

Introduction

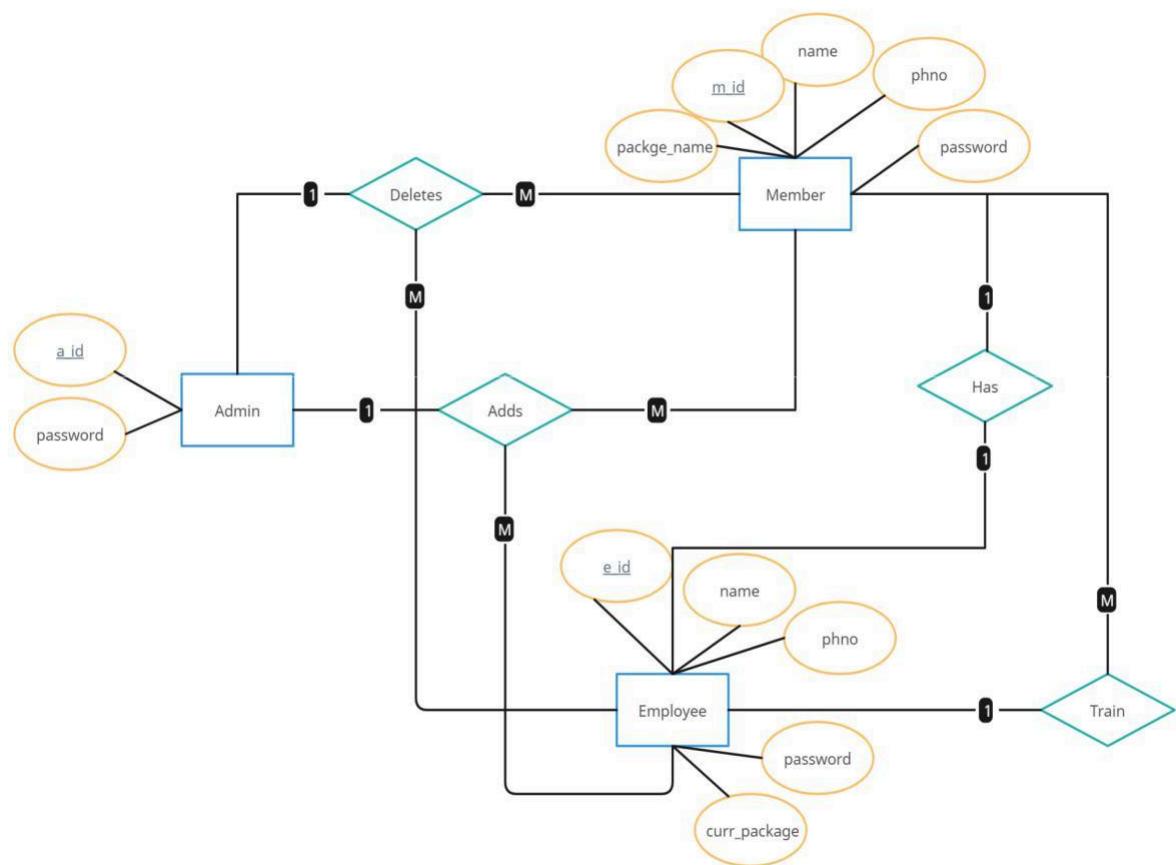
We are pleased to introduce our Gym Management Web Application, a sophisticated software solution meticulously crafted for the benefit of both members and trainers within our fitness community. In response to the heightened complexities of contemporary gym operations, this comprehensive platform has been developed to elevate the overall experience for fitness enthusiasts and dedicated trainers alike. With a focus on streamlining administrative tasks and enhancing member engagement, our Gym Management Web Application stands as a testament to innovation in fitness management. We invite you to explore this formal report, offering insights into the user-friendly and efficient features designed exclusively for the esteemed members, trainers and administrators of the gym.

