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**Graduation Project Documentation Web
Application Of
Fitness Club Management System**

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Chapter 1

INTRODUCTION

The fitness industry has undergone a significant transformation, moving beyond traditional brick-and-mortar gyms to embrace the vast potential of digital platforms. In today's fast-paced world, fitness enthusiasts demand convenience, personalization, and seamless access to their health and wellness journey. This evolution has created a critical need for advanced technological solutions that can streamline operations, enhance member engagement, and expand service offerings for fitness clubs.

The Fitness Club Management System web application emerges as a cutting-edge solution designed to meet these evolving demands. It is not merely a software; it is a comprehensive digital ecosystem engineered to empower fitness clubs to transcend conventional management paradigms and deliver an unparalleled experience to their clientele. By integrating a myriad of essential features, this application aims to be the central nervous system for any modern fitness

establishment, from independent studios to large-scale gym franchises.

At its core, this web application is built upon a robust architecture that facilitates efficient management of diverse club operations. It recognizes the multi-faceted nature of a fitness business, catering not only to the administrative complexities but also to the core needs of every stakeholder: the fitness club owner, the dedicated trainers, and most importantly, the aspiring members.

For the fitness club itself, this system represents an opportunity to optimize resource allocation, automate repetitive tasks, and gain invaluable insights into operational performance. It transitions manual processes into a sleek digital workflow, allowing management to focus more on strategic growth and less on day-to-day minutiae.

For the trainers, the application provides powerful tools to amplify their impact. It moves beyond simple instruction, enabling them to personalize programs with greater precision, monitor client progress in real-time, and foster deeper, more

impactful relationships with their trainees. This digital support transforms their coaching methodology, making it more data-driven and results-oriented.

For the members, the application is a personal gateway to their fitness aspirations. It breaks down geographical and time barriers, offering immediate access to critical tools and resources that support their health journey. From planning workouts to tracking nutrition and purchasing supplements, every aspect of their fitness regimen is brought within reach, fostering greater adherence, motivation, and ultimately, success.

This document serves as a comprehensive guide to the Fitness Club Management System web application, detailing its sophisticated functionalities and the underlying design principles that make it an indispensable asset in the contemporary fitness landscape. It will elaborate on how the system intelligently integrates disparate functionalities – from e-commerce capabilities to personalized training modules – into a cohesive, user-friendly platform

that promises to revolutionize how fitness clubs operate and how individuals achieve their wellness goals.

Chapter 2

BACKGROUND

Html & CSS

What are HTML and CSS?

HTML (HyperText Markup Language) and CSS (Cascading Style Sheets) are the foundational technologies for building web pages. They work together to create virtually every website you encounter online. HTML provides the essential structure and content, while CSS is responsible for the aesthetic presentation and layout. Without HTML, there would be no web content; without CSS, web pages would look like plain text documents with no visual appeal or organized layout.

How They Work Together:

- **HTML** acts as the *skeleton* or *blueprint* of a webpage. It defines the different parts of the content – headings, paragraphs, images, lists, links, forms, etc. It's about meaning and structure (e.g., "this is a main heading," "this is a paragraph of text").
- **CSS** acts as the *skin, clothes, and makeup*. It takes the structured content from HTML and applies styles to it. This includes colors, fonts, spacing, positioning, background images, and responsiveness (how the page looks on different screen sizes). It's about presentation and visual design.

Think of it like building a house:

- **HTML** is like the architectural blueprint, defining where the walls, rooms, windows, and doors will be.
- **CSS** is like the interior designer and painter, deciding the colors of the walls, the type of furniture, the lighting, and how everything is arranged.

Advantages of Using HTML & CSS Together

1. Separation of Concerns:

- **Benefit:** This is perhaps the most significant advantage. HTML handles content and structure, while CSS handles presentation.
- **Impact:**
 - **Improved Maintainability:** Changes to design (CSS) don't require touching the content (HTML), and vice-versa. This makes updates and debugging much easier.
 - **Enhanced Collaboration:** Different team members (content creators, designers, developers) can work on different parts of the website without interfering with each other.
 - **Cleaner Code:** HTML files remain focused on semantic structure, and CSS files are dedicated to styling,

leading to more readable and organized codebases.

2. Consistency and Efficiency:

- **Benefit:** CSS allows you to define styles once and apply them across multiple HTML elements, multiple sections, or even an entire website.
- **Impact:**
 - **Uniform Look and Feel:** Ensures brand consistency across all pages.
 - **Reduced Code Duplication:** Instead of inline styling every element, you write CSS rules once and apply them via classes or IDs.
 - **Faster Loading Times:** Smaller HTML files and external CSS files can be cached by browsers, reducing load times for subsequent page visits.

3. Improved Accessibility:

- **Benefit:** Semantic HTML, when combined with thoughtful CSS, makes web content more accessible to a wider audience, including users with disabilities.
- **Impact:** Screen readers and other assistive technologies can better interpret the structure and meaning of a page built with semantic HTML. CSS ensures that visual presentation doesn't hinder accessibility (e.g., sufficient color contrast, proper focus outlines).

4. Better User Experience (UX):

- **Benefit:** A visually appealing and well-structured website is more engaging and easier to navigate.
- **Impact:** Good CSS design improves readability, guides the user's eye, and creates an intuitive interface, leading to a more positive and productive experience for visitors.

5. Enhanced Search Engine Optimization

- **Benefit:** Search engines prefer well-structured and semantic HTML.
- **Impact:** When search engine crawlers analyze your page, semantic HTML helps them understand the hierarchy and importance of your content (e.g., `<h1>` is a main heading, `<footer>` is the page footer). This can positively impact your website's ranking in search results.

6. Responsive Web Design:

- **Benefit:** CSS is essential for creating websites that adapt and look good on any device, from large desktop monitors to tablets and smartphones.
- **Impact:** Using CSS features like media queries, Flexbox, and Grid allows developers to create fluid layouts that automatically adjust to different screen sizes and orientations, providing an optimal user experience regardless of the device.

PHP (Hypertext Preprocessor)

Overview:

PHP is a free, open-source, server-side scripting language specifically designed for web development. This means that unlike client-side languages like JavaScript (which runs in your browser), PHP code runs on the web server before the web page is sent to the user's browser. The server processes the PHP script, generates HTML (or other content), and then sends that HTML to the browser.

- **Server-Side:** This is key. When you request a PHP page, the web server executes the PHP code, interacts with databases, processes form, handles sessions, and then sends the resulting plain HTML (and CSS/JavaScript) to your browser. Your browser never sees the PHP code itself.
- **HTML-Embedded:** PHP code can be directly embedded within HTML. This makes it very flexible for dynamically generating parts of a web page.

- **Open-Source:** PHP is free to use, modify, and distribute, making it a cost-effective choice for development.
- **Widely Used:** It powers a significant portion of the web, including major platforms like WordPress, Facebook, and Wikipedia.

How PHP Works :

1. A user's browser requests a php file from a web server.
2. The web server (e.g., Apache, Nginx) recognizes the .php extension and passes the request to the PHP interpreter.
3. The PHP interpreter reads the PHP code, executes any commands (like connecting to a database, retrieving data, performing calculations, handling form submissions).
4. Based on the execution, the PHP interpreter generates dynamic HTML content.
5. The web server then sends this generated HTML back to the user's browser.

MySQL

Overview:

MySQL is a free, open-source Relational Database Management System (RDBMS). It is one of the most popular database systems in the world, renowned for its speed, reliability, and ease of use.

- **Database Management System (DBMS):** It's software that allows you to store, organize, retrieve, and manage large amounts of data efficiently.
- **Relational Database:** Data in MySQL is stored in structured tables, like a spreadsheet. These tables consist of rows (records) and columns (fields). Relationships can be defined between these tables based on common columns, allowing for complex data organization and retrieval.
- **SQL (Structured Query Language):** MySQL uses SQL as its standard language for interacting with the database. SQL commands are used to:

- **CREATE** databases and tables.
- **INSERT** new data into tables.
- **SELECT** data from tables (querying).
- **UPDATE** existing data.
- **DELETE** data.
- **Server-Based:** MySQL runs as a server, and applications (like PHP) connect to it to perform database operations.

How MySQL Works :

1. Data is organized into tables (e.g., a users table, a products table).
2. Each table has defined columns (e.g., id, name, email for the users table).
3. Rows represent individual records within the table.
4. Applications send SQL queries to the MySQL server to manipulate or retrieve data.
5. The MySQL server processes the query and returns the results.

PHP & MySQL Together

The power of PHP and MySQL lies in their symbiotic relationship, allowing for the creation of dynamic and interactive web applications.

- **PHP for Logic, MySQL for Data:**

- PHP handles the application logic: user authentication, form processing, dynamic content generation, sending emails, etc.
- MySQL stores and manages all the persistent data: user accounts, product inventories, blog posts, comments, etc.

- **Dynamic Content:** Instead of static HTML pages, PHP fetches data from MySQL and dynamically inserts it into HTML templates. For example:

- A blog website uses PHP to fetch article content from a MySQL database and display it on the page.
- An e-commerce site uses PHP to retrieve product details and prices from MySQL based on user searches or categories.

- A social media site uses PHP to pull user profiles, posts, and comments from MySQL to build personalized feeds.
- **User Interaction:** When a user submits a form (e.g., registration, comment submission), PHP receives the data, validates it, and then uses MySQL to store it in the database.

Advantages of the PHP & MySQL

1. Open Source & Cost-Effective: Both PHP and MySQL are free to use, modify, and distribute. This significantly reduces development costs, making them ideal for startups, small businesses, and large enterprises alike.

2. Ease of Learning & Use:

- PHP has a relatively simple syntax and a forgiving learning curve, especially for beginners. It integrates seamlessly with HTML.
- MySQL is straightforward to install and manage, and SQL (the language for databases) is quite intuitive.

3. High Performance & Scalability:

- Both technologies are optimized for speed. PHP is fast at processing server-side scripts, and MySQL is known for its quick data retrieval and ability to handle large amounts of data and high traffic.

- They are highly scalable, capable of supporting everything from small personal blogs to large-scale, high-traffic applications (like Facebook, which historically relied heavily on PHP and MySQL).

4. Platform Independence (Cross-Platform):

- PHP can run on various operating systems (Windows, Linux, macOS) and web servers (Apache, Nginx, IIS).
- MySQL is also compatible with multiple operating systems.
- This flexibility means developers can work in their preferred environment without compatibility issues.

5. Vast Community Support & Resources:

- Both PHP and MySQL have enormous, active developer communities worldwide.
- This means a wealth of documentation, tutorials, forums, libraries, frameworks, and tools are readily available for

troubleshooting, learning, and extending functionality.

6. Extensive Compatibility & Integration:

- PHP can connect to virtually all database software, though MySQL is the most common.
- It integrates well with various web servers, caching systems, and other web technologies.
- Powers popular Content Management Systems (CMS) like WordPress, Joomla, and Drupal, and e-commerce platforms like Magento.

7. Security Features:

- While security always requires careful coding practices, both PHP and MySQL offer robust features. PHP provides mechanisms to prevent common web vulnerabilities (like SQL injection and cross-site scripting when properly implemented). MySQL includes user

authentication, authorization, and encryption.

8. Flexibility and Versatility:

- This combination can be used to build almost any type of web application:
 - Blogs and News Sites
 - E-commerce Platforms
 - Social Networking Sites
 - Content Management Systems (CMS)
 - Forums and Discussion Boards
 - Customer Relationship Management (CRM) systems
 - And many more data-driven applications.

Bootstrap

Introduction

is one of the most popular and widely used front-end frameworks for web development. It's a comprehensive toolkit that helps developers build responsive, mobile-first, and visually appealing websites quickly and efficiently.

Essentially, Bootstrap provides a collection of pre-written HTML, CSS, and JavaScript components and utilities that developers can readily use and customize, eliminating the need to write every bit of code from scratch.

