In Partial Fulfillment of the Requirements in CPE143L: Web Design and Development

Presented by:

Aleexa Villafuerte

Ariff Jibran Mantil

Presented to:

Engr. Rex A. Amido

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GymGarage! – Your One-Stop Shop for Gym Equipment and Memberships

The GymGarage Web Development Project is a collaborative initiative aimed at developing a comprehensive web platform that integrates gym equipment sales, membership management, and administrative functionalities. This project is part of the coursework for CPE143L: Web Design and Development.

Project Overview

GymGarage seeks to address the challenges faced by gym enthusiasts and administrators by providing a unified platform that streamlines operations and enhances user experience. The platform offers features such as user authentication, equipment browsing and purchasing, membership plan selection, and administrative dashboards for managing orders and users.

Repository Structure

The project's repository is organized as follows:

- Frontend: Contains the client-side code, including HTML, CSS, and JavaScript files responsible for the user interface and experience.
- Server: Houses the backend code developed using Node.js and Express, managing server-side logic, API endpoints, and database interactions.
- .gitignore: Specifies files and directories to be excluded from version control.
- README.md: Provides an overview of the project, including setup instructions and relevant information.
- package-lock.json: Records the exact versions of installed Node.js packages to ensure consistency across environments.

Problem Statement

Gym enthusiasts in Davao City face difficulties in finding a centralized platform that offers both high-quality gym equipment and seamless membership management. Existing solutions tend to separate these functions, leading to inefficiency and inconvenience for users. Furthermore, many local gyms still rely on social media and basic spreadsheet tools to handle their operations, which often results in fragmented data management and suboptimal customer service.

Proposed Solution

GymGarage will resolve these challenges by offering a comprehensive platform that integrates gym equipment sales, membership sign-ups, and gym management in one seamless experience. This all-in-one solution will streamline processes for customers and gym managers alike, making it easier to browse and purchase equipment, manage memberships, and enhance operational efficiency.

Objectives / User Stories / Features

1. Log In/Sign Up Form

2. Potential Member: Sign up to access personalized features, purchase gym equipment, and view memberships.

3. Existing Member: Log in securely to manage account and make purchases.

4. User: View order history.

5. Home Page

6. Overview of gym facilities and offerings.

7. Promotional offers and featured gym equipment.

8. Quick navigation to membership plans, shop, and contact pages.

9. Shop Page

10. Browse gym equipment online.

11. Filter by category and price range.

12. View product reviews and ratings.

13. Purchase equipment directly with delivery options.

14. Contact Us Page

15. Fill out a contact form to ask questions or raise concerns.

16. View gym's contact information (location, hours).

17. Access gym's social media pages.

18. Plans Page

19. View and select membership plans.

20. Compare plan benefits and prices.

21. Coaches Page

22. View profiles of gym coaches with qualifications and specialties.

23. Checkout Page

24. Securely enter payment information.

25. Select delivery or pick-up options.

26. Receive confirmation email after purchase.

27. Admin Page

28. Track equipment sales and recent orders.

29. Manage and update orders and users.

Entity Relationship Diagram (ERD)

- **orders**: id (PK), user_id, total_price, status, created_at, customer_name, address

- **cart_items**: id (PK), cart_id, product_id, quantity, price, added_at

- **carts**: id (PK), user_id, status, created_at, updated_at

- **users**: id (PK), username, email, password, role, created_at, f_name, l_name, address, number

- **product_images**: id (PK), product_id, image_url, description

- **products**: id (PK), name, description, original_price, discounted_price, image_url, category, stock, created_at

- **order_items**: id (PK), order_id, product_id, quantity, price

- **reviews**: id (PK), user_id, product_id, order_id, comment, rating, created_at