Problem Definition

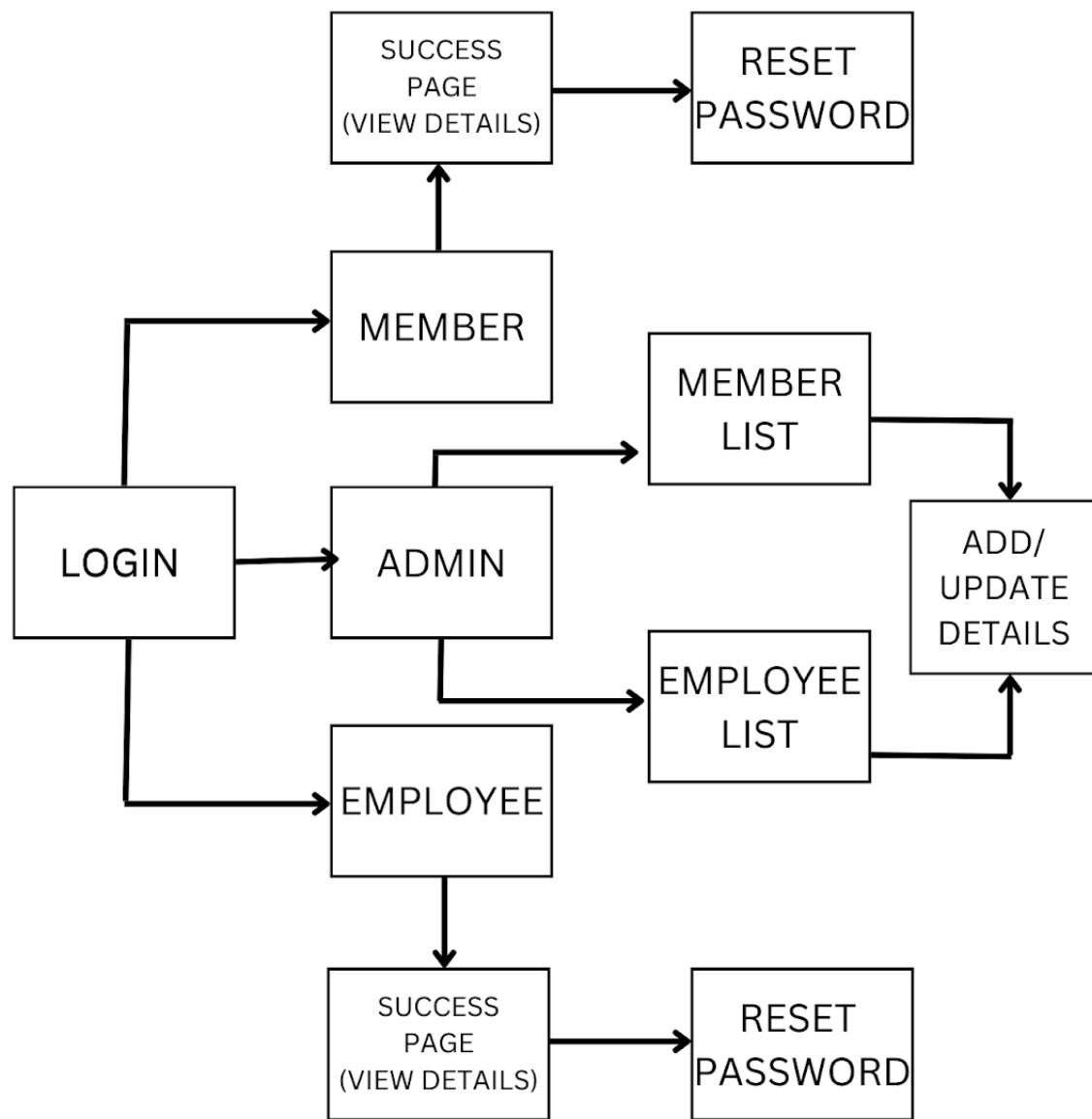
In the contemporary fitness industry, managing the operations of a gym has become increasingly complex and demanding. The traditional methods of manual record-keeping, member tracking, and administrative tasks often lead to inefficiencies, errors, and a suboptimal member experience. To address these challenges, there is a pressing need for the development and implementation of a Gym Management System, a comprehensive software solution that automates and streamlines various aspects of gym administration.

The gym management system aims to streamline the operations of a fitness center by providing a comprehensive web application that caters to the needs of members, trainers, and administrators. The system should facilitate easy management of member and trainer data, allow members to access their information, and enable administrators to perform essential administrative tasks efficiently.