Overview

- **Origin:** Bootstrap was originally developed by Mark Otto and Jacob Thornton at Twitter as an internal tool to promote consistency across their various development projects. It was later open-sourced in 2011 and has since grown into the most popular front-end framework.
- **Purpose:** Its primary goal is to simplify and accelerate the process of web development, particularly focusing on **responsive and mobile-first design**. This means websites built with Bootstrap are designed to look and function well on any device, from large desktop monitors to tablets and small smartphones, without requiring separate designs for each.
- **Components:** Bootstrap is a cohesive package consisting of:
 - **HTML Structure:** Pre-designed templates and semantic HTML elements.

- **CSS Styles:** A vast library of CSS classes for typography, forms, buttons, navigation, alerts, cards, and a powerful grid system.
- **JavaScript Components (Optional):** Interactive elements like carousels, modals, dropdowns, tooltips, and collapse functionality, often built with or integrated with vanilla JavaScript (and historically jQuery, though newer versions are reducing this dependency).

Advantages of Using Bootstrap

1. Rapid Development:

- **Speed:** By providing pre-built components and a robust grid system, Bootstrap drastically reduces the amount of time and effort required to develop a website from scratch. Developers can assemble pages rapidly.
- **Prototyping:** It's excellent for quickly building functional prototypes or mockups to test ideas or present to clients.

2. Responsive Design Out-of-the-Box:

- **Mobile-First:** Bootstrap is built with a mobile-first philosophy, ensuring websites adapt seamlessly to various screen sizes and devices. This is crucial in today's mobile-dominated world.
- **Less Custom Media Queries:** Its intelligent grid system and responsive utilities mean developers write fewer

custom media queries, saving time and reducing complexity.

3. Consistency and Uniformity:

- **Standardized Design:** Bootstrap promotes a consistent look and feel across all pages of a website. This is especially beneficial for large projects or teams, as it ensures all elements adhere to a common design language.
- **Cross-Browser Compatibility:** Bootstrap components are rigorously tested across major web browsers, minimizing cross-browser compatibility issues and ensuring a consistent user experience.

4. Ease of Use (for Beginners and Pros):

- **Lower Barrier to Entry:** Even those with a basic understanding of HTML and CSS can quickly start building good-looking, responsive websites using Bootstrap's predefined classes.

- **Simplifies Complex Layouts:** For experienced developers, it abstracts away much of the repetitive CSS coding for common UI patterns and responsive layouts.

5. Large Community and Rich Documentation:

- **Support:** Being open-source and widely adopted, Bootstrap has a massive and active community. This means abundant resources, tutorials, forums, and prompt support are available for troubleshooting or learning.
- **Documentation:** Its official documentation is comprehensive, clear, and easy to navigate, making it simple to find information on any component or utility.

6. Extensive Component Library:

- Offers a vast array of common UI elements, saving developers the time of

designing and coding these elements from scratch.

7. Flexibility and Customization:

- Despite providing pre-built styles, Bootstrap is highly flexible. You can easily override default styles with your own CSS, or customize it more deeply using Sass, allowing for unique designs without sacrificing the framework's benefits.

JavaScript

Introduction

(often abbreviated as JS) is a high-level, interpreted (or just-in-time compiled), multi-paradigm programming language. It is one of the three core technologies of the World Wide Web, alongside HTML and CSS.

Overview

- **Primary Role:** Historically, JavaScript's main role was to bring **interactivity** to web pages. HTML provides the structure, CSS provides the styling, and JavaScript provides the dynamic behavior. Without JavaScript, web pages would be static documents, like pages in a book.
- **Client-Side Scripting:** For a long time, JavaScript was primarily a **client-side scripting language**, meaning its code runs directly within the user's web browser. When you visit a website, your browser downloads

the HTML, CSS, and JavaScript. The browser's built-in JavaScript engine then executes the JS code on your local machine. This allows for immediate responses to user actions without needing to send requests back to a server.

- **Beyond the Browser (Node.js):** With the advent of **Node.js** (a JavaScript runtime environment), JavaScript's capabilities expanded dramatically. Node.js allows JavaScript to run **server-side**, meaning it can be used to build back-end applications, APIs, command-line tools, and more. This "full-stack" capability has made JavaScript incredibly versatile.

- **Dynamic and Interactive:** JavaScript enables features like:
 - Form validation before submission
 - Interactive maps and games
 - Image carousels and sliders
 - Dynamic content loading (e.g., refreshing a social media feed without reloading the page)
 - Animations and visual effects
 - Responding to user clicks, hovers, and keyboard inputs

Advantages of JavaScript

1. **Ubiquity:** It runs everywhere – in every major web browser, on servers (Node.js), mobile devices, and even some desktop applications. It's the de facto language of the web.
2. **Rich Ecosystem:** A massive and constantly evolving ecosystem of libraries, frameworks (React, Angular, Vue, Express), tools, and pre-built components. This accelerates development significantly.
3. **High Performance:** Modern JavaScript engines are highly optimized, often using JIT compilation, resulting in very fast execution speeds.
4. **Versatility (Full-Stack Potential):** The ability to use JavaScript for both client-side and server-side development (with Node.js) allows developers to build entire applications using a single language, streamlining the development process and often making full-stack development more accessible.

5. **Large Community and Resources:** An incredibly active and supportive global community means abundant documentation, tutorials, online courses, forums, and immediate help when needed.
6. **Asynchronous Capabilities:** Its event-driven, non-blocking I/O model (especially in Node.js) makes it highly efficient for handling concurrent operations and building scalable network applications.
7. **Interactivity:** It's the key to creating engaging, dynamic, and user-friendly web experiences that respond in real-time to user input.

Chapter 3

Tools

1. XAMPP

Overview: XAMPP stands for X (cross-platform), Apache, MySQL, PHP, Perl. It's a free, open-source, and easy-to-install Apache distribution containing MySQL, PHP, and Perl. Essentially, XAMPP bundles all the necessary software to set up a local web server environment on your personal computer.

What it provides:

- Apache: The web server software that handles requests for your web pages.
- MySQL (or MariaDB in newer versions): The database management system for storing and managing your data.
- PHP: The server-side scripting language for dynamic web content.
- Perl: Another scripting language, though less commonly used for web development with XAMPP compared to PHP.

- phpMyAdmin: A web-based tool for managing your MySQL databases (which we'll discuss next).

Goal: To provide a complete, ready-to-use local server environment that mimics a live web server, allowing developers to build, test, and debug web applications on their own machine without needing to upload files to a remote server.

2. phpMyAdmin

Overview: phpMyAdmin is a free and open-source web-based administration tool for MySQL and MariaDB. It's written in PHP.

What it provides:

- A user-friendly graphical interface (GUI) to interact with your MySQL databases.
- Allows you to:
 - Create, modify, and delete databases and tables.
 - Insert, edit, and delete rows (records) within tables.
 - Run SQL queries directly without needing a command-line interface.
 - Import and export databases.
 - Manage user permissions.

Goal: To simplify database management for web developers, especially those who prefer a visual interface over command-line tools. It's pre-

packaged with XAMPP, making it readily available once XAMPP is installed and running.

How to access phpMyAdmin with Chrome (using XAMPP):

1. Start XAMPP: Launch the XAMPP Control Panel application.
2. Start Apache and MySQL: Click the "Start" buttons next to "Apache" and "MySQL" modules in the XAMPP Control Panel. Their status indicators should turn green.
3. Open Chrome: Launch your Google Chrome browser.
4. Navigate to phpMyAdmin: In the Chrome address bar, type `http://localhost/phpmyadmin/` and press Enter. This will open the phpMyAdmin interface, usually without requiring a password (default XAMPP setup).

3. Chrome

Overview: Google Chrome is a fast, secure, and widely used web browser.

Goal in Web Development:

- Rendering HTML/CSS/JavaScript: Chrome is where your web application built with PHP (which generates HTML/CSS/JS) will actually be displayed and interacted with by the user.
- Developer Tools: Chrome's built-in Developer Tools (accessed by right-clicking on a page and selecting "Inspect" or pressing F12) are indispensable for web developers. They allow you to:
 - Inspect HTML and CSS.
 - Debug JavaScript code.
 - Monitor network requests.
 - Simulate different device sizes (responsive design).
 - View console logs for errors and messages.

4. VS Code (Visual Studio Code)

Overview: Visual Studio Code (VS Code) is a free, open-source, and highly popular code editor developed by Microsoft. It's incredibly versatile and supports a vast array of programming languages and technologies through its extensive ecosystem of extensions.

Goal/Purpose in Web Development (with PHP/MySQL):

- **Code Editing:** Provides a powerful environment for writing, editing, and managing your PHP, HTML, CSS, JavaScript, and SQL files.
- **Syntax Highlighting:** Makes code more readable with color-coding for different language elements.
- **IntelliSense/Autocompletion:** Offers smart code completion, helping you write code faster and with fewer errors.
- **Integrated Terminal:** Allows you to run command-line tasks (like Composer

commands for PHP projects) directly within the editor.

- Debugging: With appropriate extensions, VS Code can connect to the XAMPP's PHP installation (specifically the Xdebug extension) to step through your PHP code, set breakpoints, and inspect variables, which is crucial for finding and fixing bugs.
- Extensions: A rich marketplace of extensions enhances functionality for:
 - PHP: PHP Intelephense, PHP Debug (for Xdebug).
 - MySQL: SQLTools, MySQL.
 - HTML/CSS/JS: Live Server, Prettier, ESLint.
 - Git Integration: Built-in Git source control management.

How VS Code integrates with XAMPP: VS Code itself doesn't directly "integrate" with XAMPP in the sense of a button you click. Instead, you use VS Code to edit the files that XAMPP serves.

1. Project Location: Your web project files (PHP files, HTML, CSS, JS, images) should be placed inside XAMPP's web server document root directory. On most installations, this is:
 - Windows: C:\xampp\htdocs\
 - macOS: /Applications/XAMPP/htdocs/
2. Open Folder in VS Code: Open VS Code and go to File > Open Folder... and navigate to the specific project folder you've created inside htdocs.
3. Develop: Write your PHP, HTML, CSS, and JavaScript code in VS Code.
4. Test in Chrome: Save your files in VS Code. Then, open Chrome and navigate to the URL corresponding to your project folder (e.g., if your project is C:\xampp\htdocs\my_project, you'd go to http://localhost/my_project/ in Chrome). The changes you make in VS Code will be reflected when you refresh the page in Chrome (after XAMPP's Apache server serves the updated files).

5. Debugging (Advanced): For PHP debugging, you'd configure VS Code with an Xdebug extension and ensure Xdebug is properly set up in your XAMPP PHP configuration. This allows you to set breakpoints in your PHP code within VS Code and have the execution pause there when you load the page in Chrome.

Chapter 4

Main frame

Overview

The Fit Life website aims to be a comprehensive platform for potential and existing members to learn about the gym, its offerings, and to engage with fitness-related content. These specific sections are designed to:

- About Us: Introduce the gym, its philosophy, and its key personnel.
- Blog: Provide valuable fitness-related articles, news, and updates.
- Classes: Showcase the variety of fitness classes offered at Fit life.
- Pricing Plan: Clearly present membership options and costs.
- Contact Us: Offer various channels for users to get in touch with the gym.

Goal

The primary goal for these sections is to:

- About Us: Build trust and rapport with visitors by showcasing the gym's expertise and welcoming environment.
- Blog: Establish Fit life as a credible source of fitness information, drive engagement, and potentially improve search engine visibility.
- Classes: Highlight the diverse range of fitness programs available, attracting users with different fitness goals.
- Pricing Plan: Provide transparent and easy-to-understand membership options, facilitating user conversion.
- Contact Us: Facilitate easy communication and inquiries, ultimately leading to new memberships and improved customer service.

About Us

Overview: The "About Us" section serves as the primary introductory page for Fitlife, designed to provide visitors with a foundational understanding of the gym's identity, values, and offerings. It aims to humanize the brand by introducing key personnel and creating a welcoming impression.

