

ST JOSEPH ENGINEERING COLLEGE
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MINI PROJECT REPORT ON
“GYM MANAGEMENT SYSTEM”
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**DEPARTMENT OF COMPUTER SCIENCE AND
ENGINEERING**
2022-2023

ST JOSEPH ENGINEERING COLLEGE

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CERTIFICATE

Certified that the project work entitled "**Gym Management System**" carried out by

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bonafide students of IV semester students in partial fulfillment for the award of Bachelor of Engineering in Computer Science and Engineering of St Joseph Engineering College during the year 2022-23. It is certified that all corrections/ suggestions indicated during Internal Evaluation have been incorporated in the report. The project report has been approved as it satisfies the academic requirements in respect of miniproject work .

Ms Jaishma Kumari B
Project Guide

Dr Sridevi Saralaya
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EXTERNAL VIVA

NAME OF THE EXAMINER

SIGNATURE

1.

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Acknowledgment

The satisfaction and euphoria that accompanies the successful completion of any task would be incomplete without mentioning the people who made it possible, whose constant guidance and encouragement crowned our efforts with success.

We take this opportunity to thank those who have helped and motivated us throughout the completion of this project.

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Abstract

The Gym Management System project is centered around the efficient administration of multiple gym branches by their respective owners. This comprehensive software empowers gym owners to seamlessly oversee the operations, member information, payments, and trainer details for distinct gym branches. The system's primary objective is to streamline operations, enhance member experiences.

In recent years, the fitness industry has experienced a significant surge in demand, prompting the need for advanced management solutions. Existing literature highlights the pressing need for integrated systems capable of effectively managing multiple gym branches. The identified problem stems from the inherent complexity of overseeing multiple locations, each with its set of members, trainers, and financial transactions. This project seeks to address this multifaceted challenge by providing a centralized platform for gym owners, enabling them to holistically manage their diverse operations.

The Gym Management System offers a practical solution for gym owners tasked with overseeing multiple branches. It provides a centralized hub for managing gym particulars, member records, payment processing, and trainer information efficiently. Looking forward, the system presents opportunities for further development, including refining user interfaces, incorporating advanced analytics, and expanding its scalability to accommodate a more extensive network of branches. This project represents a significant step towards the modernization of gym management, ensuring the sustained success and growth of fitness centers with multiple branches.

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Chapter 1

Introduction

As human being health is a most important thing and keeping ourselves healthy is first thought we have in our mind. Being healthy and fit gives us power to do any activities of our day to day life. Physically good health is very important for stress free life. For a healthy and disease-free life proper diet, exercise and sleep are required. As observed, there is significant improvement in people going to the gym especially post pandemic. The aim of the project is to design and develop a web application that allows the gym handlers to manage the gym efficiently.

1.1 Problem Definition

Gym management system is a web application project which is used by gym managers. They use this software to save records of customers related to their fitness, fees, their personal details which makes management easier and time saving for the gym manager. In this gym management system total computerization of the activities of the gym to Maintaining records of everything is done systematically.

1.2 Scope and Importance

Every record in the existing system is done on the paper manually which takes much more time. Updating the data and much more records is a time-consuming process. Since everything is done manually there are high chances of human errors. Present system is not online, so there are many drawbacks such as managers cannot keep track of the crowd at the gym, difficult to assign proper trainers and fails to check if payments are done on time, etc. This is much developed system which will be supporting for the management of the gym.