ER Diagram



BLOCK DIAGRAM



FUNCTIONALITIES

Each user type—member, employee, and admin—has distinct yet interconnected functionalities to cater to their specific needs within the system. Members, being the primary beneficiaries of the fitness services, have been granted access to a comprehensive dashboard where they can effortlessly view their personal details. This includes essential information such as their name, phone number, current package name, trainer name, and member ID (m_id). The system empowers members to take control of their account security by facilitating a password reset feature, ensuring a user-friendly and secure experience. On the other hand, employees, specifically trainers, enjoy an enhanced set of functionalities tailored to their role. Trainers can access a dedicated portal where they can view their personal details, encompassing their name, phone number, assigned package, and employee ID (e_id). Furthermore, trainers have the unique ability to view a curated list of members to whom they are assigned. This feature fosters a personalized approach to fitness coaching, allowing trainers to track and support the progress of their assigned members. Similar to members, trainers also benefit from a secure password reset option. Admins, as the ultimate overseers of the gym management system, wield a range of powerful tools to maintain the integrity and efficiency of the platform. Admins have the authority to add or remove both members and trainers, thereby ensuring a dynamic and up-to-date user database. Additionally, they possess the capability to update the details of existing members and trainers, accommodating any changes or modifications required. This centralized control ensures that the gym management web application remains agile and responsive to the evolving needs of its users.

Frontend Specifications

I-HTML & CSS

- It ensures that the application is accessible and usable, and it has a responsive design.
- It provides a user-friendly interface with logical navigation.
- It maintains a consistent and visually appealing design throughout the application.

II-Member Dashboard

- It clearly displays personal details and settings for easy management.
- It also has options for password reset for the member.

III-Trainer Dashboard

- It clearly displays personal details and settings for easy management.
- It also has options for password reset for the trainer.

IV-Admin Dashboard

- It clearly presents member and trainer management options.
- We are able to add, delete and update both member and trainer details on the admin dashboard.

Backend Specifications

This web application software is done using Django which provides a robust foundation for crafting server-side applications with remarkable efficiency.

I-Models

Django's Model is in charge of managing and accessing database data.

In our project, the web application has the following models:

Member model with fields like name, member id, package name, phone number, etc.

Trainer model with similar fields such as name, trainer id, phone number, etc.

Admin model with fields like admin id and password.

II-Views

Views are functions defined to determine what happens to when a web request is sent to the backend.

The gym web application has separate views for member, trainer, and admin functionalities.

CRUD operations can also be implemented for member and trainer management and generate system statistics for the admin.

III-URL Patterns

It maps URLs to the appropriate Views, allowing users to interact with your web application and ensures proper routing for secure access.

IV-Templates

Template contains the user interface which is rendered in the browser of the user and it contains static code written in HTML, CSS and JS. It works with views to receive data and represents them in a readable format in the webpage.

SAMPLE OUTPUTS

1. Django Admin 1

The screenshot shows the Django Admin interface for the 'employee object' model. The URL in the browser is `127.0.0.1:8000/admin/mydb/employee/2/change/`. The page title is 'Django administration'. The left sidebar shows a tree structure with 'Home > Mydb > Employees > employee object (2)'. The main content area is titled 'Change employee' and displays the following fields for 'employee object (2)':

- Name: arnold gosling
- Phno: 7632589
- Curr package: 10
- E id: e1234
- Password: pass

At the bottom of the form are four buttons: 'SAVE' (blue), 'Save and add another' (dark blue), 'Save and continue editing' (dark blue), and 'Delete' (red).

2. Django Admin 2

The screenshot shows the Django Admin interface for the 'adminlogin' model. The URL in the browser is `127.0.0.1:8000/admin/mydb/adminlogin/1/change/`. The page title is 'Django administration'. The left sidebar shows a tree structure with 'Home > Mydb > Adminlogins > adminlogin object (1)'. The main content area is titled 'Change adminlogin' and displays the following fields for 'adminlogin object (1)':

- A id: a1234
- Password: pass

At the bottom of the form are four buttons: 'SAVE' (blue), 'Save and add another' (dark blue), 'Save and continue editing' (dark blue), and 'Delete' (red).

