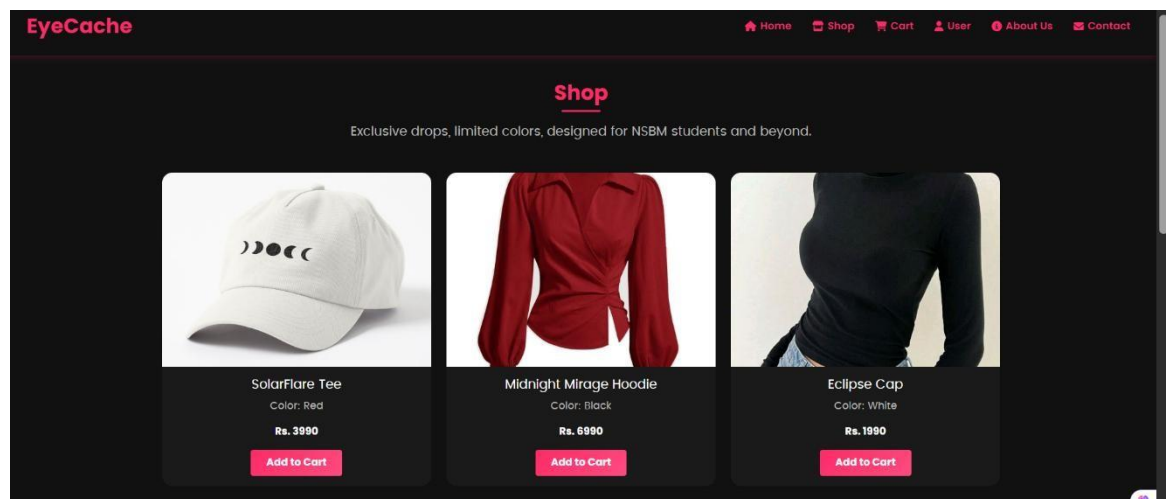
5.1 The Home Page

- Product highlights and banners
- Simple access to the user profile, shop, and cart

5.2 The Shop Page

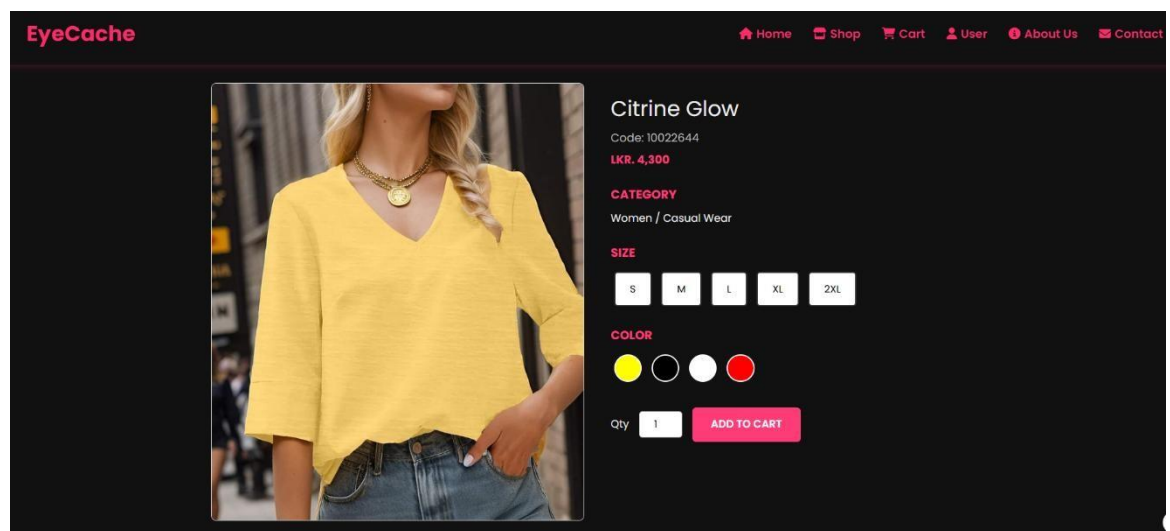
- Products that may be filtered by category, price, and colour

- Sort by popularity, price, or new arrivals



5.3 Listing of Products

- A collection of product images
- Size and colour options
- The button that says "Add to cart"



