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A

Mini Project Report

On

"GYM MANAGEMENT SYSTEM"

Submitted By

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Under the Guidance

of

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SRI KRISHNA INSTITUTE OF TECHNOLOGY

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CERTIFICATE

Certified that the **DBMS** mini project work prescribed in **18CSL58** entitled "**GYM MANAGEMENT SYSTEM**" carried out by **BHARATH B (1KT20IS002)**, bonafide students of **Sri Krishna Institute of Technology**, Bengaluru in partial fulfillment for the award of **Bachelor of Engineering** in **Information Science and Engineering** of the **Visvesvaraya Technological University**, Belagavi during the year 2022-23.It is certified that all corrections / suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The mini project report has been approved as it satisfies the academic requirements with respect to mini project work prescribed for the said Degree.

Signature of the Guide	**Signature of the HOD**
Ms. Naveena S.R	**Dr. Hemalatha K.L**
Assistant Professor	Professor and HOD
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EXTERNAL VIVA

Name of the Examiners	**Signature with date**
1.	
2.	

ABSTRACT

The Gym Management System project deals with an online system designed for management of customers, enquiry,equipment,plans and payment and keep tracking the detailed statistics, Customer management,surveys and also get the enquiry about the system. Our Software provides lots of functions such as data entry of customer, plans and physical fitness which helps to provide good quality of services to customer from Gym managers.

ACKNOWLEDGEMENT

The completion of mini project work brings with a sense of satisfaction, but it is never complete without thanking the persons responsible for its success full completion.

At the outset, I express my most sincere grateful acknowledgment to the holy sanctum **"Sri Krishna Institute of Technology",** the temple of learning, for giving me an opportunity to pursue the degree course in Information Science and Engineering and thus helping me in shaping our career.

I extend my deep sense of sincere gratitude to **Principal**, **Dr. Mahesha K,** Sri Krishna Institute of Technology**,** Bengaluru, for providing me an opportunity to continue my higher studies.

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BHARATH B (1KT20IS002)

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CHAPTER-1

INTRODUCTION

1.1 INTRODUCTION TO THE SYSTEM

This Gym Management System project deals with an online system designed for management of customers, enquiry, equipment, plans and payment. The current system is manual and it is time consuming. It is also cost-ineffective, and average return is low and diminishing.

1.2 OBJECTIVES

This software helps to easy management of gym such as management of customers, equipment, plans, enquiry etc.

1.3 GOALS

1. The project is basically targeted at those people who would like online management.
2. To make a database that is consistent, reliable and secure.
3. To provide correct,complete, ongoing information.
4. To develop a well-organized information storage system.
5. To make good documentation so as to facilitate possible future enhancements.

1.4 NEED OF A SYSTEM

There is always a need of a system that will help gym owner to manage our gym from anywhere at anytime.

CHAPTER-2

SYSTEM ANALYSIS

2.1 PURPOSE

The purpose of this project is to provide online way to manage the gym and also provide a easy interface for management.

2.2 PROJECT SCOPE

The project has a wide scope, as it is not intended to a particular organization. This project is going to develop generic software, which can be applied by any businesses organization.Also the software is going to provide a huge amount of summary data.

2.3 PROPOSED SYSTEM

The Online Gym Management system is available in the market that can serve gym owners to easily manage our gym from anywhere at anytime.

2.4 SYSTEM OVERVIEW

The key features required in the system are as follows:

Modules

1.Manage Customers

2.Manage Equipments

3.Manage Plans

4.Manage Payment

CHAPTER-3

SYSTEM REQUIREMENTS

3.1 SOFTWARE REQUIREMENTS

- **Frontend**- HTML,CSS,JavaScript
- **Backend**- PHP, MYSQL
- Operating System- Windows 7/8/10
- Google Chrome/Internet Explorer
- XAMPP (Version-3.7)

3.2 HARDWARE REQUIREMENTS

- Computer with a 1.1 GHz or faster processor
- Minimum 2GB of RAM or more
- 160 GB or more hard-disk space
- 5400 RPM hard drive
- 1366 × 768 or higher-resolution display

CHAPTER-4

FEASIBILITY STUDY

4.1 OBJECTIVES FEASIBILITY STUDY

The feasibility of the project is analyzed in this phase and business proposal is putforth with a very general plan for the project and some cost estimates. During system analysis the feasibility study of the proposed system is to be carried out. This is to ensure that the proposed system is not a burden to the company. For feasibility analysis, some understanding of the major requirements for the system is essential.

4.2 TYPES OF FEASIBILITY STUDY

Three key considerations involved in the feasibility analysis are:

a. Economical Feasibility

b. Technical Feasibility

c. Operational Feasibility

a. Economical Feasibility

This study is carried out to check the economic impact that the system will have on the organization.The amount of fund that the company can pour into the research and development of the system is limited. The expenditures must be justified. Thus the developed system as well within the budget and this was achieved because most of the technologies used are freely available. Only the customized products had to be purchased.

b. Technical Feasibility

This study is carried out to check the technical feasibility, that is, the technical requirements of the system. Any system developed must not have a high demand on the available technical resources. This will lead to high demands on the available technical resources. This will lead to high demands being placed on the client. The developed system must have a modest requirement, as only minimal or null changes are required for implementing this system.

c. Operational Feasibility

In this project, the admin will store all the details of each applicant and help him to keep track of data and store it decentralized. If there are any enquiries that particular contract can be known as per their requirements and necessaries.

CHAPTER-5

IMPLEMENTATION

5.1 FRONT END TECHNOLOGY

5.1.1 HTML

HTML (Hypertext Markup Language) is the set of markup symbols or codes inserted in a file intended for display on a World Wide Web browser page. The markup tells the Web browser how to display a Web page's words and images for the user. Each individual markup code is referred to as an element (but many people also refer to it as a tag). Some elements come in pairs that indicate when some display effect is to begin and when it is to end.

5.1.2 CSS

Cascading Style Sheets (CSS) are a collection of rules we use to define and modify web pages. CSS are similar to styles in Word. CSS allow Web designers to have much more control over their pages look and layout. For instance, you could create a style that defines the body text to be Verdana, 10 point. Later on, you may easily change the body text to Times New Roman, 12 point by just changing the rule in the CSS. Instead of having to change the font on each page of your website, all you need to do is redefine the style on the style sheet, and it will instantly change on all of the pages that the style sheet has been applied to. With HTML styles, the font change would be applied to each instance of that font and have to be changed in each spot.

