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Alandi (D), Pune

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Savitribai Phule Pune University

A Project Report On “GYM MANAGEMENT SYSTEM”

BY

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Under the guidance of

Mrs.Shalmali Kadam

In Partial fulfillment of

TYBSC(CS)

Academic Year 2023-24

CERTIFICATE

This is to certify that, the project report entitled “Online Banking System” which is submitted by “**ADITYA HARESH WAGH & SHAILESH CHARANSIGH LOKHANDE**” in partial fulfillment of Bachelor of Science - Computer Science has satisfactorily completed the project work under our guidance and supervision.

We wish our best wishes for your future endeavor.

Prof. Shalmali Kadam

Department of
Comp.

Internal Examiner

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HOD, Science and
Comp. Science

External Examiner

ACKNOWLEDGEMENT

I take this opportunity to express my sincere gratitude to everyone who has directly or indirectly helped me in completing the project successfully. I own profound intellectual debt to Name of Guide who is a guiding source of encouragement and helped me throughout the course of my project.

I am also thankful to Prof. **Dr. B. B. Waphare**, Principal MIT Arts Commerce and Science College Alandi(D), Pune and also to **Dr. Sangita Birajdar**, HOD, Science and Comp.Science for providing me with this opportunity.

Project Associates

SHAILESH CHARANSIGH LOKHANDE (TF037)

ADITYA HARESH WAGH(TF038)

DECLARATION

I, hereby declare that the project report on “Gym Manangement System” is written and submitted by us to MAEER’s MIT Arts Commerce and Science College, Alandi(D), Pune, towards the partial fulfillment for the study of Bachelor of Science (Computer Science) in year 2022-2023 is original work

done by me, which is based on the primary and secondary data and it is based on the knowledge and material gained by me and from website and otherdocuments.

The contents provided are true to the best of our knowledge and beliefs.

I further declare that this project report has not been submitted to any other college or university for any other degree or course earlier.

Place: Alandi(D), Pune

Date:

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1. INTRODUCTION

1.1 INTRODUCTION

Our Gym Management Software is a gym and health club membership management system. You can keep records on your members, their memberships, and have quick and easy communication between you and your members. Gym Management also includes a booking system, point of sale, banking, accounting, concessions and has a range of reports that help in the management of your club.

Our Gym Management Software is a complete gym and recreation facility system program which looks after all of your members, memberships and activities. It is designed for gyms, recreation centers, and health clubs.

Our Gym management Software provides lots of functions such data entry of customer, keeping records of all the things about customer' s fees, plan, and physical fitness which help to provide good quality of services to customer

from Gym managers.

1.2 SCOPE OF SYSTEM

An online gym management system for users encompasses features such as registration and profile management, booking and scheduling of classes, membership management, fitness tracking, nutrition planning, communication channels, secure payment options, feedback mechanisms, mobile accessibility, and robust privacy measures. Users can register, create profiles, and book classes conveniently, with reminders for scheduled sessions. Membership details, including payment history and plan upgrades, are easily accessible. The system facilitates fitness tracking and progress monitoring, offering personalized workout routines and diet plans.

Communication channels enable interaction with trainers and peers, fostering community engagement and support. Secure payment gateways ensure seamless transactions for membership fees and additional services. Users can provide feedback and access reviews to inform

1.3 EXISTING SYSTEM

In the existing system the exams are done only manually but in proposed system we have to computerize the exams using this application.

Lack of security of data.

More man power.

Time consuming.

Consumes large volume of paper work.

Needs manual calculations.

No direct role for the higher officials

2. PROPOSED SYSTEM

2.1 Proposed System

The aim of proposed system is to develop a system of improved facilities. The proposed system can overcome all the limitations of the existing system. The system provides proper security and reduces the manual work.

Security of data.

Ensure data accuracy's.

Proper control of the higher officials.

Minimize manual data entry.

Minimum time needed for the various processing.

Greater efficiency.

Better service.

User friendliness and interactive.

Minimum time required.

2.2 Objectives

- ☐ The main objective of the project is to develop software that facilitates the data storage, data maintenance and its retrieval for the gym in an igneous way.
- ☐ To store the record of the customers, the staff that has the privileges to access, modify and delete any record and finally the

service,
gym provides toits customers.

- Also, only the staff has the privilege to access any database and make the required changes, if necessary.
- To develop easy-to-use software which handles the customer- staff relationship in an effective manner.
- To develop a user friendly system that requires minimal user training. Most of the features and functions are similar to those on any windows platform.

2.3 Advantages

Certainly, here are the advantages of an online gym management system in brief:

1. Streamlined membership management
2. Automated billing and payments
3. Easy scheduling and booking
4. Attendance tracking
5. Inventory management
6. Performance monitoring and reporting
7. Improved communication and engagement
8. Accessibility and convenience
9. Integration with other systems
10. Enhanced security
11. Increased revenue opportunities through targeted promotions.

2.4 FACTS FINDING TECHNIQUES

Facts finding techniques for a Gym Management System involve various approaches to gather information about the system's features, functionalities, benefits, and user experiences. Here are some techniques you can use:

1. **Online Research:** Conducting online research involves searching for information on the internet about different gym management systems. You can explore websites, forums, reviews, and social media platforms to gather insights from users, experts, and industry professionals.
2. **Vendor Websites:** Visiting the websites of gym management system vendors allows you to gather information directly from the source. You can explore product pages, feature lists, case studies, and customer testimonials to understand the capabilities and benefits of each system.
3. **Demo or Free Trial:** Many gym management system vendors offer demos or freetrials of their software. Requesting a demo or signing up for a free trial allows you to experience the system firsthand and explore its features in a real-world environment.

