



ICT600 | WEB TECHNOLOGY AND APPLICATION

PROJECT (40%)

CLO3: Build a web application related to Web technology, principles, design techniques and development tools.

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1.0 Introduction

a. Club Membership System - Introduction

The 4Elite Sports System is a user-friendly and efficient platform designed to streamline the management of membership details for all club members. This innovative system allows members to conveniently update their personal information, ensuring that their profiles are always current and accurate. By prioritizing ease of use, the 4Elite system enhances the overall member experience, allowing individuals to focus on enjoying the benefits of their membership.

A key feature of the 4Elite system is its tiered membership structure, which includes three distinct levels which are Basic, Premium, and Elite. Each membership tier is designed to cater the diverse needs and preferences of our members, providing varying discounts on purchases made within the club.

Basic members receive a 5% discount on all purchases, making this tier an excellent choice for those who are just beginning their journey with the club. This modest discount allows new members to enjoy some savings while exploring the various products available.

Premium members enjoy a more substantial 15% discount on all purchases. This tier is ideal for individuals who are more frequent shoppers at the club, allowing them to save more on their purchases. The increased discount serves as an incentive for members to engage with the club's retail offerings, making their shopping experience more rewarding.

Finally, the Elite membership tier offers the most comprehensive benefits, with a generous 20% discount on all purchases. Elite members benefit from the highest level of savings, making it an attractive option for those who regularly purchase products from the club. This significant discount not only

enhances their shopping experience but also reinforces their loyalty to the club.

By offering these discounts to every member based on their tier, the 4Elite Sports Club ensures that all members can enjoy the benefits of their membership every time they make a purchase. This straightforward approach fosters a sense of belonging and encourages members to take full advantage of the club's retail offerings. As the 4Elite Sports continues to grow, the membership system serves as a solid foundation for future enhancements, allowing for the development of additional features and benefits that will further enrich the member experience and solidify the club's reputation as a premier destination for sports and fitness products.

b. UI Design

1. Login page

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Figure 1.1 Login page

A login page as shown in Figure 1.1 is a web interface that allows users to authenticate themselves by entering their credentials such as email and password to access a website. It ensures that only authorized users can access specific functionalities.

2. Register page

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Figure 1.2 Register page

A registration page in Figure 1.2 allows new users email, phone number and password. This data is stored in a database for future authentication during login.

3. Public page

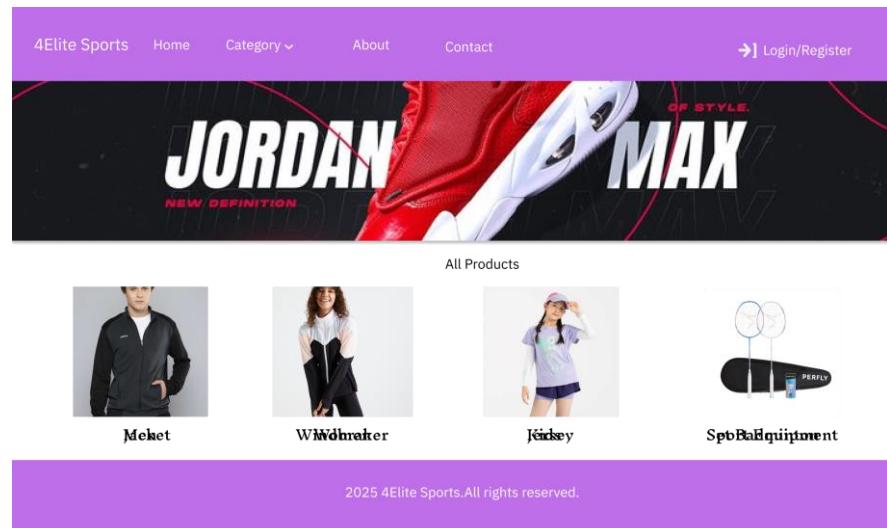


Figure 1.3 Public page

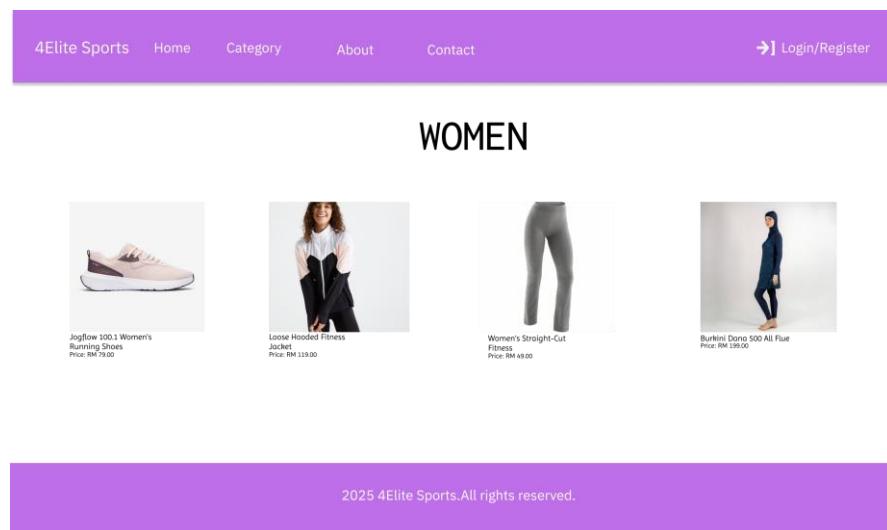


Figure 1.4 Public page

Figure 1.3 and Figure 1.4 is a public page that is typically accessible to everyone, including users who are not logged in. It is used for introductory content about the website.

4. Main menu page

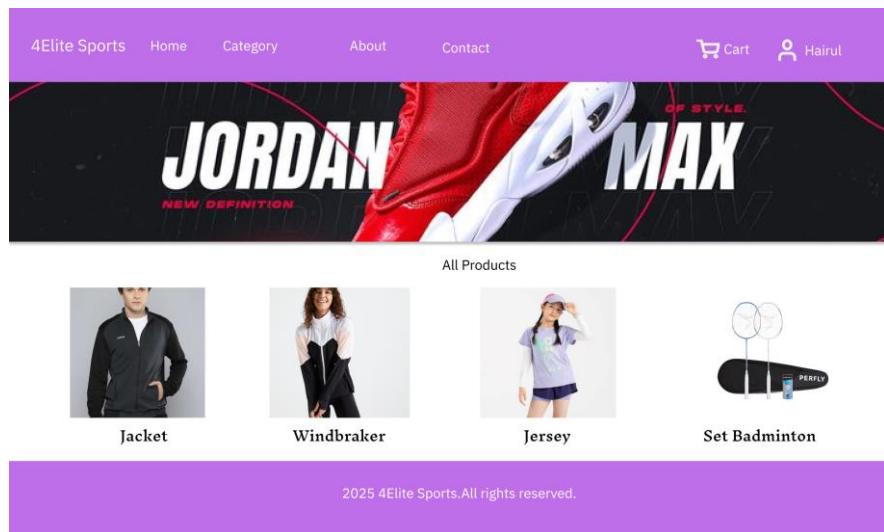


Figure 1.5 Main menu page

A main menu page in Figure 1.5 acts as a central hub in your web application, offering navigation to various features and functionalities of the system. It is generally displayed after a user log in and may include both user-specific features and general options.

5. Product page

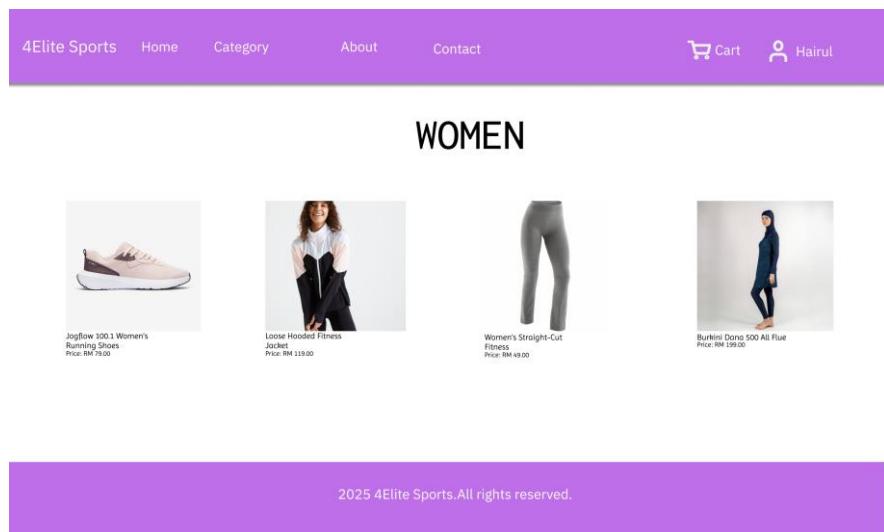


Figure 1.6 Product page

The product page in Figure 1.6 is crucial for displaying products by category. It includes information like product names, prices and descriptions. It may also allow users to add items to their cart.

6. Cart page

The screenshot shows the shopping cart page of the 4Elite Sports website. At the top, there is a purple header bar with the site name "4Elite Sports" and links for "Home", "Category", "About", and "Contact". On the right side of the header, there is a "Cart" icon with the number "1" and a user profile icon labeled "Hairul". Below the header, the main content area has a light gray background. It features a "Shopping Cart" section with a table header row containing columns for "Product", "Price(RM)", "Quantity", "Sub Total (RM)", and "Action". A message "Your Cart is empty!" is displayed below the table. To the right of this is a "Make Payment" section. It includes a file upload input field with placeholder text "Choose File No file chosen Accepted file format: jpg,jpeg,png" and a blue "Make Payment" button. At the bottom of the page, there is a purple footer bar with the text "2025 4Elite Sports. All rights reserved."

Figure 1.7 Cart page

Figure 1.7 shows the cart page of the 4Elite Sports provides users with a clear and intuitive overview of all items they have added to their cart, displaying essential details such as product names, quantities, individual prices, and applicable discounts based on their membership tier. At the bottom of the page, the total amount due is prominently shown, summarizing the cost of all items and highlighting any discounts applied, ensuring transparency in the purchasing process. Once users are satisfied with their selections, they can proceed to payment by uploading an image of their payment receipt, which serves as proof of purchase and enhances transaction security.

7. User's order page

The screenshot shows a user interface for a sports store. At the top, there is a purple header bar with the text "4Elite Sports" and navigation links for "Home", "Category", "About", and "Contact". On the right side of the header, there are icons for "Cart" and "User Profile" with the name "Hairul". Below the header, the main content area has a title "My Orders". Underneath the title is a table with columns: "Order ID", "Order Date", "Order Total", "Order Grand Total", "Order Status", and "Action". The table currently has no data rows. At the bottom of the page, there is a purple footer bar with the text "2025 4Elite Sports. All rights reserved."

Figure 1.8 User's order page

Order page in Figure 1.8 is a confirmation page displayed to users after they complete their purchase. It reassures the customer that their order has been processed.

8. User's order details page

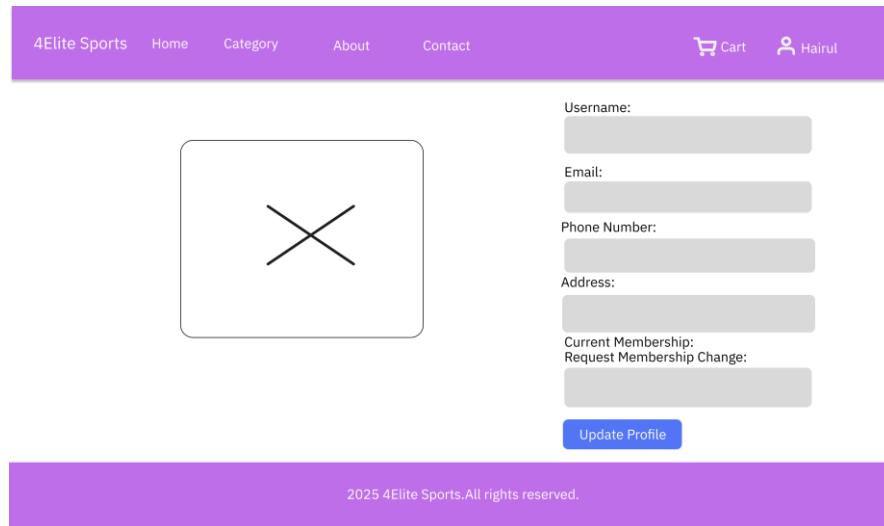
The screenshot shows a user interface for a sports store. At the top, there is a purple header bar with the text "4Elite Sports" and navigation links for "Home", "Category", "About", and "Contact". On the right side of the header, there are icons for "Cart" and "User Profile" with the name "Hairul". Below the header, the main content area has a title "Order Details". Underneath the title are two large, light-blue rectangular boxes. The top box is labeled "Order Information" and the bottom box is labeled "Order Products". Both boxes are currently empty. At the bottom of the page, there is a purple footer bar with the text "2025 4Elite Sports. All rights reserved."