Chapter 2

Software Requirement Specification

2.1 Functional Requirement Specification

Functional Requirement Specification

- The Gym Management System is an advanced software solution tailored to assist gym owners in efficiently managing distinct gym branches. Functionally, it offers a comprehensive set of tools for overseeing gym details, member information, payment processing, and trainer data across these branches. Gym owners have the flexibility to add, update, or delete gym details, including gym names, addresses, and types, thus ensuring that their business information remains current and relevant.
- Member management is a core feature, allowing owners to handle member registration, updates, and removal seamlessly. The system stores a wealth of member data associated with a particular gym branch. Additionally, it provides reporting capabilities, enabling the generation of member lists, attendance records, and progress reports to better track and engage with members.
- Trainer details management complements the system's capabilities, allowing owners to assign trainers to members, update trainer profiles, and manage trainer contracts across multiple branches. Trainer information is securely stored and easily accessible for streamlined operations. The system supports reporting functionalities, such as trainer lists and schedules, to facilitate efficient trainer management.
- For a comprehensive overview of gym operations across branches, the system includes a feature for cross-branch reporting. Owners can access consolidated reports that aggregate data from all gym branches. These reports provide valuable insights into membership statistics, payment trends, and trainer utilization, empowering owners to make informed decisions for their fitness centers' growth and success.
- User privileges and data security are integral components of the Gym Management System. The system's functionality is designed to ensure that only authorized personnel, such as gym staff and owners, can create, modify, or delete data.
- The Gym Management System's Functional Requirement Specification delineates the system's capabilities in managing multiple gym branches comprehensively. It provides owners with the tools they need to efficiently oversee gym details, member information, payment processing, and trainer data, all while maintaining data security and regulatory compliance.

2.2 Software Requirement Specification

Software Requirement Specification

- **Language :** PHP
- **Database used:** MySQL.
- **Design used:** HTML, CSS.
- **Operating System:** Window 11.
- **Software used:** XAMPP.

2.3 Hardware Requirement Specification

- **Installed Memory :** 2GB
- **Processor:** 1GHz .
- **Hard Disk Space:** 4GB availability .
- **Display:** Standard output display.

Chapter 3

System Design

3.1 ER Diagram

Figure:3.1 shows the ER diagram of gym database.