4. **User Reviews and Ratings:** Reading user reviews and ratings on platforms like Capterra, G2, TrustRadius, or App Store can provide valuable insights into the experiences of other gym owners, managers, and staff members with
different gym management systems

5. **Industry Reports and Publications:** Industry reports, whitepapers, and publications related to fitness management and technology can provide in- depth analysis and comparisons of various gym management systems. These resources often include insights from industry experts and research studies.

6. **Networking and Peer Recommendations:** Networking with other gym owners, managers, and industry professionals can be a valuable source of information about different gym management systems. Peer recommendations and referrals can help you identify systems that are well-suited to your specific needs and requirements.

7. **Trade Shows and Conferences:** Attending trade shows, conferences, and industry events related to fitness management and technology allows you to explore different gym management systems, interact with vendors, and attend educational sessions and product demonstrations.

8. **Consulting with Experts:** Consulting with industry experts, consultants, or technology advisors can provide personalized recommendations and guidance based on your specific goals, challenges, and budget constraints.

By using these facts finding techniques, you can gather comprehensive information about different gym management systems and make

informed decisions about which system is the best fit for your gym.

2.5 System Requirement

1. Hardware Requirements:

- Web server with PHP support for hosting the application.
- Client devices (e.g., computers, smartphones, tablets) with internet connectivity to access the system.

2. Software Requirement:

- Operating system compatibility for both server and client-side applications.
- Web server software (e.g., XAMP CONTROL).
- PHP runtime environment.
- Database management system (e.g., MySQL, PostgreSQL) for storing gym member information, schedules, payments, etc.
- Development environment for coding HTML, CSS, PHP (e.g., text editor, IDE).
- Bootstrap framework for front-end design and responsiveness.

3. Security Requirement:

- Secure login system with hashing and salting of passwords.
- Role-based access control to ensure only authorized users can access specific features.
- Protection against SQL injection and other common web security vulnerabilities.
- SSL certificate for secure communication between the server and clients.

4. Functional Requirements:

- User-friendly interface for gym members, staff, and administrators.
- Member registration and profile management.
- Class scheduling and booking system.
- Trainer and staff management.
- Payment processing for membership fees and additional services.
- Automated reminders and notifications for upcoming classes, payments, etc.
- Reporting and analytics for tracking membership statistics, revenue, etc.

5. Scalability and Performance Requirements:

- Ability to handle multiple concurrent users accessing the system.
- Efficient database design and indexing for fast data retrieval.
- Caching mechanisms to improve performance, especially for frequently accessed data.

2.6 Feasibility Studies

Feasibility study is made to see if the project on completion will serve the purpose of the organization for the amount of work, effort and the time that spend on it. Feasibility study lets the developer foresee the future of the project and the usefulness. A feasibility study of a system proposal is according to its workability, which is the impact on the organization, ability to meet their user needs and effective use of resources. Thus when a new application is proposed it normally goes through a feasibility study. The document provide the feasibility of the project that is being designed and lists various areas that were considered very carefully during the feasibility study of this project such as Technical, Economic and Operational feasibilities. The following are its features:

TYPES OF FEASIBILITY STUDY:

TECHNICAL FEASIBILITY:

The system must be evaluated from the technical point of view first. The assessment of this feasibility must be based on an outline design of the system requirement in the terms of input, output, programs and procedures.

Having identified an outline

the investigation must go on to suggest the type of equipment, required method developing the system, of running the system once it has been designed.

Does the existing technology sufficient for the suggested one?
Can the system expand if developed?

The project should be developed such that the necessary functions and performance are achieved within the constraints. The project is developed within latest technology. Through the technology may become obsolete after some period of time, due to the fact that newer version of same software supports older versions, the system may still be used. So there are minimal constraints involved with this project.

ECONOMIC FEASIBILITY:

The developing system must be justified by cost and benefit. Criteria to ensure that effort is concentrated on project, which will give best, return at the earliest. One of the factors, which affect the development of a new system, is the cost it would require.

The following are some of the important financial questions asked during preliminary investigation:

- The costs to conduct a full system investigation.

- The cost of the hardware and software.

- The benefits in the form of reduced costs or fewer costly errors.