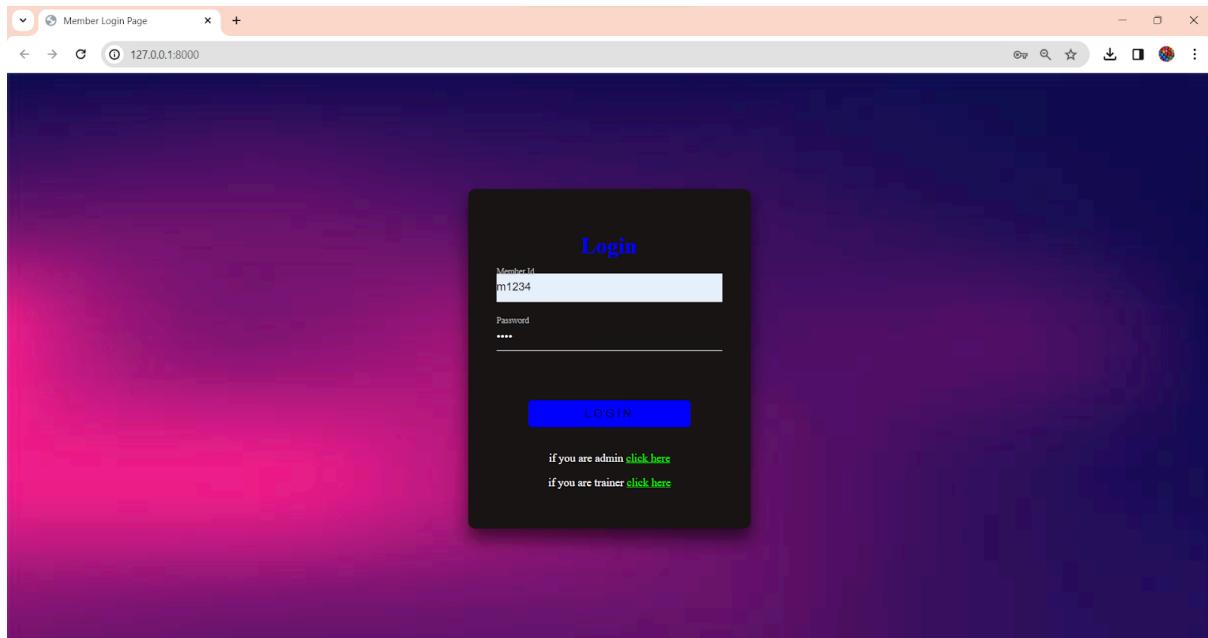
3. Django Admin 3

The screenshot shows the Django Admin interface for a 'members' model. The URL in the browser is `127.0.0.1:8000/admin/mydb/members/2/change/`. The page title is 'Django administration'. On the left, there's a sidebar with 'Authentication and Authorization' and 'MYDB' sections. The 'MYDB' section contains 'Adminlogins', 'Employees', and 'Memberss' with 'Add' buttons. The main content area is titled 'Change members' and shows a list of 'members object (2)'. The first item has fields: Name (Godwin Gino), Phno (1234567), Package name (plus), M id (m5678), and Password (pass). Below these fields is a dropdown labeled 'E id' with 'employee object (2)' and icons for edit, add, and view. At the bottom are buttons for 'SAVE', 'Save and add another', 'Save and continue editing', and a red 'Delete' button.