- **membership_plans**: id (PK), plan_name, benefits, price, duration, created_at
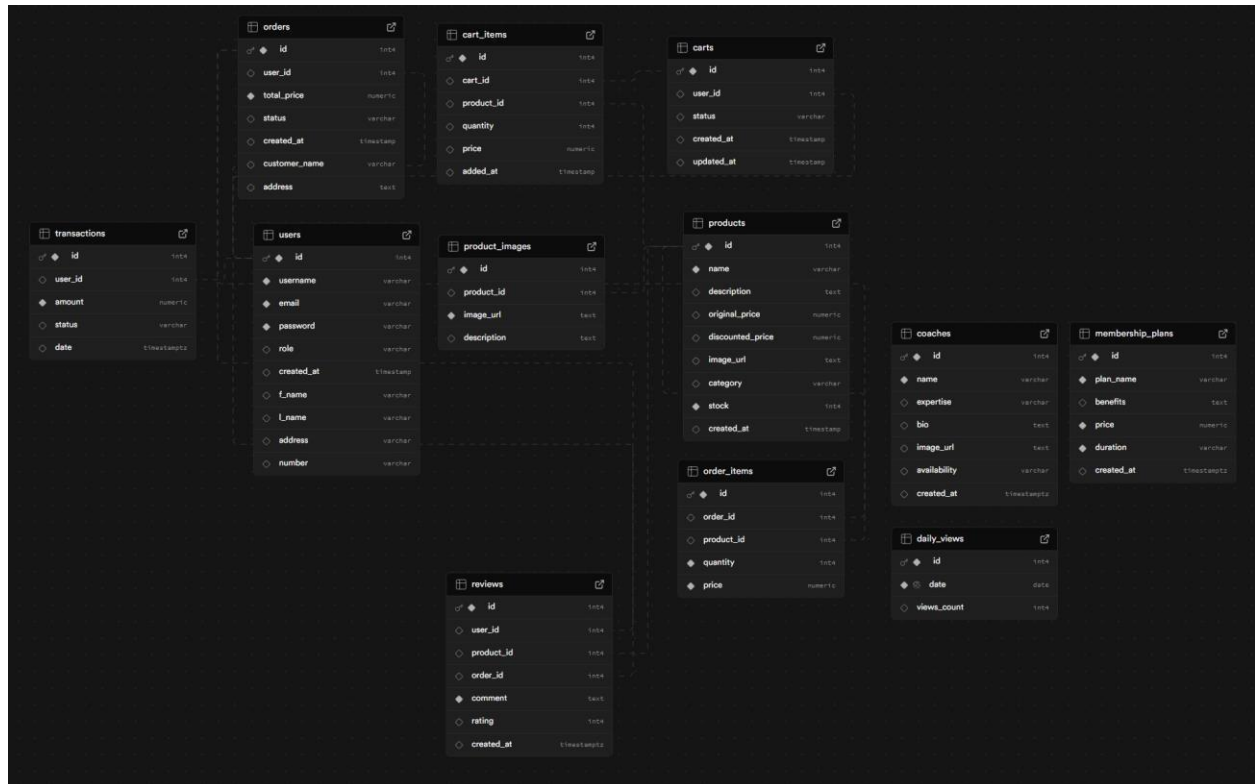
Relationships:

- Users can make multiple purchases (one-to-many between User and Purchase).
- Users can sign up for multiple memberships over time (one-to-many between User and MembershipSignUp).
- Each purchase is associated with a specific piece of equipment (many-to-one between Purchase and Gym Equipment).
- Each membership sign-up is associated with a specific membership plan (many-to-one between MembershipSignUp and Membership). **Setup Instructions**

Follow these steps to set up the project locally:

Prerequisites

Node.js and npm installed on your system.

Steps

1. Clone the repository:

    git clone: https://github.com/nnonlyrep/GymGarage.git
2. Navigate to the project directory:

cd GymGarage-WebDevelopment-Project cd

server

3. Install dependencies: npm install

4. Start the development server: npx nodemon app.js

The application will be accessible at http://localhost:3000.