Goal

- To establish trust and credibility with potential members by presenting a professional yet approachable image of Fitlife.
- To convey the gym's core philosophy and what makes it unique.
- To encourage visitors to learn more about the gym's facilities, programs, and team, ultimately fostering interest in membership.

Blog

Overview: The "Blog" section, specifically the "Latest Blog Feed," acts as a dynamic content hub. It shows recent articles, news, and insights related to fitness, health, and the Fit life community. This section is designed to keep the website fresh and provide ongoing value to visitors.

Goal

- To position Fit life as an authoritative and knowledgeable resource in the fitness industry.
- To engage visitors with informative and relevant content, encouraging repeat visits and longer session durations.
- To provide valuable content that can be shared, thereby increasing brand awareness and potentially driving organic traffic through search engines.
- To keep members and prospective members informed about gym updates, events, and fitness trends.

Contact Us

Overview: The "Contact Us" information, integrated within the footer, is designed to facilitate direct communication between Fit life and its audience. It provides all necessary contact details, operational hours, and quick navigation links, making it accessible from any page on the website.

Goal

- To ensure effortless communication channels are available for all inquiries, questions, or feedback.
- To provide clear and precise information regarding the gym's physical location and operational hours.
- To improve customer service efficiency by directing inquiries into the appropriate contact points.
- To capture leads and maintain ongoing engagement with the audience through a newsletter subscription.

Pricing Plan

- This page presents users with a clear and structured overview of the various subscription options available to help them achieve their fitness goals. At the top, it conveniently displays the user's current Subscription end date if they are already subscribed, providing immediate context.
- The core of the page consists of four distinct pricing tiers, each designed to cater to different needs and commitment levels: "Starter," "Basic," "Pro (Best Offer)," and "Unlimited." For each plan, the corresponding cost and duration are prominently displayed, such as "\$9/1 month(s)" or "\$80/year." Below the pricing, a detailed list outlines "All features included," specifying the number of classes and sessions offered for each plan. These features typically include a variety of fitness activities like Cardio Classes, Swimming Lessons, Yoga Classes, Aerobics,

Zumba Classes, Massage Sessions, and Body Building.

- Beneath each plan's feature list, a prominent "Select Plan" button allows users to initiate the process of subscribing to their chosen tier. This comprehensive presentation empowers users to easily compare and select the best fitness plan that aligns with their personal objectives and budget, driving engagement with the application's premium content.

Classes

Introduction: This section is dedicated to showcasing the diverse range of fitness classes offered at Fit Life. It provides visitors with a quick yet informative glance at the various programs available, helping them find classes that align with their fitness aspirations.

Overview: The "Classes" section presents a curated selection of Fit life's fitness programs through visually appealing preview cards. Each card features a relevant image, an iconic representation of the class type, a clear title, a brief description, and a dynamic "Class Full" indicator to show real-time availability. The section is designed to be easily digestible, highlighting the variety and popularity of the gym's offerings.

Goal

- To effectively communicate the breadth and depth of fitness classes available at Fitlife.
- To attract users by visually appealing class representations and clear categorization.
- To provide immediate insight into class availability, potentially encouraging timely sign-ups.
- To serve as a gateway to more detailed information about each specific class, including schedules, instructors, and full descriptions, thereby driving engagement and potential class enrollment.

Personal Trainer Profile Page

Introduction

The Personal Trainer Profile Page is a dedicated section within the Fitness Club Management System web application designed to showcase individual fitness trainers affiliated with the club. This page serves as a digital resume and a direct point of contact for members seeking specialized guidance. Its primary goal is to provide comprehensive information about each trainer, foster transparency, building trust, and empowering members to make informed decisions when selecting a personal coach. By centralizing trainer information, the system enhances the member experience and streamlines the process of connecting individuals with the expertise they need to achieve their fitness goals.

Goals

The primary goals of implementing and maintaining the Personal Trainer Profile Page within the Fitness Club Management System are:

To empower members with all necessary information (specializations, certifications, experience, philosophy) to confidently choose a personal trainer that best aligns with their individual fitness goals and preferences.

To provide trainers with a professional, accessible platform to showcase their expertise and availability, thereby increasing their visibility to the club's member base.**To Streamline the Booking and Inquiry Process:**

To offer a direct and convenient pathway for members to inquire about or book personal training sessions immediately upon finding a suitable trainer.

Diet & Nutrition Guide

Introduction

The Nutrition & Goal-Specific Dietary Guidance Page is a vital component of the Fitness Club Management System web application, designed to support members' holistic health and fitness journeys beyond just physical activity.

Recognizing that nutrition plays a paramount role in achieving any fitness objective, this page serves as a centralized resource for dietary information, healthy eating ideas, and strategic guidance tailored to various weight management goals. It aims to bridge the gap between workout efforts and dietary habits, providing members with the knowledge and tools necessary to fuel their bodies effectively and sustainably.

Goals

The primary goals of implementing and maintaining the Nutrition & Goal-Specific Dietary Guidance Page are:

To provide members with accessible, reliable, and easy-to-understand information about healthy eating principles and their impact on fitness.

To offer tailored dietary advice and resources for individuals pursuing specific weight outcomes, whether it's weight loss, weight gain (e.g., muscle mass), or weight stabilization.

To translate nutritional theory into practical application by offering a curated collection of healthy, easy-to-follow recipes.

To guide members towards long-term dietary changes rather than short-term restrictive diets, fostering a healthy relationship with food.

To ensure that members' nutritional intake optimally supports their workout routines and recovery, maximizing the effectiveness of their training.

Workout plan

overview

- The Workout plan module offers users a categorized, image-rich overview of key strength training movements. Organized by muscle group—Chest, Back, Arms, and Legs—each entry includes an illustrative image, a descriptive title, target muscle details, performance benefits, and recommended experience level.
- This section functions as an educational tool for users of all fitness levels, allowing them to explore and understand proper exercise selection while building informed workout routines.

Exercise Categories & Descriptions

Chest Exercises

- Dumbbell Bench Press
 - Benefit: Enhances upper body strength, improves muscle coordination, and supports functional movements
- Incline Dumbbell Bench Press
 - Benefit: Focuses on the upper chest for balanced development
- Machine Fly (Pec Deck)
 - Benefit: Isolates chest muscles to improve definition and strength
- Chest Dip
 - Benefit: Builds chest and triceps strength; enhances pushing power

Back Exercises

- Bent Over Row
 - Benefit: Strengthens upper back, improves posture and pulling strength
- Seated Cable Row
 - Benefit: Targets mid-back muscles and aids posture correction
- Lat Pull Down
 - Benefit: Builds upper body strength and posture
- Pull Up
 - Benefit: Enhances grip, coordination, and upper body strength

Arm Exercises

- Dumbbell Lateral Raise
 - Benefit: Increases shoulder width and strength
- Seated Dumbbell Press
 - Benefit: Improves overhead pressing power
- Machine Reverse Fly
 - Benefit: Strengthens upper back and shoulder stability
- Seated Barbell Shoulder Press
 - Benefit: Builds shoulder strength for overhead lifts
- Straight Bar Triceps Extension
 - Benefit: Isolates and strengthens the triceps
- Seated Dumbbell Tricep Extension
 - Benefit: Enhances arm definition and extension strength

- Concentration Curl
 - Benefit: Focuses on bicep isolation and muscle definition
- Standing Barbell Curl
 - Benefit: Builds bicep mass and strength

Leg Exercises

- Leg Press
 - Benefit: Strengthens the entire lower body and leg drive
- Leg Extension
 - Benefit: Isolates quads to enhance knee extension strength
- Machine Hack Squat
 - Benefit: Emphasizes squat movement and lower body growth
- Seated Leg Curl
 - Benefit: Isolates hamstrings to improve flexion strength

- Romanian Deadlift (RDL)
 - Benefit: Builds posterior chain strength and mobility
- Seated Calf Raise
 - Benefit: Targets soleus for ankle support
- Standing Machine Calf Raise
 - Benefit: Improves calf strength and ankle control
- 45° Leg Press Calf Raise
 - Benefit: Stimulates calves under varied angles for full development

Goal

- To provide users with a visually engaging and informative catalog of strength training exercises, categorized by major muscle groups, enabling individuals of all fitness levels to better understand effective workout techniques, choose suitable exercises, and design balanced training routines tailored to their goals.

TRX

Introduction

TRX workouts are considered one of the most powerful and comprehensive forms of bodyweight training. They rely solely on your own body weight and use a very simple yet highly effective tool: suspended TRX straps. The core idea is that you use your body weight and gravity to perform exercises that engage all your muscles while also enhancing balance, stability, and flexibility.

This system is designed to work for everyone—whether you're a beginner or an advanced athlete. Every exercise can be easily modified to match your fitness level, making TRX an ideal choice for anyone looking to improve their physical fitness in a safe and effective way.

Overview

This website was created to serve as a comprehensive guide and visual training platform for everyone interested in TRX training. Whether you're a coach or a trainee, you'll find a rich library of fundamental exercises, explanations of their benefits, and an easy-to-navigate layout that lets you jump right in.

Services and Exercises

Services Offered on the Website

- High-quality training videos demonstrating the correct form and technique for each exercise.
- Professional exercise images with the name of each exercise and how to perform it.
- Categorized exercises based on muscle groups (Chest – Back – Legs – Core – Arms).
- Beginner-friendly tips to help you start safely.
- Suggested workout plans based on your fitness goal (fat loss – muscle building – overall fitness).

Exercise Names and Benefits

1. TRX Row

- Strengthens the back and arm muscles
- Improves shoulder functional movement

2. Push-Ups (various types)

- Strengthens the chest, arms, and core
- Activates the entire body to work together

3. TRX Squat

- Focuses on the legs, both quads and hamstrings
- Enhances body balance and protects the knees

4. TRX Lunges

- Excellent for glutes and leg strength
- Improves balance and body control

5. Spider-Man Push-Ups

- An advanced move for chest and core
- Enhances muscle coordination across the body

6. TRX Overhead Triceps Extension

- Targets the triceps (back of the arm)
- Builds upper arm strength

7. TRX Skull Crusher / TRX Triceps Dips

- Also targets arm and triceps strength
- Helps maintain shoulder stability

8. TRX Fly / TRX Kneeling Triceps Press

- Focuses on the chest and triceps
- Increases shoulder flexibility

Goal

Awareness and Education: We explain the mechanics of each exercise in detail (Target Muscles), clarify the health and muscular benefits, and focus on the correct technique for each movement.

Content Progression: We start from the basics for beginners (such as light stability exercises) and advance to more advanced movements targeting maximum strength and advanced flexibility.

The goal of this website is to promote smart training practices—training that gets your entire body working as a unified system, focusing on functional performance, not just aesthetics.

Online Store

The Online Store is a comprehensive fitness marketplace designed to help everyone from beginners to professional athletes access the gear, supplements, and support they need for their workout routines. Whether you're training at a gym, recovering from an injury, or setting up a home gym, we offer solutions tailored to your lifestyle.

We proudly serve a diverse audience, including individuals with disabilities, and provide physical therapy tools, fitness wear, smart gadgets, and premium nutrition. Our store is open to all users with or without an account and supports global shipping, multi-currency payments, and a 30-day satisfaction guarantee.

From safety to affordability, we're committed to making your fitness journey effective, inclusive, and supported every step of the way.

We're committed to providing accessible, affordable, and high-quality gym equipment, nutrition, and home equipment to support your fitness journey—wherever you are.

Overview

1. Purpose of the Store

The store exists to feed the users with all the daily need of supplements, outfits, gadgets to help you achieve your goal

2. Target Audience

Our store caters to gym enthusiasts, beginners, athletes, people with disabilities, and anyone looking to maintain a healthy lifestyle.

3. Key Offerings

We offer a wide range of gym supplements, fitness gadgets, apparel, and home workout tools designed to support your health and performance goals.

4. Accessibility and Inclusivity

Designed with inclusivity in mind, the store is accessible to users with disabilities and provides specialized tools for physical therapy and rehabilitation and for healthy people to improve their lifestyle.