5.4 The Cart Page

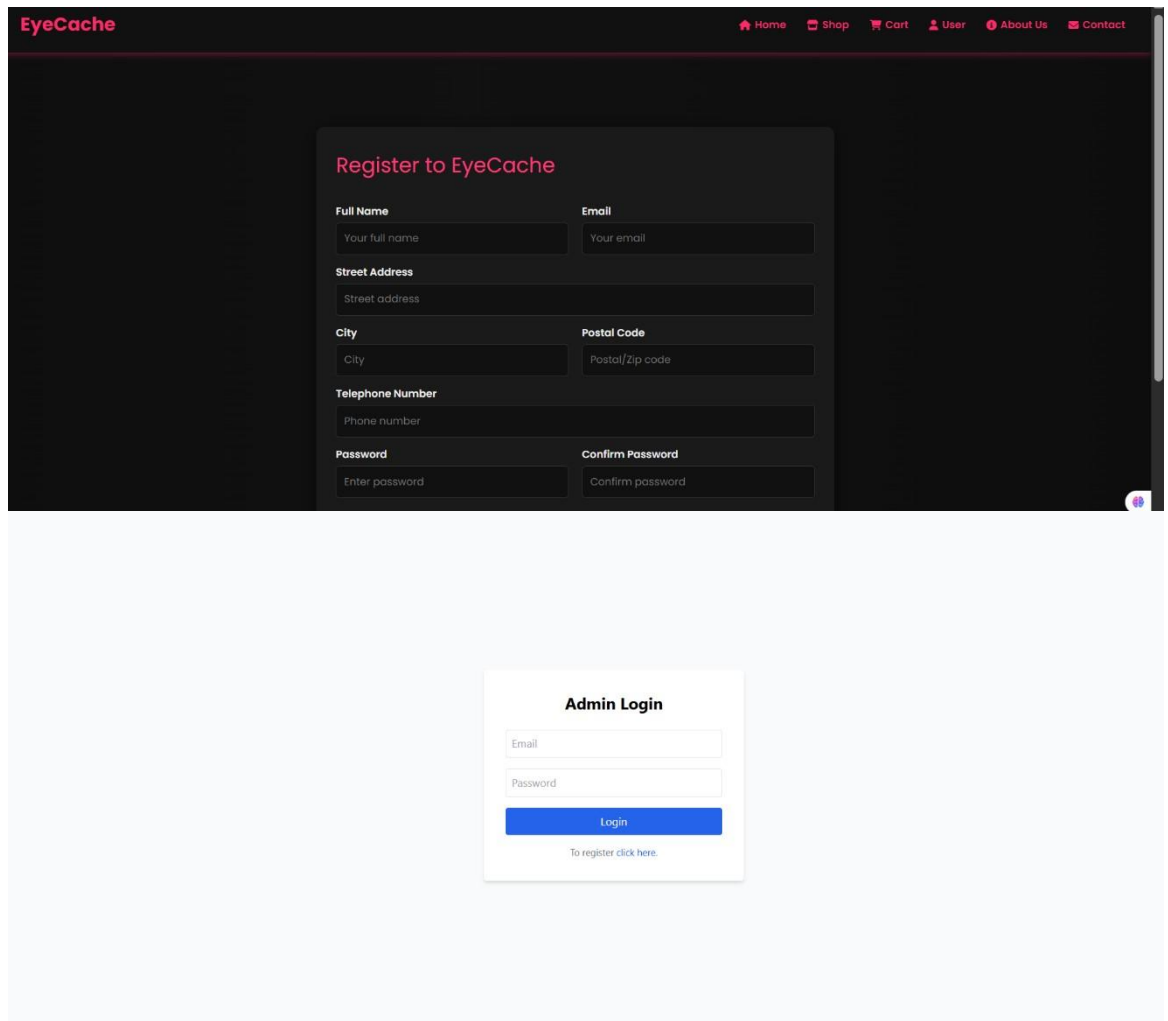
- Display the selected items
- Quantity management

- Update the total and take things out

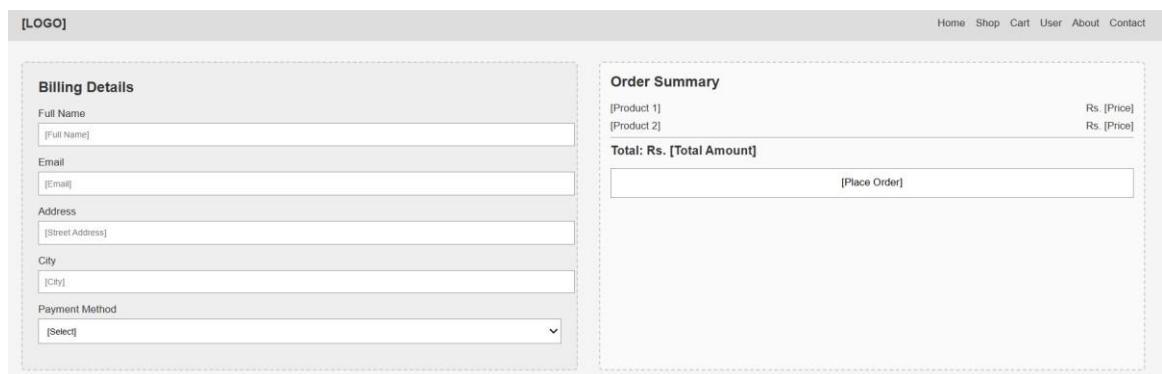
The screenshot shows the 'My Cart' checkout page for EyeCache. The page has a dark theme with red accents. At the top, there's a navigation bar with links: Home, Shop, Cart, User, About Us, and Contact. The main content area is titled 'My Cart' and 'Checkout'. Below this, there's a 'Checkout Details' section with three input fields: 'Address' (placeholder: 'Enter your address'), 'Name' (placeholder: 'Enter your name'), and 'Telephone' (placeholder: 'Enter your number'). Below these is a 'Payment Method' section with two radio buttons: 'Credit / Debit Card' and 'Cash on Delivery'. At the bottom of the form is a red 'PAY' button.