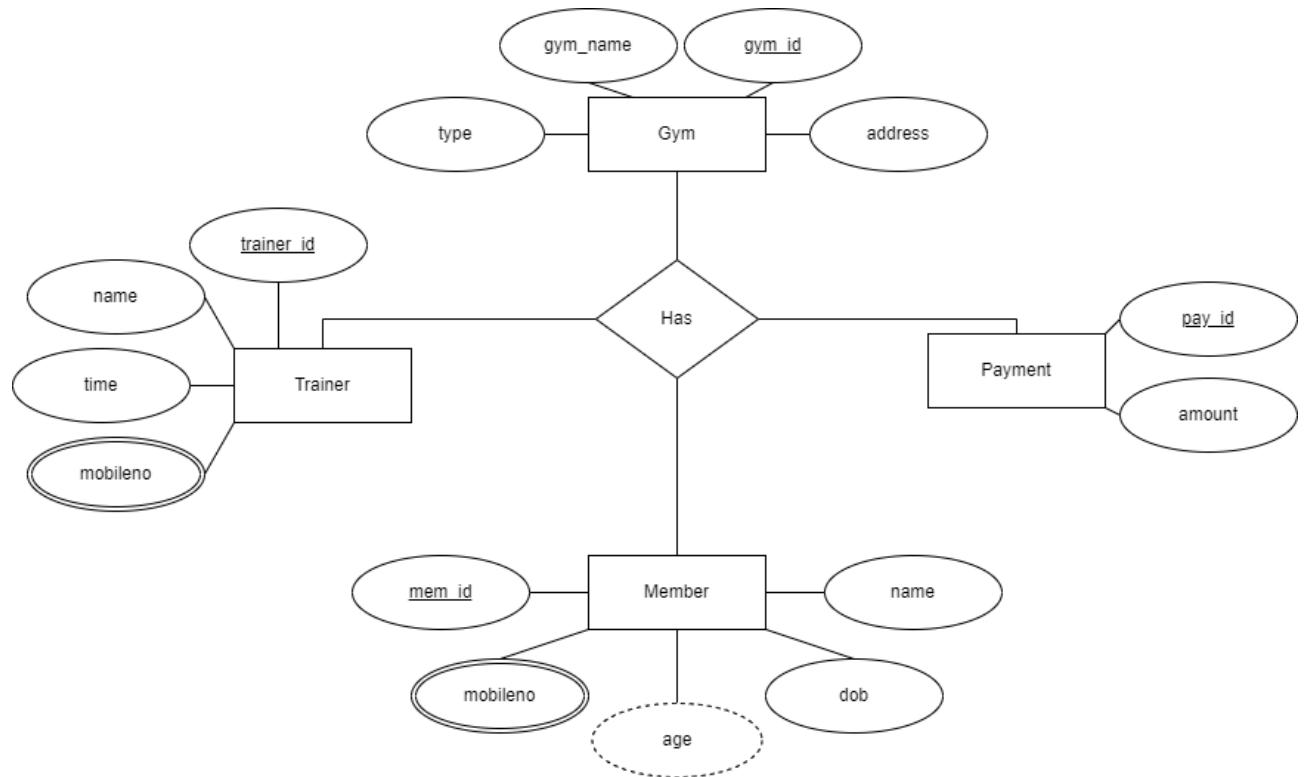


Figure 3.1: ER diagram

3.2 Schema Diagram

Figure 3.2 shows the Schema Diagram of gym Database.

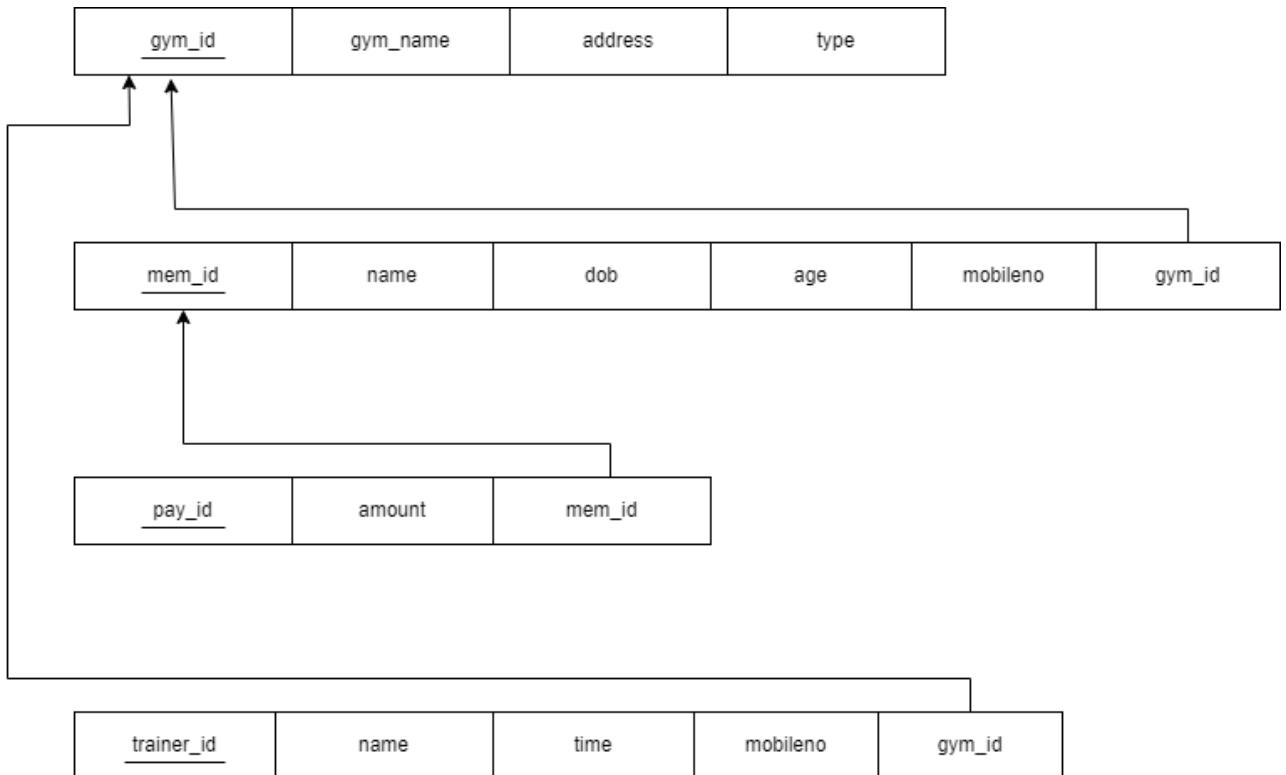


Figure 3.2: Schema diagram

3.3 Table description

Attributes	Datatype	Constraints	Description
GYM-ID	INT	PRIMARY KEY	ID of Gym
GYM-NAME	VARCHAR	NOT NULL	Name of the Gym
TYPE	VARCHAR	NOT NULL	Type of Gym

Table 3.1: Gym details .