5.1.3 Java Script

JavaScript is a programming language commonly used in web development. It was originally developed by Netscape as a means to add dynamic and interactive elements to websites. While JavaScript is influenced by Java, the syntax is more similar to C and is based on ECMAScript, a scripting language developed by Sun Micro systems.

JavaScript is a client-side scripting language, which means the source code is processed by the client's web browser rather than on the web server. This means JavaScript functions can run after a web page has loaded without communicating with the server.

For example, JavaScript function may check a web form before it is submitted to make sure all the required fields have been filled out. The JavaScript code can produce an error message before any information is actually transmitted to the server.

Like server-side scripting languages, such as PHP and ASP, JavaScript code can be inserted anywhere within the HTML of a web page. However, only the output of server-side code is displayed in the HTML, while JavaScript code remains fully visible in the source of the web page. It can also be referenced in a separate .JS file, which may also be viewed in a browser.

5.2 BACK END TECHNOLOGY

5.2.1 PHP

Definition of PHP

PHP can be defined as a programming language for Database access from the web's browser. In other words, it is an HTML-embedded scripting language. It focuses on the logic of how a page responds to user input and not how the page looks that i.e. not the primary appearance of the page.

PHP runs on the server side, which means that the web server that sends an HTML file to a user's browser, will carry out the instructions found in the embedded PHP code first, and then send the output of the PHP code along with the HTML code. The result is a web page with dynamic content.

Brief History on PHP

PHP is a language for creating website that can be more or less interactive. It was created in 1994 by Rasmus Lerdorf who was a software engineer & who was part of the Apache team. In the same year, he created a package, added some database support and called it PHP/FI (Form Interpretation).

In 1995, it was called the Personal Home Page Tool then was released as version2 with a name called PHP/FI (a form interpreter responsible for analyzing queries). In mid of 1997, more than 50,000 websites began using PHP and in October, 1998, there was an increase in the number of websites using PHP which was about 100,000.

PHP and its Uses

PHP can help read and write files. It also can do basic files and directory maintenance; therefore it basically can help one in editing documents. It can also take content that can be used in the generation of files in various formats which can include HTML (Hypertext Markup Language) and PDF.

It also can help manage graphical content which include charts. Not only can it do the above but can it also read, write information in a database. You can make a PHP script to run it without any server or browser. You only need the PHP interpreter to use it. PHP's abilities include outputting images, PDF files, and even Flash movies. PHP can help also output easily any text, such as XML.

5.2.2 MY SQL

MySQL is an open-source relational database management system (RDBMS); in July 2013,it was the world's second most widely used RDBMS, and the most widely used open source client-server model RDBMS. It is named after co-founder Michael Widenius's daughter,MySQL abbreviation stands for Structured Query Language. The MySQL development project has made its source code available under the terms of the GNU General Public License,as well as under a variety of proprietary agreements.

MySQL was owned and sponsored by a single for-profit firm,the Swedish company MySQL AB, now owned by Oracle Corporation. For proprietary use, several paid editions are available, and offer additional functionality.

MySQL is a popular choice of database for use in web applications and is a central component of the widely used LAMP open-source web application software stack .LAMP is an acronym for "Linux, Apache, MySQL, Perl/PHP/Python".

CHAPTER-6

SYSTEM DESIGN

6.1 USE CASE DIAGRAM BETWEEN ADMIN AND SYSTEM

Use Case diagram is a graphic depiction of the interactions among the elements of Gym Management System. It represents the methodology used in system analysis to identify,clarify and organize system requirements of Gym Management System. The main actors of Gym Management System in this Use case Diagram shows the interaction between them as shown in Fig.6.1.

- Between Admin and System perform the different type of use cases such as Manage Customer,Manage Plans,Manage Equipment,Manage Payments in the Gym management System.

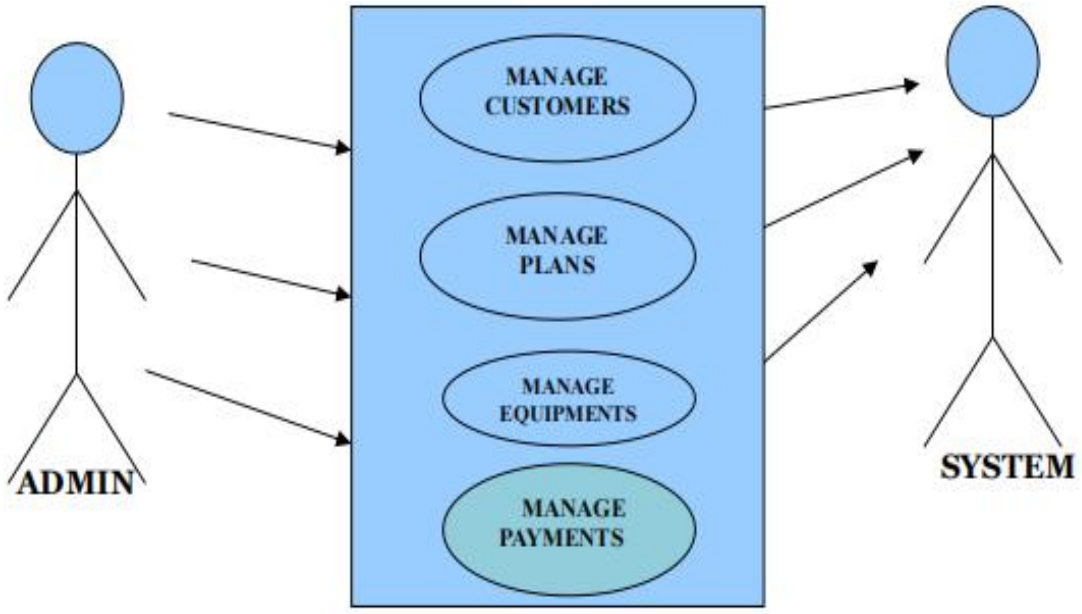


Fig .6.1: Use Case Diagram Between Admin and System

6.2 SEQUENCE DIAGRAM FOR ADMINISTRATOR

The purpose of Sequence Diagram is to show the flow of functionality through a use case.In other words, we call it mapping process in terms of data transfers from the actor through the corresponding objects.