Figure 1.9 User's order details page

Users can view their order details in order details page as shown in Figure 1.9 that provides overview of their specific order, featuring essential information such as the order ID, date, and status. It includes a detailed list of products purchased, displaying each product's name, quantity, price, and

subtotal, along with a financial breakdown that highlights the subtotal, discounts and the grand total.

9. User profile page



The figure shows a user profile page for '4Elite Sports'. At the top, there's a purple header bar with the website name '4Elite Sports' and navigation links for 'Home', 'Category', 'About', and 'Contact'. To the right of these are icons for a shopping cart ('Cart') and a user profile ('Hairul'). Below the header is a large input field for a profile picture, which currently displays a simple 'X' symbol. To the right of this field are several input fields for personal information: 'Username' (text input), 'Email' (text input), 'Phone Number' (text input), 'Address' (text input), and a section for 'Current Membership' and 'Request Membership Change' (both dropdown menus). At the bottom right is a blue 'Update Profile' button. The footer of the page is also purple and contains the text '2025 4Elite Sports. All rights reserved.'

Figure 1.10 User profile page

A user profile page in Figure 1.10 allows users to view and manage their personal information, such as their name, email and address. It provides an intuitive interface for users to update their details. Additionally, members have the option to request a change in their membership level directly through their profile. Whether they wish to upgrade to a higher tier for increased discounts or adjust their membership based on their evolving needs.

10. About Us

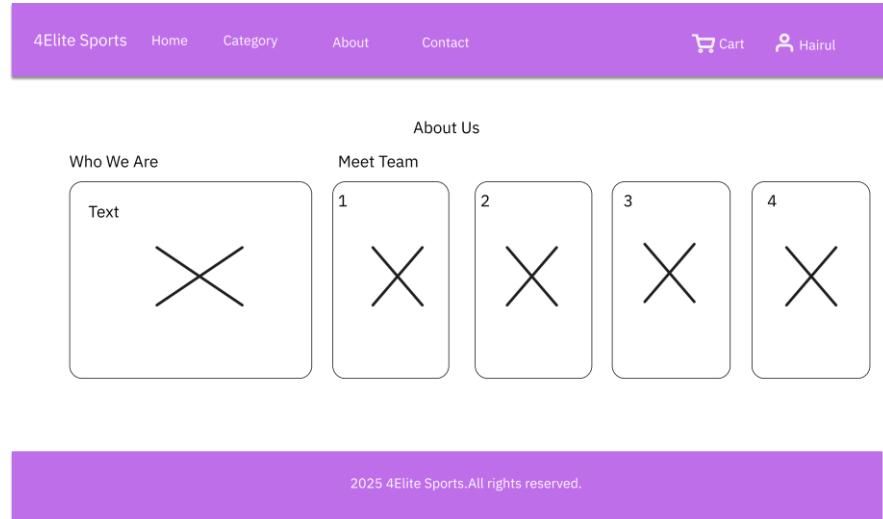


Figure 1.11 About Us page

Figure 1.11 shows the About Us page that design to give the visitors a clear understanding of the 4Elite and the dedicated team behind it.

11. Contact Us

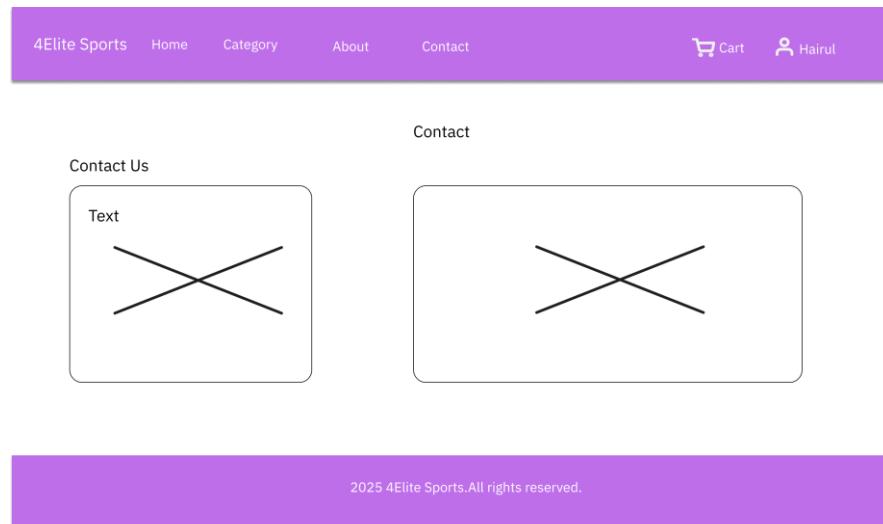


Figure 1.12 Contact Us page

The "Contact Us" page in Figure 1.12 of the 4Elite Sports Club is designed to provide members and potential customers with easy access to communication channels for inquiries, feedback, or support.

12. Admin dashboard

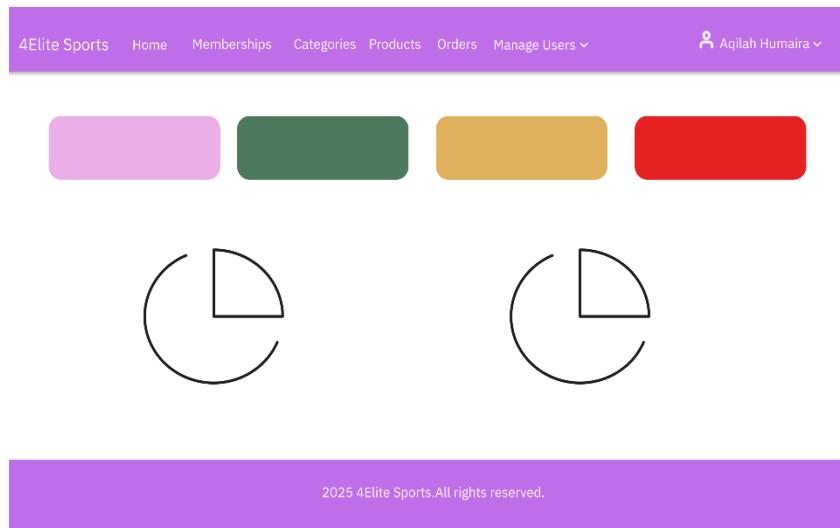


Figure 1.13 Admin dashboard

Figure 1.13 shows an admin dashboard that can view sales activity using the pie chart where the colour will show all the amount of product by category.

13. Admin member management

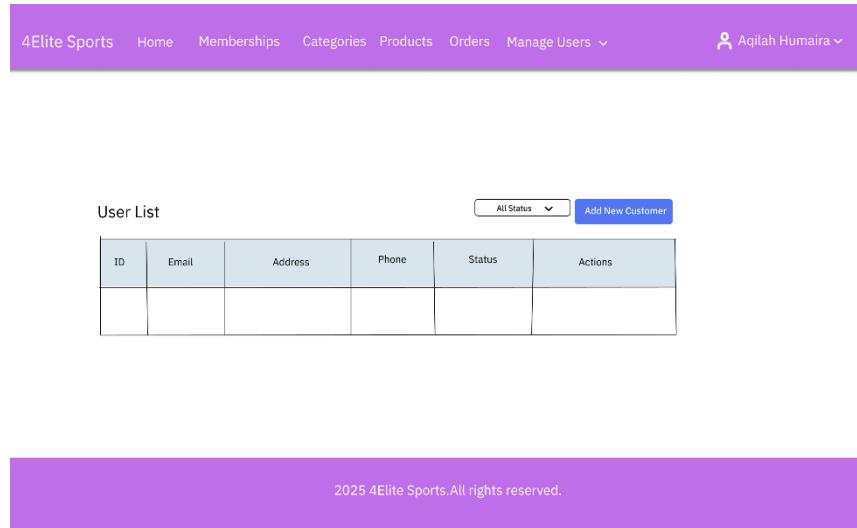


Figure 1.14 Admin member management

Figure 1.14 shows an admin management page where admin can view all and update members' membership.

ID	Name	Discount	Status
1	Basic	5%	Active

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Figure 1.15 Admin membership update page

After admin click update, it will redirect the admin to the admin membership update page in Figure 1.15. It shows an where admin can only disable membership whether activate or deactivate membership.

14. Admin product management

ID	Name	Category	Price	Image	Stock	Status	Action
1	GEL Kayano 31 Mens Running Shoes	Men	582.00		10	Active	
5	Chelsea Home Shirt 2024 2025 Adults	Men	299.00		10	Active	

Figure 1.16 Admin product management

Admin can view all product information and add new products, update or delete products. Figure 1.16, shows the admin product management page which consists of a table of products and action buttons that can be done in this page such as add new product, update and delete product.

1.5 Admin order management

The screenshot shows the 'Order List' page of the 4Elite Sports admin dashboard. At the top, there is a navigation bar with links for Home, Memberships, Categories, Products, Orders, and Manage Users. A user profile icon for 'Aqilah Humaira' is also present. Below the navigation bar is a search bar with dropdowns for 'All Status' and 'Filter'. The main content area is titled 'Order List' and displays a table with one row of data. The table columns are: ID, Customer Details, Total, Grand Total, Discount, Status, and Actions. The single row shows: ID 1, Customer Details 'Siti Ropeah', Total 195, Grand Total 200, Discount 5%, Status 'Pending', and Actions with a yellow 'Update' button.