Attributes	Datatype	Constraints	Description
MEM-ID	INT	PRIMARY KEY	ID of Member
NAME	VARCHAR	NOT NULL	Name of the Member
DOB	DATE	NOT NULL	DOB of Member
AGE	INT	NOT NULL	Age of Member
MOBILENO	BIGINT	NOT NULL	Mobile number of the Member
GYM-ID	INT	FOREIGN KEY	ID of the Gym

Table 3.2: Member details .

Attributes	Datatype	Constraints	Description
PAY-ID	INT	PRIMARY KEY	ID of Payment
AMOUNT	REAL	NOT NULL	Payment amount
MEM-ID	INT	NOT NULL	ID of Gym

Table 3.3: Payment details .

Attributes	Datatype	Constraints	Description
TRAINER-ID	INT	PRIMARY KEY	ID of Trainer
NAME	VARCHAR	NOT NULL	Name of the Trainer
TIME	DATE	NOT NULL	Timings of the Trainer
MOBILENO	VARCHAR	NOT NULL	Mobileno of Member
GYM-ID	INT	FOREIGN KEY	ID of Gym

Table 3.4: Trainer details .

Chapter 4

Screenshots

Figure:4.1 shows the screenshot of login page. It consists of username and passwords entry bars.

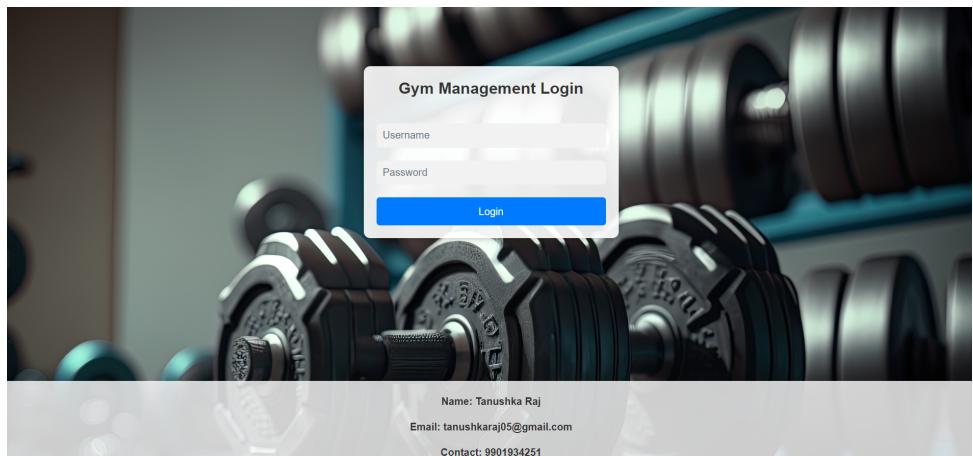


Figure 4.1: Login Page

Figure:4.2 shows the screenshot of home page. The home page comprises of the about us,gym,member, payment,trainer and log out tabs.