User Roles and Permissions

Detail the different user roles and their access permissions:

- Visitor: Can browse the site, view products, and contact the gym.
- Member: Access to personalized features like viewing order history, and managing memberships.
- Admin: Full access to dashboards, user management, order management

UI/UX Design

The design of GymGarage focuses on simplicity and user-friendliness. The platform ensures intuitive navigation and accessibility, with the following highlights:

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- Color Scheme: Inspired by Garage Gym Supply, blending professional aesthetics with a bold, dynamic feel.
- Responsive Design: Ensures usability across devices, including desktops, tablets, and smartphones.
- User-Centered: Clear call-to-action buttons, easy-to-read fonts, and well-structured pages for seamless interaction.

UI Wireframes

Upon accessing the host website the user/visitor/admin will see this page:
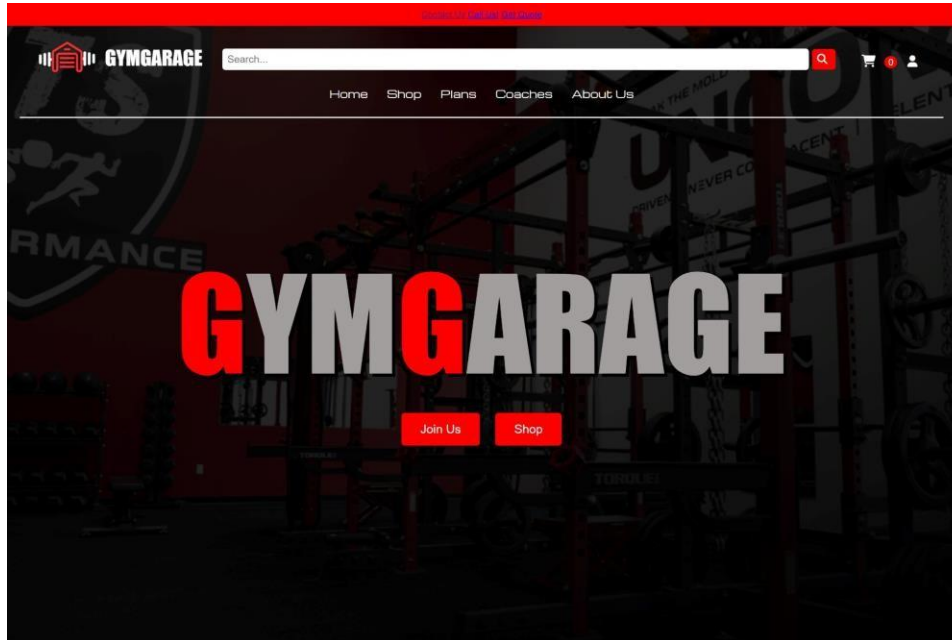
Without Logging In the visitor can only view products but cannot add them to cart.
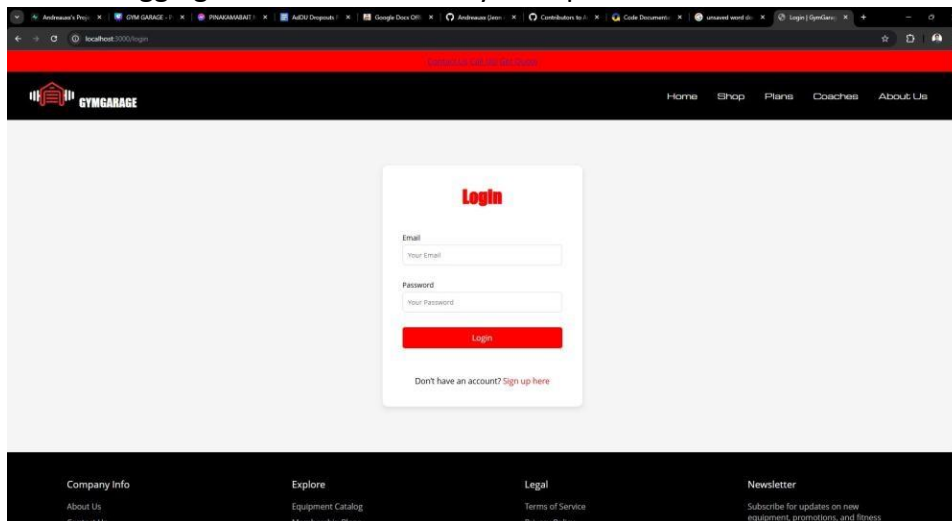
Clicking the signup here button will redirect the user to a new page to signup

The user is able to filter out and search through the shop page

Browse Our Products

Search for products...