ID	Customer Details	Total	Grand Total	Discount	Status	Actions
1	Siti Ropeah	195	200	5%	Pending	<button>Update</button>

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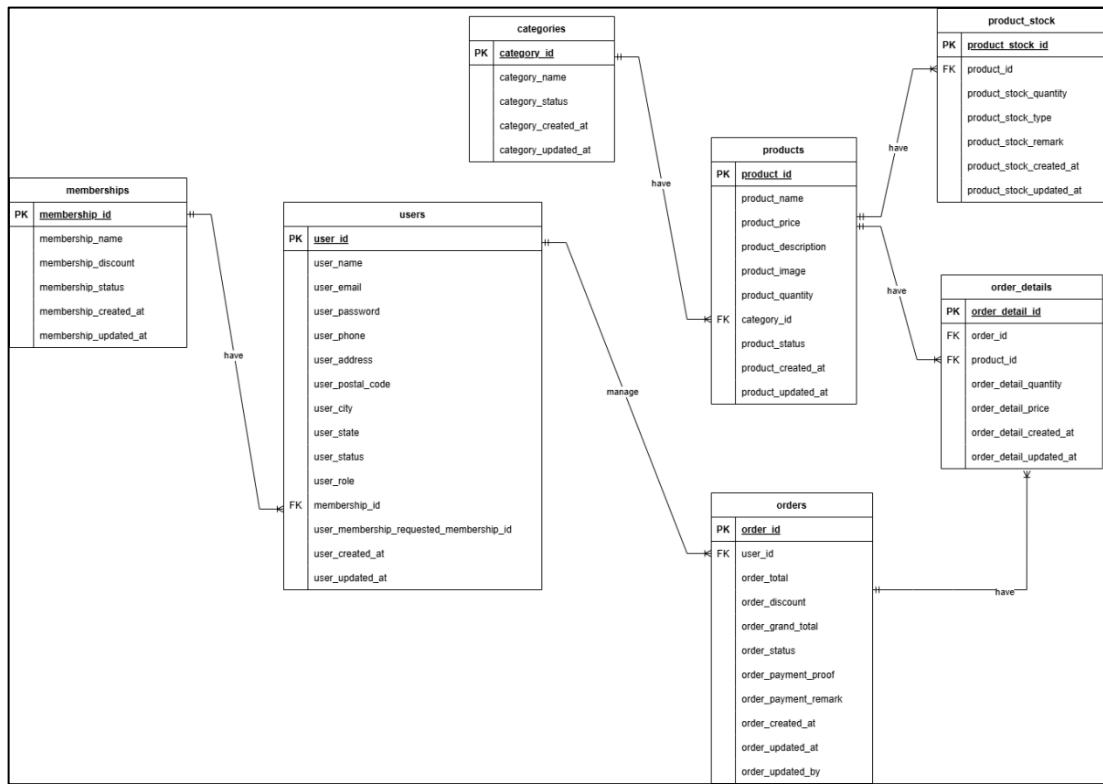
Figure 1.17 Admin order management

In Figure 1.17, admin can manage all orders made by the user. Admin can take actions by updating the status of the order made by user either it is completed, processing or cancelled.

c. Database Design

c.i. ERD

Table 1.1 Entity Relationship Diagram (ERD)



Based on table 1.1 this is all the tables in this system database. Firstly, the “membership” tables define the memberships that users have and contain attributes such as membership_id, membership_name, membership_discount, membership_status, membership_created_at and membership_updated_at. Secondly, for “user” tables it contains the attributes for the information of the user of the system which are the user_name, user_email, user_password, user_phone, user_address, user_postal_code, user_city, user_state, user_status, user_role, user_membership_requested_membership_id, user_created_at and user_updated_at. “User” tables contain foreign key from the membership table which is the membership_id. A membership can have many users. Each user can have a membership.

The third table is “categories” which contains the information regarding the product category. The attributes are category_id, category_name,

`category_status`, `category_created_at` and `category_updated_at`. Next, the “product” tables contain the products information which are `product_id`, `product_name`, `product_price`, `product_description`, `product_image`, `product_quantity`, `category_id`, `product_status`, `product_add`, `product_updated_at` and foreign key (`category_id`). Other than that, for “product_stock” table it consists of the product stock information such as `product_stock_id`, `product_id`, `product_quantity`, `product_stock_type`, `product_stock_remark`, `product_stock` and `product_stock_created_at`, `product_stock_updated_at` and foreign key (`product_id`). A category can have many products while a product can have many stocks.

Moreover, “orders” table describe about the orders such as `order_id`, foreign key (`user_id`), `order_total`, `order_discount`, ohh dear_green_total, this class status, `order` and it's called `payment_proof`, `order_payment_remark`, `order_create_add`, `order_updated_at` and `order_updated_by`. The last table is `order_details` which contain all the details of the order which are `order_detail_ID`, foreign key (`order_id`), foreign key (`product_id`), `order_detail_quantity`, `order_detail_price`, `order_detail_created_add`, and `order_detail_updated_at`. An order has many orders details where each order details can have an order.

c.ii. phpMyAdmin

1. Database

Action	Table	Rows	Type	Collation	Size	Overhead
<input type="checkbox"/> Browse <input type="checkbox"/> Structure <input type="checkbox"/> Search <input type="checkbox"/> Insert <input type="checkbox"/> Empty <input type="checkbox"/> Drop	categories	4	InnoDB	utf8mb4_general_ci	16.0 Kib	-
<input type="checkbox"/> Browse <input type="checkbox"/> Structure <input type="checkbox"/> Search <input type="checkbox"/> Insert <input type="checkbox"/> Empty <input type="checkbox"/> Drop	memberships	3	InnoDB	utf8mb4_general_ci	16.0 Kib	-
<input type="checkbox"/> Browse <input type="checkbox"/> Structure <input type="checkbox"/> Search <input type="checkbox"/> Insert <input type="checkbox"/> Empty <input type="checkbox"/> Drop	orders	0	InnoDB	utf8mb4_general_ci	48.0 Kib	-
<input type="checkbox"/> Browse <input type="checkbox"/> Structure <input type="checkbox"/> Search <input type="checkbox"/> Insert <input type="checkbox"/> Empty <input type="checkbox"/> Drop	order_details	0	InnoDB	utf8mb4_general_ci	48.0 Kib	-
<input type="checkbox"/> Browse <input type="checkbox"/> Structure <input type="checkbox"/> Search <input type="checkbox"/> Insert <input type="checkbox"/> Empty <input type="checkbox"/> Drop	products	49	InnoDB	utf8mb4_general_ci	32.0 Kib	-
<input type="checkbox"/> Browse <input type="checkbox"/> Structure <input type="checkbox"/> Search <input type="checkbox"/> Insert <input type="checkbox"/> Empty <input type="checkbox"/> Drop	product_stock	50	InnoDB	utf8mb4_general_ci	32.0 Kib	-
<input type="checkbox"/> Browse <input type="checkbox"/> Structure <input type="checkbox"/> Search <input type="checkbox"/> Insert <input type="checkbox"/> Empty <input type="checkbox"/> Drop	users	2	InnoDB	utf8mb4_general_ci	64.0 Kib	-
	7 tables Sum	108	InnoDB	utf8mb4_general_ci	256.0 Kib	0 B

Figure 1.18 Database

Figure 1.18 shows the database that was designed to manage the functionality of the 4Elite Sports System. It consists of various tables to handle different aspects of the system, such as user information, membership levels, products, and categories.

2. Users table

	<input type="checkbox"/> Edit	<input type="checkbox"/> Copy	<input type="checkbox"/> Delete	user_id	user_name	user_email	user_password	user_phone	user_address	user_postal_code	user_city
<input type="checkbox"/>	<input type="checkbox"/> Edit	<input type="checkbox"/> Copy	<input type="checkbox"/> Delete	2	Hairul	Hairul@gmail.com	\$2y\$10\$83KVrmCINFYH3lHrD2mOqsRbsmXfQr0NEns7u5Sep	01125639877	NULL		
<input type="checkbox"/>	<input type="checkbox"/> Edit	<input type="checkbox"/> Copy	<input type="checkbox"/> Delete	3	AMANINA	amanina@gmail.com	\$2y\$10\$wl4mPEAvSNpTaz3gKvh0zRzCZPldG4QSX24ly8u	01128256499	NO 5 JALAN DESA KUNDANG 18	NULL	RAWANG

Figure 1.19 User table

Table users in Figure 1.19 contains details about the club's members, including their names, email addresses, passwords, contact information, membership status, and roles such as admin or user.

3. Category table

	<input type="checkbox"/> Edit	<input type="checkbox"/> Copy	<input type="checkbox"/> Delete	category_id	category_name	category_status 0=inactive, 1=active	category_created_at	category_updated_at
<input type="checkbox"/>	<input type="checkbox"/> Edit	<input type="checkbox"/> Copy	<input type="checkbox"/> Delete	1	Men	1	2025-01-18 03:39:11	2025-01-18 03:39:11
<input type="checkbox"/>	<input type="checkbox"/> Edit	<input type="checkbox"/> Copy	<input type="checkbox"/> Delete	2	Women	1	2025-01-18 03:39:11	2025-01-18 03:39:11
<input type="checkbox"/>	<input type="checkbox"/> Edit	<input type="checkbox"/> Copy	<input type="checkbox"/> Delete	3	Kids	1	2025-01-18 03:39:11	2025-01-18 03:39:11
<input type="checkbox"/>	<input type="checkbox"/> Edit	<input type="checkbox"/> Copy	<input type="checkbox"/> Delete	4	Sport Equipment	1	2025-01-18 03:39:11	2025-01-18 03:39:11

Figure 1.20 Category table

Figure 1.20 shows the category table organizes products into distinct categories to improve navigation and streamline product management. This table categorizes the products available for each category with a name and status indicating whether it is active or inactive.

4. Membership table

	membership_id	membership_name	membership_discount	membership_status	membership_created_at	membership_updated_at
<input type="checkbox"/>	1	Basic	5	1	2025-01-18 03:39:11	2025-01-18 03:39:11
<input type="checkbox"/>	2	Premium	15	1	2025-01-18 03:39:11	2025-01-18 03:39:11
<input type="checkbox"/>	3	Elite	20	1	2025-01-18 03:39:11	2025-01-18 03:39:11

Figure 1.21 Membership table

The membership table manages the details of membership plans offered by the club as shown in Figure 1.21. It includes field membership_level such as Basic, Premium, Elite. This table stores information about different membership tiers, including their names, discounts, and status whether it is active or inactive.

5. Product table

The screenshot shows the phpMyAdmin interface with the database 'db_ecom' selected. The left sidebar shows various schemas and tables. The main area displays the 'products' table with the following data:

product_id	product_name	product_price	product_description	product_image	product_quantity	product_category_id	product_status	prod
1	GEL Kayano 31 Mens Running Shoes	89.99	Comfortable and lightweight running shoes for men.	M 1.jpg	50	1	1	2025-01-18 03:39:11
2	Chelsea Home Shirt 2024 2025 Adults	39.99	High-quality football jersey for optimal performance...	M 2.jpg	30	1	1	2025-01-18 03:39:11
3	Run Vest Mens Waterproof Packaway Windbreaker	25.99	Breathable gym shorts for men. High-performance sneakers for basketball.	M 3.jpg	40	1	1	2025-01-18 03:39:11
4	Mens Running T-Shirt Jogflow 100.1	129.99	Moisture-wicking compression shirt for men.	M 4.jpg	20	1	1	2025-01-18 03:39:11
5	Stretchable and durable yoga pants for women.	34.99	W 1.jpg	25	1	1	2025-01-18 03:39:11	
6	Women's Running Shoes	129.99			60	2	1	2025-01-18 03:39:11

Figure 1.22 Product table

The product table in Figure 1.22 stores information about the items available for purchase in the system. It includes fields such as ProductID, ProductName, ProductDesc, ProductPrice, ProductStock. This table ensures that the system can display detailed product information and manage inventory levels effectively.

6. Product_stock table

The screenshot shows the phpMyAdmin interface with the database 'db_ecom' selected. The left sidebar shows various schemas and tables. The main area displays the 'product_stock' table with the following data:

product_stock_id	product_stock_product_id	product_stock_quantity	product_stock_type	product_stock_remark	product_stock_created_at	product_stock_up
2	2	30	in	Initial stock	2025-01-18 03:39:11	2025-01-18 03:39:11
3	3	40	in	Initial stock	2025-01-18 03:39:11	2025-01-18 03:39:11
4	4	20	in	Initial stock	2025-01-18 03:39:11	2025-01-18 03:39:11
5	5	25	in	Initial stock	2025-01-18 03:39:11	2025-01-18 03:39:11
6	6	60	in	Initial stock	2025-01-18 03:39:11	2025-01-18 03:39:11
7	7	40	in	Initial stock	2025-01-18 03:39:11	2025-01-18 03:39:11
8	8	70	in	Initial stock	2025-01-18 03:39:11	2025-01-18 03:39:11
9	9	45	in	Initial stock	2025-01-18 03:39:11	2025-01-18 03:39:11
10	10	20	in	Initial stock	2025-01-18 03:39:11	2025-01-18 03:39:11
11	11	100	in	Initial stock	2025-01-18 03:39:11	2025-01-18 03:39:11
12	12	75	in	Initial stock	2025-01-18 03:39:11	2025-01-18 03:39:11
13	13	50	in	Initial stock	2025-01-18 03:39:11	2025-01-18 03:39:11
14	14	80	in	Initial stock	2025-01-18 03:39:11	2025-01-18 03:39:11
15	15	30	in	Initial stock	2025-01-18 03:39:11	2025-01-18 03:39:11

Figure 1.23 Product_stock table

As shown in Figure 1.23, the table tracks stock movements for products, recording quantities added or removed, along with remarks about the stock changes.