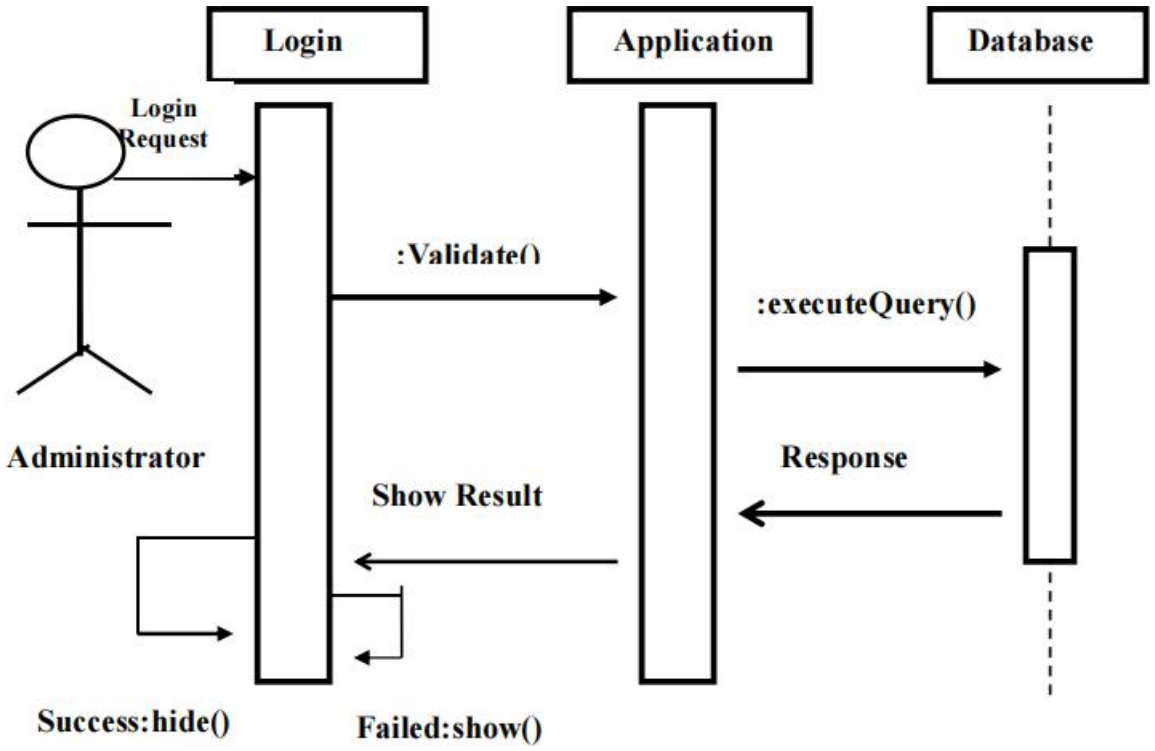


Fig.6.2: Sequence Diagram for Administrator

Fig.6.2 shows the Sequence Diagram of Gym Management System discusses the high level design, design consideration and specification with the data flow for Admin.

6.3 DATA FLOW DIAGRAM OF GYM MANAGEMENT SYSTEM

A Data Flow Diagram (DFD) is a graphical representation of the "flow" of data through an Information System. A data flow diagram can also be used for the visualization of Data Processing. It is common practice for a designer to draw a context-level DFD first which shows the interaction between the system and outside entities. This context-level DFD is then "exploded" to show more detail of the system being modeled.

A DFD represents flow of data through a system. Data flow diagrams are commonly used during problem analysis. It views a system as a function that transforms the input into desired output. A DFD shows movement of data through the different transformations or processes in the system.

The Gym Management System describes how the system is divided into subsystems, each of which deals with one or more of the data flows to or from an external agent and which together provide all functionality of Gym Management System.

Fig.6.3 shows the flow of data between the various part of Gym like Customer,Plan,Equipment and Payment Management of the System.

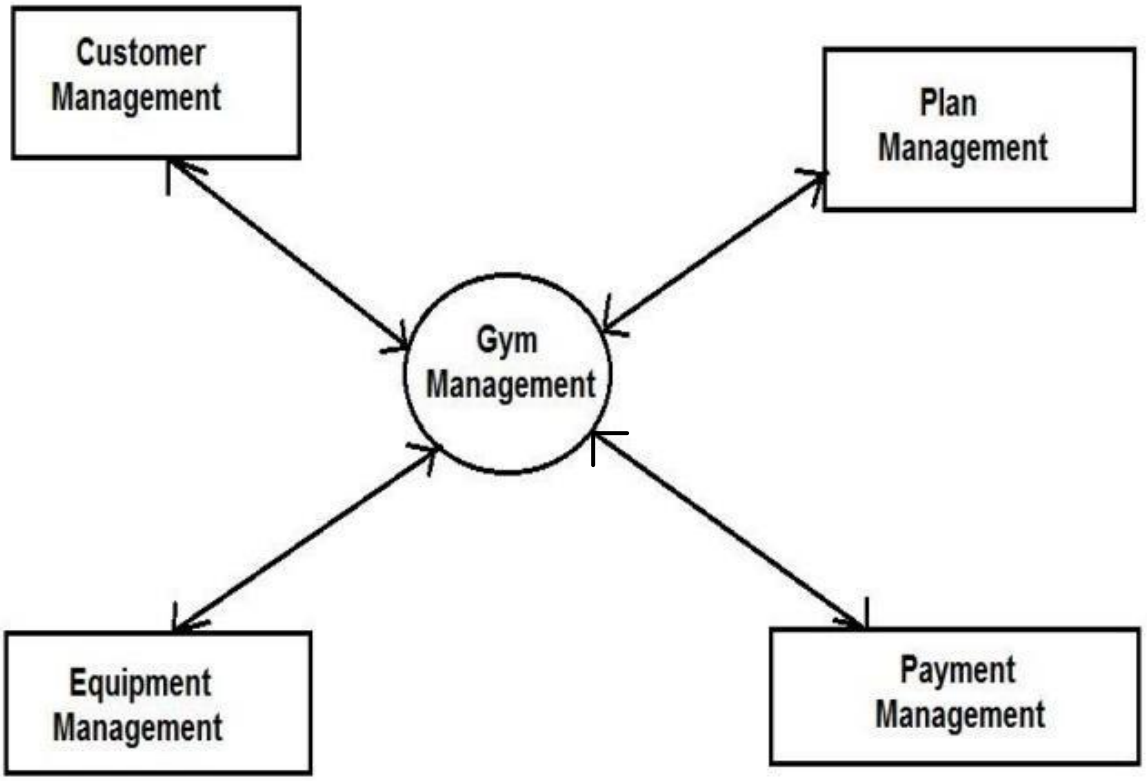


Fig.6.3: Data Flow Diagram Gym Management System

6.4 E-R DIAGRAM OF GYM MANAGEMENT SYSTEM

The ER Diagram represents the model of Gym Management System Entity. Fig.6.4 shows all visual instruction of database tables and relations between Members,Plans etc. It used structure data and to define the relationships between structured data groups of Gym Management System functionalities.