Extra Pages

The screenshot shows two pages from the EyeCache website. The top page is the 'Contact Us' page, which has a dark theme with red accents. It features a central form with three input fields: 'Your Name', 'Your Email', and 'Your Message'. Below these fields is a red 'Send Message' button. The bottom page is the 'Login' page, which also has a dark theme with red accents. It features a central form with two input fields: 'Email' (placeholder: 'Enter your email') and 'Password' (placeholder: 'Enter your password'). Below these fields is a red 'Login' button. At the bottom of the login form, there's a link: 'New to our store? Join now [Register here](#)'. Both pages have a navigation bar at the top with links: Home, Shop, Cart, User, About Us, and Contact.



5.5 Wireframes for Planning Web Designs



[LOGO]

HomeShopCartUserAboutContact

Login

Email

[Email]

Password

[Password]

Login

[\[Forgot Password?\]](#)
[\[Create an Account\]](#)

[LOGO]

HomeShopCartUserAboutContact

Admin Register

Full Name

[Full Name]

Email

[Email]

Password

[Password]

Confirm Password

[Confirm Password]

Role

[Select Role]

Register Admin

[LOGO]

Admin Register

Full Name

[Full Name]

Email

[Email]

Password

[Password]

Confirm Password

[Confirm Password]

Role

[Select Role]

Register Admin

[LOGO]

Admin Register

Full Name

[Full Name]

Email

[LOGO]

HomeShopCartUserAboutContact

Our Mission

[Text about mission]

Why Choose Us?

[Feature 1]

[Feature 2]

[Feature 3]

Meet the Team

[Team Member 1]

[Team Member 2]

[Team Member 3]

[LOGO]

HomeShopCartUserAboutContact

Pending Orders

OrderID: [12345]

Product:

[Product Name]

Quantity:

[2]

Price:

Rs. [Amount]

Ordered on:

[Date]

Expected Delivery:

[Date or N/A]

Status:

Pending

[LOGO]

HomeShopCartUserAboutContact

Billing Info

[Full Name]

[Email]

[Address]

[City]

[Postal Code]

Order Summary

[Items List]

[Total Price]

[Place Order]

[LOGO]

HomeShopCartUserAboutContact

Contact Form

[Full Name]

[Email]

[Message]

[Send Message]

[LOGO]

HomeShopCartUserAboutContact

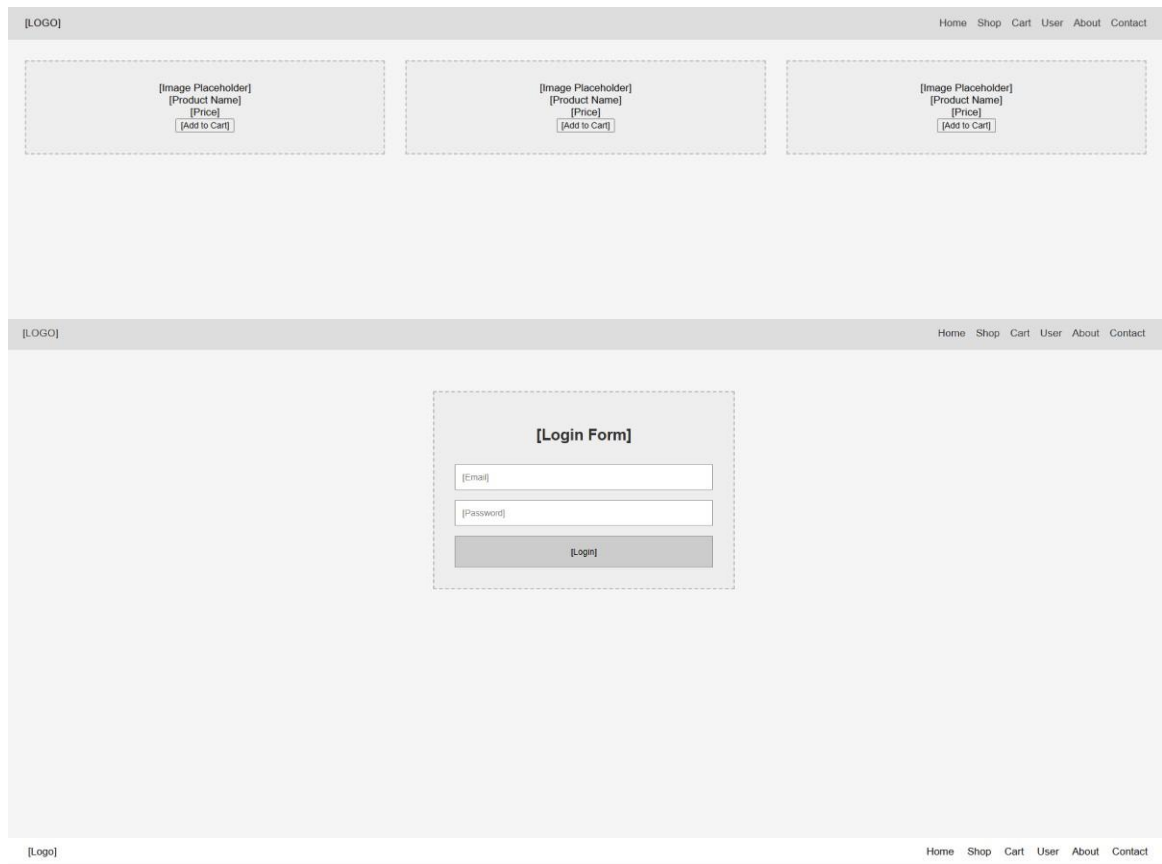
[Product Image]