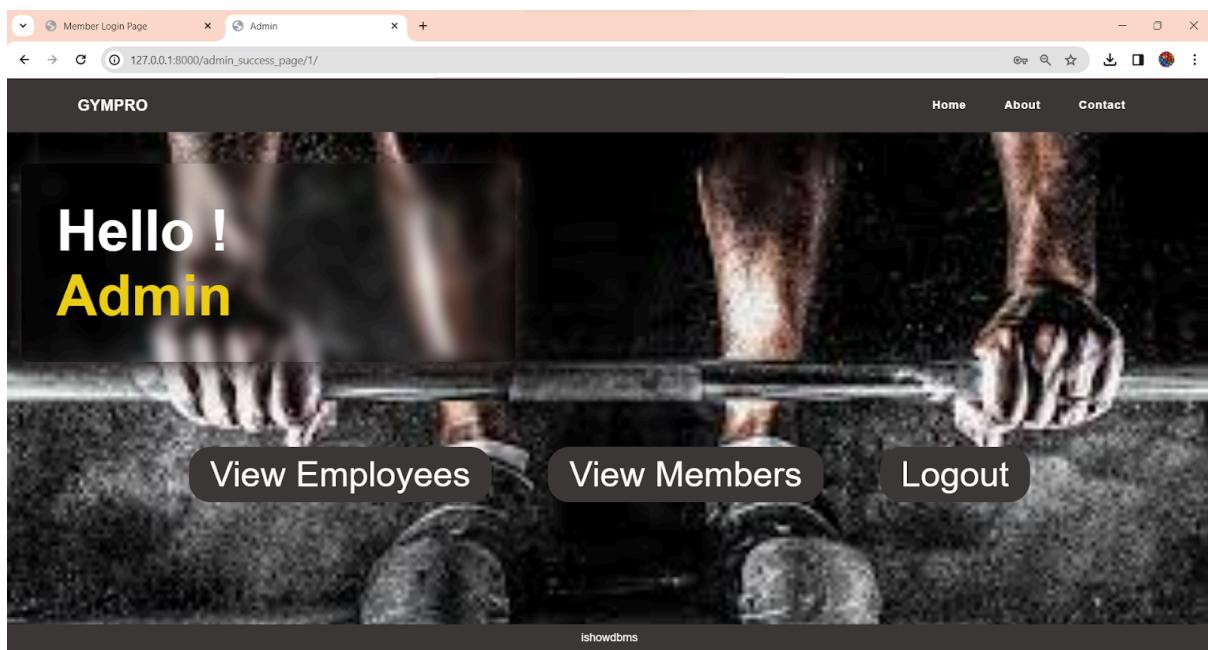
4. Admin login

The screenshot shows a web browser window with a dark-themed login form. The URL in the address bar is `127.0.0.1:8000/adminredirect/`. The form is titled 'Login' and has two input fields: 'Admin Id' containing 'a1234' and 'Password' containing '....'. Below the fields is a blue 'LOGIN' button.

5. Login



6. Admin Success



7. Employee List

The screenshot shows a web browser window titled "Employee List" at the URL 127.0.0.1:8000/employee_list/. The page has a header with tabs for "Member Login Page", "Admin", "Employee List", "Members List", and "Home", "About", "Contact". The main content area is titled "Employee List" and contains a form with fields for Name, Phno., Curr package, E id, and Password, followed by a yellow "Add" button. Below the form is a table with columns: Select ID, Name, Phone Number, Current Package, Employee ID, Password, and Actions. A single row is shown with ID 2, Name arnold gosling, Phone 7632589, Package 12, Employee ID e1234, Password pass, and an Action button labeled "Update". There are also "Delete" and "Back" buttons. The background features a large image of a person's legs and feet.

8. Update Employees

The screenshot shows a web browser window titled "Update Employee" at the URL 127.0.0.1:8000/update_employee/2/. The page has a header with tabs for "Member Login Page", "Admin", "Update Employee", "Members List", and "Home", "About", "Contact". The main content area is titled "Update Employee" and contains a form with fields for Name, Phno., Curr package, E id, and Password, followed by a yellow "Next" button. The Name field contains "arnold gosling", Phno. contains "7632589", Curr package contains "12", E id contains "e1234", and Password contains "pass". The background features a large image of a person's legs and feet.

9. Members List

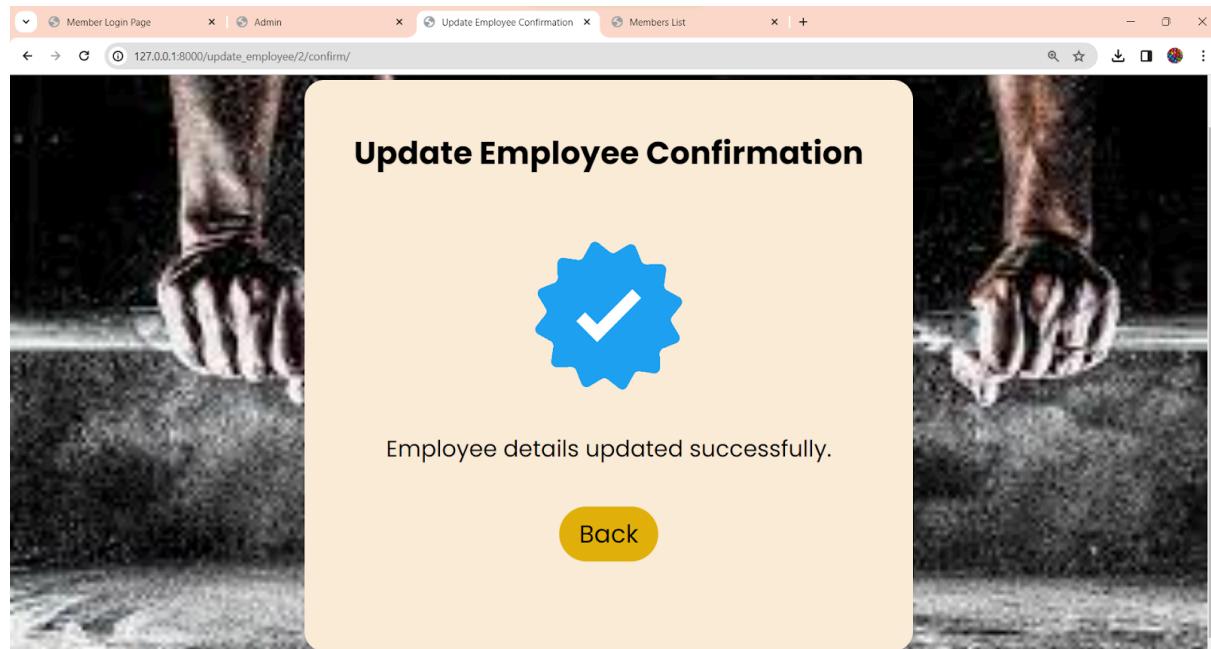
The screenshot shows a web application titled "GYMPRO" with a "Members List" page. The background features a dramatic image of two muscular legs hanging from a horizontal bar. At the top, there are input fields for Name, Phone, Package name, M id, Password, and E id, followed by a yellow "Add" button. Below this is a table with columns: Select ID, Name, Phone Number, Package Name, Members ID, Password, and Actions. Two rows are visible: one for "maanas krishnan" (basic package) and another for "Sodvin gino" (plus package). Each row has "Update" and "Delete" buttons. A yellow "Next" button is located at the bottom of the form area.