The main entities of Gym Management System are Enquiry,Members,Equipment,Plans and Admin.

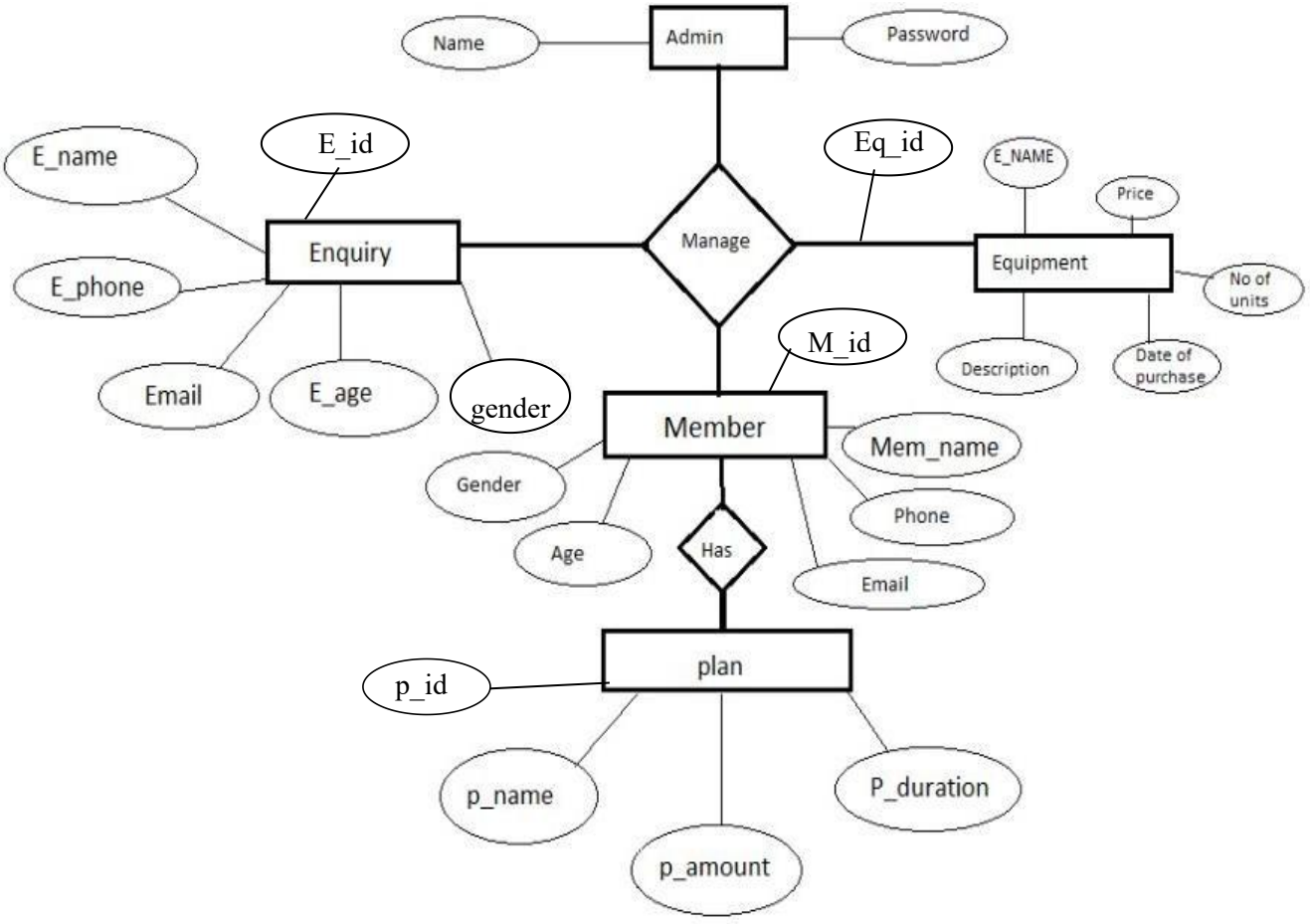


Fig.6.4: ER Diagram For Gym Management System

CHAPTER-7

SYSTEM TESTING

The aim of the system testing process was to determine all defects in our projects. The program was subjected to a set of test inputs and various observations were made and based on these observations it will be decided whether the program behaves as expected or not.

Our project went through three level of testing:

7.1 Unit Testing

7.2 Integration Testing

7.3 Functionality Testing

7.1 UNIT TESTING

Unit testing is a level of software testing where individual units/components of software are tested. The purpose is to validate that each unit of the software performs as designed.

- The procedures belonging to other units that the unit under test calls.
- Non local data structures that module accesses.
- A procedure to call the functions of the unit under test with appropriate parameters.

7.1.1 TEST FOR THE ADMIN MODULE

- **Testing admin login form-**This form is used for login of administrator of the system. In this form admin enter the adminname and password if both are correct administration page will open otherwise if any of data is wrong it will get redirected back to the login page and again ask the details.
- **Report Generation: A**dmin can generate report from the main database.

7.2 INTEGRATION TESTING

Integration Testing is the phase in software testing in which individual software modules are combined and tested as a group which occurs after unit testing and before validation testing.

7.3 FUNCTIONALITY TESTING

Functional Testing is a type of software testing where the system is tested against the functional requirements or specifications. In this project,each and every functionality of the system is tested by providing appropriate input, verifying the output and comparing the actual results with the expected results.

7.3.1 FUNCTIONALITY TESTING TABLE

The Table.7.3.1 shows the functionality and action of the buttons used in the code of the project.