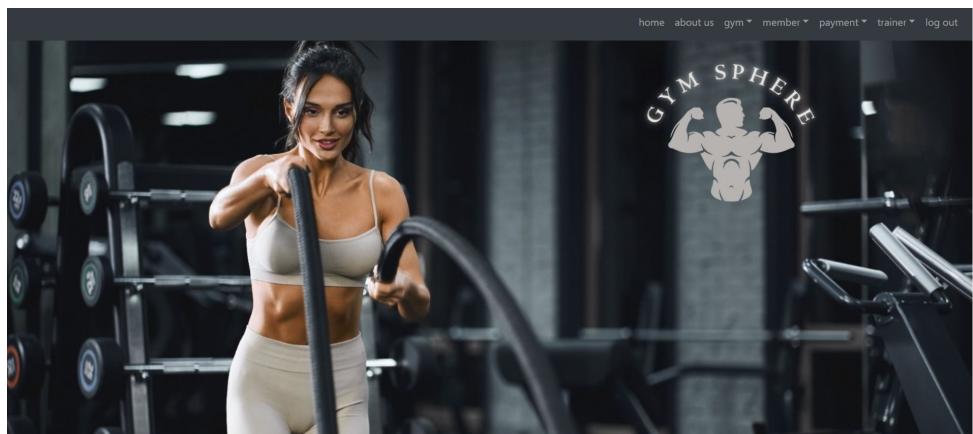


Figure 4.2: Home Page

Figure:4.3 shows the screenshot of about page. It gives the brief description of the gym management system, owner motives and the history of the gym.

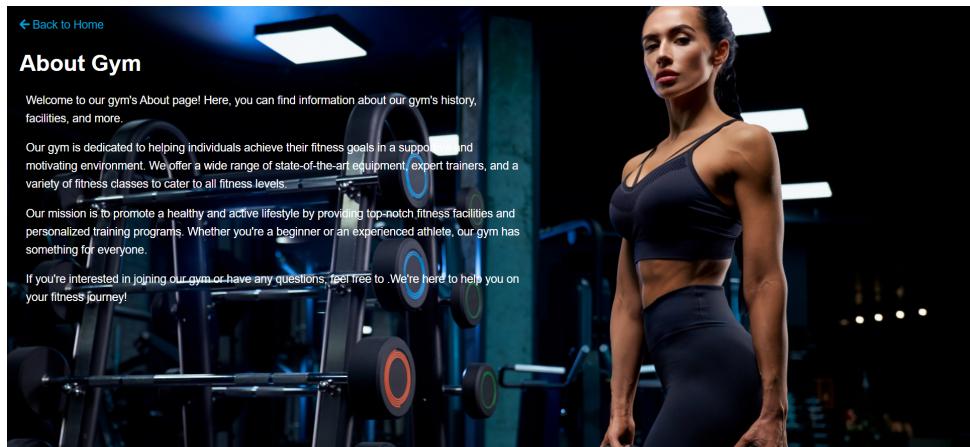


Figure 4.3: About Page

Figure:4.4 shows the screenshot of add gym page. The admin can add a new branch of the gym which includes gym id, gym name, address and type of the gym.

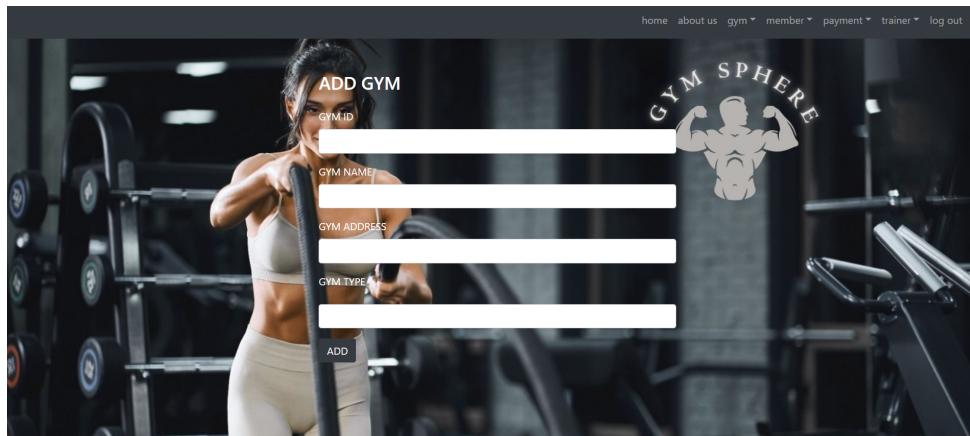
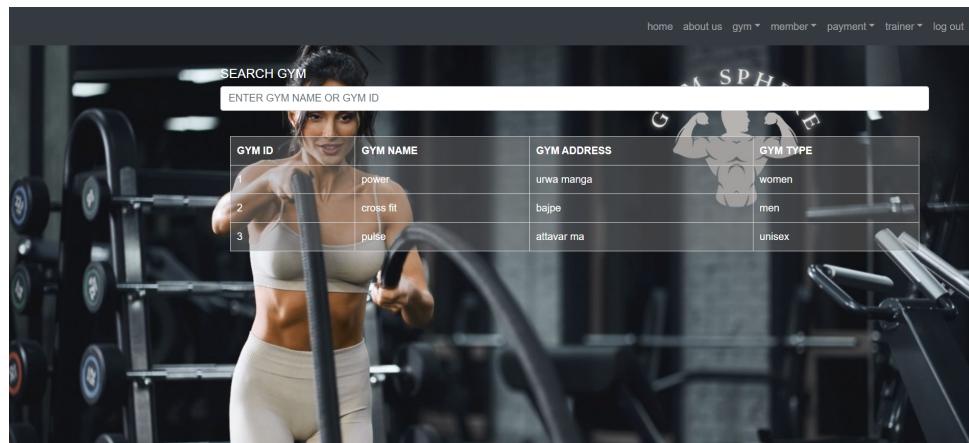