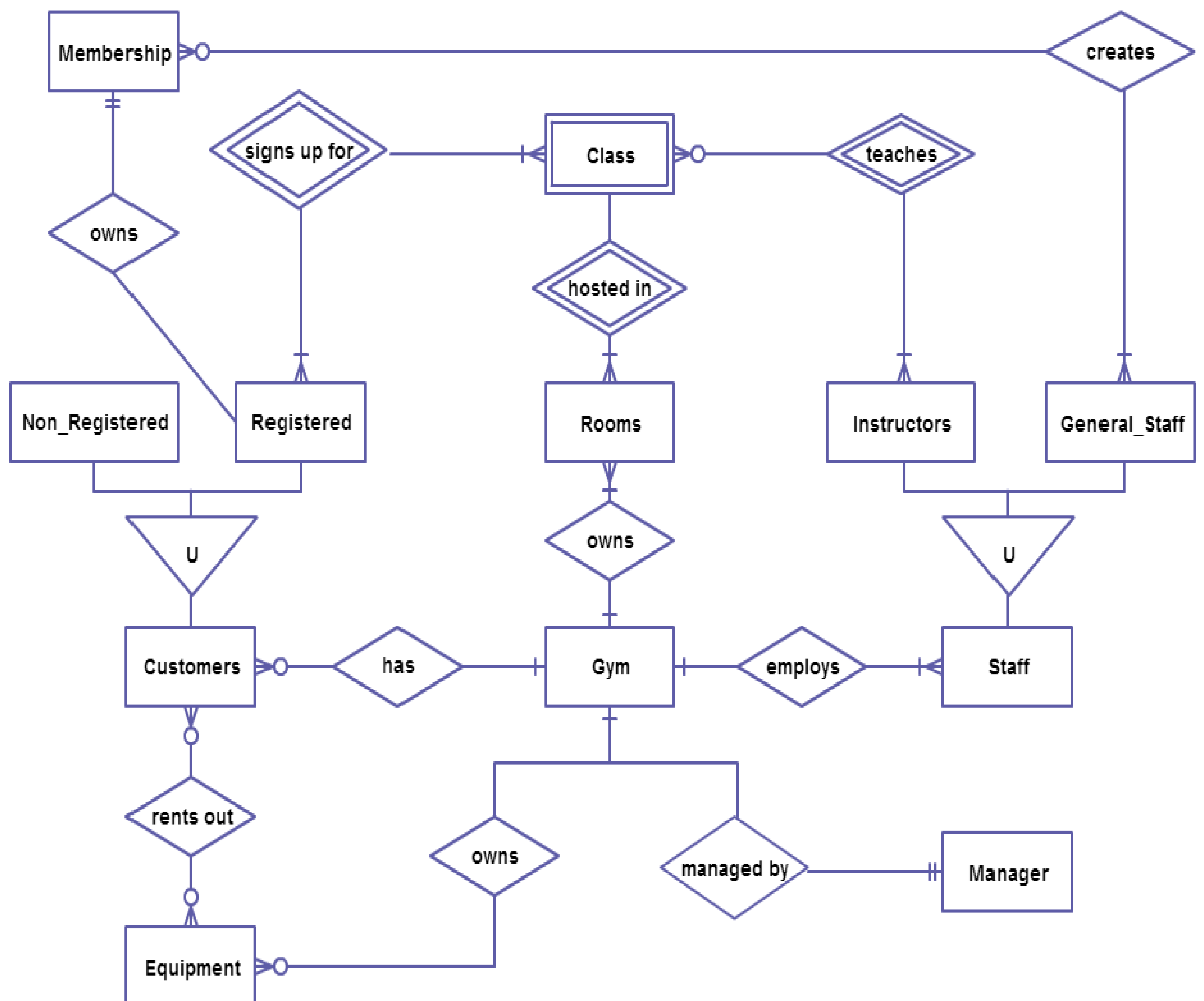
Since the system is developed as part of project work, there is no manual cost to spend for the proposed system. Also all the resources are already available, it gives an indication of the system is economically possible for development.

SOCIAL FEASIBILITY:

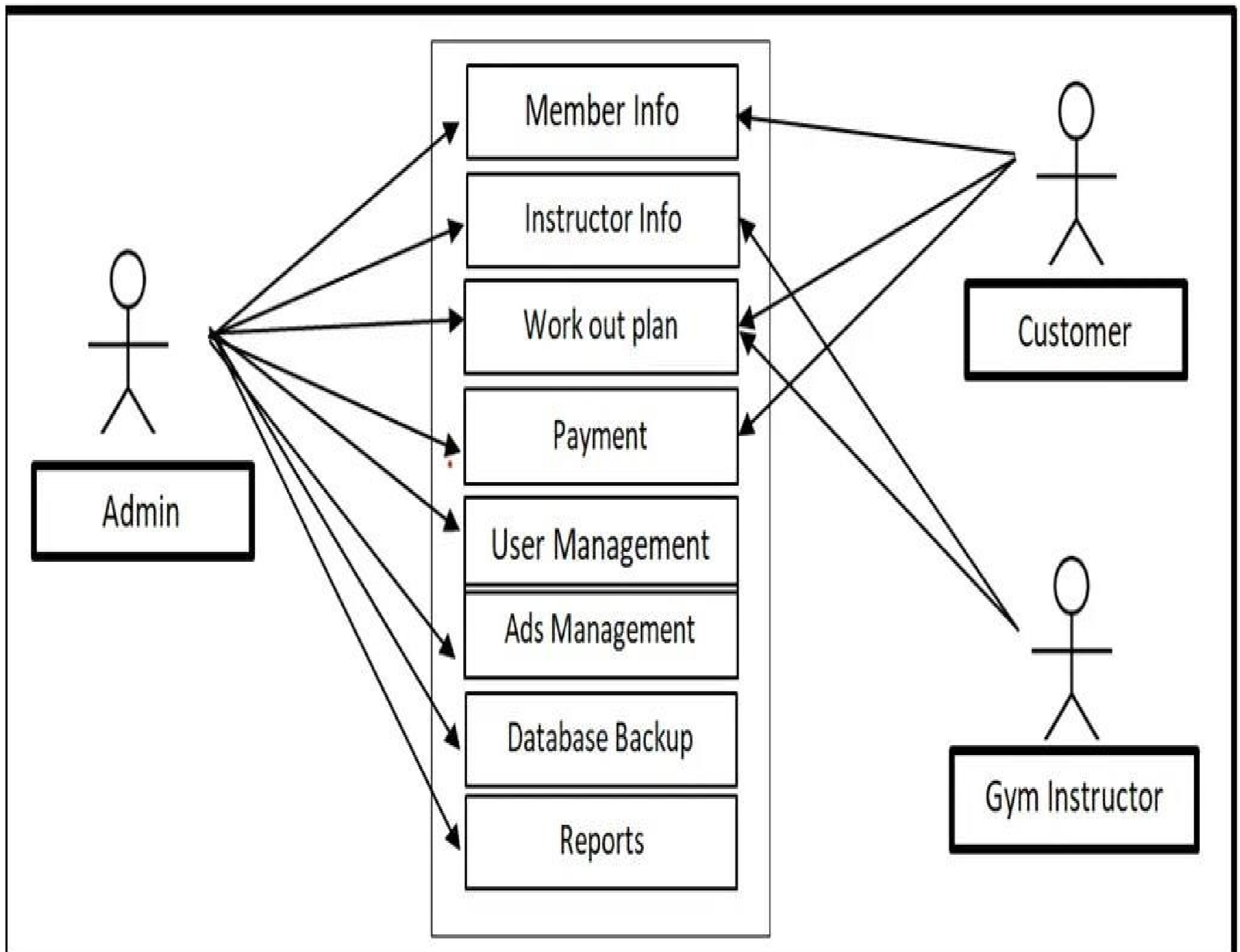
Social feasibility is one of the feasibility study where the acceptance of the people is considered regarding the product to be launched. It describes the effect on users from the introduction of the new system considering whether there will be a need for retraining the workforce. It describes how you propose to ensure user co-operation before changes are introduced. The effect that a proposed project may have on the social system in the project environment is addressed in the social feasibility. It may happen that a particular category of employees may be short or not available as a result of ambient social structure. The influence on the social status of the participants by the project should be evaluated in order to guarantee compatibility. It must be identified that employees in particular industries may have specific status symbols within the society.

