

MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

Deemed to be University

(Declared under Distinct Category by Ministry of Education, Government of India)

NAAC Accredited with A++ Grade



Project Report

On

Development of Gym Management System

A project report submitted in partial fulfilment of the requirement for the degree of

MASTER IN COMPUTER APPLICATION

in

COMPUTER SCIENCE AND ENGINEERING

Submitted By:

Amitesh Singh
(0901CA221012)

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Faculty Member:

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DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE

GWALIOR - 474005 (MP) Estd. 1957

JAN-JUNE 2024



CERTIFICATE

REG NO: - S/1847630

Date: 24.04.2024

This Certificate is awarded to *Mr. Amitesh Singh*
In appreciation for his accomplishments of Project in the company

Position Titled: Web Developer

Project Title: Gym Management System

At Shriram Technologies Research & Development Center

From : 04 Jan 2024 to 24 Apr 2024

We take this opportunity to wish you a long, Happy and Successful Career

SHRIRAM TECHNOLOGIES
RESEARCH & DEVELOPMENT

Anuradha

Anuradha Rajpoot
SHRIRAM TECHNOLOGIES
RESEARCH & DEVELOPMENT (DIRECTOR)
8770200028, 9144017323



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CERTIFICATE

This is to certify that **Amitesh Singh (0901CA221012)** has submitted the project report titled **Gym management system** under the mentorship of **Mr. Ankit Parashar** in partial fulfilment of the requirement for the award of degree of **Master in Computer Application**, submitted in Department of Computer Science and Engineering from **Madhav Institute of Technology and Science, Gwalior**.

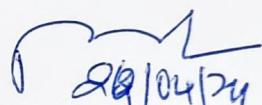


24/04/24

Dr. R.S. Jadon

(Professor and Project Coordinator)

Dept. Of Computer Science and Engineering



29/04/24

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Dr. Manish Dixit
(Professor and Head)
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DECLARATION

I hereby declare that the work being presented in this project report, for the partial fulfilment of requirement for the award of the degree of Master in Computer Application in Computer Science and Engineering at **Madhav Institute of Technology & Science, Gwalior** is an authenticated and original-record of my work under the mentorship of **Mr. Ankit Parashar, Project Manager (Full Stack Developer Team)**, Shriram technologies research & development(Delhi).

I declare that I have not submitted the matter embodied in this report for the award of any degree or diploma anywhere else.



Amitesh Singh

0901CA221012

2022-2024

Master in Computer Application
Computer Science and Engineering

MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

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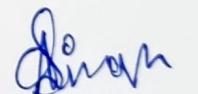
ACKNOWLEDGEMENT

The full semester project has proved to be pivotal to my career. I am thankful to my institute, **Madhav Institute of Technology and Science** to allow me to continue my disciplinary project. I extend my gratitude to the Director of the institute, **Dr. R. K. Pandit** and Dean Academics, **Dr. Manjaree Pandit** for this.

I would sincerely like to thank my department, **Department of Computer Science and Engineering**, for allowing me to explore this project. I humbly thank **Dr. Manish Dixit**, Professor and Head, Department of Computer Science and Engineering, for his continued support during the course of this engagement, which eased the process and formalities involved.

I would like to extend my heartfelt appreciation to **Mr. Ankit Parashar**, Project Manager (Full Stack Developer Team, Shriram technologies (Delhi) for their exceptional mentorship, guidance, and assistance throughout the project. Their valuable inputs and feedback have helped me enhance my knowledge and skills. Their constant encouragement and support have been instrumental in the successful completion of this project.

I am sincerely thankful to my faculty coordinator. I am grateful to the guidance of **Dr. R. S. Jadon**, Assistant Professor, Computer Science and Engineering, for her continued support and guidance throughout the project. I am also very thankful to the faculty and staff of the department.



Amitesh Singh
0901CA221012
2022-2024

Master in Computer Application
Computer Science and Engineering

Abstract

The Gym Management System (GMS) is a pivotal tool designed to streamline the administrative processes and enhance the overall efficiency of gym operations. In an era where fitness is paramount, managing a gym involves intricate tasks ranging from member registration to equipment maintenance, scheduling classes, and tracking financial transactions. The GMS offers a comprehensive solution to these challenges by integrating advanced technologies to automate and simplify daily operations.

The system facilitates seamless member registration, profile management, and membership renewals. It maintains a centralized database containing essential information such as personal details, membership plans, attendance records, and progress tracking.

Streamlining financial transactions is essential for the financial health of any gym. The GMS automates billing processes, generates invoices, and tracks payments, ensuring accuracy and transparency in financial operations. Data-driven insights are instrumental in making informed decisions and optimizing gym performance. The GMS provides robust reporting and analytics tools to analyze member demographics, attendance trends, revenue streams, and operational efficiency, enabling stakeholders to identify areas for improvement and strategic growth opportunities.

Effective management of gym equipment is crucial for ensuring optimal functionality and member satisfaction. The GMS enables tracking of equipment usage, maintenance schedules, and inventory levels, thereby minimizing downtime and ensuring a safe workout environment.