Product Name

[Product Description]

[Price]

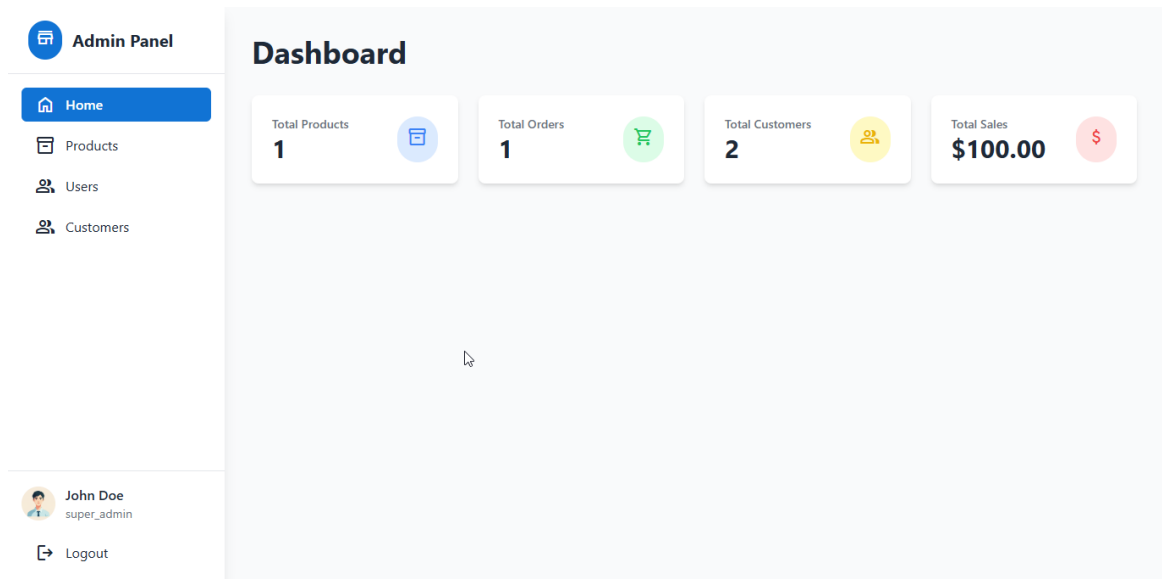
[Add to Cart]