Category	Price Range	Availability	
All	₱0 - ₱100,000	All	Apply Filters

Save ₱3750.00
Stationary Bike
₱25000.00 **₱21250.00**
Add to Cart

Save ₱8000.00
Rowing Machine Pro
₱40000.00 **₱32000.00**
Add to Cart

Save ₱875.00
Pull-up Bar
₱3500.00 **₱2625.00**
Add to Cart

Save ₱2400.00
Battle Ropes
₱8000.00 **₱5600.00**
Add to Cart

Save ₱180.00

Save ₱70.00

Save ₱1500.00

Save ₱25.00

Upon Clicking a Product Card the user will be redirected to a product page populated with the selected product with its details
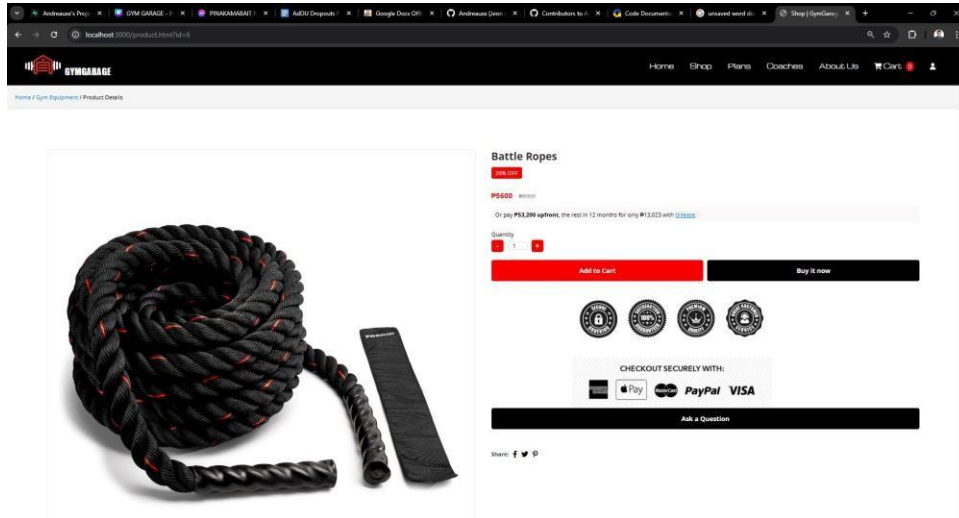