Figure 4.4: Add Gym Page

Figure:4.5 shows the screenshot of view gym page.displays the details of the stored gym.

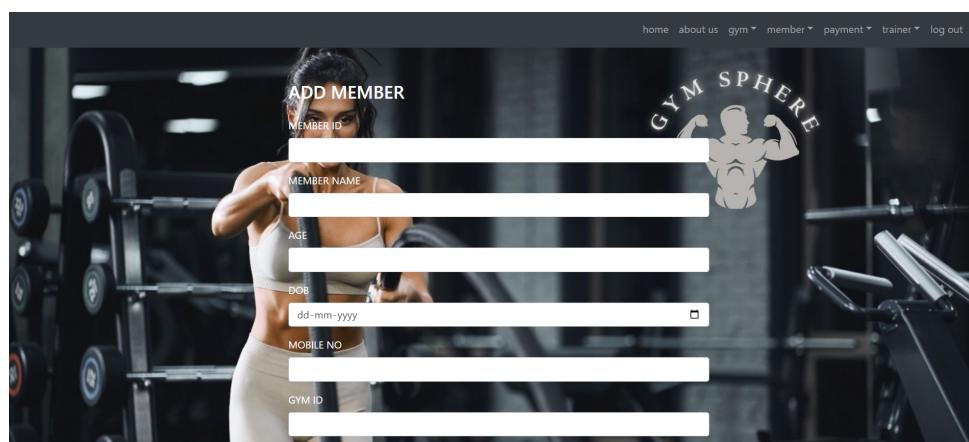


The screenshot shows a web page titled "SEARCH GYM" with a search bar labeled "ENTER GYM NAME OR GYM ID". Below the search bar is a table with four columns: GYM ID, GYM NAME, GYM ADDRESS, and GYM TYPE. The table contains three rows of data:

GYM ID	GYM NAME	GYM ADDRESS	GYM TYPE
1	power	urwa manga	women
2	cross fit	bajpe	men
3	pulse	attavar ma	unisex

Figure 4.5: View gym Page

Figure:4.6 shows the screenshot of add member page.The details of the new member can be stored which includes member id,member name,Date of birth,age,mobile number,gym id.



The screenshot shows a web page titled "ADD MEMBER" with several input fields for member information. The fields are labeled: MEMBER ID, MEMBER NAME, AGE, DOB, MOBILE NO, and GYM ID. To the right of the input fields is a logo for "GYM SPHERE" featuring a muscular figure.

Figure 4.6: Add Member Page

Figure:4.7 shows the screenshot of view member page. Displays the details of the stored members.