3. Analysis and Design

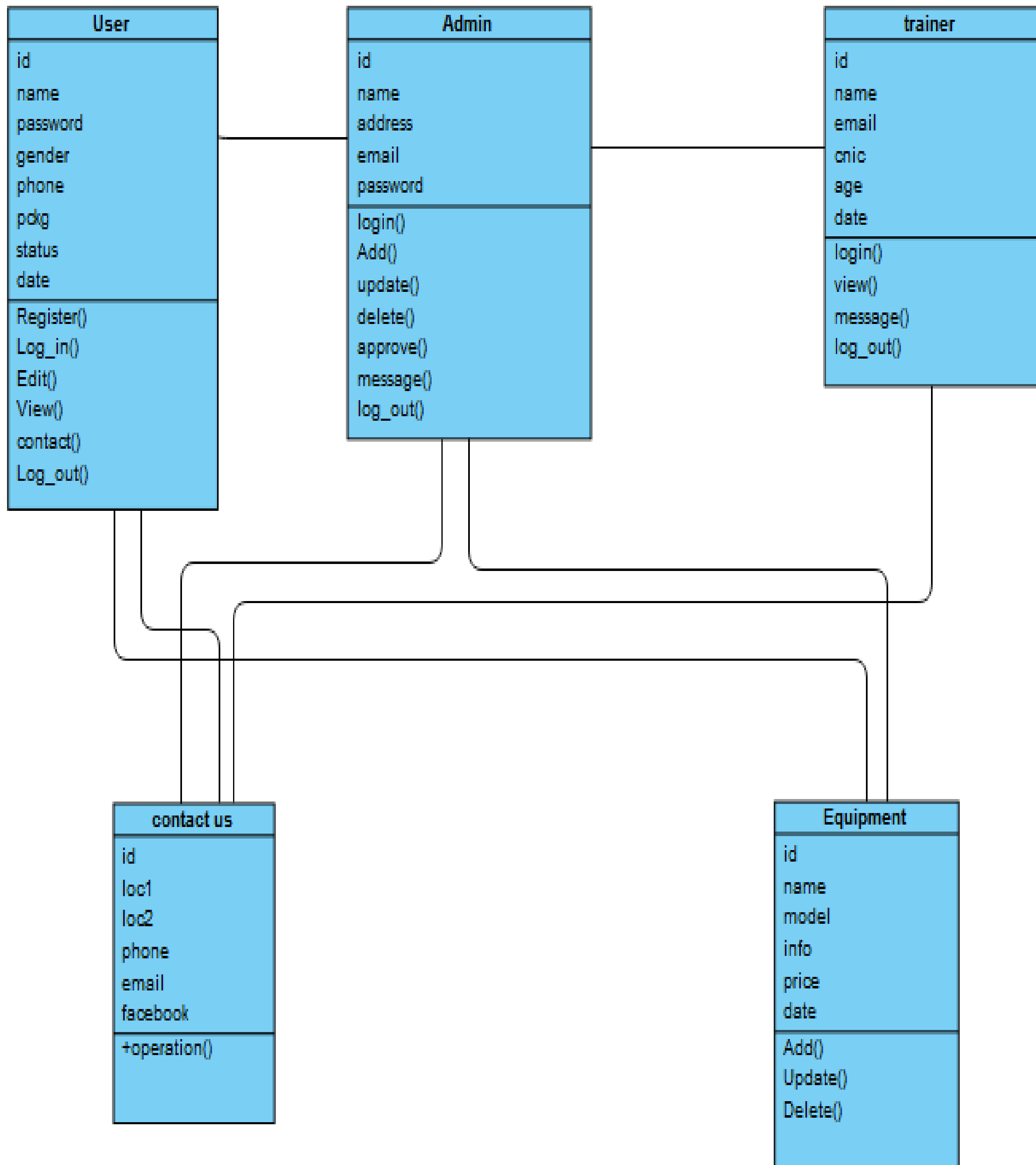
3.1 ER Diagram



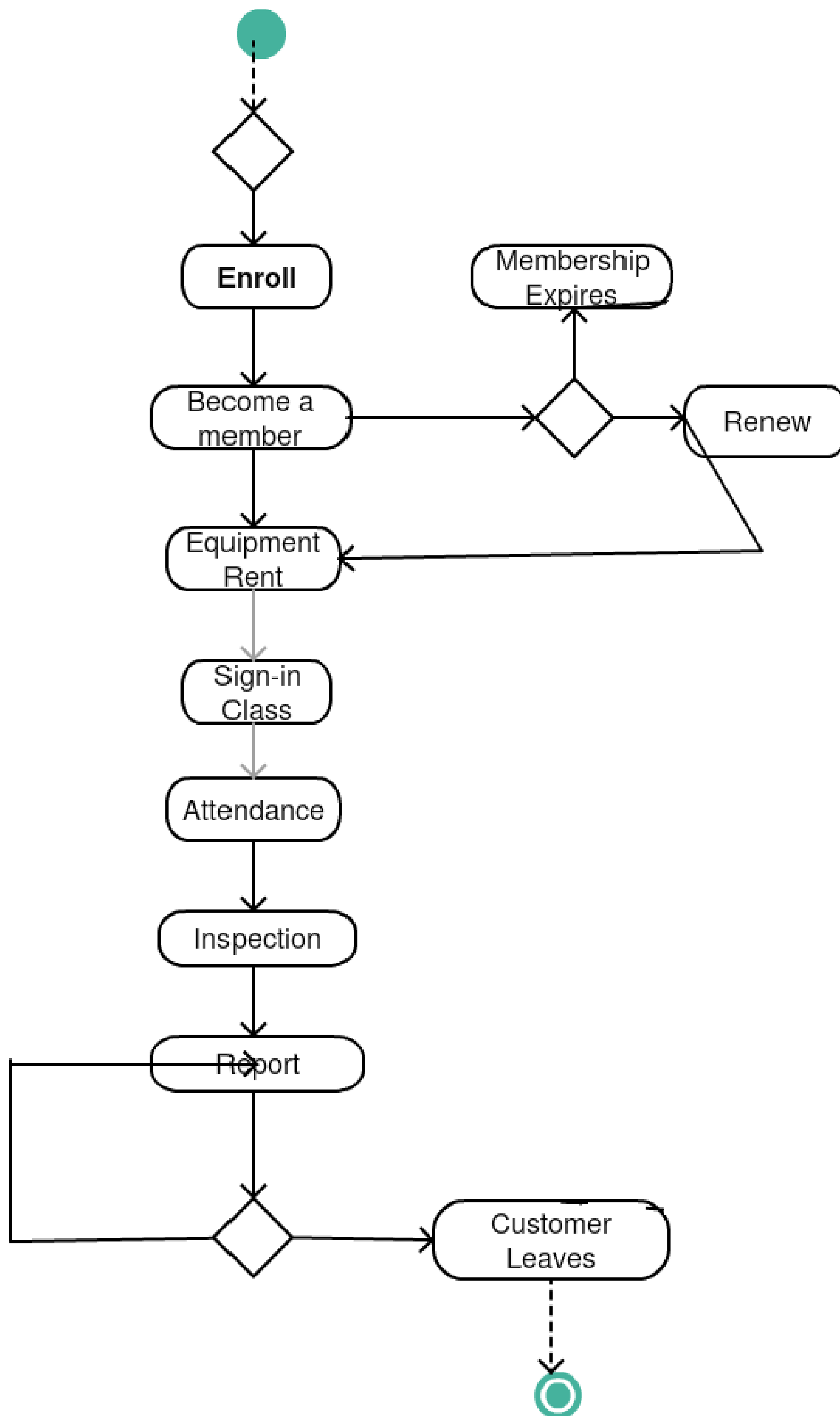
3.2 Use Case Diagram