7. Order table

The screenshot shows the phpMyAdmin interface for the 'orders' table. The left sidebar lists various databases and tables, including 'bookstore_system', 'booksy', 'book_service_db', 'courts', 'database', 'information_schema', 'monolithic_api', 'mysql', 'performance_schema', 'phpmyadmin', 'restful_api_demo', and 'test'. The 'orders' table is selected. The main area displays the table structure with columns: order_id, order_user_id, order_total, order_discount, order_grand_total, order_status, order_payment_proof, order_payment_remark, and order_created_at. A single row is shown with values: order_id=1, order_user_id=3, order_total=114.98, order_discount=5.75, order_grand_total=109.23, order_status='Pending', order_payment_proof='678b7cf3c9a97.84596548.jpg', order_payment_remark=NULL, and order_created_at='2025-01-18 18:05:48'. Below the table, there are buttons for 'Edit', 'Copy', 'Delete', 'Check all', 'With selected', 'Export', and 'Query results operations'.

Figure 1.24 Order table

Figure 1.24 is a sales table that records orders placed by users, including the total amount, discounts, status of the order, and any payment proof uploaded.

8. Order_details table

The screenshot shows the phpMyAdmin interface for the 'order_details' table. The left sidebar lists various databases and tables, including 'bookstore_system', 'booksy', 'book_service_db', 'courts', 'database', 'information_schema', 'monolithic_api', 'mysql', 'performance_schema', 'phpmyadmin', 'restful_api_demo', and 'test'. The 'order_details' table is selected. The main area displays the table structure with columns: order_detail_id, order_detail_order_id, order_detail_product_id, order_detail_quantity, order_detail_price, order_detail_created_at, and order_detail_updated_at. Three rows are shown with values: order_detail_id=1, order_detail_order_id=1, order_detail_product_id=1, order_detail_quantity=12, order_detail_price=14.99, order_detail_created_at='2025-01-18 18:05:48', and order_detail_updated_at='2025-01-18 18:05:48'; order_detail_id=2, order_detail_order_id=2, order_detail_product_id=1, order_detail_quantity=16, order_detail_price=99.99, order_detail_created_at='2025-01-18 18:05:48', and order_detail_updated_at='2025-01-18 18:05:48'; and order_detail_id=3, order_detail_order_id=3, order_detail_product_id=2, order_detail_quantity=2, order_detail_price=39.99, order_detail_created_at='2025-01-18 19:10:47', and order_detail_updated_at='2025-01-18 19:10:47'. Below the table, there are buttons for 'Edit', 'Copy', 'Delete', 'Check all', 'With selected', 'Edit', 'Copy', 'Delete', 'Export', and 'Query results operations'.

Figure 1.25 Order details table

Figure 1.25 provides detailed information about each order, including the products purchased, their quantities and prices by the user.

d. Sitemap

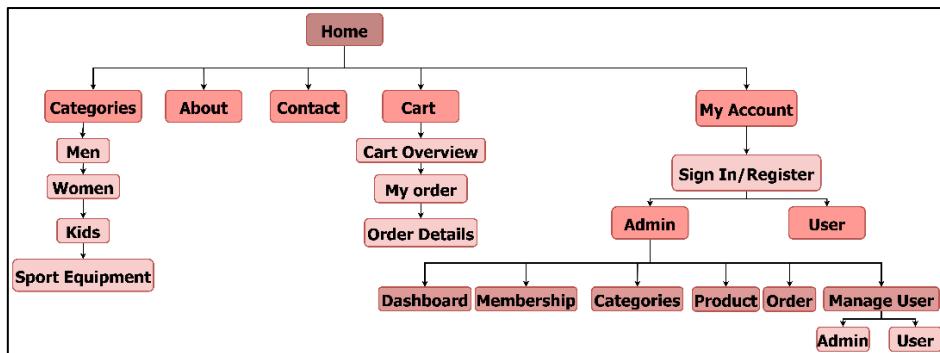


Figure 1.26 Site Map

The sitemap in Figure 1.26 represents the structure of an e-commerce website, showcasing the hierarchical organization of its features to ensure efficient navigation for users and administrators. The homepage serves as the central entry point, connecting to primary sections such as categories, about, contact, cart, and my account. The categories section is subdivided into product groups, including men, women, kids, and sport equipment, enabling users to browse items based on their preferences. The about and contact sections provide company information and facilitate communication with users, respectively.

The cart section includes a cart overview for reviewing selected items, my order page for tracking purchases, and order details for in-depth order information. My account section allows users to manage their accounts, with options to sign in/register and features tailored for either regular users or administrators. Regular users can view and manage their profiles, while administrators have access to advanced functionalities, including a dashboard for metrics, membership management, categories and product administration, order oversight and user management.

This well-structured sitemap ensures user-friendly navigation for shoppers and robust administrative control for managers, highlighting the platform's dual focus on customer experience and backend efficiency.

2.0 Functional Requirements

a. Public Pages

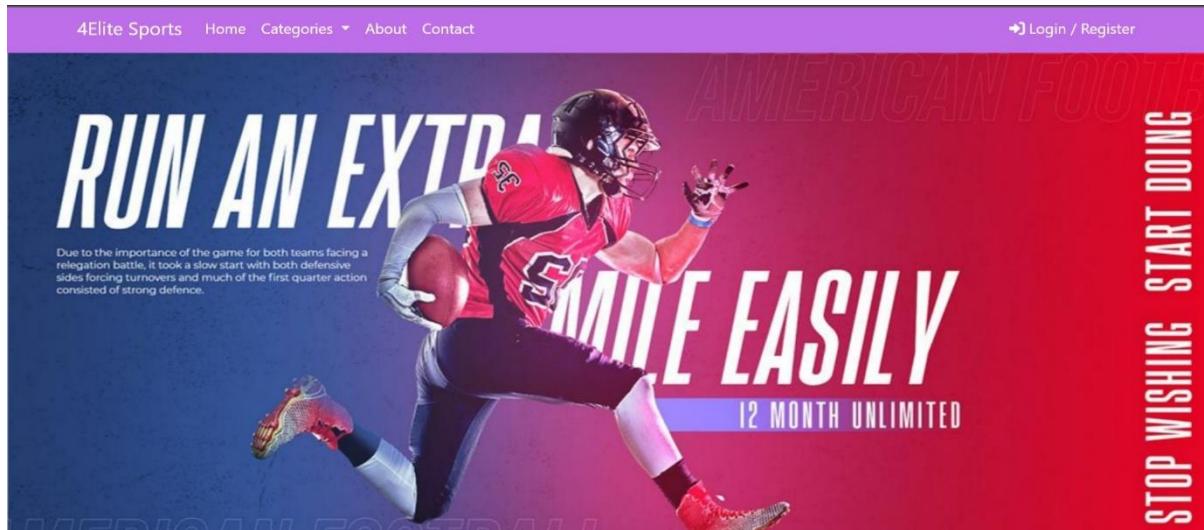


Figure 2.1 Welcoming page

Figure 2.1 is the home page that is publicly accessible to everyone who access the website. From here user can view the product available in 4Elite Sports website. User can also access other page like product based on categories, about and contact page.

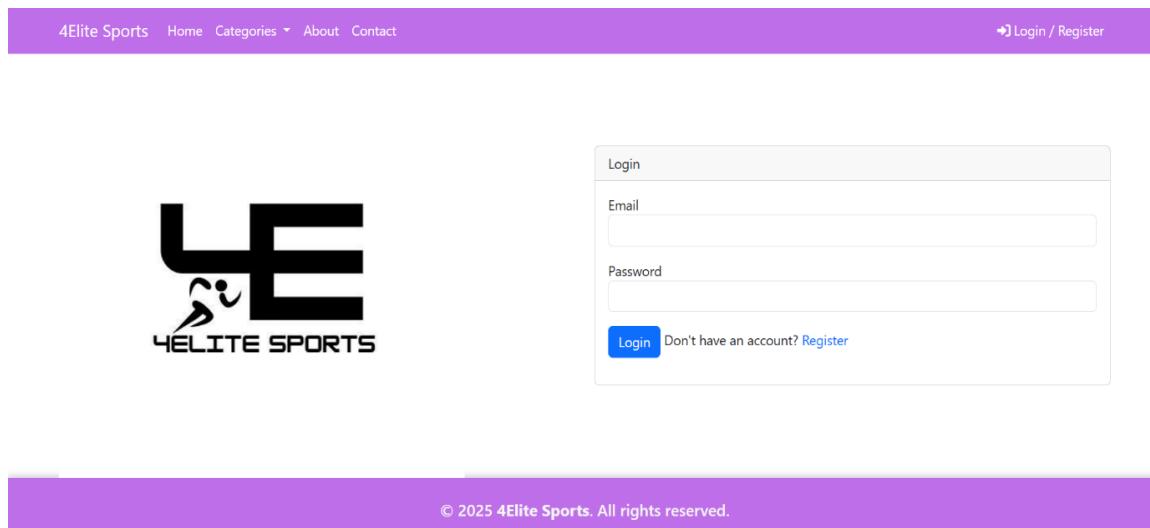


Figure 2.2 Login page

Figure 2.2 is the login page where user need to enter the email and password that has been registered to login the website.



About Us

Your trusted partner in all things sports. Quality gear, expert advice, and top-notch service.

Who We Are

At 4Elite Sports, we are passionate about sports and dedicated to providing high-quality equipment for athletes of all levels. Our mission is to offer the best gear to help you achieve your goals, whether you're a seasoned pro or just starting out.

With a wide range of products, expert advice, and a customer-first approach, we are here to support your athletic journey.

Meet The Team



Irdina Dayini

System CEO - As the visionary leader, Irdina oversees the overall system development, sets strategic goals, and ensures the team's focus on delivering high-quality products and efficient processes. She plays a pivotal role in decision-making and leads the team toward achieving excellence in system implementation.



Aqilah Humaira

Developer - Aqilah is responsible for the core system development, including coding, testing, and debugging. She designs and implements the system's user interface and backend functionality, ensuring smooth operations and optimal performance.



Najha Mahairi

Quality Assurance Specialist - Najha focuses on understanding user requirements and translating them into technical specifications. She collaborates with the team to ensure the system is effective and efficient, and ensures that the system meets the needs of both members and administrators.



Amanina Syamimi

Quality Assurance Specialist - Amanina is responsible for conducting rigorous testing to identify and resolve bugs or errors. She focuses on delivering a reliable and user-friendly experience by maintaining high standards for usability, functionality, and security.

Quality

We believe in providing only the best, ensuring every product we sell exceeds your expectations.

Our Core Values

Integrity

Our customers trust us, and we honor that trust by being honest, transparent, and reliable.

Customer Focus

Your satisfaction is our priority. We listen to your needs and strive to meet them every step of the way.

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Figure 2.3 About page

About page in Figure 2.3 shows user can view the information about the website including the introduction of the business, the team profile, and the business core values.