5. Shopping Experience

No account is required to make a purchase, and we ship globally with support for all major credit/debit cards and currencies.

6. Products we sell include:

Apparel

- Shirts
- Leggings
- Sweat pants
- Shorts
- Sports bra

Fitness Gadgets and Accessories

- Smart watches
- Massagers
- Straps
- Resistance bands
- Belts

Supplements for men and women, including:

1. Creatine monohydrate and HCL
2. Beta-alanine
3. Branched-chain amino acids for men and women
4. Beta-hydroxy
5. beta-methylbutyrate
6. Testosterone boosters
7. Glutamine
8. Protein
9. Carbs
10. Mass Gainers
11. natural gainers
12. Nutrients
13. Citrulline
14. L-Citrulline
15. L-arginine
16. Omega-3
17. Multivitamins
18. Protein bar
19. Snacks with low calories and high protein
20. Pre workout

home workout tools

- Dumbbells
- Weight plates
- Yoga mats
- Yoga balls
- Treadmill
- Exercise bike
-

everything you need for a safe and effective workout at the GYM or at home all at a reasonable price that suits everyone and there is no limit to the amount you buy and the shipment to everywhere no matter where you are we ensure timely delivery of top-quality products to your location, no matter where you are and supports all currencies

Payments & Currency:

- This is dedicated to securely processing payments for the selected subscription plan, in this case, the "Basic Plan." It provides a clear and straightforward form for users to enter their payment card details.
- The form is structured to collect essential information required for a credit or debit card transaction:
- Full Name: A field for the cardholder's complete name as it appears on the card.
- Card Number: An input field for the primary account number of the payment card, often with a placeholder example like "1234 5678 9012 3456" to guide the user.
- Expiration (MM/YY): A field to enter the month and year of the card's expiry, crucial for validating the card's active status, with a placeholder like "12/26".
- CVV: A security code (Card Verification Value) field, typically a three or four-digit number found on the back or front of the card, with a placeholder like "123".
- After all necessary details are accurately entered, the user can proceed by clicking the "Confirm Payment" button. A vital security assurance note

is prominently displayed at the bottom: "Note: Card details are not stored." This message reinforces the application's commitment to user data privacy and security by indicating that sensitive payment information is processed but not retained by the system, building trust during the transaction.

- Major credit/debit cards
- Supports multiple currencies
- Works with banks worldwide

Warranty & Refunds:

- 30-day warranty on all products even on the supplements
- Full refund if you're not satisfied
- Customer satisfaction guaranteed

to ensure that you're having the best quality in the market.

The average shipment time is 3-10 business days we also offer images of the products you're buying to make sure you're buying the right product.

Cart

We included a cart for a user friendly environment and to improve the user experience to track all the items the user want to buy with easy and safe way to edit the quantity and remove/add new items to the cart with option of the total price visible to the users to know the total amount they will be paying before moving to the card form and process the payment.

Goals:

Help everyone without the account needed to purchase all the needed products to support a healthy lifestyle and maintain body nutrients at the optimum level for a better life span.

Staff Login

The Login serves as the primary entry point for authorized users to access the Fitness App's various features and dashboards. Designed for simplicity, this page requires users to securely authenticate themselves by providing their registered Email address and corresponding Password into dedicated input fields.

Upon submission of these credentials, the system initiates a robust authentication process. It first attempts to verify the provided email and password against the database of administrator accounts. If a match is found, the user's session is established, and they are automatically directed to the Admin Dashboard.

Should the initial check for an administrator fail, the system then intelligently proceeds to verify the credentials against the database of private coaches. If a valid match is identified within this user group, the session is likewise initiated, and

the user is seamlessly redirected to the Trainer Dashboard.

In instances where neither an administrator nor a private coach account matches the entered credentials, a clear "Invalid email or password" error message is displayed on the screen, prompting the user to re-enter their information. This multi-role authentication ensures that only verified individuals gain access to their respective specialized areas within the application, maintaining the integrity and security of the system

Goal

To provide a secure and efficient authentication system for administrators and private coaches, ensuring that only authorized staff can access their respective dashboards, thereby maintaining the integrity and role-based structure of the Fitness App.

Admin Dashboard

Introduction

The Admin Dashboard serves as the central command hub for application administrators, providing powerful tools and insights to manage and oversee the entire fitness platform. Designed for efficiency and control, this interface enables admins to monitor users, trainers, subscriptions, products, and other core components of the system with ease and precision.

Overview

Upon logging in, administrators are greeted with a streamlined dashboard layout offering quick access to key modules such as User Management, Trainer Management, Store Management, Subscription Monitoring, and Admin Controls. Each section is represented through intuitive navigation, real-time data displays, and actionable options like viewing, editing, and deleting records. The dashboard may also include summaries such as total user count, active subscriptions, recent activity logs, and system notifications, providing at-a-glance insights into the platform's operational status.

Key features typically include:

- Quick stats on user and trainer metrics
- Access to manage users, trainers, and products
- Control over admin accounts and security
- Subscription tracking and management tools
- Notifications or alerts regarding system activity

Goal

To empower administrators with a centralized, secure, and intuitive interface that allows for full operational control of the Fitness App—ensuring the platform runs smoothly, user data is accurately maintained, and business objectives such as subscription management and service delivery are effectively supported.

Store management

This crucial page serves as the central control panel for administrators to meticulously manage the entire product inventory of the store. It is intuitively designed with a prominent section at the top dedicated to the seamless addition of new products. Here, administrators can precisely define each new item by inputting its descriptive Product Name, setting its competitive Price, and visually representing it by uploading a relevant Image file. Upon successful submission, these new products are integrated into the store's offerings.

Below the input interface, a comprehensive and dynamic table provides an organized overview of all currently listed products. Each entry in this table is clearly identified by a unique ID, accompanied by a thumbnail Image for quick visual reference, the product's full Name, and its corresponding Price. This detailed display ensures that administrators have complete visibility of their inventory. Crucially, the "Actions" column

empowers administrators with direct control over each product: they can instantly Delete an item that is no longer available or relevant, or critically, edit its existing details to update its name, price, or image, ensuring the product catalog remains accurate, up-to-date, and reflective of current stock and pricing strategies. This robust management capability is essential for maintaining an efficient and appealing online store.

Goal

To provide administrators with a centralized, intuitive interface for efficiently adding, viewing, editing, and deleting products, ensuring that the online store's inventory remains accurate, visually appealing, and up to date with current stock and pricing.

User management

The User Management section acts as the administrative backbone for overseeing the entire user base of the application. Presented in a clear and sortable table format, this page provides a comprehensive snapshot of every registered user. Each row meticulously details essential user information, including their unique ID, full Name, registered Email address, and their contact Phone number. A particularly vital aspect of this screen is its explicit display of the user's Subscription status, clearly indicating whether they hold a 'Premium' or 'Silver' membership, or if they have 'No active subscription'. Furthermore, for subscribed users, the precise Subscription end date is clearly listed, enabling administrators to track membership lifecycles and anticipate renewals.

The "Actions" column alongside each user entry is pivotal for administrative intervention. It provides the necessary tools for active user base

maintenance: administrators can easily Edit a user's details to correct information or update their status, and critically, they possess the ability to Delete a user account, which might be necessary for managing inactive accounts or addressing specific user requests. This complete oversight ensures that user data is accurate, subscriptions are correctly managed, and the user community remains healthy and organized.

Goal

To enable administrators to maintain a complete, organized, and actionable overview of the application's user base, ensuring accurate user data, effective subscription tracking, and the ability to update or remove accounts as needed for optimal user community management.

Trainers management

This specialized page is meticulously crafted to facilitate the comprehensive administration of the application's roster of trainers. At the top, a dedicated section allows for the seamless addition of new trainers to the platform. Administrators can accurately input all pertinent details for a prospective trainer, including their full Trainer Name, professional Email, a secure Password for their account, their contact Phone number, their specific area of Specialty, and a representative Image to be associated with their profile. This thorough input process ensures that new trainers are onboard with all necessary information.

Below the input form, a well-structured table provides an exhaustive listing of all existing trainers currently registered with the application. Each trainer's profile is neatly summarized with their unique ID, a visual Image, their Name, Email, Phone number, and their primary Specialty. The

"Actions" column empowers administrators with crucial management capabilities: they can effortlessly Edit any trainer's details to update their information, change their specialty, or renew their contact details. Alternatively, they can Delete a trainer's profile entirely from the system, which is vital for managing staff changes or removing inactive trainers. This robust management system ensures that the trainer pool is always current and accurately represented within the application.

Goal

To give administrators full control over managing trainer profiles, allowing for the seamless onboarding of new trainers, timely updates to existing profiles, and removal of inactive accounts—ensuring a high-quality, current, and reliable trainer pool for users.

Admin Management

This interface serves as a critical component for securely managing and expanding administrative access within the application. Its primary function is to enable authorized individuals to add new administrator accounts to the system. The screen presents a clean and straightforward form, meticulously designed to gather three key pieces of information for the new administrator: a unique Admin Username, their professional Email address, and a secure Password. Upon successful submission of these details, a new administrative credential set is promptly created, thereby granting the designated individual access to the admin panel with appropriate privileges. This streamlined process ensures that system access can be securely managed and expanded as the administrative team evolves, thereby maintaining robust control over who has the ability to manage the application's various features.

Goal

To securely manage administrative access by allowing for the controlled creation of new admin accounts, ensuring that only authorized personnel can access and manage sensitive areas of the application.

Order Management

overview

Order Management is a feature within the Admin Dashboard that allows both Admins and designated Coaches (Sub-Admins) to manage and monitor customer orders efficiently. This system provides complete visibility into each order's details and status, making it easier to handle order fulfillment, refunds, and customer service.

enabling both Admins and authorized Coaches (Sub-Admins) to manage customer orders efficiently. It provides a detailed view of each order, including customer information, ordered products, quantities, prices, total cost, shipping address, and timestamps. Admins and sub-admins can update order statuses (Ongoing, Delivered, or Cancelled), calculate refunds based on total price, and delete orders with confirmation.

The panel includes role-based access control, a user-friendly interface with filtering and search options, and integration with backend systems for secure data handling. All actions are logged for accountability, and deletion is handled safely via soft deletes. This system simplifies order tracking, enhances operational control, and improves customer service.

Access Levels

- Admins: Full access to view, edit, update, and delete any order in the system.
- Coaches (Sub-Admins): Granted limited access to manage orders, depending on assigned permissions.

Order Details Displayed

Each order entry displays comprehensive information, including:

- Order ID (auto sorted by default)

Customer Name ,Products Ordered ,Product Name
,Quantity ,Unit Price ,Total Price per product
,Order Total Amount ,Shipment Address ,Order
Date and Time

Order Status : Ongoing ,Delivered ,Cancelled

Functionalities

Edit Order Status

- Change status between Ongoing, Delivered, or Cancelled
- Status changes update in real time via the admin interface
- Useful for tracking shipping progress or handling failed deliveries

Refund Calculation

- When an order is cancelled, the total amount is shown clearly
- Helps determine the exact refund amount
- Optionally integrates with a refund management system

Delete Order

- Admins and authorized Coaches can delete orders
- Includes a confirmation step to prevent accidental deletion
- Deletes are soft by default (orders are archived, not permanently removed)

Security & Access Control

- Access is restricted based on user roles (Admin or Coach)
- All actions (status change, deletion) are logged for audit purposes
- Coaches can only manage orders within their scope, if configured

User Interface Features

- Clean, paginated table view for easy navigation
- Responsive design for desktop and mobile devices

Goals:

Improve the experience of the managing the orders in a safe environment without stressing the admin to manage everything alone with the help of the coaches to manage everything with the admin in a co-operating environment and community to achieve the best way of satisfaction for the users and ensure the job is done properly and effectively.