Functionality	**Action**	**Expected Result**	**Actual Result**	**Test Result**
Accepting admin input to login.	Login button is clicked.	The web page is directed to home page.	The web page is directed to home page.	Satisfactory.
Accepting the user input for enquiry.	Submit button is clicked.	Enquiry successful.	Enquiry successful.	Satisfactory.
Accepting the user input for registration.	Submit button is clicked.	Registration successful.	Registration successful.	Satisfactory.
Accepting the admin to add plans.	Add plan button is clicked.	Plans are added successfully.	Plans are added successfully.	Satisfactory.
To edit the plans in system.	Edit plan button is clicked.	Plans are updated successfully.	Plans are updated successfully.	Satisfactory.
Accepting the admin to add equipment.	Add equipment button is clicked.	Equipment are added successfully.	Equipment are added successfully.	Satisfactory.
Accepting the user to payment.	Confirm payment button is clicked.	Payment successful.	No prompt appears on the screen.	Not Satisfactory.

Table.7.3.1: Functionality Testing table

CHAPTER-8

ADVANTAGES AND DISADVANTAGES

8.1 ADVANTAGES OF "GYM MANAGEMENT SYSTEM"

"Gym Management System" provides various features, which complement the information system and increase the productivity of the system. These features make the system easily usable and convenient. Some of the important features included are listed as follows:

- Intelligent User Forms Design
- Data access and manipulation through same forms
- Access to most required information
- Data Security
- Restrictive data access, as per login assigned only.
- Organized and structured storage of facts.
- Strategic Planning made easy.
- No decay of old Records.
- Exact financial position of the Business.

8.2 DISADVANTAGES OF "GYM MANAGEMENT SYSTEM"

Besides the above achievements and the successful completion of the project,we still feel the project has some limitations, listed as below:

1. It is not a large scale system.
2. Only limited information provided by this system.
3. Since it is an online project, users need internet connection to search drivers.
4. People who are not familiar with computers can't use this software.

CHAPTER-9

CONCLUSION AND FUTURE ENHANCEMENT

9.1 CONCLUSION

The project entitled " Gym Management System(GMS)" is developed using HTML as front end and MYSQL database in back end to computerize the process of gym management. GYM is able to provide interface to gym owner so that he can replicate his desired data.This project covers only the basic features required like managing the essential future required in the gym.

9.2 FUTURE ENHANCEMENT

This web application involves almost all the features of the online management. The future implementation will be online help for the customers and chatting with website administrator.

BIBLIOGRAPHY

[1] Mr Akshay Sambare, Dipali Bondre, Sachin Thorat, Miss Archana Vishe, Prof. Ankit Sanghavi "Gym Monitoring Framework for Fitness Management System", International Journal of Advanced Research in Computer and Communication Engineering March 2017.

[2] A. V. Dinesh Kumar, K Bhargav Ram Rayal, M. Saraswathi, "Smart Gym Management System." May-June-2020.

[3] Kasliwal Mahima, Raundal Pooja, Wagh Niyati, G.M. Lodha, "Gym Management System". HBRP-Publication, 2019.

[4] Muhammad Adul Shakoor, Muhammad Abbas, Muhammad Irfan Mehdi, Sajjad Hussain, Ashraf Ali "Database and Transactions Management System for a Smart GYM" 2018.

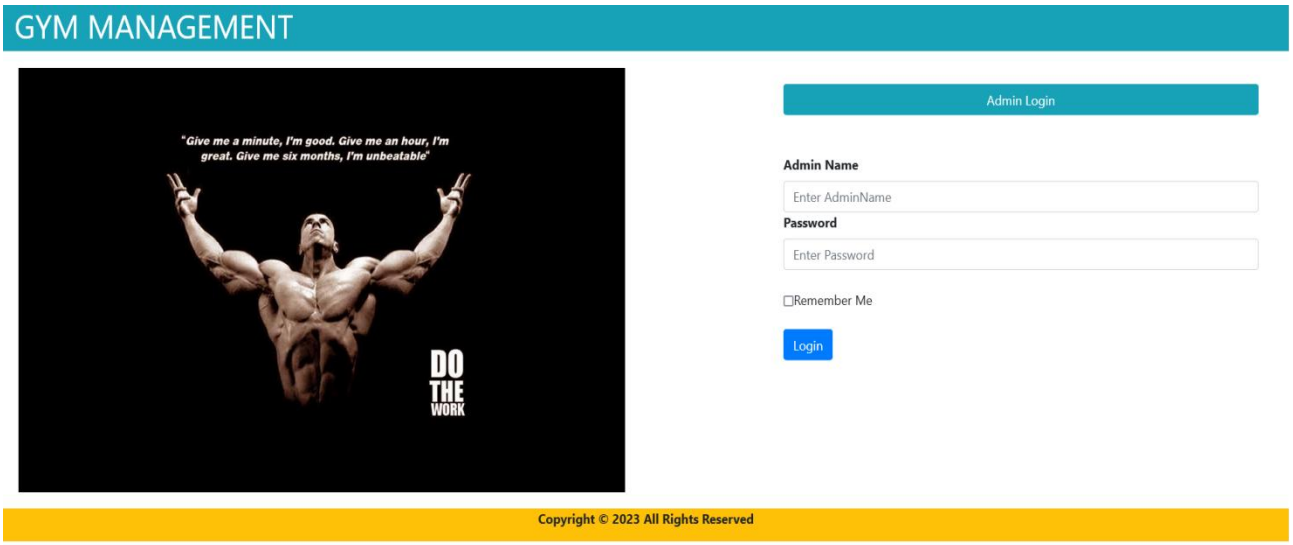
[5] F. Cassola, L. Morgado, F. De Carvalho, H. Paredes, B. Fonseca, and P.Martins, "Online-Gym: a 3d Virtual Gymnasium Using Kinect Interaction," Procedia Technology, 2014.