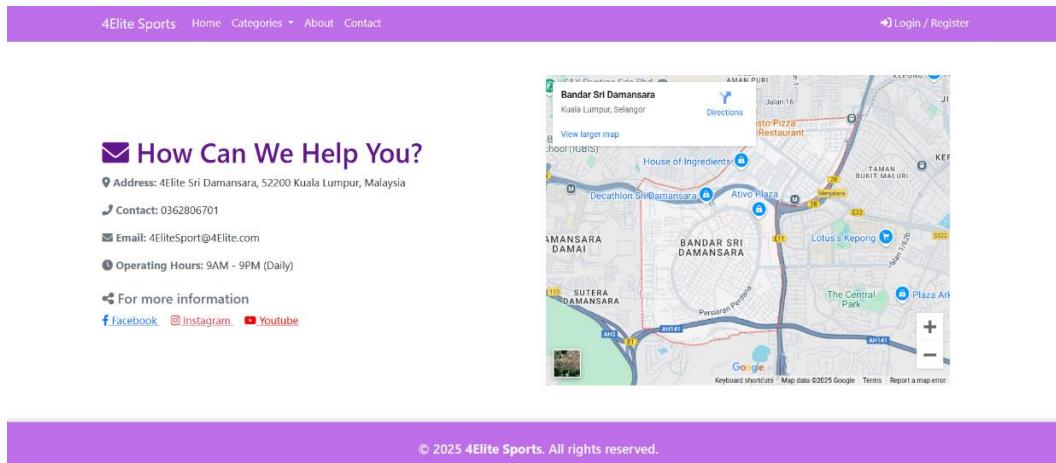


Figure 2.4 Contact page

Contact page in Figure 2.4 allow user can check the information regarding 4Elite Sports like address, contact number, email, operating hours and more information from the social media.

b. Membership Pages

The screenshot shows the sign-up page for 4Elite Sports. At the top, there is a purple header bar with the website's name and navigation links: Home, Categories, About, Contact, and a Login/Register button. Below the header is the 4Elite Sports logo, which features a stylized '4' and 'E' with a small figure in between. The main form area is titled 'Register'. It contains fields for Name*, Email*, Phone*, Address*, City*, State* (with 'Terengganu' selected), Password*, and Confirm Password*. At the bottom left is a blue 'Register' button, and at the bottom right is a link for users who already have an account: 'Already have an account? [Login](#)'.

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Figure 2.5 Sign Up page

Sign up page in Figure 2.5 is used for new user to sign up for the membership. Users need to fill in required info such as name, email, phone, address, city, state, and password. Account is required to add the product wanted into the cart.

The screenshot shows the member profile page for 4Elite Sports. At the top, there is a purple header bar with the website's name and navigation links: Home, Categories, About, Contact, a shopping cart icon with 'Cart' and a count of '0', and a dropdown menu for the user 'Busyra'. Below the header is the 4Elite Sports logo. The main form area is titled 'Profile'. It contains fields for Name* (Busyra), Email* (busyra@gmail.com), Phone* (01111552225), Address* (No 65 Taman Kebun), City* (Sungai Petani), State* (Kedah), and Current Membership (Basic). There is also a 'Request Membership Change' section with a 'Select Membership' dropdown and an 'Update Profile' button. At the bottom left is a link for users who already have an account: 'Already have an account? [Login](#)'.

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Figure 2.6 View and update information of the member page

Figure 2.6 is the page where users that already login can view and update information such name, email, phone number, address, city, state and membership. If user want to update their membership to the different level this can be done on this page.

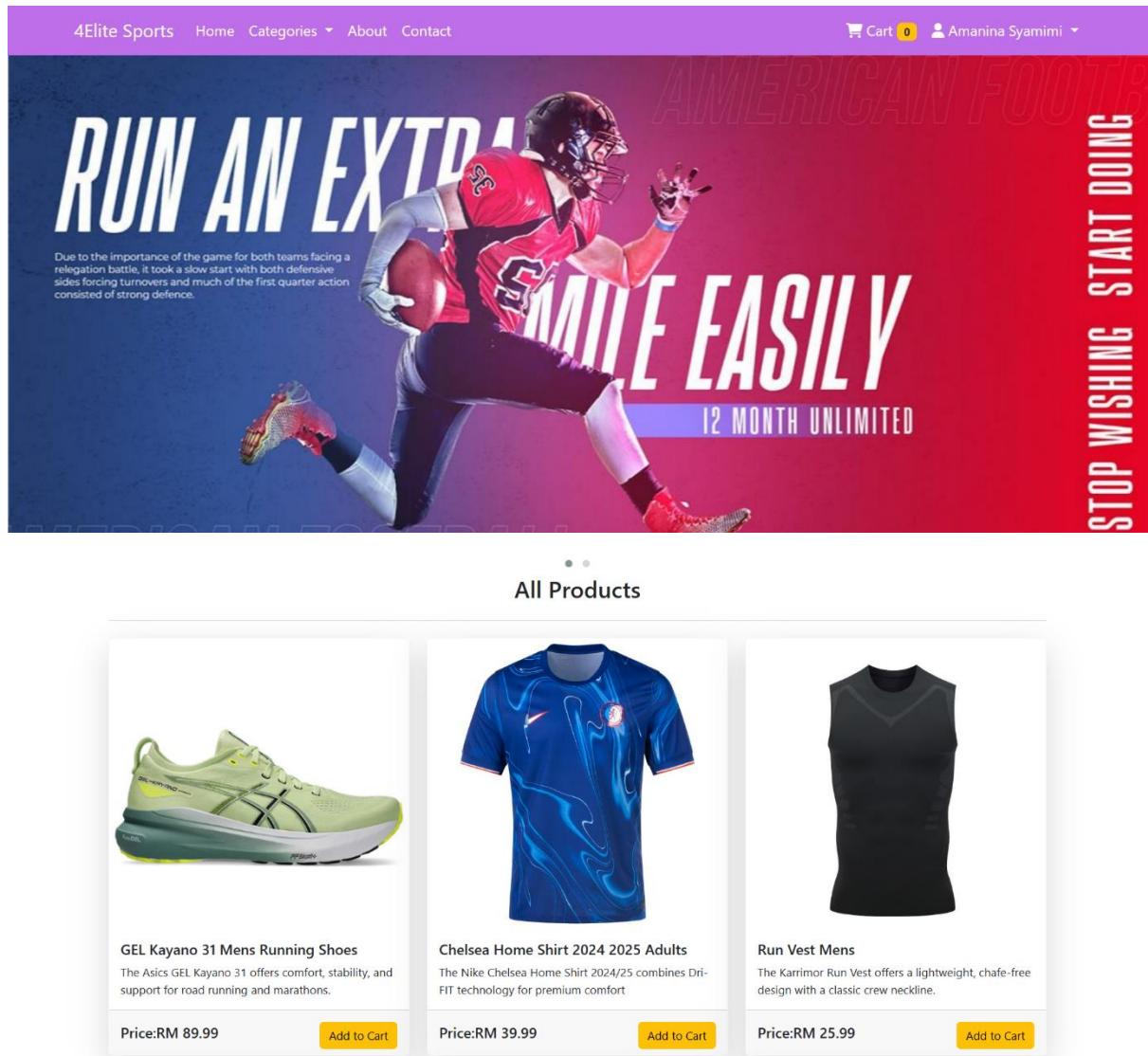


Figure 2.7 Membership homepage

Figure 2.7 shows the membership homepage where it will display all the products. Membership can add the product to cart on this page or go to categories and choose the categories that they want to see.

Figure 2.8 Membership checkout page

The membership checkout page as shown in Figure 2.8 will display all the product that user add to cart and want to check out. It will display the list of products, total, membership discount depending on membership level, discount and grand total. Then, user need to upload the receipt as proof of the payment.

Figure 2.9 Membership orders page

Membership orders page in Figure 2.9 will display the list of orders that members have been made. Members basically can view the order date, total, discount, grand total and status of the order whether complete and pending.

The screenshot shows the 'Order Detail' page for a membership order. At the top, there's a purple header bar with the 4Elite Sports logo and navigation links for Home, Categories, About, Contact, Cart (0), and Amanina Syamimi. Below the header is a large purple section titled 'Order Detail'. Underneath is a white box labeled 'Order Information' containing details: Order ID: 1, Order Date: 19 January 2025, 02:42 AM, and Order Status: Completed. The main content area is titled 'Order Products' and contains a table with three items: a Compact Microfibre Swimming Towel, an Adult Tennis Racket Power Pro TR990 300g, and a Size 5 Machine-Stitched Football Training Ball. The table includes columns for Image, Product, Price, Quantity, and Total. At the bottom of the table, there are summary rows for Total Price (\$514.96), Total Discount (\$102.99), and Grand Total (\$411.97). The footer of the page includes a copyright notice: © 2025 4Elite Sports. All rights reserved.

Figure 2.10 Membership order detail page

In Figure 2.10 members can order detail for an order by clicking at the membership orders page. On this page, view the details of the order such as products, quantity for each product, order id, date, status and the total price.

c. Admin Pages

The screenshot shows the Admin homepage. At the top, there's a purple header bar with the 4Elite Sports logo and navigation links for Home, Memberships, Categories, Products, Orders, Manage Users, and a user profile for Aqilah Humaira. Below the header are four summary cards: 'Total Users' (2), 'Total Orders' (2), 'Total Products' (40), and 'Total Sales' (\$411.97). Underneath these cards are two line charts. The first chart, titled 'Total Sales', shows a single blue bar for January reaching approximately 411.97. The second chart, also titled 'Total Sales', shows a red line graph with a single peak at the 19th day of the month, reaching a value of about 411.97. The footer of the page includes a copyright notice: © 2025 4Elite Sports. All rights reserved.

Figure 2.11 Admin homepage

Figure 2.11 displays the statistics of sales for each month when the admin is logged in. It provides a summary of key metrics, including the total number of users, orders, products, and overall sales figures.

The screenshot shows the 'User List' section of the 4Elite Sports Admin Dashboard. At the top, there's a purple header bar with the 4Elite Sports logo and navigation links: Home, Memberships, Categories, Products, Orders, Manage Users, and a user profile for Aqilah Humaira. Below the header is a search bar with dropdowns for 'All Status' and 'Add New User'. The main area has a table titled 'User List' with columns: ID, Name, Email, Address, Phone, Membership, Requested, Status, and Action. Two user entries are listed:

ID	Name	Email	Address	Phone	Membership	Requested	Status	Action
2	Amanina Syamimi	amanina@gmail.com	NO 20 Jalan Teratai 2 Taman Teratai Fasa 2 Sungai Buloh, Selangor	0123456789	ELITE	N/A	Active	Action ▾
3	Irdina Dayini	irdina@gmail.com	Menara Condong, Teluk Intan Teluk Intan, Perak	0123456784	BASIC	N/A	Active	Action ▾

At the bottom of the table, it says 'Showing 1 to 2 of 2 entries' and has navigation buttons for 'Previous', '1', and 'Next'. The footer of the page contains a purple bar with the text '© 2025 4Elite Sports. All rights reserved.'

Figure 2.12 Manage member's page

Figure 2.12 illustrates the Member Management page, which allows staff to view and manage registered members in the system. The page includes features for searching, filtering, and sorting members by name, membership status, and other details. Additionally, staff can access options to update or delete member records, facilitating efficient management of member information.

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Figure 2.13 Update membership page

This page, as shown in Figure 2.13, provides functionality for editing a member's details, such as name, contact information, and membership status. It includes a form where staff can input changes and save the updated information.

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Figure 2.14 Manage admin page

Figure 2.14 displays a list of system administrators, enabling the addition, editing, or removal of admin accounts. It ensures that admin roles and access are properly managed to maintain system security.

The screenshot shows a web application interface for managing users. At the top, there is a purple header bar with the 4Elite Sports logo on the left and navigation links for Home, Memberships, Categories, Products, Orders, Manage Users, and a user profile for Aqilah Humaira. Below the header is a white content area. On the left side of the content area, there is a logo for '4ELITE SPORTS' featuring a stylized '4' and 'E' with a small figure in the center. The main content is a form titled 'Add User' for updating an existing user. The form fields include:

- Name: Aqilah Humaira
- Email: admin@gmail.com
- Phone: 01159234295
- Address: No 10 Jalan Melati 8 Taman Melati Fasa 2
- City: Alor Setar
- State: Kedah
- Membership Requested: No Membership Requested
- Membership: Basic
- Password: (A long, illegible string)

At the bottom of the form are two buttons: a blue 'Save' button with a checkmark icon and a grey 'Back' button with a left arrow icon.

Figure 2.15 Update admin page

Figure 2.15 illustrates the page where the admin can edit the details of an existing admin, including name, email, phone number, and address. It features a straightforward form that allows for updating the admin's credentials and roles within the system.