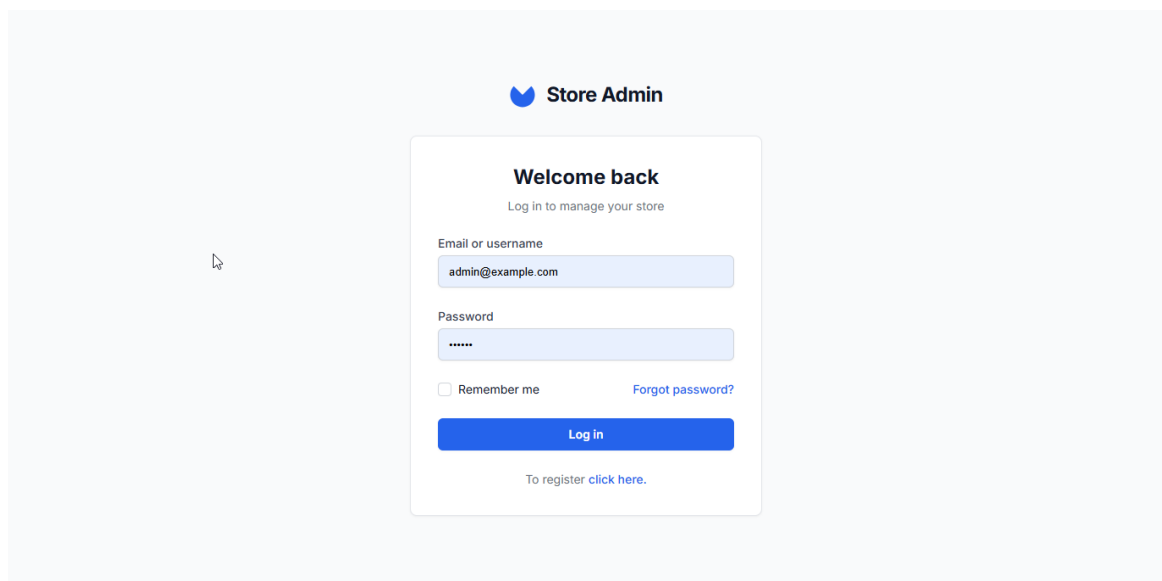
6.Admin Dashboard

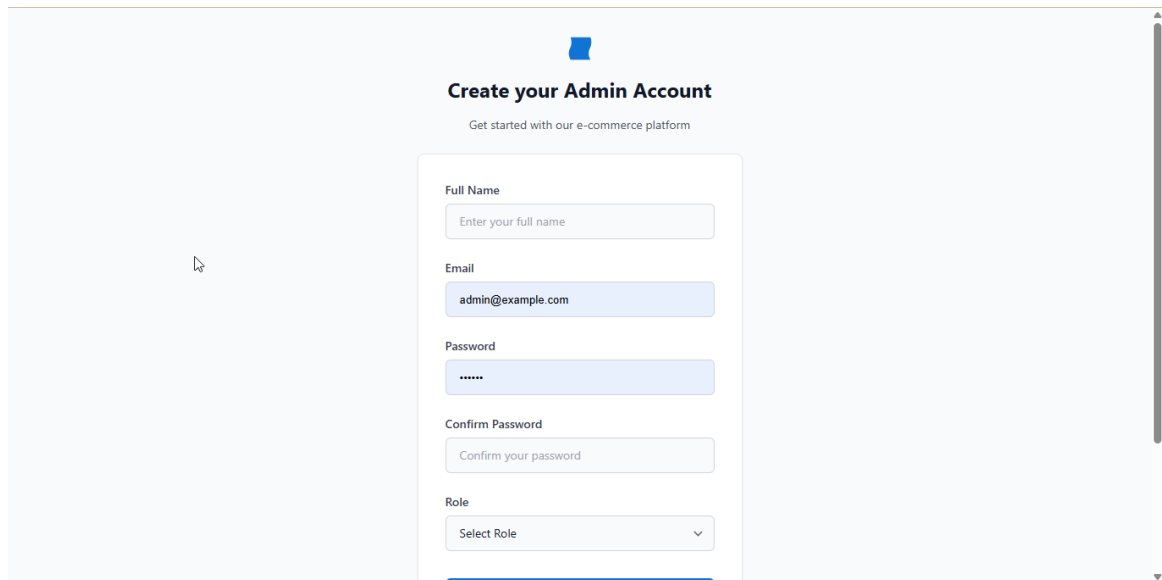
The admin dashboard is optimized for ease of use and simplicity so that administrators can use the e-commerce functionality seamlessly.

6.1. Home Dashboard: The home page provides a high-level overview with critical metrics. It is a centralized source for quick glance overview of the performance of the site.



6.2. Authentication Screens: Secure Login page and Register page for new employee accounts. The Submitted page provides a confirmation message for new account establishment.





The image shows a web form titled "Create your Admin Account" with a subtext "Get started with our e-commerce platform". The form is centered on a light gray background. It contains five input fields: "Full Name" (placeholder: "Enter your full name"), "Email" (placeholder: "admin@example.com"), "Password" (placeholder: "*****"), "Confirm Password" (placeholder: "Confirm your password"), and "Role" (a dropdown menu with "Select Role" and a downward arrow). A blue horizontal bar is at the bottom of the form container.

Create your Admin Account
Get started with our e-commerce platform

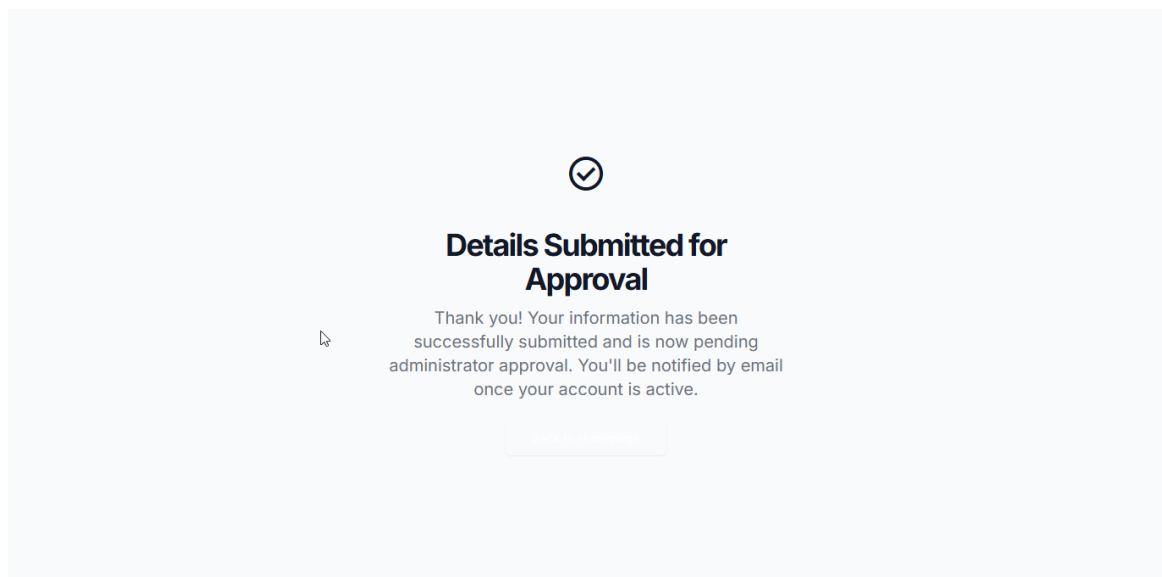
Full Name
Enter your full name

Email
admin@example.com

Password

Confirm Password
Confirm your password

Role
Select Role



6.3. User Management: The Users page displays a list of all admin accounts. The Add User and Edit User pages contain forms used to create new admin accounts and modify existing ones, such as updating credentials and roles.