[6] www.wikipedia.org

[7] www.codeproject.com

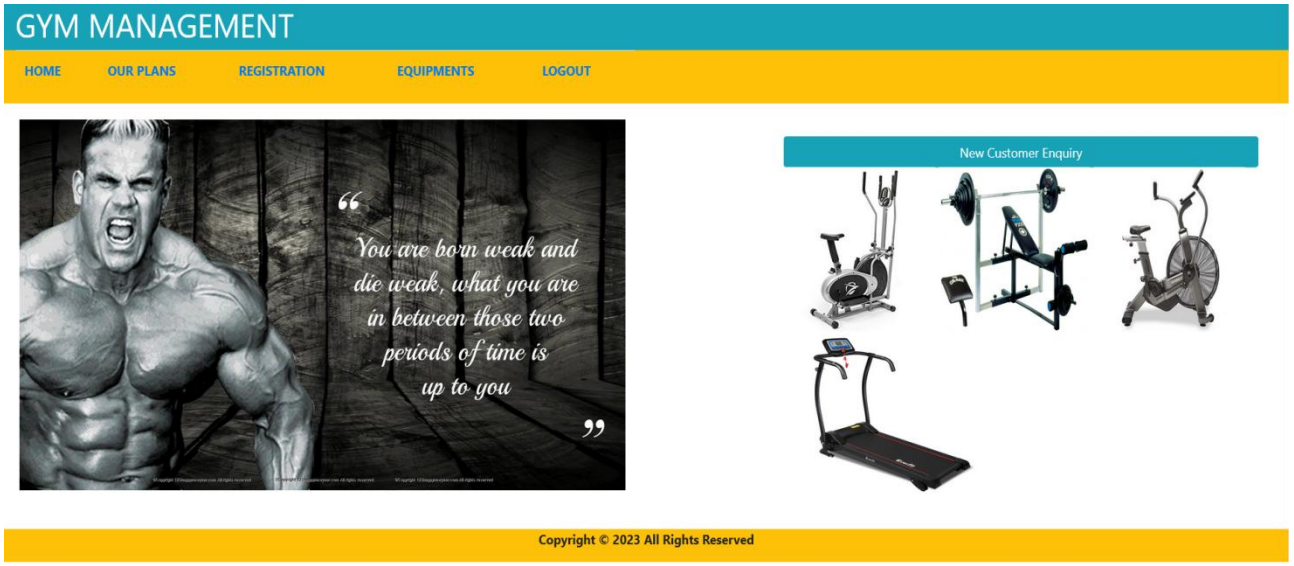
APPENDIX

APPENDIX A - SNAPSHOTS



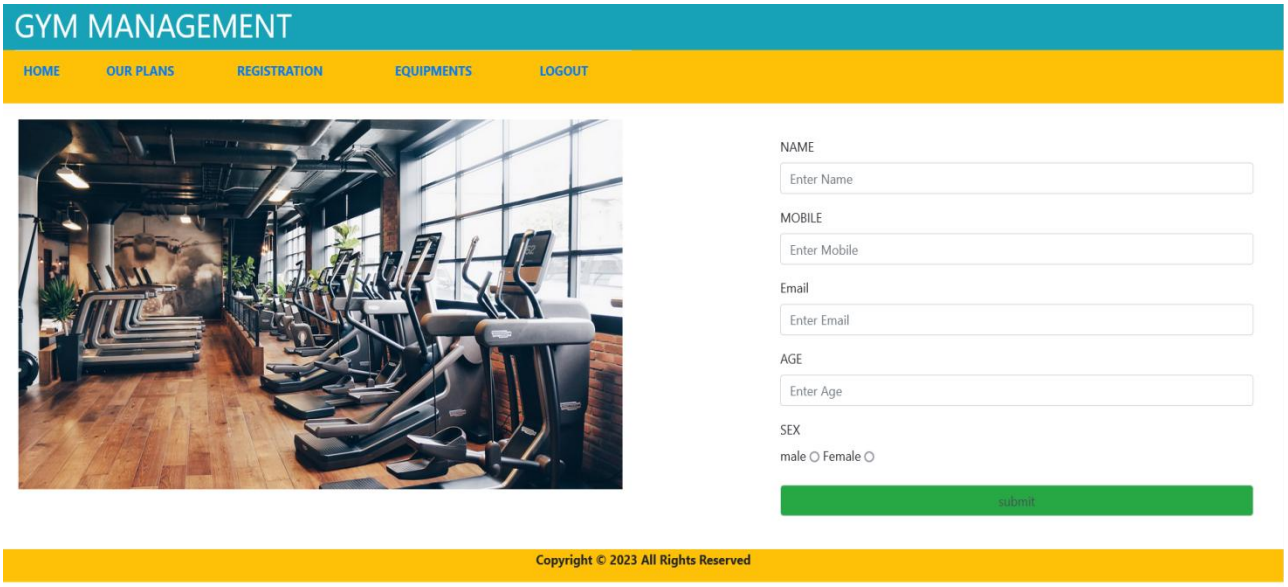
A.1: ADMIN PAGE

A.1 Shows Admin login using user id and password Admin can only log into admin panel others will be denied.



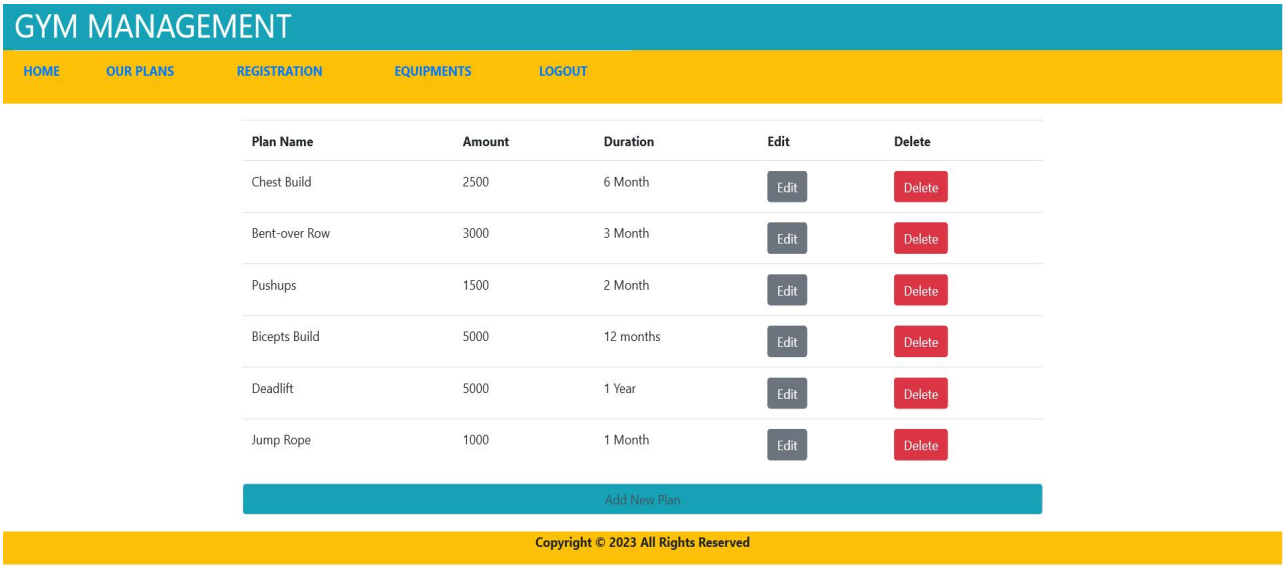
A.2: HOME PAGE

A.2 This is the home page of Gym management System, This the main side of client side. This page defines all information related to the project.