Profile

The Admin Profile page serves as a personalized dashboard for individual administrators, offering both a quick overview of their credentials and essential security features. Prominently displayed is the administrator's core identity within the system: their Username and their associated Email address, providing immediate access to their registered contact information. Beyond mere display, this page incorporates a vital security functionality: the "Change Password" section. Here, administrators can independently update their account password by first entering their Old Password for verification purposes, and then securely establishing a New Password. This self-service password management capability is crucial for maintaining the individual security of each administrator's account, allowing them to proactively protect their access to the application's sensitive administrative functions.

Goal

To securely manage administrative access by allowing for the controlled creation of new admin accounts, ensuring that only authorized personnel can access and manage sensitive areas of the application.

Logout

The "Logout" feature provides a critical security mechanism within the application, allowing any user (administrator, trainer, or regular user) to securely terminate their active session. Typically represented by a distinct link or button within the navigation or profile menu, clicking it immediately initiates the process of ending the current user session. This action severs the connection between the user's device and the application's server, effectively clearing any session-related data and revoking access to protected areas. Upon successful logout, the user is usually redirected to the login screen or a public-facing home page, ensuring that their account remains secure and preventing unauthorized access, particularly important when using shared or public devices. This simple yet essential functionality is crucial for maintaining privacy and data integrity.

Goal

To ensure the security and privacy of all users by enabling them to safely end their session, protecting account information and preventing unauthorized access, especially on shared or public devices.

Trainer Dashboard

Introduction

The Trainer Dashboard is a dedicated control panel for fitness professionals (private coaches) registered on the platform. It is tailored to help trainers effectively manage their schedules, view bookings, interact with assigned users, and update personal details—all from one streamlined interface. This dashboard enhances communication and operational efficiency between trainers and users.

Overview

Once logged in, trainers are welcomed into a clean and user-friendly dashboard specifically designed for their role. The layout typically includes panels or sections such as:

- **Booking Management:** View upcoming and past training session bookings, including user details, dates, and times.
- **Schedule Overview:** A calendar or timetable interface to manage and organize training sessions.
- **Client Information:** Access basic profiles of users who have booked sessions, allowing trainers to tailor workouts accordingly.
- **Profile Settings:** View and update their contact information, specialty, password, and profile image.

This dashboard enables trainers to stay organized, plan their days efficiently, and maintain direct oversight of their coaching activities.

Goal

To provide trainers with a personalized, intuitive, and functional workspace that supports them in delivering high-quality fitness training. The Trainer Dashboard aims to simplify session management, enhance client-trainer interaction, and maintain accurate trainer profiles—contributing to a smooth and professional user experience within the app.

Book management

A table with all the members of the club that are subscribed and booked training with the coach with the following details

- Id
- Username
- Date and time of the booking
- Status (booked or cancelled)
- Option for the coach to manage the users booked or cancelled

In case the user is unsatisfied, the coach can cancel the booking or if the subscription time expired.

Orders

Coaches can help the admin to manage the orders and maintain the optimum user experience without stressing the admin to ensure the best service for the users.

Coaches (Sub-Admins): Granted limited access to manage orders, depending on assigned permissions.

Order Details Displayed

Each order entry displays comprehensive information, including:

- Order ID (auto-sorted by default)
- Customer Name
- Products Ordered
 - Product Name
 - Quantity
 - Unit Price
 - Total Price per product
- Order Total Amount
- Shipment Address
- Order Date and Time
- Order Status
 - Ongoing
 - Delivered
 - Cancelled
 -

Functionalities

Edit Order Status

- Change status between Ongoing, Delivered, or Cancelled
- Status changes update in real time via the admin interface
- Useful for tracking shipping progress or handling failed deliveries

Delete Order

- Admins and authorized Coaches can delete orders
- Includes a confirmation step to prevent accidental deletion
- Deletes are soft by default (orders are archived, not permanently removed)

Profile

This page is split into 3 parts

- Coach profile
- Update profile
- Change password

1. Coach profile:

This part displays the coach details that are embedded in the database and all the information the users see when they lookup the coach including:

- Name
- Specialty
- E-mail
- Phone number
- Available time
- Description
- Picture

2. Update profile

This part for the coach to update their data for the users to keep up with the new details of their private coach including:

- Specialty
- Phone number
- Start time
- End time
- Description
- Picture

3. Change password:

This part for the coach to change his own password to ensure the optimum security for the coach's account including:

- Old password
- New password

Goals:

Secure and flexible for coaches to do their daily tasks without worrying about their accounts being altered without their knowledge in a safe environment and manage their users easily without any addition complications for the best possible experience.

Logout

The "Logout" feature provides a critical security mechanism within the application, allowing any user (administrator, trainer, or regular user) to securely terminate their active session. Typically represented by a distinct link or button within the navigation or profile menu, clicking it immediately initiates the process of ending the current user session. This action severs the connection between the user's device and the application's server, effectively clearing any session-related data and revoking access to protected areas. Upon successful logout, the user is usually redirected to the login screen or a public-facing home page, ensuring that their account remains secure and preventing unauthorized access, particularly important when using shared or public devices. This simple yet essential functionality is crucial for maintaining privacy and data integrity.

User Registration

The User Registration page enables new individuals to create a secure and personalized account within the Fitness App ecosystem. Designed with a user-friendly interface, the registration form captures critical personal information including Full Name, Email Address, Password, Phone Number, and Gender.

Upon form submission, the system initiates a verification process to determine if the provided email already exists within the user's database. If an existing match is found, an error message notifies the user that the email is already registered, preventing duplicate account creation.

If the email is new, the system securely inserts the user's details into the database, assigning default access as a general user. Once registration is successful, a confirmation message is displayed, inviting the user to proceed to the login page.

This mechanism ensures only validated and unique user accounts are added to the system.

Goal

To allow new individuals to create unique and validated accounts by securely submitting their personal information, ensuring Fitness App's user base grows with legitimate and properly categorized members.

User Login

The User Login interface serves as the primary access point for existing users to securely enter the Fitness App. With a streamlined layout, the page prompts users to input their registered Email Address and Password.

Upon submission, the system authenticates the credentials by querying the user's database for a matching record. If the email and password pair is valid, the user's session is initialized, and key information such as user id, name, and subscription type is stored. The user is then seamlessly redirected to their User Dashboard, granting access to personalized features.

If the credentials do not match any record in the database, an "Invalid email or password" message is clearly displayed, prompting the user to retry with correct information.

This login mechanism ensures secure and exclusive access to user-specific content and

reinforces the privacy and integrity of the application.

Goal

To enable registered users to securely authenticate and access their personalized dashboard and features, ensuring that only valid users can interact with their account data and subscription services.

User Dashboard

Introduction

The User Dashboard is the central hub for each registered user, offering a personalized experience within the Fitness App. Designed with simplicity and usability in mind, it allows users to manage their account, view their fitness progress, access their subscription and workout plans, and book training sessions—all in one place.

Overview

Upon successful login, users are directed to their dashboard which provides a clear snapshot of their fitness journey. Key features typically include:

- **Welcome Message & Profile Summary:**
Displays the user's name, subscription type (Silver or Premium), and current subscription end date.
- **Subscription Status:** Visual cues and information on the user's current plan, with options to upgrade or renew subscriptions.
- **Workout Plan Access:** A quick link to view or download their customized workout routines based on their fitness level or trainer recommendations.
- **Trainer Booking Interface:** Allows users to search for available trainers, view their specialties, and book sessions.

- Nutrition Plan Access (if available): View personalized meal plans and dietary recommendations.
- Edit Profile: Users can update personal details such as name, password, phone number, and gender.
- Notifications: Displays updates like booking confirmations, trainer messages, or subscription alerts.

Goal

To empower users with full control over their fitness journey through a streamlined and informative interface. The User Dashboard aims to enhance user engagement, encourage consistent workout and nutrition habits, and promote easy access to premium features—ultimately helping users reach their health and fitness goals efficiently.

Workout Plan

Overview

The Workout Plan is a comprehensive, interactive web application page meticulously designed to revolutionize how users organize, track, and engage with their personal fitness routines. This cutting-edge fitness companion transforms the traditional workout experience into an immersive, gamified journey toward health and wellness.

Built with modern web technologies, the application features an exceptionally attractive and contemporary user interface that captivates users from the moment they interact with it. The design incorporates magical visual effects, floating animations, and enchanting background elements that create a truly unique and inspiring workout environment. These carefully crafted visual elements serve not only as aesthetic enhancements but also as motivational tools that encourage consistent engagement and make fitness routines feel less like a chore and more like an adventure.

The page seamlessly blends functionality with beauty, offering users a professional-grade fitness tracking system wrapped in an interface that feels more like a premium mobile app than a traditional web application. Every element has been thoughtfully designed to provide both visual appeal and practical utility, ensuring that users remain motivated and engaged throughout their fitness journey.

What sets this application apart is its holistic approach to fitness management, combining exercise organization, progress tracking, timing functionality, and educational video content all within a single, cohesive platform. The magical themes and interactive elements create an emotional connection with users, making their workout sessions feel special and rewarding while maintaining the serious functionality needed for effective fitness tracking and goal achievement.

Key Features

Comprehensive Statistics Dashboard

Total Exercises: Display total number of available exercises (8 exercises)

Total Time: Complete workout duration (45 minutes)

Completed Today: Counter for exercises completed today

Streak Days: Track consecutive days of workout commitment

Filtering and Category System

The application provides five main exercise categories:

All Exercises: Display all available exercises

Cardio: Aerobic exercises for heart strengthening

Strength: Muscle building and strength training exercises

Flexibility: Stretching and yoga exercises

Beginner: Exercises designed for novice level

Interactive Timer

Built-in timing tool featuring:

Digital time display

Control buttons (play/pause/reset)

User-friendly interface

Video Display System

Pop-up window for exercise demonstration videos

Fullscreen-capable video frame

Easy-access close button

Goal

To establish the Workout Plan application as the leading, highly engaging, and aesthetically inspiring digital fitness companion that consistently motivates users to achieve their health and wellness objectives by transforming traditional workout routines into an immersive, gamified, and visually captivating journey, thereby fostering long-term user retention and active participation in fitness management.

Nutrition Plan

Introduction

The Customizable Nutrition Plan module empowers users to take control of their daily dietary intake. It provides a structured and flexible interface where users can design meal plans tailored to their individual health goals and dietary needs, including diabetes suitability.

Food is more than fuel, it's the foundation of a healthy, energetic life. Whether you're looking to lose weight, gain muscle, manage diabetes, or simply live a longer, more vibrant life, your nutrition choices play a central role.

These choices:

- Improve energy levels
- Boost immunity
- Support mental focus
- Reduce risk of chronic diseases like diabetes, hypertension, and heart disease

Weight Loss

To lose weight, the goal is to create a calorie deficit — consuming fewer calories than you burn.

Foods that help:

- High-fiber vegetables (spinach, broccoli, cabbage)
- Lean proteins (chicken breast, tuna, eggs)
- Low-fat, unprocessed options

These promote fullness without excess calories.

Weight Gain

Gaining weight requires a calorie surplus — consuming more than you burn, but from healthy sources:



- Protein-rich foods (meat, legumes, dairy)
- Healthy fats (avocado, nuts)
- Energy-dense whole grains

This supports muscle gain and a healthy metabolism, not just fat accumulation.

Diabetes Control

For people with diabetes (or at risk), managing carbohydrates and sugar is essential. Healthy diabetic meals focus on:

- Low-glycemic carbs (like whole grains and legumes)
- High fiber intake (slows sugar absorption)
- Avoiding sugary desserts, white rice, and refined flour

In this module, every food is marked as Diabetes-Safe  or Not Recommended  to guide safe choices.

Overview

The module is divided into three distinct sections: Meal 1, Meal 2, and Meal 3, representing the user's primary daily meals. Each section features:

- Dynamic Tables with columns for:
 - Food Name
 - Fiber
 - Fats
 - Carbohydrates
 - Protein
 - Calories
 - Quantity
 - Suitable for Diabetes
 - Delete Option (to remove individual food items)
- "Add Food" Button
 - Users can click this to search and add food items from the app's food database,



which includes nutritional details and diabetes compatibility.