Product List								All Category	All Status	+ Add Product			
Show 10 entries								Search:					
ID	Name	Category	Price	Image	Stock	Status	Action						
1	GEL Kayano 31 Mens Running Shoes	Men	89.99		50	Active	Action						
2	Chelsea Home Shirt 2024 2025 Adults	Men	39.99		30	Active	Action						
3	Run Vest Mens	Men	25.99		40	Active	Action						
4	Waterproof Packaway Windbreaker	Men	129.99		20	Active	Action						
5	Mens Running T-Shirt	Men	34.99		25	Active	Action						
6	Jogflow 100.1 Women's Running Shoes	Women	129.99		59	Active	Action						
7	Loose Hooded Fitness Jacket	Women	119.99		39	Active	Action						
8	Women's Straight-Cut Fitness Leggings Fit+ 500	Women	24.99		70	Active	Action						
9	Burkini Dana 500 All Flu	Women	135.99		45	Active	Action						
10	Compact Microfibre Swimming Towel Size L 80 x 130 cm	Women	39.99		18	Active	Action						
Showing 1 to 10 of 40 entries								Previous	1	2	3	4	Next

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Figure 2.16 Manage product page

Figure 2.16 depicts the Product Management page, which is used to manage all products available for sale. The admin can view a list of products, add new items, edit existing product details, or remove products from the inventory, facilitating effective inventory management.

Figure 2.17 Update product page

This page, as shown in Figure 2.17, allows for editing a product's details, such as name, description, price, and stock quantity. Admin can make necessary updates to ensure that accurate product information is displayed on the website.

Figure 2.18 Add new product page

Add new product page, as shown in Figure 2.18, provides a form for the admin to add new products into the system. The form includes fields for product name, description, category, price, and initial stock quantity, enabling efficient product entry and management.

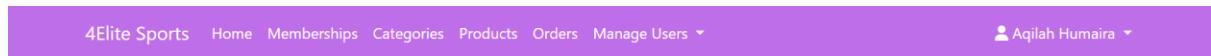


Figure 2.19 Stock log page

Figure 2.19 shows a detailed log of stock activities, such as restocking or product depletion. It helps track inventory changes and ensures proper stock management.

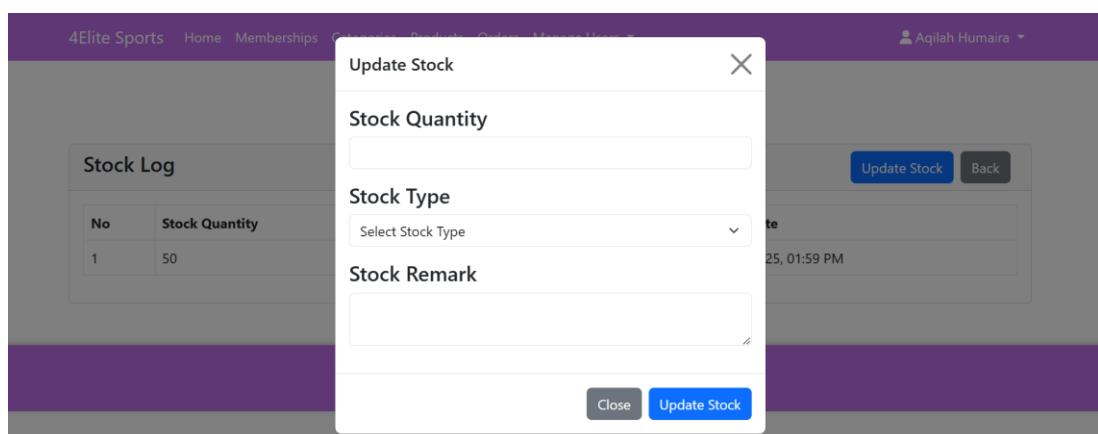


Figure 2.20 Update stock page

Update stock page as shown in Figure 2.20 allows staff to update the stock quantity for a product. It includes fields to input stock additions or reductions, along with remarks for the update.

Order List										All Status	Filter
Show 10 entries <input type="text" value="Search:"/>											
ID	Customer Details	Total	Grand Total	Discount	Status	Created At	Action				
1	Amanina Syamimi	514.96	411.97	102.99	Completed	19 January 2025, 02:42 AM	Action				
2	Irdina Dayini	149.98	142.48	7.50	Processing	19 January 2025, 02:48 AM	Action				
3	Amanina Syamimi	129.99	103.99	26.00	Pending	19 January 2025, 02:29 PM	Action				

Showing 1 to 3 of 3 entries

Previous 1 Next

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Figure 2.21 Manage order page

Figure 2.21 displays all customer orders with their status, such as pending, processing, or completed. Admin can view, filter, and update the status of orders from this interface by clicking the actions dropdown menus.

Order Detail									
Order Information					Customer Details				
Order ID: 2 Order Date: 19 January 2025, 02:48 AM Order Status: Processing					Customer Name: Irdina Dayini Customer Email: irdina@gmail.com Customer Phone: 0123456784				
					Customer Address: Menara Condong, Teluk Intan Teluk Intan, Perak				
Update									
Order Products									
Image	Product	Price	Quantity	Total					
	Girl's KIPRUN DRY+ 500 breathable running T-shirt With its soft, breathable fabric and the cut that's designed for running.	29.99	1	29.99					
	Loose Hooded Fitness Jacket It's light and stretchy.	119.99	1	119.99					
					Total Price	149.98			
					Total Discount	7.50			
					Grand Total	142.48			

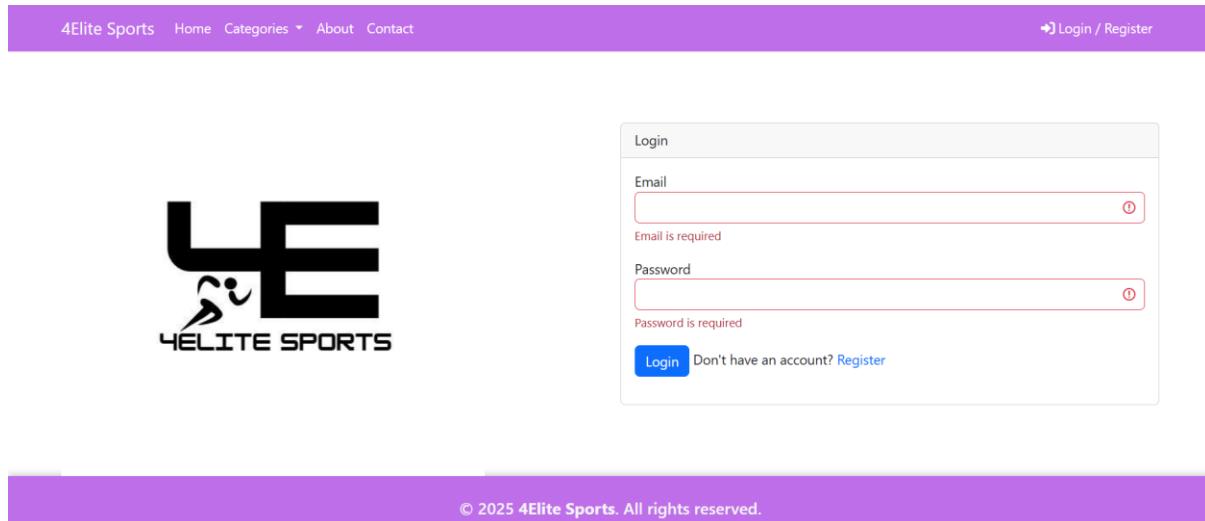
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Figure 2.22 Manage order detail

This page provides detailed information about a specific order, including product details, quantities, pricing, and customer information. In this manage order page as shown in Figure 2.22, admin can update customers' order status. It helps the admin verify and process orders accurately.

3.0 Non-Functional Requirements

a. Validation



The screenshot shows the 4Elite Sports login page. At the top, there is a purple header bar with the website's name and navigation links: "4Elite Sports", "Home", "Categories", "About", "Contact", and "Login / Register". Below the header is the website's logo, which consists of a stylized "4E" monogram with a small figure running in the center. To the right of the logo is a login form titled "Login". The form has two input fields: "Email" and "Password", both of which are highlighted in red, indicating they are required fields. Below each field is an error message: "Email is required" for the email field and "Password is required" for the password field. At the bottom of the form are two buttons: a blue "Login" button and a link "Don't have an account? Register". At the very bottom of the page, there is a purple footer bar with the copyright notice: "© 2025 4Elite Sports. All rights reserved."

Figure 3.1 Login validation

The system must require users to input both an email address and a password to successfully log in as shown in Figure 3.1. If the user fails to provide either the email or the password, the system prevents the login attempt and display an appropriate error message. If the email field is left empty, the system should display a message "Email is required." If the password field is left empty, the system should display a message "Password is required."

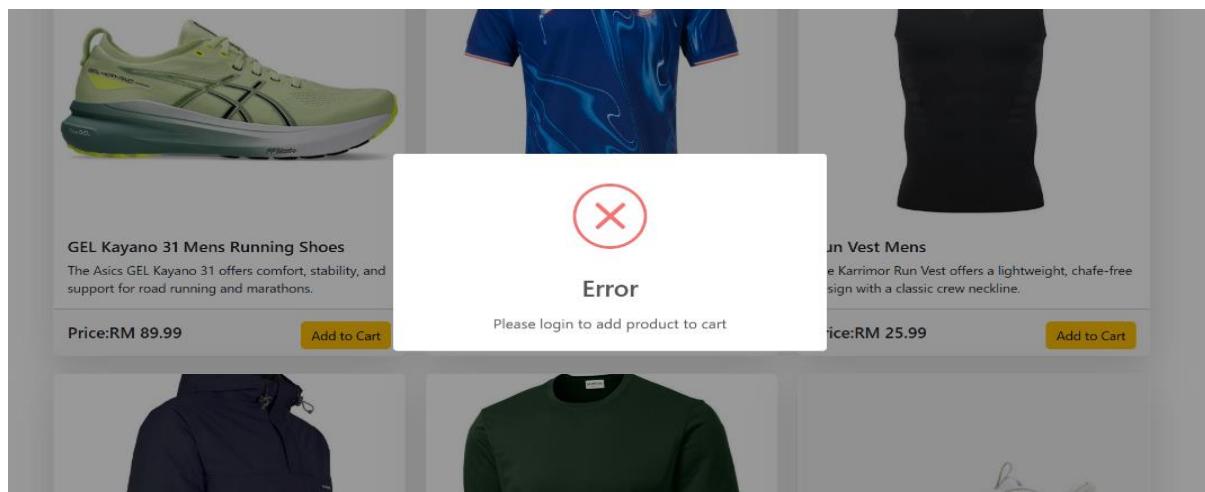


Figure 3.2 Add product to cart

Users are required to login into the system before they add the product to the cart. A pop-up error message will appear if user does not login into the system as shown in Figure 3.2. This requirement ensures that only registered users can manage their shopping carts, thereby enhancing security and personalizing the shopping experience.

The screenshot shows a web application interface for '4Elite Sports'. At the top, there is a purple header bar with the text '4Elite Sports' and navigation links for 'Home', 'Categories', 'About', and 'Contact'. On the right side of the header, there is a shopping cart icon labeled 'Cart 0' and a user profile icon labeled 'Amanina Syamimi'. Below the header, the main content area has a light gray background. It displays a table titled 'My Orders' with two rows of data. The columns are labeled 'Order ID', 'Order Date', 'Order Total', 'Order Discount', 'Order Grand Total', 'Order Status', and 'Action'. The first row (Order ID 1) has a green 'Completed' status button and a blue 'View' button. The second row (Order ID 3) has an orange 'Pending' status button and a blue 'View' button. Above the table, a red rectangular box contains the text 'Invalid file format' in white. In the bottom right corner of the main content area, there is a small footer bar with the text '© 2025 4Elite Sports. All rights reserved.'

Figure 3.3 Invalid File Format Message

If a user attempts to upload a file in an unsupported format for the receipt, an error message stating "*Invalid file format*" will appear as shown in Figure 3.3. This ensures that only acceptable file formats are uploaded, maintaining system compatibility and preventing errors.