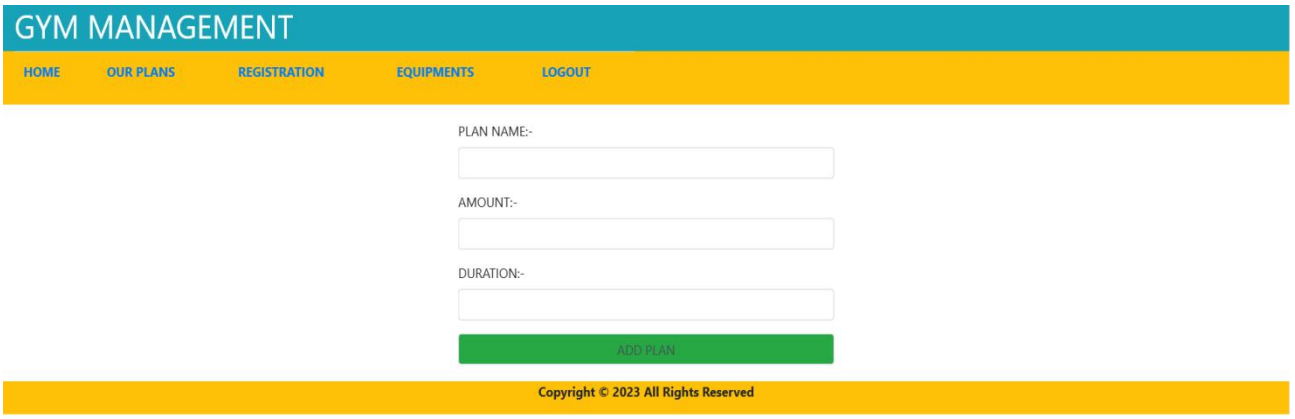
A.3: ENQUIRY FORM

A.3 Shows to add the users where a admin can add any type of users who were come to enquiry.



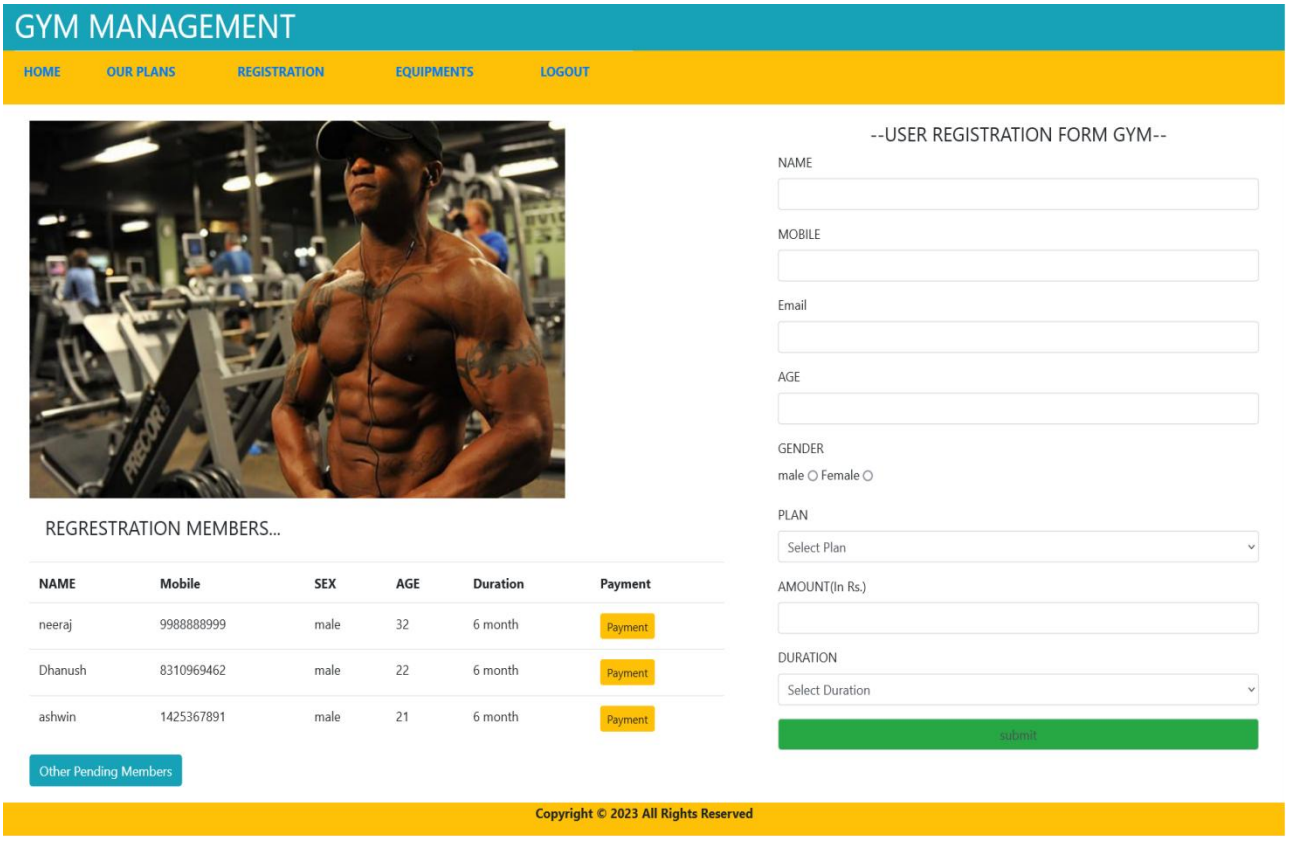
A.4: PLANS

A.4 Shows the plans to the users.