- Combined Totals Bar (at the bottom)
 - Real-time updates showing the total amount of fiber, fats, carbohydrates, protein, and calories across all meals.

This layout ensures users can visually organize and monitor their nutritional intake throughout the day.

Diabetes-Friendly Filtering

One standout feature is identifying if a food is suitable for diabetics:

-  Suitable foods are low in sugar, processed carbs, and saturated fats
-  Unsuitable foods include fried items, desserts, and heavily refined grains

This tagging helps diabetic users, or their trainers create safe meal plans.

Real-Time Combined Totals

At the bottom of the module, live totals are shown for:

- Fiber, Fats, Carbs, Protein, Calories
Updated instantly as the user adds or deletes food items.

This assists:

- Users monitoring macros
- Trainers designing diets
- Diabetics watching carbs and sugar intake

Goal

To help users make informed dietary choices by building balanced, nutrition-rich meal plans customized to their health goals, fitness programs, and any medical conditions such as diabetes. This promotes healthier eating habits, improves goal tracking, and enhances the overall effectiveness of their fitness journey within the app.

User Booking

Overview

The User Booking section is part of the dashboard available exclusively to premium users. It enables users to book a private coach for personalized training. Each user can book only one coach at a time, with the flexibility to cancel a booking and choose another coach as needed.

Functionality

Premium users can

View available coaches.

Book a coach (only one active booking at a time).

Cancel an existing booking.

Rebook with a different coach after cancellation.

Booking status is updated in real time, and users cannot book multiple coaches concurrently.

Booking Button:

Shows "Book" if no current booking or "Cancel" if already booked.

Behavior:

If a user has no active booking, the "Book" button is enabled for each coach.

Once a coach is booked:

The "Book" button changes to "Cancel".

All other "Book" buttons are disabled or hidden.

Upon cancellation:

All "Book" buttons become active again.

The user is free to book another coach.

Access Control:

This section is restricted to users with a premium subscription.

Non-premium users are shown an upgrade prompt.

Goals:

A safe and secure environment free of errors to make sure the premium users choose the best coach for their goal purpose to achieve their target with option of changing the coach at any moment the user feel unsatisfied.

User profile

Overview

This "Your Profile" page serves as a dedicated account management interface for the user. It provides a concise overview of the user's key personal and subscription details, acting as a readily accessible reference point. Beyond simply displaying information, the page also empowers the user with self-service capabilities to keep their account data current and secure. Specifically, it allows for the updating of the primary contact phone number and the changing of the account password, thereby enhancing user autonomy and account security within the application. The design is straightforward, segmenting information into distinct, intuitive blocks for clarity and ease of use.

User Profile

This section displays the user's core profile details. These fields are read-only in this view.

- Name: The user's registered name.
- Email: The user's registered email address.
- Phone: The user's current phone number.
- Gender: The user's gender.
- Subscription: The user's current subscription status or plan.
- Subscription end date: The date when the user's current subscription will expire.

Update Phone

This section allows users to modify their registered phone number.

- Input Field:
 - Displays the current phone number by default.
 - Users can type a new phone number into this field.

Change Password

This section provides functionality for users to change their account password.

- "Old Password" Input Field:
 - Users must enter their current password in this field for verification.
 - *Input Type:* Password (characters are masked).
- "New Password" Input Field:
 - Users must enter their desired new password in this field.
 - *Input Type:* Password (characters are masked).
- "Change Password" Button:
 - Clicking this button will attempt to change the user's password.

BMR

Introduction

Basal Metabolic Rate (BMR) represents the minimum amount of energy required by the human body to maintain basic physiological functions while at complete rest. It serves as a fundamental metric in nutrition science, weight management, and clinical medicine.

BMR is typically measured in calories per day (kcal/day) or kilojoules per day (kJ/day).

What is BMR?

BMR is the rate of energy expenditure per unit time by endothermic animals at rest. It represents the calories your body burns to maintain essential functions such as:

- Cellular respiration and metabolism
- Cardiovascular function (heart beating, blood circulation)
- Respiratory function (breathing)
- Brain and nervous system activity
- Kidney and liver function
- Temperature regulation
- Protein synthesis
- Ion transport across cell membranes**

How BMR Works

Metabolic Processes

BMR encompasses the energy cost of maintaining basic cellular functions:

1. **ATP Production:** Cells continuously produce adenosine triphosphate (ATP) for energy
2. **Protein Turnover:** Constant breakdown and synthesis of proteins
3. **Membrane Transport:** Active transport of ions and molecules across cell membranes
4. **Thermoregulation:** Maintaining core body temperature
5. **Organ Function:** Energy required for heart, brain, liver, and kidney operations

Energy Distribution

Approximate energy distribution in BMR:

- Brain: 20% of total BMR
- Liver: 20% of total BMR
- Skeletal muscle: 20% of total BMR
- Kidneys: 10% of total BMR
- Heart: 10% of total BMR
- Other organs: 20% of total BMR

Factors Affecting BMR

Primary Factors

1. Body Size and Composition

- Larger bodies have higher BMR
- Muscle tissue burns more calories than fat tissue
- Body surface area influences heat loss

2. Age

- BMR typically decreases by 1-2% per decade after age 20
- Related to loss of muscle mass and hormonal changes

3. Sex

- Males generally have higher BMR than females
- Due to higher muscle mass and testosterone levels

4. Genetics

- Inherited metabolic efficiency varies between individuals
- Can account for 20-30% of BMR variation

Secondary Factors

1. Hormonal Status

- Thyroid hormones (T3, T4) significantly affect BMR
- Growth hormone, cortisol, and insulin influence metabolism

2. Environmental Temperature

- Cold exposure can increase BMR by 10-15%
- Heat exposure may slightly increase BMR

3. Health Status

- Fever increases BMR by $\sim 7\%$ per degree Celsius
- Certain diseases can alter metabolic rate

4. Nutritional Status

- Prolonged caloric restriction can lower BMR
- Protein deficiency affects metabolic rate

BMR vs RMR

Basal Metabolic Rate (BMR)

- Measured under strict laboratory conditions
- 12-hour fast required
- Complete physical and mental rest
- Controlled temperature environment
- Morning measurement after overnight sleep

Resting Metabolic Rate (RMR)

- More practical measurement
- Less stringent conditions
- 4-hour fast, typically required
- More commonly used in clinical settings
- Generally, 10-20% higher than BMR

Calculation Methods

Harris-Benedict Equation (Original - 1919)

Men: $BMR = 66.5 + (13.75 \times \text{weight in kg}) + (5.003 \times \text{height in cm}) - (6.755 \times \text{age in years})$

Women: $BMR = 655.1 + (9.563 \times \text{weight in kg}) + (1.850 \times \text{height in cm}) - (4.676 \times \text{age in years})$

Harris-Benedict Equation (Revised - 1984)

$$\text{Men: BMR} = 88.362 + (13.397 \times \text{weight in kg}) + (4.799 \times \text{height in cm}) - (5.677 \times \text{age in years})$$

$$\text{Women: BMR} = 447.593 + (9.247 \times \text{weight in kg}) + (3.098 \times \text{height in cm}) - (4.330 \times \text{age in years})$$

Mifflin-St Jeor Equation (1990) - Most Accurate for General Population

$$\text{Men: BMR} = (10 \times \text{weight in kg}) + (6.25 \times \text{height in cm}) - (5 \times \text{age in years}) + 5$$

$$\text{Women: BMR} = (10 \times \text{weight in kg}) + (6.25 \times \text{height in cm}) - (5 \times \text{age in years}) - 161$$

Applications and Uses

Weight Management

- Caloric Planning: Determining daily caloric needs
- Weight Loss: Creating appropriate caloric deficits
- Weight Gain: Establishing caloric surpluses
- Maintenance: Balancing energy intake and expenditure

Clinical Applications

- Nutritional Assessment: Evaluating metabolic health
- Medical Diagnosis: Identifying metabolic disorders
- Treatment Planning: Developing nutrition interventions
- Research: Studying metabolic responses

Sports and Fitness

- Athletic Performance: Optimizing energy intake
- Training Programs: Adjusting nutrition for training demands
- Recovery: Ensuring adequate energy for restoration

Population Health Studies

- Epidemiological Research: Understanding metabolic patterns
- Public Health: Developing dietary guidelines
- Comparative Studies: Analyzing metabolic differences

Nutritional Disorders

- Malnutrition: Significantly reduced BMR
- Eating Disorders: Adaptive metabolic changes
- Obesity: Complex relationship with BMR

Practical Considerations

- Daily Variation: BMR can vary 5-10% day to day
- Seasonal Changes: Slight variations throughout the year
- Stress Response: Acute stress can temporarily alter BMR
- Training Effects: Athletic training can influence BMR

BMR Calculator JavaScript

Overview

This JavaScript code implements a client-side BMR (Basal Metabolic Rate) calculator using the Mifflin-St Jeor Equation. The calculator provides real-time input validation, error handling, and dynamic BMR calculation based on user inputs for age, height, weight, and gender.

Key Features

- Real-time input validation
- Gender-specific BMR calculation
- Error message display
- Responsive UI feedback
- Number formatting with locale support

Code Structure

The code follows a modular approach with clear separation of concerns:

- DOM Selection: Element references
- Calculation Logic: BMR computation function
- Event Handling: User interaction management
- Validation: Input data verification

DOM Element References

Primary Elements

```
const calories = document.querySelector(".bmr-calculator .result .calories");
```

```
const calculateBtn =  
document.querySelector(".bmr-calculator .result  
.calculate-btn");
```

```
const errorMessage =  
document.querySelector(".bmr-calculator .result  
.error-message");
```

Core Functions

Calculate BMR Function

```
``javascript
const calculateBMR = (weight, height, age, gender)
=> {
  if (gender == "male") {
    return 10 * weight + 6.25 * height - 5 * age + 5;
  }
  return 10 * weight + 6.25 * height - 5 * age - 161;
};
``
```

Purpos: Calculates BMR using the Mifflin-St Jeor Equation

Parameters:

- `weight` (Number): Weight in kilograms
- `height` (Number): Height in centimeters
- `age` (Number): Age in years
- `gender` (String): "male" or "female"

Returns: Number representing BMR in calories per day

Formula Used:

- Male: $BMR = 10 \times \text{weight}(\text{kg}) + 6.25 \times \text{height}(\text{cm}) - 5 \times \text{age}(\text{years}) + 5$
- Female: $BMR = 10 \times \text{weight}(\text{kg}) + 6.25 \times \text{height}(\text{cm}) - 5 \times \text{age}(\text{years}) - 161$

Event Handlers

Calculate Button Event Handler

```
```javascript
calculateBtn.addEventListener("click", () => {
 // Validation check
 if (
 age.classList.contains("invalid") ||
 height.classList.contains("invalid") ||
 weight.classList.contains("invalid")
) {
 errorMessage.classList.add("active");
 return;
 }

 // Clear error state
 errorMessage.classList.remove("active");

 // Get gender selection
 let genderValue = document.querySelector(
```

```
".bmr-calculator form
input[name='gender']:checked"
).value;
```

```
// Calculate and display BMR

let BMR = calculateBMR(weight.value,
height.value, age.value, genderValue);

calories.innerHTML = BMR.toLocaleString("en-
US");
});
...
```

# Functionality

1. Validation Check: Verifies if all inputs are valid before calculation
2. Error Display: Shows/hides error messages based on validation state
3. Gender Selection: Retrieves selected gender from radio buttons
4. BMR Calculation: Calls calculateBMR function with user inputs
5. Result Display: Formats and displays the calculated BMR
6. Error Handling: Prevents calculation if any input field has the "invalid" class



# Input Validation

## Age Validation

```
```javascript
```

```
age.addEventListener("input", (e) => {
```

```
let ageValue = e.target.value;
```

```
    if (!ageValue || isNaN(ageValue) || ageValue < 10  
    || ageValue > 100) {
```

```
        age.classList.add("invalid");
```

```
    } else {
```

```
        age.classList.remove("invalid");
```

```
    }
```

```
});
```