Admin Panel

Home

Products

Users

Customers

John Doe

super_admin

Logout

Users Management

+ Add New User

Awaiting Approval

| User | Email | Role Requested | Actions |
|-----------------------------|-------|----------------|---------|
| No users awaiting approval. | | | |

All Users

| User | Email | Role | Actions |
|----------------|--------------------------|-------------|-------------------------|
| Sithika Cooray | sandivesithika@gmail.com | super_admin | <div></div> <div></div> |
| John Doe | admin@example.com | super_admin | <div></div> <div></div> |

Admin Panel

Home

Products

Users

Customers

John Doe

super_admin

Logout

< Add New User

Full Name

John Doe

Email Address

admin@example.com

Password

.....

Confirm Password

Role

super_admin

Cancel

+ Add User

Admin Panel

Home

Products

Users

Customers

John Doe

super_admin

Logout

< Edit User

Full Name

Sithika Cooray

Email

sandivesithika@gmail.com

Password

.....

Confirm Password

Leave blank to keep current password.

Role

Super Admin

Cancel

Update User

6.4. Customer Management: The Customers page provides a list of all customer accounts in one place. The Add Customer and Edit Customer pages allow manual addition or modification of customer profiles.

Admin Panel

Home

Products

Users

Customers

John Doe

super_admin

Logout

Customers

+ Add New Customer

| ID | Full Name | Email | Phone | Created At | Actions |
|----|----------------|--------------------------|------------|---------------------|-------------------------|
| 3 | Sithika Cooray | sandivesithika@gmail.com | 0721687376 | 2025-09-15 23:19:23 | <div></div> <div></div> |
| 2 | winner | maxittiktok@gmail.com | 0710935966 | 2025-09-15 22:39:42 | <div></div> <div></div> |

Orders

+ Add New Order

| ID | Customer ID | Order Date | Total Amount | Shipping Address | Status | Actions |
|----|-------------|------------|--------------|------------------|---------|-------------------------|
| 2 | 2 | 2026-09-08 | 100.00 | hello | Pending | <div></div> <div></div> |

Admin Panel

Home

Products

Users

Customers

John Doe

super_admin

Logout

Add New Customer

Customer Information

Full Name

John Doe

Email Address

john.doe@example.com

Phone Number

(555) 123-4567

Cancel

Save Customer

Admin Panel

Home

Products

Users

Customers

John Doe
super_admin

Logout

Edit Customer

Customer Information

Full Name

Sithika Cooray

Email Address

sandivesithika@gmail.com

Phone Number

0721687376

Cancel

Save Customer

6.5. Product Management: The Products page shows all products with search, filter, and sort capabilities. The Add Product and Edit Product pages provide a full form to add new product listings or edit existing ones with fields including name, description, price, and images.

Admin Panel

Home

Products

Users

Customers

John Doe
super_admin

Logout

Products

+ Create New Category

+ Add New Product

Product Categories

| Category Name | Actions |
|---------------|-------------|
| Footwear | <div></div> |

All Products

| Product Name | Category | Price | Stock | Actions |
|--|----------|----------|----------|-------------|
| <div><div></div><div>helloww123 #hello</div></div> | Footwear | \$100.00 | In Stock | <div></div> |

Admin Panel

Home

Products

Users

Customers

John Doe
super_admin

Logout

Add New Product

Product Name

e.g. Premium Wireless Headphones

Description

Add a detailed description of the product...

Category

Electronics

SKU

e.g. SKU-12345

Price

\$ 0.00

Stock Quantity

100

Status

In Stock

Product Images

Upload files or drag and drop

PNG, JPG, GIF up to 10MB

Admin Panel

Home

Products

Users

Customers

John Doe
super_admin

Logout

Edit Product

Product Name

e.g. Premium Wireless Headphones

Description

Add a detailed description of the product...

Category

Footwear

SKU

e.g. SKU-12345

Price

\$ 0.00

Stock Quantity

0

Status

In Stock

Product Images

Upload files or drag and drop

PNG, JPG, GIF up to 10MB

6.6. Category Management: The Add Category and Edit Category pages are used to categorize products into reasonable categories for easier navigation.

Admin Panel

Home

Products

Users

Customers

John Doe

super_admin

Logout

Products

Create New CategoryAdd New Product

Product Categories

| Category Name | Actions |
|---------------|-------------------------|
| Footwear | <div></div> <div></div> |

All Products

| Product Name | Category | Price | Stock | Actions |
|--|----------|----------|----------|-------------------------|
| <div><div></div><div>helloww123</div><div>#hello</div></div> | Footwear | \$100.00 | In Stock | <div></div> <div></div> |

Admin Panel

Home

Products

Users

Customers

John Doe

super_admin

Logout

Add New Category

Category Name

e.g., Electronics

Slug

e.g., electronics

Please fill out this field. Only letters, numbers, and hyphens.