Select ID	Name	Phone Number	Package Name	Members ID	Password	Actions
1	maanas krishnan	9188337213	basic	m1234	pass	<button>Update</button> <button>Delete</button>
2	Sodvin gino	1234567890	plus	m5678	pass	<button>Update</button> <button>Delete</button>

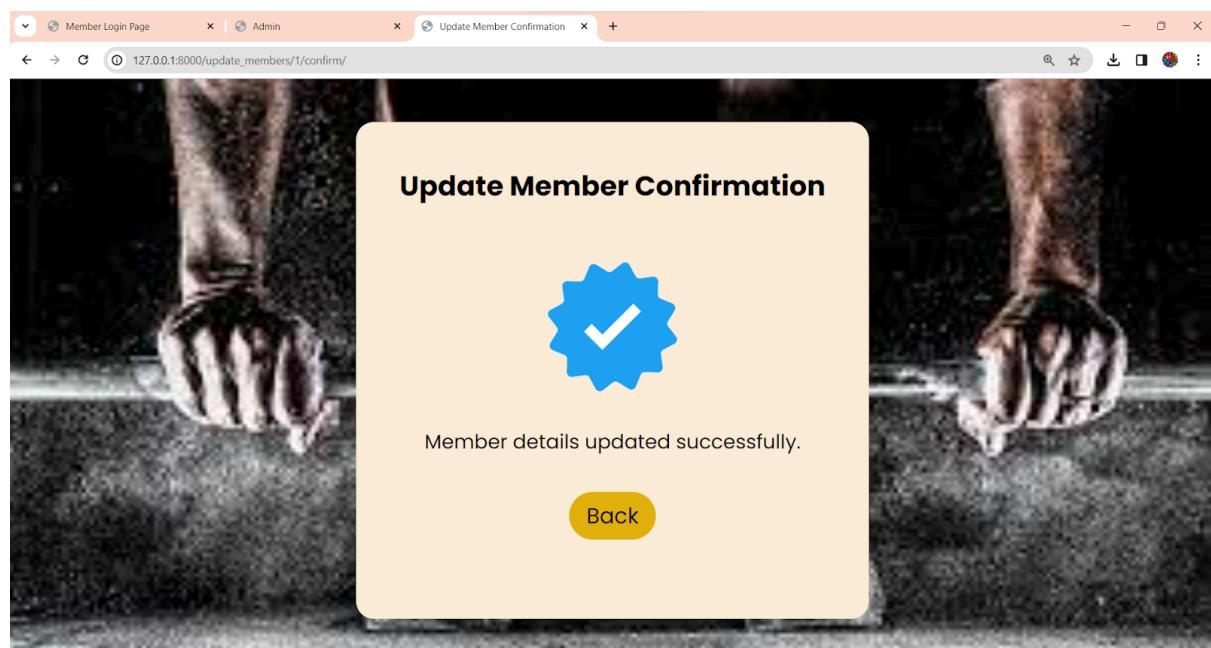
10. Update Members

The screenshot shows a "Update Members" page with a "Next" button at the bottom. The form includes fields for Name (maanas krishnan), Phone (9188337213), Package name (basic), M id (m1234), Password (pass), and E id (employee object (2)). The background is the same gym-themed image as the previous page.

11. Update Employee Confirmation



12. Update Member Confirmation



Conclusion

In conclusion, our gym management web application is designed to revolutionize the way you manage your gym. By achieving these functionalities and adhering to the specified specifications, the gym management system will offer a robust and user-friendly solution for managing gym operations efficiently.