Validation Rules:

- Must not be empty
- Must be a valid number
- Must be between 10 and 100 years (inclusive)

Height Validation

```
```javascript
```

```
height.addEventListener("input", (e) => {
```

```
 let heightValue = e.target.value;
```

```
 if (!heightValue || isNaN(heightValue) ||
heightValue < 0) {
```

```
 height.classList.add("invalid");
```

```
 } else {
```

```
 height.classList.remove("invalid");
```

```
 }
```

```
 });
```

Validation Rules:

- Must not be empty
- Must be a valid number
- Must be greater than 0

## Weight Validation

```
weight.addEventListener("input", (e) => {
 let weightValue = e.target.value;

 if (!weightValue || isNaN(weightValue) ||
 weightValue < 0) {
 weight.classList.add("invalid");
 } else {
 weight.classList.remove("invalid");
 }
});
```

## Validation Rules:

- Must not be empty
- Must be a valid number
- Must be greater than 0

# Error Handling

## Validation States

The code uses CSS classes to manage validation states:

- Invalid State: `invalid` class added to input elements
- Error Display: `active` class added to error message element

# Sample Calculation

Input:

- Age: 30 years
- Height: 175 cm
- Weight: 70 kg
- Gender: Male

Calculation:  $10 \times 70 + 6.25 \times 175 - 5 \times 30 + 5 =$   
1,693.75 calories/day

Output: "1,693.75" (formatted with locale-specific number formatting)

# BMR AI

This AI model predicts Basal Metabolic Rate (BMR) using a machine learning approach. The following are the performance metrics and model details:

- Model Used: Gradient Boosting Regressor
- Accuracy: 95%
- Confusion Matrix:
  - True Positives (TP): 36
  - True Negatives (TN): 59
  - False Positives (FP): 2
  - False Negatives (FN): 3
- Evaluation Metrics:
  - Mean Absolute Error (MAE): 27.04
  - Mean Squared Error (MSE): 1073.31
  - $R^2$  Score: 0.9909

This indicates that the model has high predictive performance and can effectively estimate BMR values with strong accuracy and low error rates.

It calculates the BMR by predicting

Datasets

	A	B	C	D	E	F	
1	Age	Gender	Height_cm	Weight_kg	BMI	BMR	
2	56	Female	141	115	57.84417	1590.25	
3	69	Male	149	84	37.83613	1431.25	
4	46	Female	195	41	10.78238	1237.75	
5	32	Male	169	66	23.10843	1561.25	
6	60	Male	189	134	37.51295	2226.25	
7	25	Female	198	75	19.1307	1701.5	
8	78	Female	184	75	22.15265	1349	
9	38	Female	144	65	31.34645	1199	
10	56	Male	194	82	21.78765	1757.5	
11	75	Female	195	66	17.357	1342.75	
12	36	Male	172	108	36.50622	1980	
13	40	Male	193	59	15.83935	1601.25	
14	28	Male	140	50	25.5102	1240	
15	28	Female	157	113	45.84364	1810.25	
16	41	Female	171	143	48.90394	2132.75	
17	70	Male	186	77	22.25691	1587.5	
18	53	Male	188	45	12.73201	1365	
19	57	Female	150	111	49.33333	1601.5	
20	41	Male	160	62	24.21875	1420	
21	20	Female	165	86	31.58861	1630.25	
22	39	Male	164	129	47.96252	2125	
23	70	Female	161	85	32.79194	1345.25	
24	19	Male	198	146	37.2411	2607.5	
25	41	Female	166	51	18.50777	1181.5	
26	61	Male	188	129	36.49842	2165	
27	47	Female	152	52	22.50693	1074	
28	55	Female	172	143	48.33694	2069	
29	19	Male	173	101	33.74653	2001.25	
30	77	Male	180	121	37.34568	1955	
31	38	Female	174	128	42.27771	2016.5	
32	50	Male	140	136	69.38776	1990	
33	29	Female	160	143	55.85938	2124	
34	75	Male	187	99	28.31079	1788.75	
35	39	Female	194	82	21.78765	1676.5	
36	78	Female	145	115	54.69679	1505.25	
37	61	Female	167	147	52.70895	2047.75	

## HTML Structure Requirements

html