Parent Category

None

Status

Active

Description

Category Image

Admin Panel

Home

Products

Users

Customers

John Doe

super_admin

Logout

Edit Category

Category Name

Footwear

Slug

footwear

The "slug" is the URL-friendly version of the name. It is usually all lowercase and contains only letters, numbers, and hyphens.

Parent Category

None

Status

Active

Description

hi

Category Image

6.7. Order Management: Edit Order and Add Order pages are utilized to manage customer orders. This provides for manual addition of new orders or changing the status for ongoing ones, e.g., Pending, Shipped, or Delivered.

Admin Panel

Home

Products

Users

Customers

John Doe

super_admin

Logout

Customers

+ Add New Customer

| ID | Full Name | Email | Phone | Created At | Actions |
|----|----------------|--------------------------|------------|---------------------|-------------------------|
| 3 | Sithika Cooray | sandivesithika@gmail.com | 0721687376 | 2025-09-15 23:19:23 | <div></div> <div></div> |
| 2 | winner | maxittiktok@gmail.com | 0710935966 | 2025-09-15 22:39:42 | <div></div> <div></div> |

Orders

+ Add New Order

| ID | Customer ID | Order Date | Total Amount | Shipping Address | Status | Actions |
|----|-------------|------------|--------------|------------------|---------|-------------------------|
| 2 | 2 | 2026-09-08 | 100.00 | hello | Pending | <div></div> <div></div> |

Admin Panel

Home

Products

Users

Orders

Customers

John Doe

super_admin

Logout

Add New Order

Customer ID

Enter Customer ID

Order Date

mm/dd/yyyy

Total Amount

\$ 0.00

Shipping Address


123 Main St, Anytown, USA


Status


Pending


Cancel


+ Create Order


 Admin Panel


 Home

 Products

 Users

 Customers

 John Doe
super_admin

 Logout

Edit Order

Customer

winner

Order Date

09/08/2026

Total Amount

\$ 100.00

Shipping Address

hello

Status

Pending

Cancel

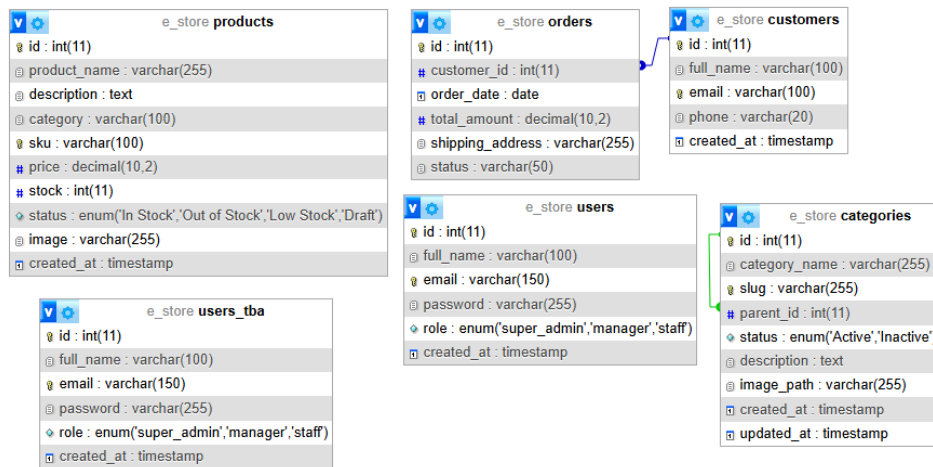
Update Order

7. Database Architecture and Details

7.1 Table Overview

- Users: administrators, staff members, and student accounts
- Products: details on the products, including category, price, colour, and pictures
- Categories: arrange things based on their kind
- Cart: things in the makeshift cart before checking out
- Orders: monitor the status of completed orders
- Customers: store user profiles

- Messages: user enquiries



Orders and items are managed by administrators and employees.

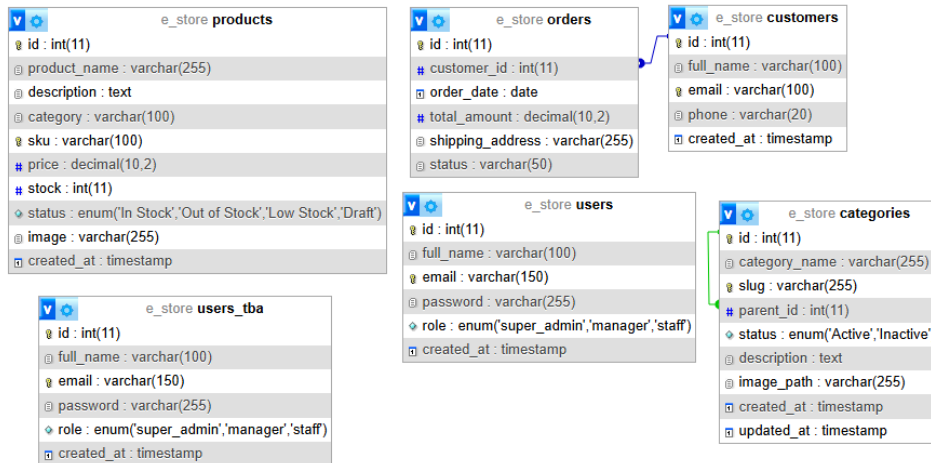
7.2. Database Tables

Products Table

| id | name | color | price | image |
|----|------------------------|-------|---------|--------------------------------|
| 1 | SolarFlare Tee | Red | 3990.00 | assets/Black-Moon-Dad-Cap.jpeg |
| 2 | Midnight Mirage Hoodie | Black | 6990.00 | assets/download (19).jpeg |