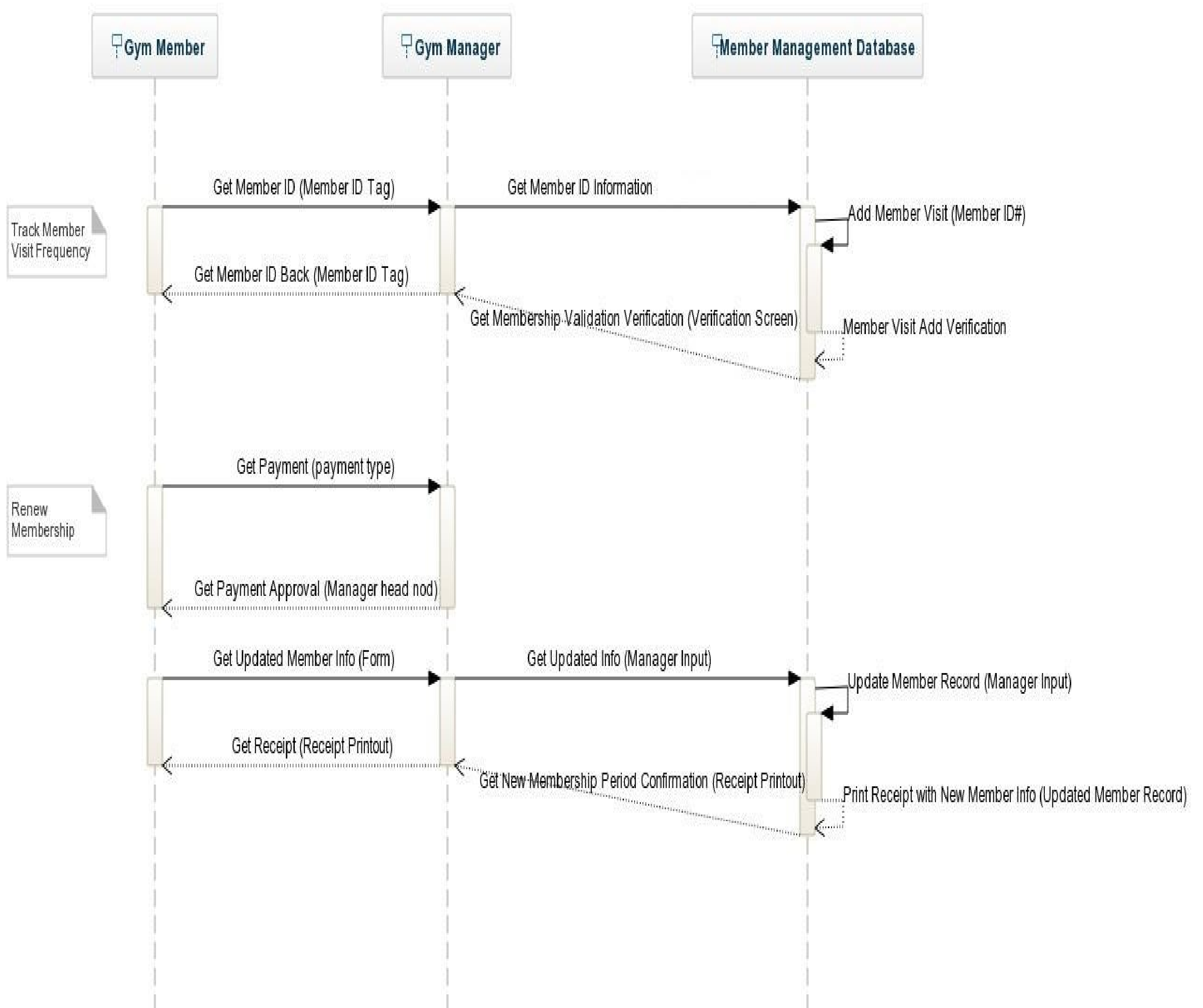
3.3 Class Diagram



3.4 Activity Diagram



3.5 Sequence Diagram



3.6 Data Dictionaries

Member Table:

SL.No	Field_Name	Data_Type	Description
1	id	int	Store the member_id
2	Name	Varchar(100)	Store the member_name
3	Mobilenumber	Varchar(15)	Store the member MobileNo
4	Email	Varchar(50)	Store the member email
5	Gender	Varchar(10)	Store the Member gender
6	Father_Name	Varchar(100)	Store the member fathername
7	Gym_Time	Varchar(500)	Store the member gymtime
8	Age	int	Store the member age
9	Amount	int	Store the member fees to pay per month
10	Trainee_ID	int	Store member's trainee Id
11	Package_ID	int	Store member package id

Package table:

SL.No	Field_Name	Data_Type	Description
1	Package_id	int	Store package_id
2	Package_name	Varchar(100)	Store package name
3	amount	Varchar(50)	Store Package amount

Trainee table:

Sl.No	Field_Name	Data_Type	Description
1	Tid	Int	Store Trainee id
2	Tname	Varchar(20)	Store Trainee name
3	Tmobilenumber	bigint	Store Trainee mobileNo
4	Temail	Varchar(50)	Store Trainee mail_id
5	Tgender	Varchar(10)	Store Trainee gender
6	TfatherName	Varchar(50)	Store Trainee father name
7	TgymTimings	Varchar(100)	Store Trainee gym time
8	Tage	int	Store Trainee age
9	Tamount	int	Store Trainee salary

Payment table:

Sl.No	Field_name	Data_Type	Description
1	id	int	Store member id
2	month	Varchar(50)	Store month of payment
3	amount	int	Store fees paid by member

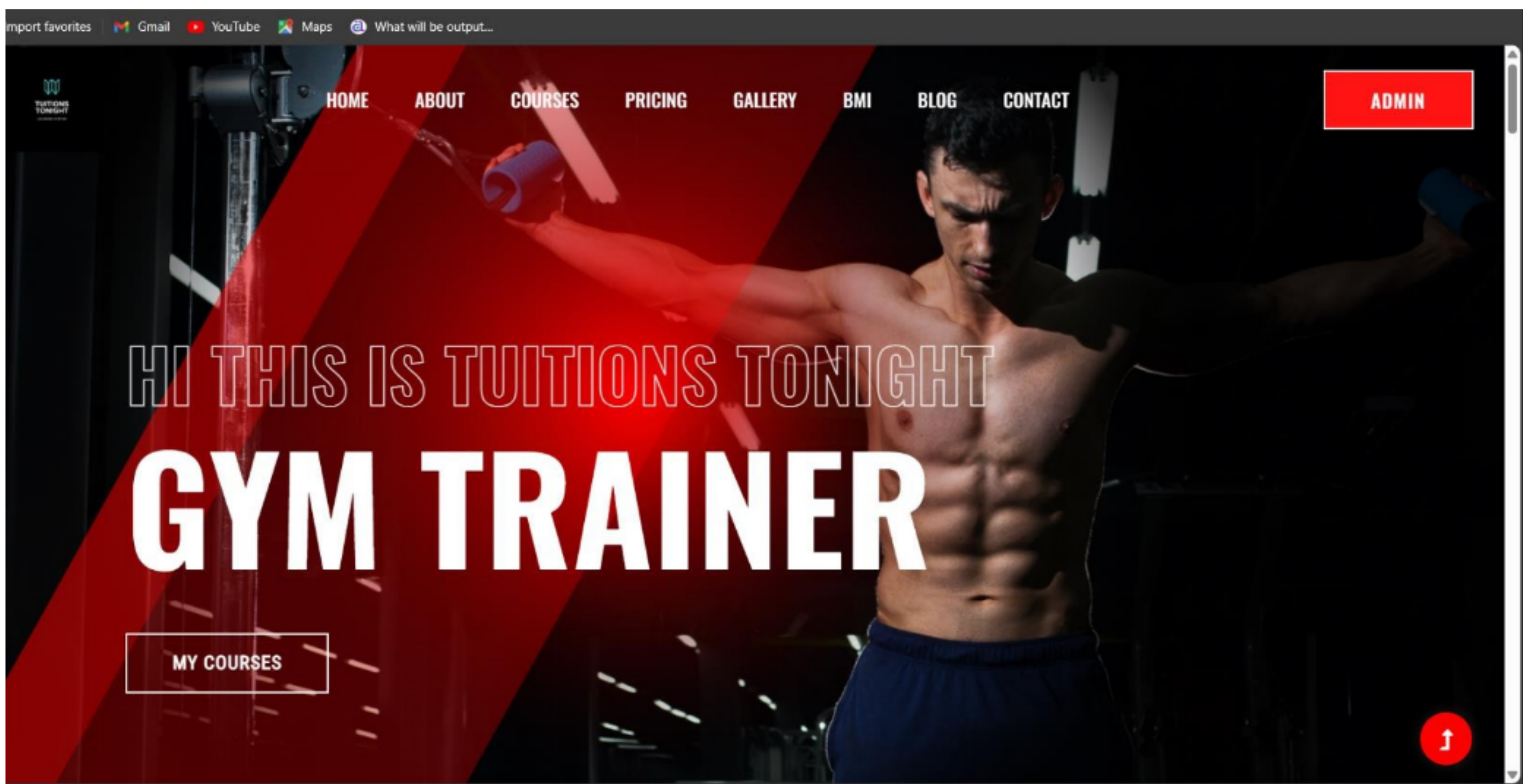
Equipment Table :