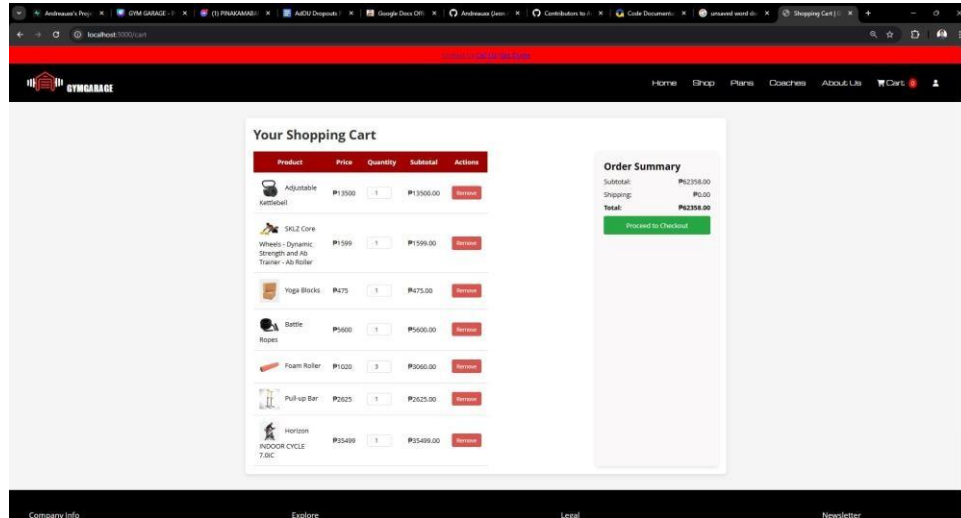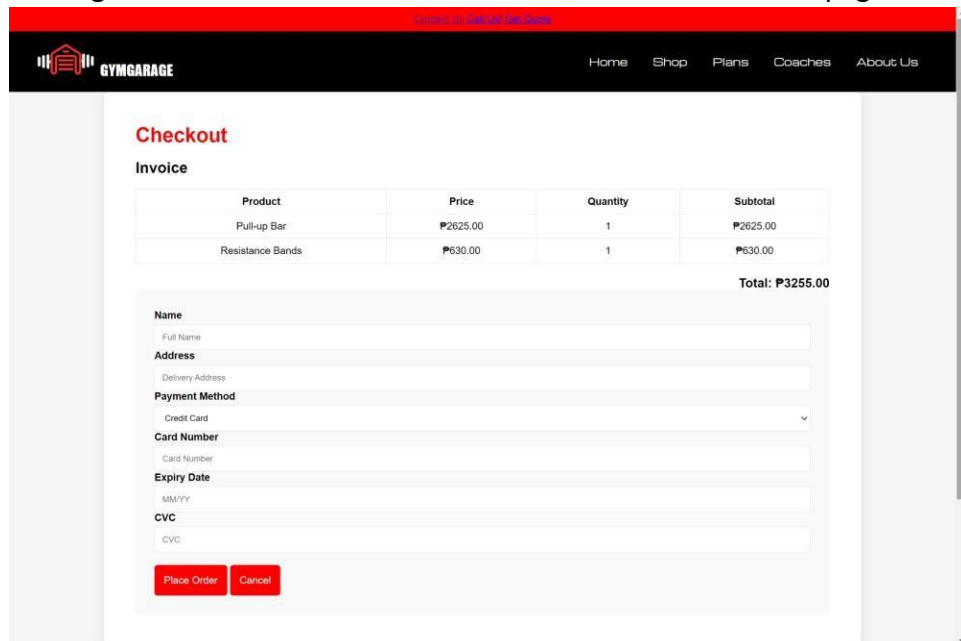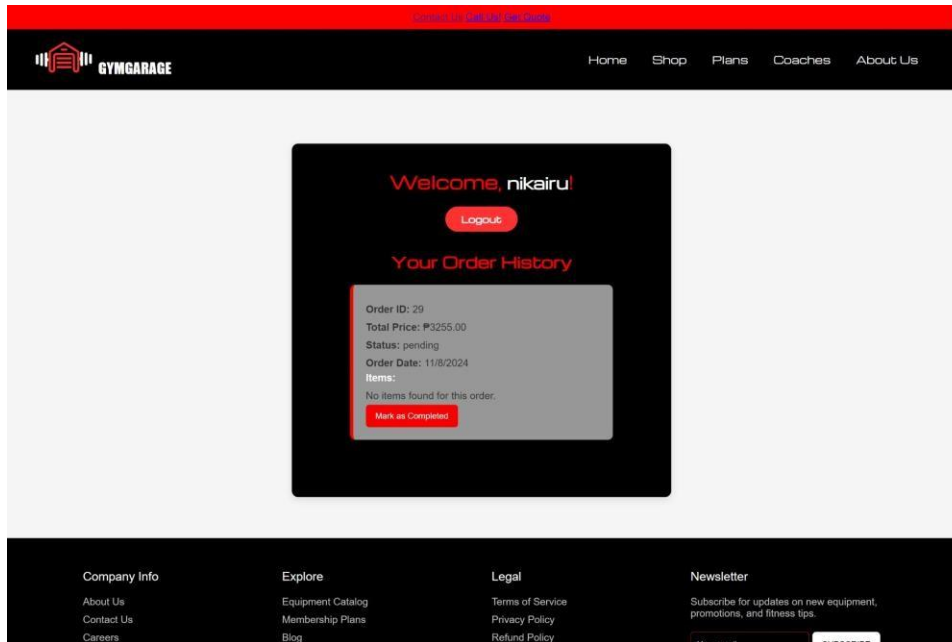The user is also able to select a plan
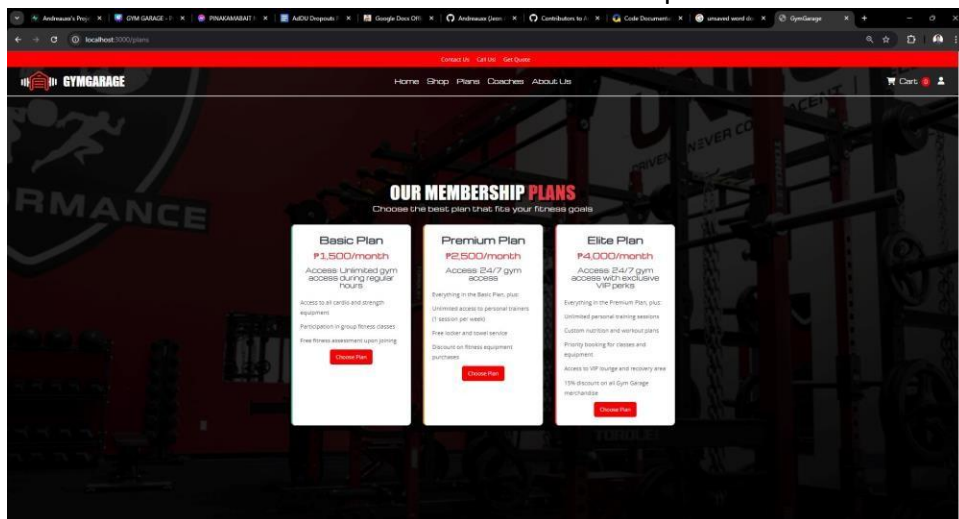
Clicking the Cart Icon will redirect the user to the cart page