Cart Table

| id | user_id | product_id | size | color | quantity | added_at |
|----|---------|------------|------|-------|----------|------------------|
| 1 | dulani | 1 | M | Red | 1 | 2025-09-09 06:16 |



| Table | Action | Rows | Type | Collation | Size | Overhead |
|--------------------------------------|--|-----------|---------------|---------------------------|------------------|------------|
| <input type="checkbox"/> cart | Browse Structure Search Insert Empty Drop | 24 | InnoDB | utf8mb4_0900_ai_ci | 32.0 KiB | - |
| <input type="checkbox"/> categories | Browse Structure Search Insert Empty Drop | 1 | InnoDB | utf8mb4_general_ci | 48.0 KiB | - |
| <input type="checkbox"/> customers | Browse Structure Search Insert Empty Drop | 2 | InnoDB | utf8mb4_general_ci | 32.0 KiB | - |
| <input type="checkbox"/> messages | Browse Structure Search Insert Empty Drop | 6 | InnoDB | utf8mb4_0900_ai_ci | 16.0 KiB | - |
| <input type="checkbox"/> orders | Browse Structure Search Insert Empty Drop | 1 | InnoDB | utf8mb4_0900_ai_ci | 32.0 KiB | - |
| <input type="checkbox"/> orders1 | Browse Structure Search Insert Empty Drop | 2 | InnoDB | utf8mb4_general_ci | 32.0 KiB | - |
| <input type="checkbox"/> products | Browse Structure Search Insert Empty Drop | 8 | InnoDB | utf8mb4_0900_ai_ci | 16.0 KiB | - |
| <input type="checkbox"/> products1 | Browse Structure Search Insert Empty Drop | 1 | InnoDB | utf8mb4_general_ci | 32.0 KiB | - |
| <input type="checkbox"/> userdetails | Browse Structure Search Insert Empty Drop | 1 | InnoDB | utf8mb4_0900_ai_ci | 32.0 KiB | - |
| <input type="checkbox"/> users | Browse Structure Search Insert Empty Drop | 3 | InnoDB | utf8mb4_general_ci | 32.0 KiB | - |
| <input type="checkbox"/> users_tba | Browse Structure Search Insert Empty Drop | 0 | InnoDB | utf8mb4_general_ci | 32.0 KiB | - |
| 11 tables | Sum | 49 | InnoDB | utf8mb4_0900_ai_ci | 336.0 KiB | 0 B |

8. Processes and Use Cases

8.1 Student Workflow

1. Register or sign in
2. Examine the products and sort them by category or colour
3. Add to cart → Modify the quantity
4. Order confirmation following payment and checkout
5. Track the progress of your order

8.2 Administration Workflow

1. Log in as the administrator
2. Add, change, or eliminate product categories
3. Review and modify orders
4. Manage users and messages

9. Technical Stack

- Frontend design: HTML/CSS/JS and interaction
- PHP backend: server-side processing
- MySQL Store: users, orders, products, and communications
- Local hosting for XAMPP development and testing

| Layer | Technology | Purpose |
|----------|-------------|---|
| Frontend | HTML/CSS/JS | Layout, styling, and client-side interactivity. Tailwind CSS is used for rapid UI development and responsiveness. |
| Backend | PHP | Server-side processing and direct database interaction. The backend is responsible for all business logic, data validation, and authentication. |
| Database | MySQL | Stores users, products, orders, and messages. Uses a relational schema with foreign keys and constraints to ensure data integrity. |

| Layer | Technology | Purpose |
|---------|------------|---|
| Hosting | XAMPP | Used for local development and testing. |

10. Security & Data Management

The platform is designed with security as the top most priority, particularly with the direct database connection model.

- **Prepared Statements:** Prepared statements are employed by all SQL queries to prevent SQL injection attacks. This is a security feature that is crucial in removing SQL commands from user input data.
- **Password Hashing:** User passwords for all user accounts are hashed using bcrypt prior to storage in the database.
- **Session-based Authentication:** Secure server sessions are used to maintain the authenticated state of logged-in admins and users.
- **Role-based Admin Access:** All admin capabilities are access-controlled based on the user's role to ensure authorization.
- **Input Sanitization:** All user input data is sanitized to execute kill any malicious code before it is processed by the backend, stopping Cross-Site Scripting (XSS) attacks.

11. Future Enhancements

1. A mobile application for iOS and Android
2. Payment gateway integration (e-wallets, cards)
3. Loyalty programs for schoolchildren

4. AI-driven product suggestions
5. Campus delivery integration