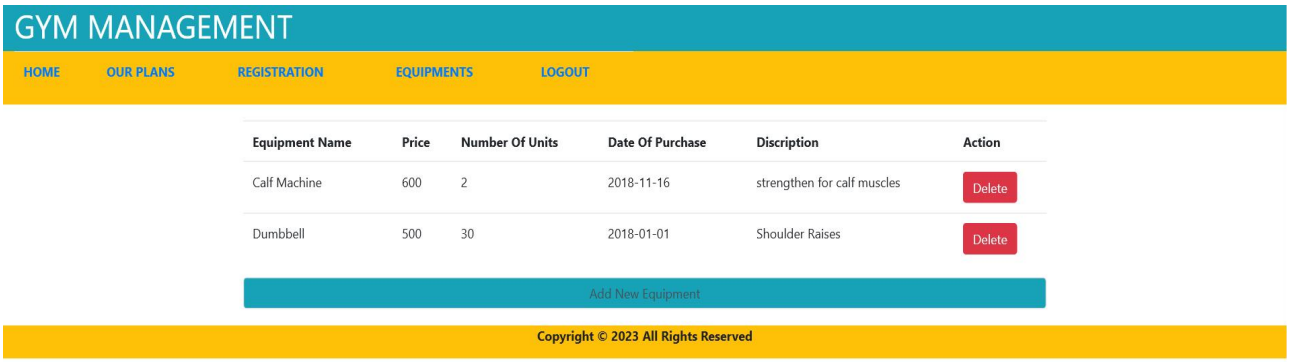
A.5: ADD PLANS

A.5 Shows the admin can add any plans which is required for users.



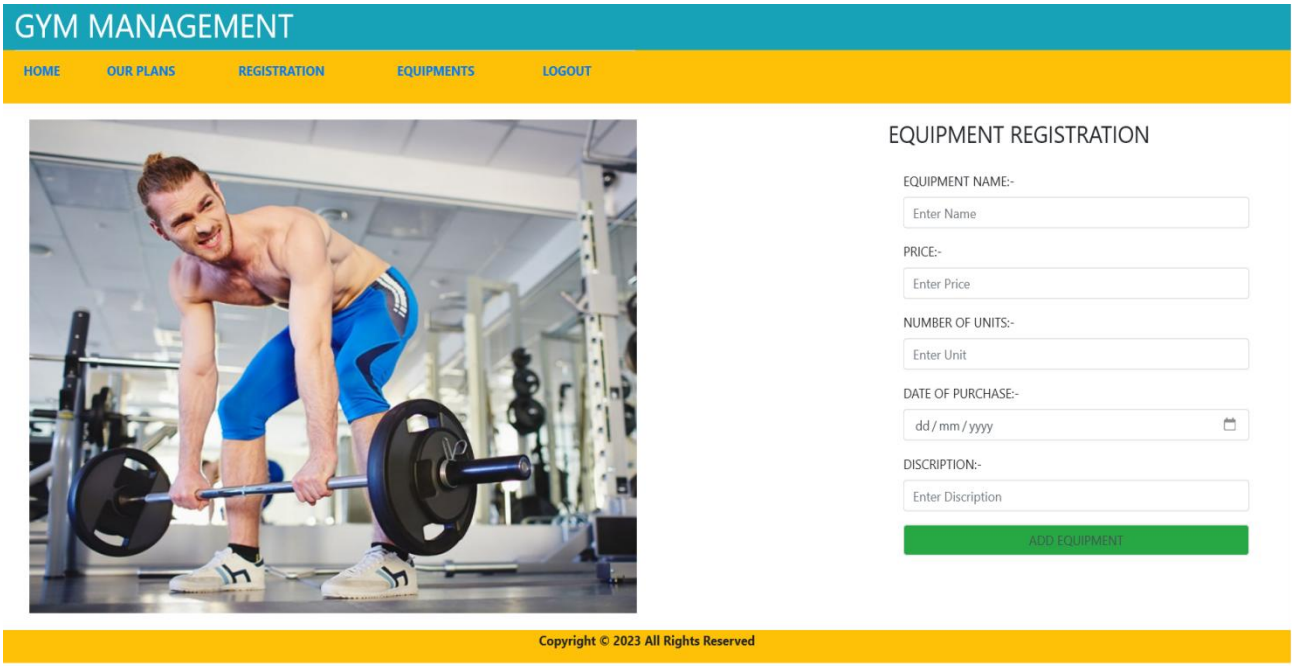
A.6: REGRISTRATION FORM

A.6 Shows the user to get register in the admin panel.



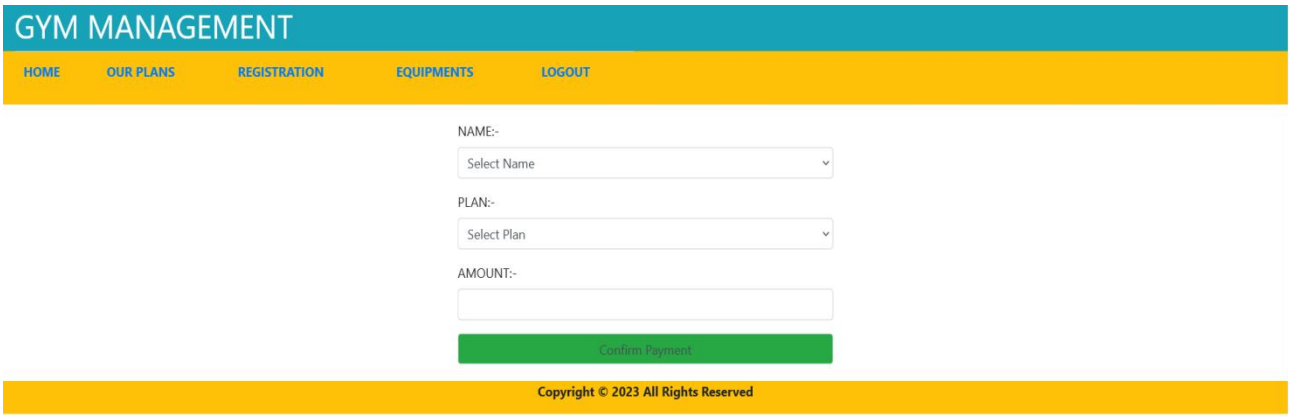
A.7: EQUIPMENTS

A. 7 Shows the what are all equipments available in the System.



A.8: ADD EQUIPMENTS

A.8 Shows the admin to add the Equipments for the users purpose.



A.9: PAYMENT FORM

A.9 Shows the add payment details to confirm the payment.