Clicking Proceed to Checkout will redirect user to the checkout page

Upon Successful Checkout the user will now be able to see the order details in the order history upon clicking the user icon

The admin pages are able to manage and view all users, members, order history, it also enables the admin to complete a transaction
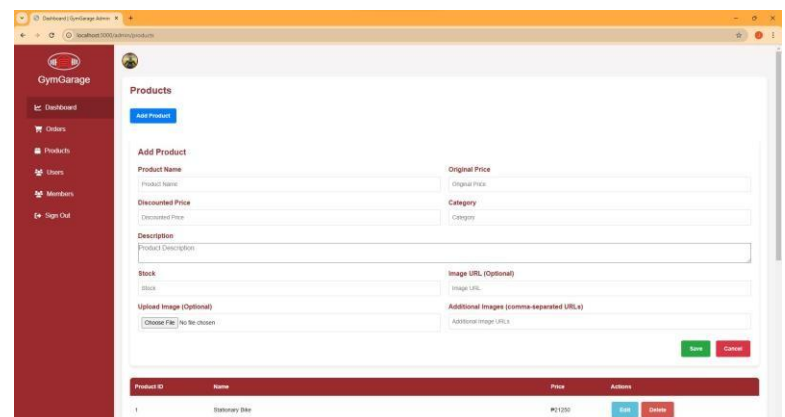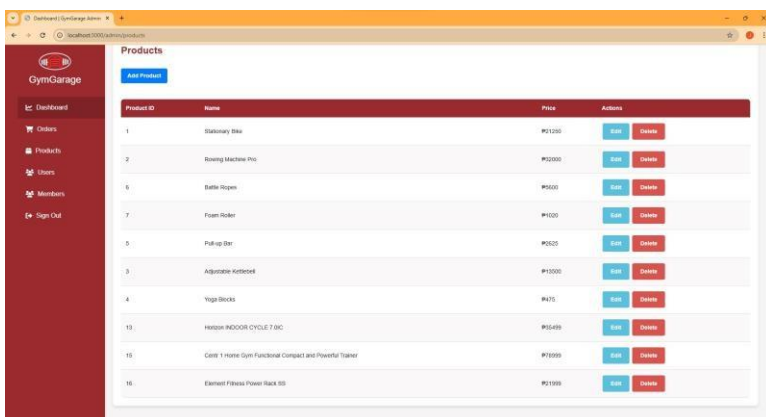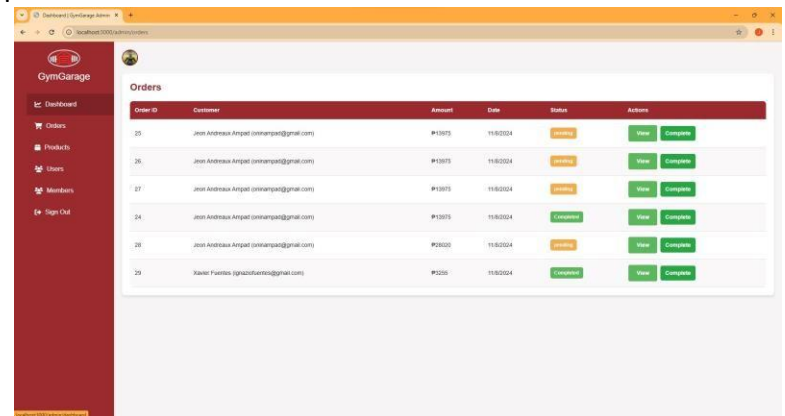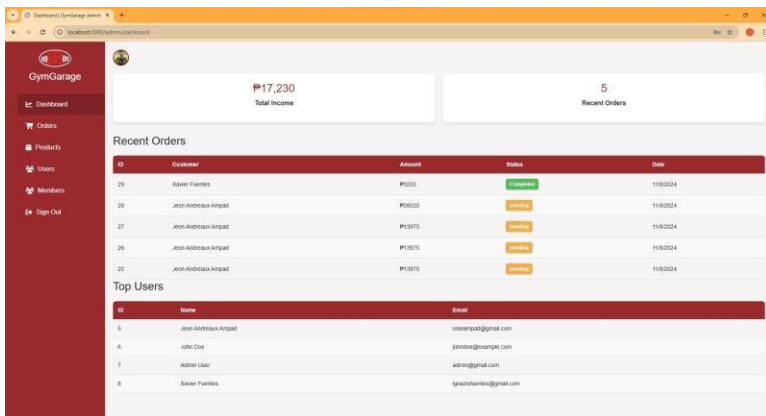
App Features

> **Equipment Catalog**: Searchable and filterable list of gym equipment with product details and images.
> **Membership Management**: Options to view, select, and sign up for membership plans.
> **Shopping Cart and Checkout**: Functionality to add items to a cart, review, and complete purchases.
> **User Account Management**: Ability for users to manage their profiles, view purchase history, and renew memberships.
> **Admin Dashboard**: Tools for tracking sales, managing inventory, and viewing membership statistics.

Technical Specifications

Technology Stack:

- **Frontend**: HTML, CSS, JavaScript
- **Backend**: Node.js with Express ● **Database**: Supabase

Conclusion

The GymGarage Web Development Project aims to transform how gyms in Davao City manage their operations and serve their customers. By integrating gym equipment sales and membership management into a single platform, the project seeks to improve efficiency, convenience, and user satisfaction. The design, inspired by Garage Gym Supply, aligns with modern UX principles, ensuring a professional and user-friendly experience.

This platform represents a significant step toward modernizing gym management and enhancing customer engagement, providing value for both gym administrators and users.