The screenshot shows a web page titled "SEARCH MEMBER" with a search bar labeled "ENTER MEMBER NAME OR MEMBER ID". Below the search bar is a table with the following data:

MEMBER ID	MEMBER NAME	AGE	DOB	MOBILE NO	GYM ID
3	joyal	20	2002-05-07	9087654321	1
5	harsha	20	2003-06-11	9876543210	2

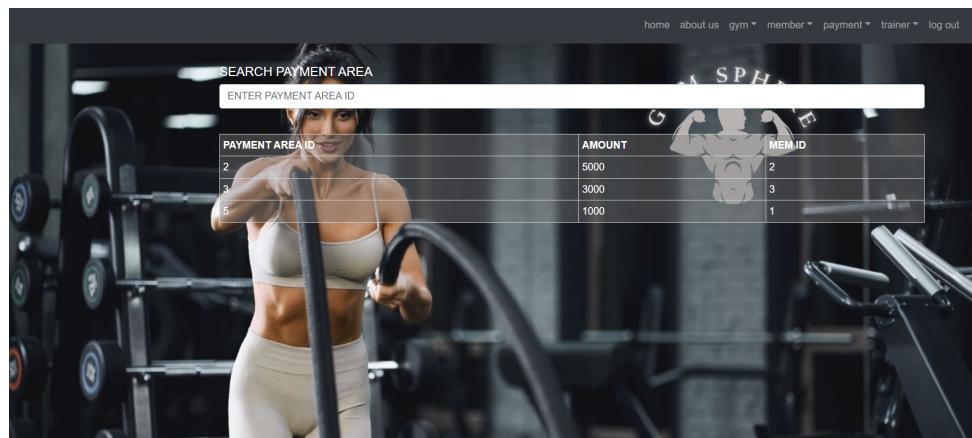
Figure 4.7: View Member Page

Figure:4.8 shows the screenshot of add payment page. The payment details can be stored in this page. It consists of pay id, amount paid, member id.

The screenshot shows a web page titled "ADD PAYMENT AREA" with three input fields: "PAYMENT AREA ID", "AMOUNT", and "MEM ID". Below these fields is a button labeled "ADD". The background features a woman working out with the "GYM SPHERE" logo.

Figure 4.8: View Member Page

Figure:4.9 shows the screenshot of view payment page. Displays details of stored payment entries.

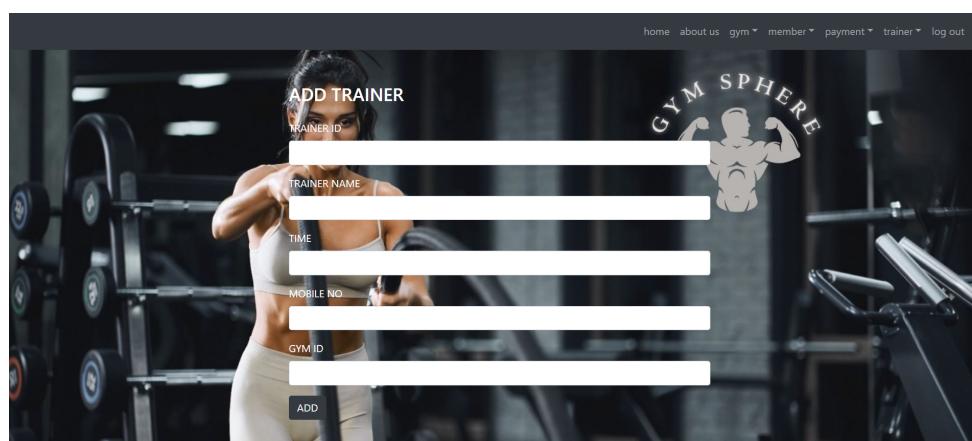


The screenshot shows a web application interface for a gym. At the top, there is a navigation bar with links: home, about us, gym, member, payment, trainer, and log out. Below the navigation bar is a search bar labeled "SEARCH PAYMENT AREA" with the placeholder "ENTER PAYMENT AREA ID". The main content area features a background image of a woman working out with resistance bands. Overlaid on the image is a table titled "PAYMENT AREA" with the following data:

PAYMENT AREA ID	AMOUNT	MEM ID
2	5000	2
3	3000	3
5	1000	1

Figure 4.9: View Payment Page

Figure:4.10 shows the screenshot of add trainer page. It stores the trainer id, name, time availability, mobile number, gym id.