User List											All Status	Add New User	
User saved successfully											X		
Show 10 entries											Search: <input type="text"/>		
ID	Name	Email	Address	Phone	Membership	Requested	Status	Action					
2	Amanina Syamimi	amanina@gmail.com	NO 20 Jalan Teratai 2 Taman Teratai Fasa 2 Sungai Buloh, Selangor	0123456789	ELITE	N/A	Active	Action					
3	Irdina Dayini	irdina@gmail.com	Menara Condong, Teluk Intan Teluk Intan, Perak	0123456784	PREMIUM	N/A	Active	Action					

Showing 1 to 2 of 2 entries

Previous [1](#) Next

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Figure 3.4 User Information Update Confirmation

After the admin successfully updates a user's information or credentials, a confirmation message "*User saved successfully*" will appear as shown in Figure 3.4. This provides feedback to the admin, confirming that the changes have been saved correctly.

Order List											All Status	Filter	
Order status updated											X		
Show 10 entries											Search: <input type="text"/>		
ID	Customer Details	Total	Grand Total	Discount	Status	Created At	Action						
1	Amanina Syamimi	514.96	411.97	102.99	Completed	19 January 2025, 02:42 AM	Action						
2	Irdina Dayini	149.98	142.48	7.50	Cancelled	19 January 2025, 02:48 AM	Action						
3	Amanina Syamimi	129.99	103.99	26.00	Processing	19 January 2025, 02:29 PM	Action						

Showing 1 to 3 of 3 entries

Previous [1](#) Next

Figure 3.5 Order Status Update Confirmation

In Figure 3.5 shows when the admin updates the order status whether it from pending to completed or processing, a message "*Order status updated*" will appear. This assures the admin that the status change has been successfully applied.

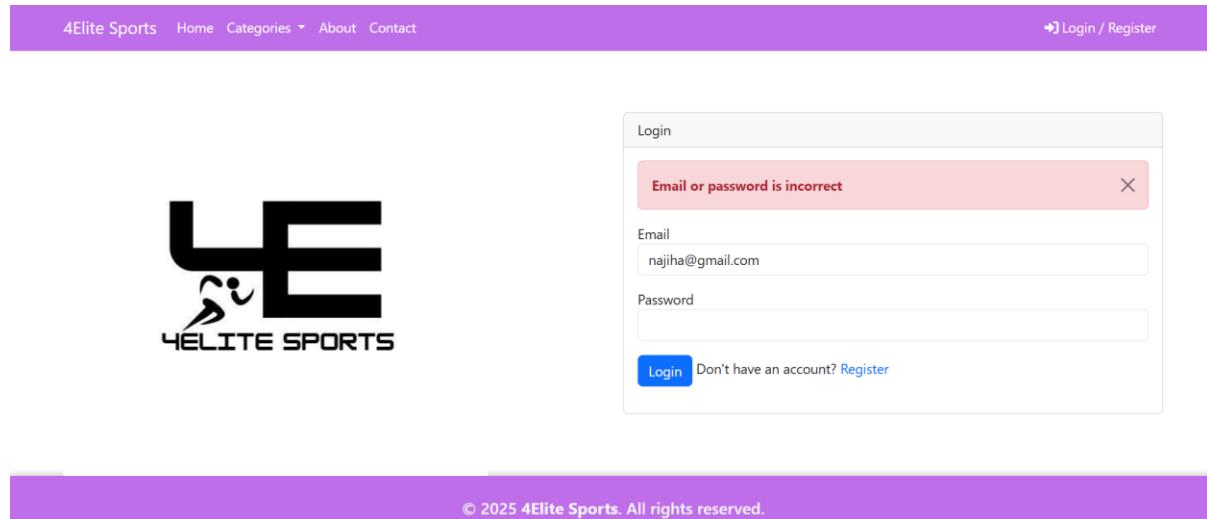
The screenshot shows the 'Product Information' form on the 4Elite Sports website. The form includes fields for Product Name, Category, Price, Product Description, Image, Stock, and Status. Each field has a red border and a red error message below it indicating it is required. The 'Save' button at the bottom is blue.

Field	Value	Error Message
Product Name	(empty)	Product name is required
Category	Select Category	(empty)
Price	(empty)	Price is required
Product Description	(empty)	Description is required
Image	Choose File No file chosen	(empty)
Stock	(empty)	Stock is required
Status	Active	(empty)

Figure 3.6 Manage Products Page validation

If the admin clicks the "Save" button without filling in any product information, the form fields will be highlighted in red, and a "required" message will appear under each mandatory field as shown in Figure 3.6. This ensures that no empty or incomplete product details are submitted. If the admin does not wish to update or add any product information, they can click the "Back to Product List" button to exit the page without making changes.

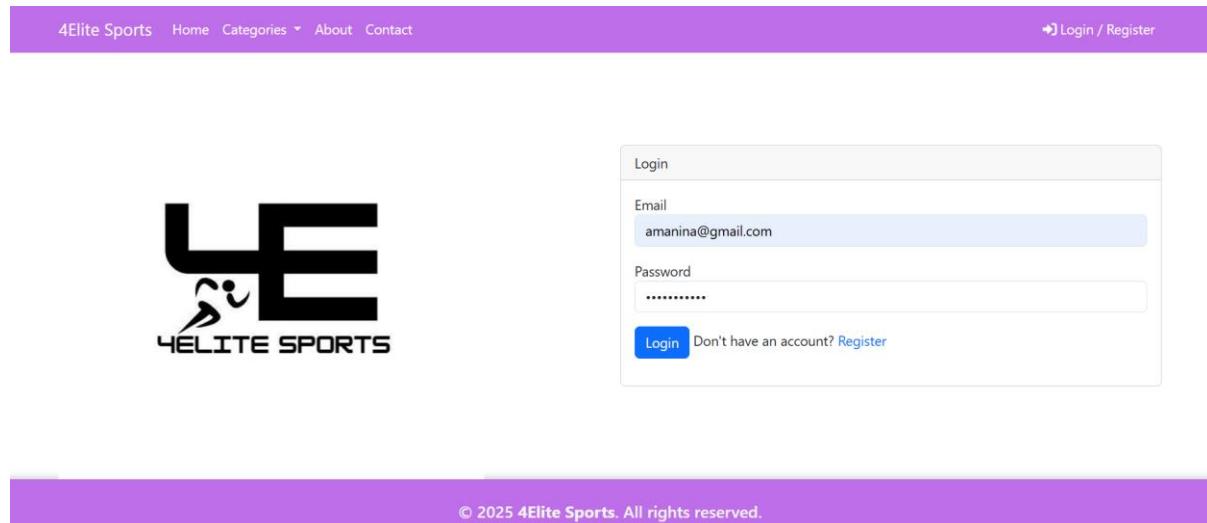
b. Security



The screenshot shows the 4Elite Sports website's login interface. At the top, there is a purple header bar with the site's name and navigation links: "4Elite Sports", "Home", "Categories", "About", "Contact", and "Login / Register". Below the header is the 4Elite Sports logo, which features a stylized "4E" with a small figure in the center. To the right of the logo is the login form. The login form has a "Login" button at the top. Below it is a red error message box containing the text "Email or password is incorrect". Underneath the error message are two input fields: "Email" (containing "najihah@gmail.com") and "Password" (containing several asterisks). At the bottom of the form are two buttons: "Login" and "Don't have an account? [Register](#)".

Figure 3.7 Incorrect Email or Password Notification

Figure 3.7 shows when a user attempts to log in with an incorrect email or password, an error message stating "*Email or password is incorrect*" will appear. This ensures users are informed of login issues without exposing sensitive details about account existence, enhancing security by avoiding disclosure of valid emails.



The screenshot shows the 4Elite Sports website's login interface, similar to Figure 3.7 but with different input values. The header, logo, and overall layout are identical. The login form shows the "Email" field containing "amanina@gmail.com" and the "Password" field containing several asterisks. The "Login" and "Register" buttons are also present at the bottom of the form.

Figure 3.8 Password Input Masking

For security purposes, the password entered by the user will be displayed in bullet or asterisk form as shown in Figure 3.8. This prevents others from viewing the password while it is being typed, reducing the risk of unauthorized access from shoulder-surfing.

c. Structure

Table	Action	Rows	Type	Collation	Size	Overhead
categories	Browse Structure Search Insert Empty Drop	4	InnoDB	utf8mb4_general_ci	16.0 Kib	-
memberships	Browse Structure Search Insert Empty Drop	3	InnoDB	utf8mb4_general_ci	16.0 Kib	-
orders	Browse Structure Search Insert Empty Drop	0	InnoDB	utf8mb4_general_ci	48.0 Kib	-
order_details	Browse Structure Search Insert Empty Drop	0	InnoDB	utf8mb4_general_ci	48.0 Kib	-
products	Browse Structure Search Insert Empty Drop	39	InnoDB	utf8mb4_general_ci	32.0 Kib	-
product_stock	Browse Structure Search Insert Empty Drop	39	InnoDB	utf8mb4_general_ci	32.0 Kib	-
users	Browse Structure Search Insert Empty Drop	2	InnoDB	utf8mb4_general_ci	64.0 Kib	-
7 tables	Sum	87	InnoDB	utf8mb4_general_ci	256.0 Kib	0 B

Figure 3.9 Database structure

This is our database structure named db_ecom. We have 7 tables which is categories, memberships, orders, orders_details, products, products_stock and users.

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
1	category_id	int(11)	utf8mb4_general_ci		No	None		AUTO_INCREMENT	Change Drop More
2	category_name	varchar(255)	utf8mb4_general_ci		No	None			Change Drop More
3	category_status	enum('0','1')	utf8mb4_general_ci		No	1	0=inactive, 1=active		Change Drop More
4	category_created_at	timestamp			No	current_timestamp()			Change Drop More
5	category_updated_at	timestamp			No	current_timestamp()		ON UPDATE CURRENT_TIMESTAMP()	Change Drop More

Figure 3.10 Category structure

This is structure for categories table. It involves category_id, category_name, category_status, category_created_at and category_updated_at.

Table structure

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
1	order_id	int(11)			No	None		AUTO_INCREMENT	
2	order_user_id	int(11)			No	None			
3	order_total	decimal(10,2)			No	None			
4	order_discount	decimal(10,2)			No	0.00			
5	order_grand_total	decimal(10,2)			No	None			
6	order_status	enum('0', '1', '2', '3')	utf8mb4_general_ci		No	0	0=pending, 1=completed, 2=processing, 3=cancelled		
7	order_payment_proof	varchar(255)	utf8mb4_general_ci		Yes	NULL			
8	order_payment_remark	text	utf8mb4_general_ci		Yes	NULL			
9	order_created_at	timestamp			No	current_timestamp()			
10	order_updated_at	timestamp			No	current_timestamp()		ON UPDATE CURRENT_TIMESTAMP()	
11	order_updated_by	int(11)			Yes	NULL			

Indexes

Action	Keyname	Type	Unique	Packed	Column	Cardinality	Collation	Null	Comment
	PRIMARY	BTREE	Yes	No	order_id	0	A	No	
	order_user_id	BTREE	No	No	order_user_id	0	A	No	
	order_updated_by	BTREE	No	No	order_updated_by	0	A	Yes	

Create an index on 1 columns Go

Partitions

No partitioning defined!

Console

Figure 3.11 Order structure

Figure 3.11 illustrates the structure of the Orders table, which includes key fields such as order ID, user ID, total amount, discounts, grand total, order status and payment proof. This table serves as the primary record for all user orders within the system.

Table structure

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
1	order_detail_id	int(11)			No	None		AUTO_INCREMENT	
2	order_detail_order_id	int(11)			No	None			
3	order_detail_product_id	int(11)			No	None			
4	order_detail_quantity	int(11)			No	None			
5	order_detail_price	decimal(10,2)			No	None			
6	order_detail_created_at	timestamp			No	current_timestamp()			
7	order_detail_updated_at	timestamp			No	current_timestamp()		ON UPDATE CURRENT_TIMESTAMP()	

Indexes

Action	Keyname	Type	Unique	Packed	Column	Cardinality	Collation	Null	Comment
	PRIMARY	BTREE	Yes	No	order_detail_id	0	A	No	
	order_detail_order_id	BTREE	No	No	order_detail_order_id	0	A	No	
	order_detail_product_id	BTREE	No	No	order_detail_product_id	0	A	No	

Create an index on 1 columns Go

Partitions

No partitioning defined!