Sl.No	Field_Name	Data_Type	Description
1	Eq_id	Varchar(20)	Store equipment id
2	Equipment_name	Varchar(100)	Store equipment name
3	Price	int	Store equipment Price
4	No_of_units	int	Store equipment weight
5	Description	Varchar(200)	Store equipment's information

4.1 User Manual /Project

4.1 Screen Shots

HOME PAGE



BLOG



15
Jan

Google inks pact for new 35-storey office

That dominion stars lights dominion divide years for fourth have don't stars is that he earth it first without heaven in place seed it second morning saying.

Travel, Lifestyle | 03 Comments



SEARCH

Category

Resaurant food(37)

Travel news(10)

Modern technology(03)

Product(11)

Inspiration21

Health Care (21)09

MEMBERSHIP PLANS

Import favorites

Gmail

YouTube

Maps

What will be output...

HOMEABOUTCOURSESPRICINGGALLERYBMIBLOGCONTACT

ADMIN

PRICING

3 MONTH

5000 (SINGLE CLASS)

- ✓ Free Riding
- ✓ Unlimited Equipments
- ✓ Personal Trainer
- ✓ Weight Losing Classes
- ✓ Month To Mouth

JOIN NOW

6 MONTH

7000 (SINGLE CLASS)

- ✓ Free Riding
- ✓ Unlimited Equipments
- ✓ Personal Trainer
- ✓ Weight Losing Classes
- ✓ Month To Mouth

JOIN NOW

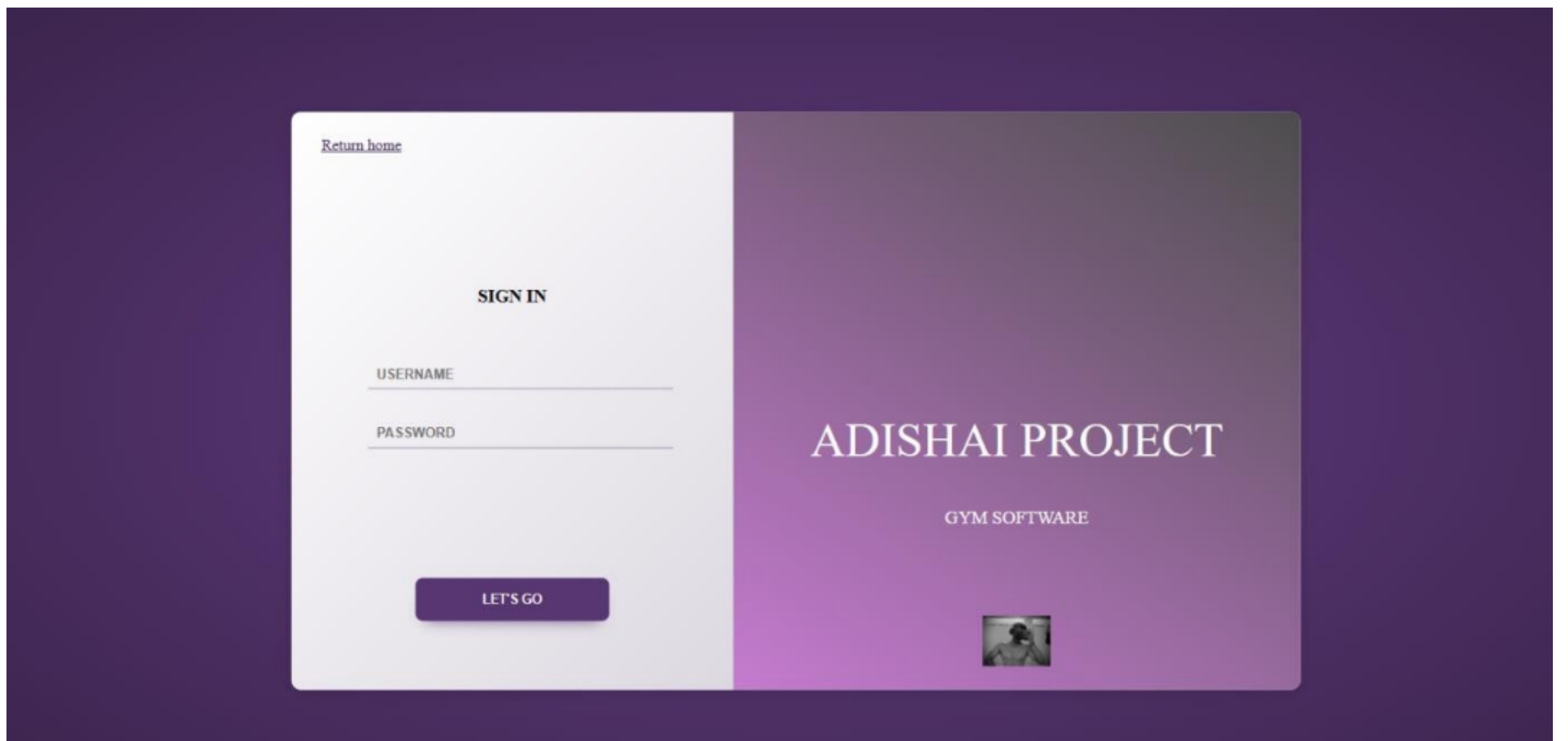
12 MONTH

10000 (SINGLE CLASS)