The screenshot shows a web application interface for a gym. At the top, there is a navigation bar with links: home, about us, gym, member, payment, trainer, and log out. Below the navigation bar is a form titled "ADD TRAINER" with the following fields:

- TRAINER ID (input field)
- TRAINER NAME (input field)
- TIME (input field)
- MOBILE NO (input field)
- GYM ID (input field)
- A "ADD" button at the bottom

Figure 4.10: Add Trainer Page

Figure:4.11 shows the screenshot of view trainer page. Displays the details of the trainer.

The screenshot shows a web application for a gym. At the top, there is a navigation bar with links: home, about us, gym, member, payment, trainer, and log out. Below the navigation bar is a banner featuring a woman in a gym setting. Overlaid on the banner is a search form titled "SEARCH TRAINER" with the placeholder "ENTER TRAINER NAME OR TRAINER ID". To the right of the search form is a table with the following data:

TRAINER ID	NAME	TIME	MOBILE NO	GYM ID
2	kushi	05:00:00	9901934987	2
3	yash	05:00:00	9087654521	3
4	anu	07:00:00	9087654521	1

Figure 4.11: View Trainer Page

Figure:4.12 shows the Database of Gym.

The screenshot shows the phpMyAdmin interface connected to a MySQL database named "gym". On the left, there is a tree view of the database schema, including tables like "New", "gym", "login", "member", "payment", "trainer", and "labprograms". The main area displays the "payment" table. The table has columns: pay_id, amount, and gym_id. There are three rows of data:

pay_id	amount	gym_id
2	5000	2
3	3000	3
5	1000	1

Figure 4.12: Gym DataBase

Figure:4.13 shows the database of payment.

The screenshot shows the phpMyAdmin interface for the 'gym' database. The left sidebar lists various schemas and tables, including 'gym'. The main area displays the 'gym' table with three rows of data:

	gym_id	gym_name	address	type
1	1	power	shringeri	women
2	2	cross fit	bape	men
3	3	pulse	attavar ma	unisex

Below the table, there are buttons for Edit, Copy, Delete, and Export.

Figure 4.13: Payment DataBase

Figure:4.14 shows the database of the member.

The screenshot shows the phpMyAdmin interface for the 'gym' database. The left sidebar lists various schemas and tables, including 'member'. The main area displays the 'member' table with two rows of data:

	mem_id	name	dob	age	mobilleno	gym_id
1	3	joyal	2002-05-07	20	9087654321	1
2	5	harsha	2003-06-11	20	9876543210	2

Below the table, there are buttons for Edit, Copy, Delete, and Export.

Figure 4.14: Member DataBase

Figure:4.15 shows the database of trainer page.

The screenshot shows the phpMyAdmin interface with the following details:

- Server:** 127.0.0.1
- Database:** gym
- Table:** trainer

The 'Structure' tab is selected. The 'Data' tab displays the following data:

trainer_id	name	time	mobileno	gym_id
2	kushi	05:00:00	9901934987	2
3	yash	05:00:00	9007654521	3
4	anu	07:00:00	9007654521	1

Below the table, there are several operation buttons for each row: Edit, Copy, Delete, and a checkbox for selecting multiple rows. There are also buttons for 'Check all', 'With selected...', 'Edit', 'Copy', 'Delete', and 'Export'.

Figure 4.15: Trainer DataBase

Chapter 5

Conclusion and Future Scope

Conclusion

- Successfully achieved project objectives for streamlining gym operations.
- Implemented a MySQL database and web-based PHP application. .
- Covered member management, class scheduling, staff management, and billing.
- Overcame challenges with creative solutions and rigorous testing.
- Improved user interface based on feedback to enhance usability.
- Valuable insights gained with potential for a positive impact on the fitness industry.

Future Scope

- Mobile Apps: Develop mobile applications for member convenience and accessibility.
- Fitness Tracker Integration: Sync with fitness trackers for real-time workout data.
- Nutrition and Workout Plans: Add personalized fitness recommendations.
- Voice and Chatbots: Implement voice commands and chat support.
- Feedback Mechanisms: Continuously gather member feedback.
- Predictive Maintenance: Use AI for equipment maintenance.

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- [3] <https://github.com/AbhishekMali21/GYM-MANAGEMENT-SYSTEM/blob/master/README.md>