Partition table

Information

Console

Figure 3.12 Order detail structure

This figure depicts the structure of the Order Details table, detailing the specific products associated with each order. Key fields include order detail ID, order ID, product ID, quantity and price. This table provides a comprehensive breakdown of the items included in each order.

The screenshot shows the phpMyAdmin interface for the 'memberships' table in the 'db_ecom' database. The table structure includes columns for membership ID, name, discount, status, creation timestamp, and update timestamp. Primary key constraints are applied to the membership_id column. The table has no partitions or indexes defined.

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
1	membership_id	int(11)	utf8mb4_general_ci		No	None		AUTO_INCREMENT	Change Drop More
2	membership_name	varchar(255)	utf8mb4_general_ci		No	None			Change Drop More
3	membership_discount	int(11)			No	None			Change Drop More
4	membership_status	enum('0','1')	utf8mb4_general_ci		No	1	0=inactive, 1=active		Change Drop More
5	membership_created_at	timestamp			No	current_timestamp()			Change Drop More
6	membership_updated_at	timestamp			No	current_timestamp()	ON UPDATE CURRENT_TIMESTAMP()		Change Drop More

Figure 3.13 Membership structure

This figure illustrates the structure of the Memberships table, which includes key fields such as membership ID, membership name, membership discount and membership status. This table is essential for managing different membership tiers available to users, allowing for the application of discounts and the tracking of membership statuses within the system.

The screenshot shows the phpMyAdmin interface for the 'products' table in the 'db_ecom' database. The table structure includes columns for product ID, name, price, description, image, quantity, category ID, status, creation timestamp, and update timestamp. Primary key constraints are applied to the product_id and product_category_id columns. The table has no partitions or indexes defined.

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
1	product_id	int(11)			No	None		AUTO_INCREMENT	Change Drop More
2	product_name	varchar(255)	utf8mb4_general_ci		No	None			Change Drop More
3	product_price	decimal(10,2)			No	None			Change Drop More
4	product_description	text	utf8mb4_general_ci		Yes	NULL			Change Drop More
5	product_image	varchar(255)	utf8mb4_general_ci		No	NULL			Change Drop More
6	product_quantity	int(11)			No	0			Change Drop More
7	product_category_id	int(11)			No	None			Change Drop More
8	product_status	enum('0','1')	utf8mb4_general_ci		No	1	0=inactive, 1=active		Change Drop More
9	product_created_at	timestamp			No	current_timestamp()			Change Drop More
10	product_updated_at	timestamp			No	current_timestamp()	ON UPDATE CURRENT_TIMESTAMP()		Change Drop More

Figure 3.14 Product structure

Figure 3.14 depicts the structure of the Products table, which includes essential fields such as product ID, product name, product price, product description, product image,

product quantity, product category ID and product status. This table serves as the primary repository for all product information within the system, enabling effective management of inventory and product details.

The screenshot shows the phpMyAdmin interface for the `db_ecom` database. The left sidebar lists various databases and tables. The main area is focused on the `product_stock` table within the `db_ecom` database. The "Table structure" tab is selected, displaying the following table definition:

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
1	<code>product_stock_id</code>	<code>int(11)</code>			No	<code>None</code>		<code>AUTO_INCREMENT</code>	Change Drop More
2	<code>product_stock_product_id</code>	<code>int(11)</code>			No	<code>None</code>			Change Drop More
3	<code>product_stock_quantity</code>	<code>int(11)</code>			No	<code>None</code>			Change Drop More
4	<code>product_stock_type</code>	<code>enum('in','out')</code>	<code>utf8mb4_general_ci</code>		No	<code>None</code>	<code>in-stock in, out-stock out</code>		Change Drop More
5	<code>product_stock_remark</code>	<code>text</code>	<code>utf8mb4_general_ci</code>		Yes	<code>NULL</code>			Change Drop More
6	<code>product_stock_created_at</code>	<code>timestamp</code>			No	<code>current_timestamp()</code>			Change Drop More
7	<code>product_stock_updated_at</code>	<code>timestamp</code>			No	<code>current_timestamp()</code>		<code>ON UPDATE CURRENT_TIMESTAMP()</code>	Change Drop More

Below the table structure, there are sections for "Indexes", "Partitions", "Partition table", and "Information". The "Indexes" section shows two primary keys:

Action	Keyname	Type	Unique	Packed	Column	Cardinality	Collation	Null	Comment
Edit	Rename Drop	PRIMARY	BTREE	Yes	<code>product_stock_id</code>	39	A	No	
Edit	Rename Drop	<code>product_stock_product_id</code>	BTREE	No	<code>product_stock_product_id</code>	39	A	No	

Figure 3.15 Product stock structure

Figure 3.15 illustrates the structure of the Product Stock table, which includes key fields such as product stock ID, product stock product ID, product stock quantity and product stock type. This table is crucial for tracking inventory movements, allowing for accurate management of stock levels and ensuring that product availability is effectively monitored.

Figure 3.16 User structure

Figure 3.16 depicts the structure of the users table, which includes essential fields such as user ID, username, user email, user password, user phone, user address, user postal code, user city, user state, user status, user role.

4.0 Non-Functional Requirements

a. System Weaknesses / Strength

The system exhibits several strengths, ensuring usability, scalability, and reliability. Its intuitive navigation, supported by a well-structured site map, enables users to explore the platform with ease. Features like step-by-step checkout and clear product categorization enhance the user experience. The modular design allows for seamless future expansion and the addition of new features while maintaining a stable system. Efficient database queries improve performance, and role-based access controls ensure secure access to user-specific functionalities. Additionally, the admin dashboard simplifies user and product management tasks, contributing to the maintainability of the system. Reward and membership tiers add a level of personalization, catering to various user preferences and enhancing user satisfaction.

Despite its strengths, the system has notable weaknesses that need addressing. Firstly, user need to register a new account in case they forgot their password because this system does not have option for forgot password. Additionally, users are unable to add more products after making a payment also on the payment part, it does not display the system bank account number, which might cause difficulty for user to make payment because they do not know the system account bank number. Lastly, for payment, it only can upload a receipt and does not have many options for payment.

b. Future Work / Improvement

For future work, several improvements can be implemented to enhance the functionality and user experience of the system. Firstly, a "Forgot Password" feature should be added to allow users to recover their accounts without needing to register a new one. Additionally, the system should enable users to add more products even after making a payment, offering greater flexibility in managing their orders. To improve the payment process, the system should display its bank account number clearly, ensuring users have all the necessary information to complete their transactions smoothly. Furthermore, integrating multiple payment options, such as online banking, e-wallets, and credit/debit cards, alongside the ability to upload receipts, would provide users with greater convenience and accessibility. These enhancements would address current limitations and significantly improve the system's overall usability.

5.0 References

- Al-Ikhsan Sports. (2025). *Al-Ikhsan Sports*. Retrieved from https://al-ikhsan.com/?utm_source=sem&utm_medium=cpc&utm_campaign=alwayson&utm_content=brand&gad_source=1&gclid=Cj0KCQiA4rK8BhD7ARIsAFe5LXIpMgort8sg88YImQ4bqjQbUerqNT__mjboa7M-QnSjIY4agXCmXQUaAq2DEALw_wcB
- Decathlon Malaysia Sdn Bhd. (2024). *Decathlon*. Retrieved from https://www.decathlon.my/?campaignid=21757276039&adgroupid=&creative=&matchtype=&network=x&device=c&keyword=&gad_source=1&gclid=Cj0KCQiA4rK8BhD7ARIsAFe5LXJkr1fPHPkqBG7Dg7HLk4KcWZNrQyaNY2Dd9-tNd1Dz7_sTNsrS6RgaAsy1EALw_wcB
- JD Sports. (2024). *JD Sports*. Retrieved from JD Sports Fashion Sdn: https://www.jdsports.my/?gad_source=1&gclid=Cj0KCQiA4rK8BhD7ARIsAFe5LXLLidlqAg6NGGcG7dLnYuh3U7ZmkGXOB68jObmwlbqnuiBiDQckTBYaAni5EALw_wcB

6.0 Rubric

ICT600 - WEB TECHNOLOGY & APPLICATION

ICT600 - GROUP PROJECT ASSESSMENT (20%) - WEBAPP RUBRIC

Criteria / Marks	1	2	3	4
Validation (W: 3)	Majority of the form's validation is incomplete with major errors.	A few of the form's validation is incomplete - login form and all other functions (Create & Update) forms.	All the forms have a validation including the login form and all other functions (Create & Update) forms, but with minor errors.	All the forms have a validation including the login form and all other functions (Create & Update) forms without any errors.
Security (W: 3)	Majority of the security is not implemented.	The security in place is incomplete, some is working, and some is not.	Majority of the security is in place, with some minor errors.	Security is in place for Member pages: can only view & modify their own information, and only Admin can view all members information.
Consistency (W: 2)	background, text format, and colour usage are randomly chosen, and pages seem unrelated.	background, text format, and colour usage are randomly chosen with few consistent elements throughout the pages.	background, text format, and colour usage are carefully chosen to produce a consistent screen layout for all pages.	background, text format, and colour usage are carefully chosen to produce a consistent screen layout for all pages.
Simplicity (W: 2)	People reading it cannot find what they want quickly. Excessive use of graphic elements.	People reading it will have difficulty finding what they want quickly. Excessive use of graphic elements	content is simple and to the point. Appealing graphic elements are included appropriately. Differences in type size and/or colour are used well.	Content is simple and to the point. Design is easy to understand in many ways

Structure / Navigation / Format (W: 2)	Content is confusing and difficult to follow. Site is difficult to navigate. Not intuitive. Large images that take long to load.	Content is somewhat confusing and difficult to follow. Site is somewhat difficult to navigate. Too much textual information.	Content is presented in a clear manner that is easy to follow Navigation is difficult Not intuitive.	Content is presented in a clear manner that is easy to follow. Readers can get around your website with ease. There are no blind links
Functionality (W: 5)	Incomplete functionality and many major errors.	A few required functions are incomplete. Has fewer major and minor errors	Provide all function with minor errors	Provide all required function without error.
Data Storage (W: 3)	Inadequate storage in client side (session/cookie) and server-side (database/file). No CRUD data operations provided to the database.	Inadequate storage in client side (session/cookie) and server-side (database/file). Incomplete CRUD data operations and has many errors.	Adequate data storage in client side (session/cookie) and server-side (database/file) Complete CRUD data operations with a few errors.	Very good data storage in client side (session/cookie) and server-side (database/file). Complete CRUD data operations without errors.

Total: 80m

- 0 Marks given if none provided for each of the criteria.

ICT600 - GROUP PROJECT ASSESSMENT (10%) - PROJECT REPORT RUBRIC

Criteria / Marks	1	2	3	4
Introduction (W: 1)	Not very clear. Insufficient information.	Adequate project description	Clear and well-defined project description	Very clear and very well-defined project description
System Design (W: 5)	Incomplete system design with many mistakes.	Adequate system design with a few mistakes	Clear and well-defined system design	Complete and accurate system design. Include wireframe and ERD
Implementation (W: 3)	Minimum functional requirements are implemented with many errors	A few functional requirements are implemented with a few errors.	All functional requirements are implemented	All functional requirements are implemented very well with extra effort
Conclusion (W: 1)	Irrelevant strength and weaknesses and not practical future improvement.	Adequate weaknesses and strength analysis and future improvement	Well-defined weaknesses and strength analysis. Practical future improvement.	Very well weaknesses and strength analysis. Very innovative future improvement

Total: 40m

- 0 Marks given if none provided for each of the criteria.