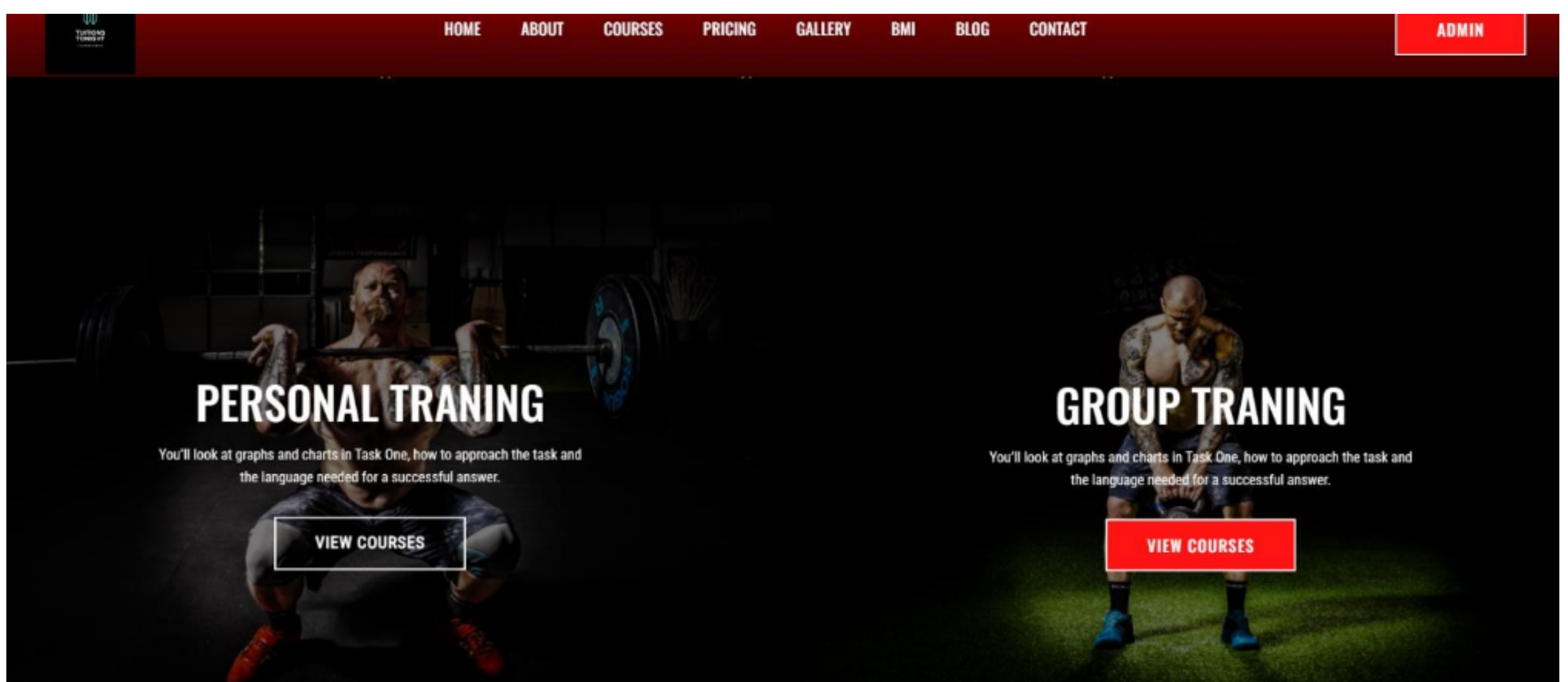
- ✓ Free Riding
- ✓ Unlimited Equipments
- ✓ Personal Trainer
- ✓ Weight Losing Classes
- ✓ Month To Mouth

JOIN NOW

ADMIN LOGIN



TRANING SESSIONS



4.2 Future Enhancement

Several potential future enhancements could be implemented in gym management systems to improve efficiency, member satisfaction, and overall business operations. Here are some ideas:

- 1. AI-Powered Personalization:** Integrate artificial intelligence (AI) algorithms to analyze member data and provide personalized workout plans, class recommendations, and nutrition advice based on individual goals, preferences, and performance.
- 2. Virtual Coaching and Training:** Develop a virtual coaching platform within the gym management system to offer remote training sessions, personalized coaching, and virtual fitness classes. This could include live streaming workouts, on-demand video libraries, and interactive training programs.
- 3. IoT Integration:** Incorporate Internet of Things (IoT) devices and sensors into the gym environment to collect real-time data on equipment usage, member activity, and facility conditions. This data can be used to optimize equipment maintenance schedules, track member engagement, and enhance safety protocols.
- 4. Augmented Reality (AR) Workouts:** Introduce AR technology to enhance the gym experience by overlaying digital content, such as exercise instructions, virtual trainers, and interactive challenges, onto the physical environment. This can make workouts more engaging, immersive, and effective.
- 5. Biometric Access Control:** Implement biometric authentication systems, such as fingerprint or facial recognition, for secure access to the gym facilities and equipment. This enhances security measures and streamlines the check-in process for members.

6. Predictive Analytics: Utilize predictive analytics algorithms to forecast member retention rates, anticipate peak usage times, and optimize resource allocation (e.g., staffing, equipment inventory, class schedules). This enables proactive decision-making and resource planning to meet member demand effectively.

7. Mobile App Enhancements: Continuously improve the gym management system's mobile app to offer additional features, such as in-app class booking, workout tracking, social networking with other members, progress tracking, and push notifications for personalized offers and reminders.

4.3 Bibliography

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[4] W. Pedia. [Online]. Available: https://en.wikipedia.org/wiki/Iterative_and_incremental_development. 01.03.2017

While developing this project internet was the the eternal support. Following are the websites referred by us which helped us in developing our project:

[PHP AND MYSQL BY LARRY ULLMAN](#)

WWW.GEEKSFORGREEK.ORG

[PHP/DOCUMENTS](#)

[WIKIPEDIA](#)