```
<div class="bmr-calculator">
```

```
<form>
```

```
<!-- Input fields with specific IDs -->
```

```
<input id="age">
```

```
<input id="height">
```

```
<input id="weight">
```

```
<!-- Gender radio buttons with name="gender" -
->
```

```
<input type="radio" name="gender"
value="male">
```

```
<input type="radio" name="gender"
value="female">
```

```
</form>
```

```
<div class="result">
```



<!-- Calculate button -->

<button class="calculate-btn"></button>

<!-- Result display -->

<div class="calories"></div>

<!-- Error message -->

<div class="error-message"></div>

</div>

</div>

...

# Goal

To enable users to set realistic daily calorie targets for weight loss, maintenance, or gain

Weight Loss: The app can suggest a calorie deficit to promote gradual and sustainable weight loss.

Weight Gain (Muscle Building): The app can suggest a calorie surplus to support muscle growth.

Weight Maintenance: The app can recommend consuming calories close to their TDEE.

# Subscription Page

## overview

- This vital page serves as the user's primary portal to unlock the full potential of the Fitness App through various premium membership tiers. At the very top, for existing members.
- Beneath the pricing, a comprehensive list under "All features included" meticulously outlines the specific benefits and access rights associated with each plan. These features span a wide array of fitness activities, including access to a set number of Cardio Classes, Swimming Lessons, Yoga Classes, Aerobics sessions, Zumba Classes, Massage Sessions, and specialized Body Building programs. The "Pro (Best Offer)" is strategically highlighted to draw user attention to what the application perceives as the most advantageous option.

## Pricing Plan

- This page presents users with a clear and structured overview of the various subscription options available to help them achieve their fitness goals. At the top, it conveniently displays the user's current **Subscription end date** if they are already subscribed, providing immediate context.
- The core of the page consists of four distinct pricing tiers, each designed to cater to different needs and commitment levels: "Starter," "Basic," "Pro (Best Offer)," and "Unlimited." For each plan, the corresponding **cost and duration** are prominently displayed, such as "\$9/1 month(s)" or "\$80/year." Below the pricing, a detailed list outlines "All features included," specifying the number of classes and sessions offered for each plan. These features typically include a variety of fitness activities like Cardio Classes, Swimming Lessons, Yoga Classes, Aerobics,

Zumba Classes, Massage Sessions, and Body Building.

- Beneath each plan's feature list, a prominent "Select Plan" button allows users to initiate the process of subscribing to their chosen tier. This comprehensive presentation empowers users to easily compare and select the best fitness plan that aligns with their personal objectives and budget, driving engagement with the application's premium content.

## Payment card

- This is dedicated to securely processing payments for the selected subscription plan, in this case, the "Basic Plan." It provides a clear and straightforward form for users to enter their payment card details.
- The form is structured to collect essential information required for a credit or debit card transaction:
- **Full Name:** A field for the cardholder's complete name as it appears on the card.
- **Card Number:** An input field for the primary account number of the payment card, often with a placeholder example like "1234 5678 9012 3456" to guide the user.
- **Expiration (MM/YY):** A field to enter the month and year of the card's expiry, crucial for validating the card's active status, with a placeholder like "12/26".

- **CVV:** A security code (Card Verification Value) field, typically a three or four-digit number found on the back or front of the card, with a placeholder like "123".
- After all necessary details are accurately entered, the user can proceed by clicking the "Confirm Payment" button. A vital security assurance note is prominently displayed at the bottom: "Note: Card details are not stored." This message reinforces the application's commitment to user data privacy and security by indicating that sensitive payment information is processed but not retained by the system, building trust during the transaction.

# Goal

- To present users with a compelling and feature-rich overview of premium membership options, clearly communicating the value and benefits of upgrading, while guiding them toward selecting a plan that best fits their fitness needs and lifestyle.
- 
- To inform and engage users with a transparent breakdown of subscription tiers, costs, durations, and included benefits, enabling them to confidently compare and choose the most suitable fitness plan based on their goals and budget.
- 
- To facilitate a secure and user-friendly transaction process for subscription purchases, ensuring the accurate collection of payment details while reassuring users that their sensitive card information is not stored, thereby maintaining trust and data privacy.



# Logout

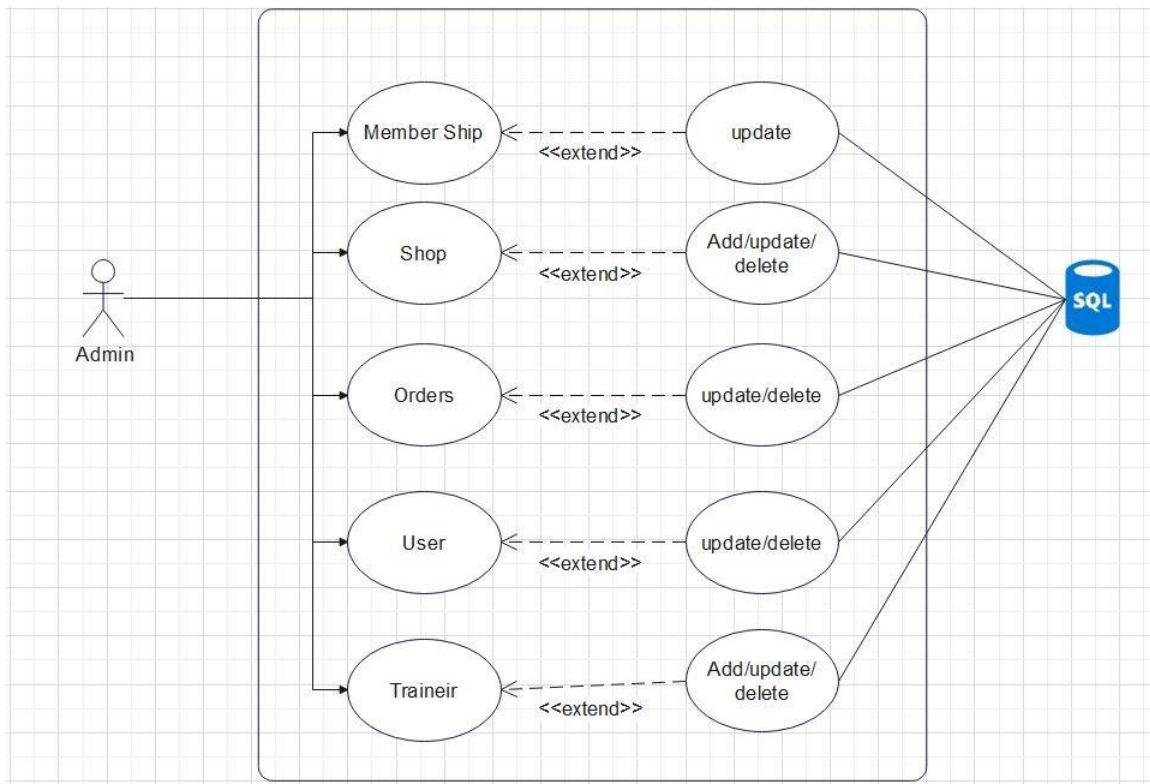
The "Logout" feature provides a critical security mechanism within the application, allowing any user (administrator, trainer, or regular user) to securely terminate their active session. Typically represented by a distinct link or button within the navigation or profile menu, clicking it immediately initiates the process of ending the current user session. This action severs the connection between the user's device and the application's server, effectively clearing any session-related data and revoking access to protected areas. Upon successful logout, the user is usually redirected to the login screen or a public-facing home page, ensuring that their account remains secure and preventing unauthorized access, particularly important when using shared or public devices. This simple yet essential functionality is crucial for maintaining privacy and data integrity.

## References

- Gold's gym: <https://www.goldsgym.com/>
- EQUINOX: <https://www.equinox.com/>
- الكوتش: <https://www.elcoach.me/>
- BootStrap: <https://www.muscleandstrength.com/>
- CENTR: <https://centr.com/>
- Lose weight app: <https://play.google.com/store/apps/details?id=menloseweight.loseweightappformen.weightlossformen&hl=en-US>

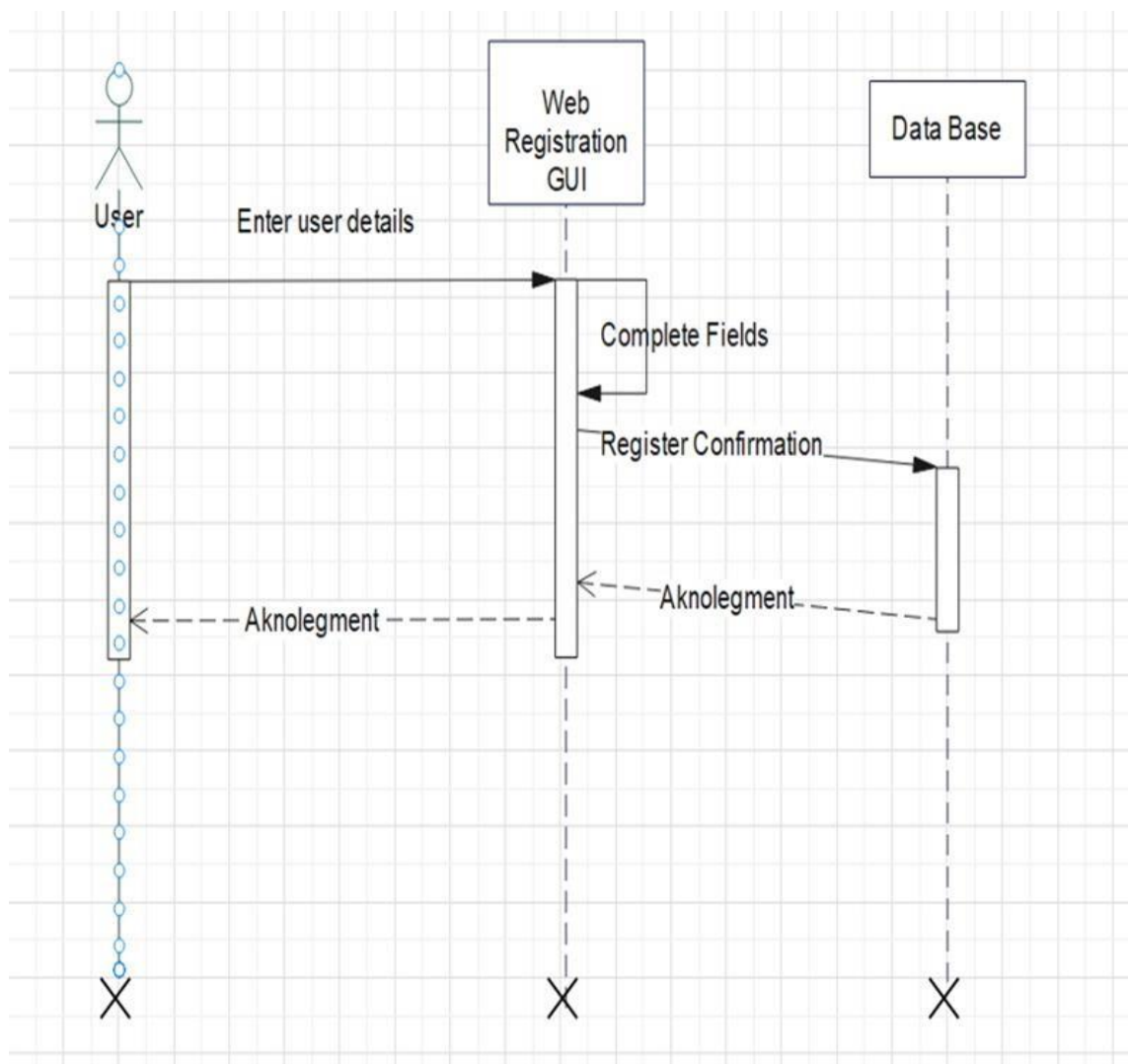
# Admin Use Case

This diagram focuses on the admin role and the specific use cases details the functionalities that an Admin can do, and different actions that an Admin can take like add/update/delete on (member ship, shop, orders, trainer, user )



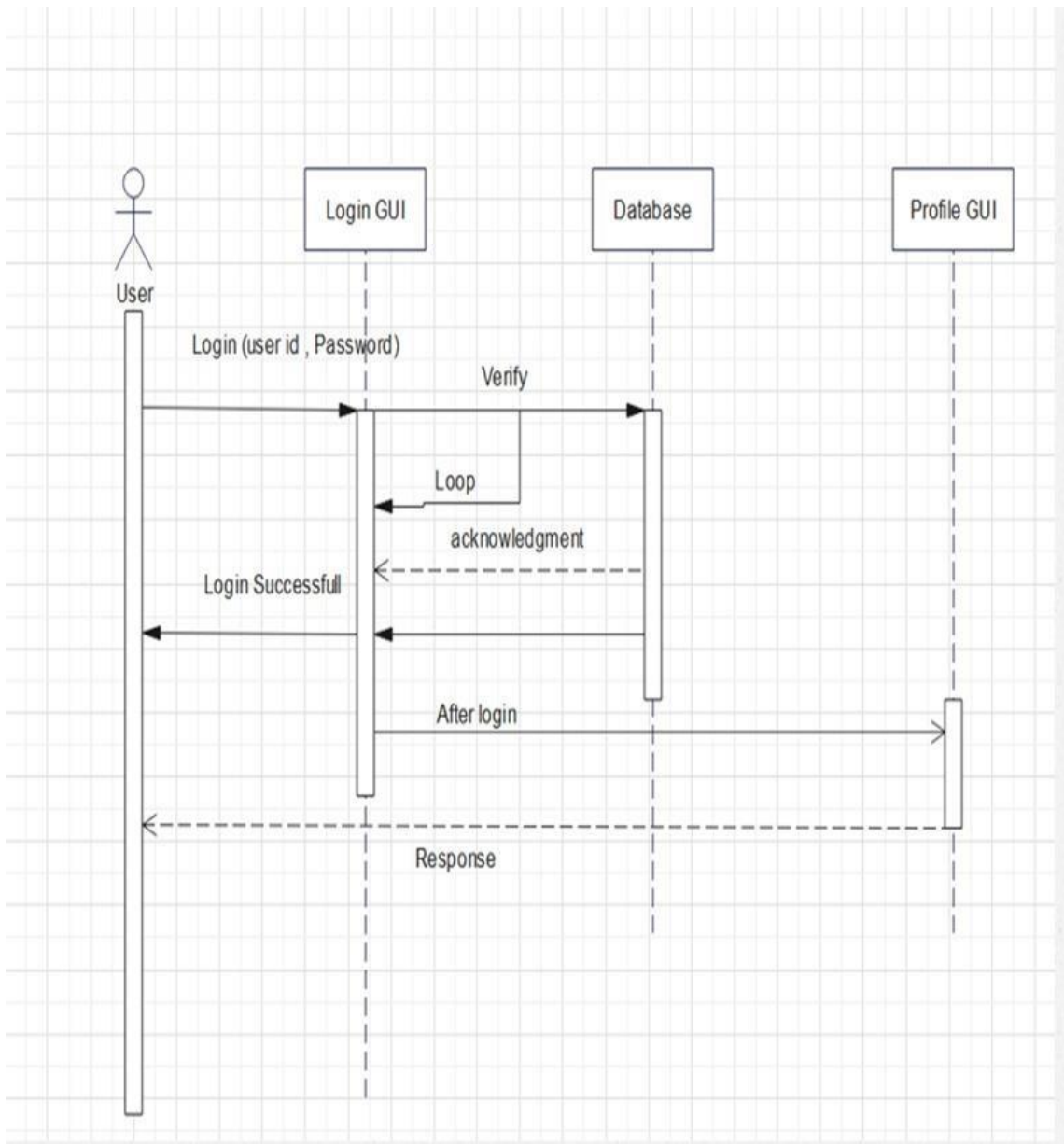
# User Register

This diagram shows the sequence when a user registers for an account. It includes steps like the user entering their details, the system validating the information, and the system creating a new user account.



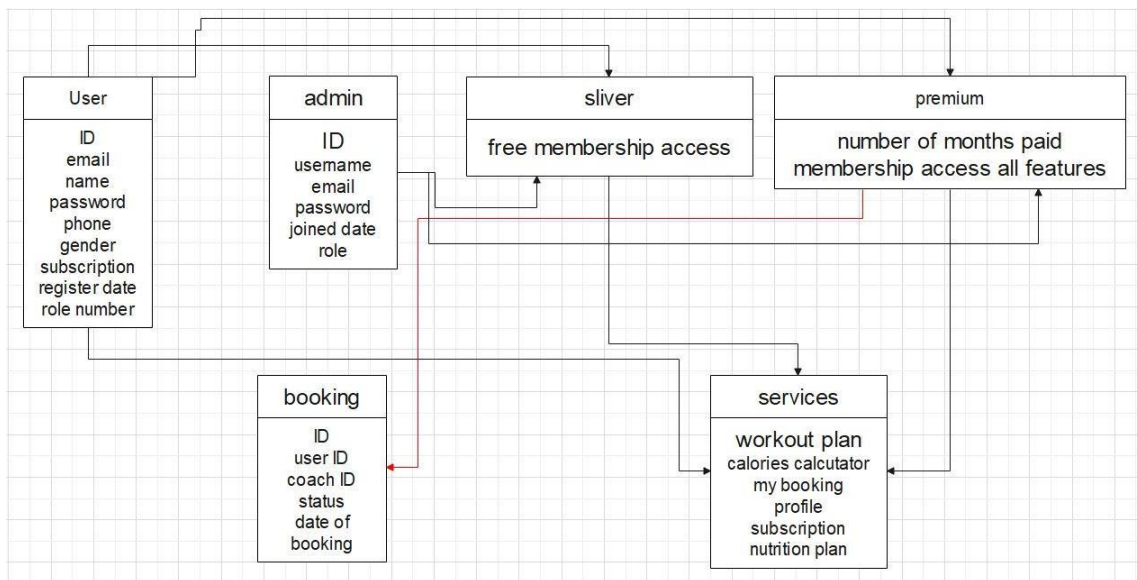
# User Login

This diagram shows the sequence of interactions during the user login process. It includes steps like the user entering their (user id, Password), the system verifying, and the system granting access to the user.



# Entity-Relationship Diagram (ERD)

This diagram is used to model the data structure of a system. It shows the entities (tables in a database) and their relationships, and shows memberships, such as silver, premium, and the user's ability to access the services but premium user only can access the booking.



## **Conclusion**

In an era where digital presence and personalized experiences are paramount, the Fitness Club Management System web application stands as a testament to the transformative power of technology in the health and wellness sector. As comprehensively detailed throughout this documentation, this system transcends the capabilities of traditional management tools by seamlessly integrating a holistic suite of features designed to address the dynamic needs of modern fitness clubs, their dedicated trainers, and their ambitious members.

By providing an intuitive online store, facilitating meticulous workout plan tracking, empowering users with Basal Metabolic Rate (BMR) insights and nutrition planning, and streamlining personal training management, the application establishes itself as an indispensable digital backbone. The strategic categorization of user roles – Admin, Trainer, and User – ensures that every stakeholder benefits from tailored functionalities,

promoting efficiency, engagement, and effective communication across the entire ecosystem.

Ultimately, this Fitness Club Management System is more than just a software solution; it is a catalyst for enhanced operational efficiency, deeper member engagement, and sustainable business growth. It empowers fitness clubs to move beyond administrative overheads, allowing them to focus on their core mission: fostering healthier communities. For trainers, it elevates their coaching capacity through data-driven personalization and streamlined client management. Most importantly, for members, it democratizes access to comprehensive fitness resources, empowering them to take charge of their wellness journey with unprecedented convenience and precision.