सार

जिम प्रबंधन प्रणाली (जीएमएस) एक महत्वपूर्ण उपकरण है जिसे प्रशासनिक प्रक्रियाओं को सुव्यवस्थित करने और जिम संचालन की समग्र दक्षता बढ़ाने के लिए डिज़ाइन किया गया है। ऐसे युग में जहां फिटनेस सर्वोपरि है, जिम के प्रबंधन में सदस्य पंजीकरण से लेकर उपकरण रखरखाव, कक्षाओं का समय निर्धारण और वित्तीय लेनदेन पर नज़र रखने जैसे जिल कार्य शामिल हैं। जीएमएस दैनिक कार्यों को स्वचालित और सरल बनाने के लिए उन्नत प्रौद्योगिकियों को एकीकृत करके इन चुनौतियों का एक व्यापक समाधान प्रदान करता है।

यह प्रणाली निर्बाध सदस्य पंजीकरण, प्रोफ़ाइल प्रबंधन और सदस्यता नवीनीकरण की सुविधा प्रदान करती है। यह एक केंद्रीकृत डेटाबेस रखता है जिसमें व्यक्तिगत विवरण, सदस्यता योजना, उपस्थिति रिकॉर्ड और प्रगति ट्रैकिंग जैसी आवश्यक जानकारी होती है।

किसी भी जिम के वित्तीय स्वास्थ्य के लिए वित्तीय लेनदेन को सुव्यवस्थित करना आवश्यक है। जीएमएस बितिंग प्रक्रियाओं को स्वचालित करता है, चालान बनाता है और भुगतान को ट्रैक करता है, जिससे वित्तीय संचालन में सटीकता और पारदर्शिता सुनिश्चित होती है। डेटा-संचालित अंतर्दृष्टि सूचित निर्णय लेने और जिम प्रदर्शन को अनुकूलित करने में सहायक होती है। जीएमएस सदस्य जनसांख्यिकी, उपस्थिति रुझान, राजस्व धाराओं और परिचालन दक्षता का विश्लेषण करने के लिए मजबूत रिपोर्टिंग और विश्लेषण उपकरण प्रदान करता है, जिससे हितधारकों को सुधार और रणनीतिक विकास के अवसरों के क्षेत्रों की पहचान करने में सक्षम बनाया जाता है।

इष्टम कार्यक्षमता और सदस्य संतुष्टि सुनिश्चित करने के लिए जिम उपकरणों का प्रभावी प्रबंधन महत्वपूर्ण है। जीएमएस उपकरण के उपयोग, रखरखाव कार्यक्रम और इन्वेंट्री स्तर पर नज़र रखने में सक्षम बनाता है, जिससे डाउनटाइम कम होता है और एक सुरक्षित कसरत वातावरण सुनिश्चित होता

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CHAPTER 1-INTRODUCTION

In today's fast-paced world, the pursuit of health and fitness has become a paramount priority for many individuals. Gyms play a pivotal role in facilitating this journey by providing spaces where people can engage in physical activity, receive professional guidance, and work towards achieving their fitness goals. However, managing a gym involves complex and multifaceted tasks that can be challenging to handle manually. This is where a Gym Management System (GMS) steps in to revolutionize the way gyms operate.

The Gym Management System is a comprehensive software solution designed to streamline and automate various administrative processes involved in running a gym efficiently. From member registration and class scheduling to equipment maintenance and financial management, the GMS encompasses a wide range of functionalities aimed at enhancing operational efficiency, improving member experience, and driving business growth.

1.1 Problem Identification

In today's fast-paced world, fashion industry is undergoing an enhancement phase due to enhancement in technology, consumer behaviors and changing market dynamics. Traditional marketplace is over-shadowed by digital marketplace because digital platforms offer greater convenience, accessibility and choice to consumer.

(a) Manual Administrative Processes: Many gyms still rely on manual methods for managing administrative tasks such as member registration, class scheduling, and billing. This leads to inefficiencies, errors, and delays in service delivery.

(b) Lack of Centralized Data Management: Without a centralized system in place, gyms struggle to maintain accurate records of member information, class schedules, equipment inventory, and financial transactions. This fragmentation hampers decision-making and inhibits the ability to provide personalized services.

(c) Difficulty in Member Engagement and Retention: Gyms often face challenges in engaging and retaining members due to limited communication channels and ineffective tracking of member preferences and progress. Without targeted engagement strategies, member churn rates may increase, impacting long-term business sustainability.

(d) Inefficient Equipment Management: Proper maintenance and utilization of gym equipment are essential for ensuring member satisfaction and safety. However, without an efficient system for tracking equipment

usage, maintenance schedules, and inventory levels, gyms risk equipment downtime, costly repairs, and compromised member experience.

1.2 Parent Organization



Shriram Technologies is a leading organization in the field of Information Technology (IT), dedicated to delivering innovative and cutting-edge solutions to its clients. With a strong focus on technological advancement and customer satisfaction, Shriram Technologies has established itself as a trusted partner for businesses seeking to leverage IT for their growth and success.

At Shriram Technologies, our team of skilled professionals possesses expertise across various domains of IT, including software development, web design and development, mobile application development, cloud computing, cybersecurity, and more. We are committed to staying ahead of the curve by continuously adapting to the latest trends and technologies in the industry, ensuring that our clients receive the most efficient and effective solutions tailored to their specific needs.

Our approach to client engagement is centered around understanding their business objectives and challenges, allowing us to develop customized solutions that drive tangible results and create long-term value. We believe in fostering strong relationships with our clients based on trust, transparency, and collaboration, ensuring that we deliver solutions that exceed their expectations.

With a focus on quality, innovation, and customer satisfaction, Shriram Technologies is poised to continue its journey as a leader in the IT industry, helping businesses harness the power of technology to achieve their goals and stay ahead in today's rapidly evolving digital landscape.

Through our client-centric approach, we recognize that each business is unique, with its own set of challenges and aspirations. Therefore, we invest time and effort in thoroughly understanding our clients' needs, objectives, and pain points. This deep understanding forms the foundation upon which we build tailored solutions that not only address immediate concerns but also lay the groundwork for sustained growth and success.

Moreover, our commitment to excellence extends beyond the delivery of projects. We place great emphasis on fostering long-term partnerships with our clients, based on mutual trust, transparency, and open communication.

We view ourselves not just as service providers but as strategic allies, dedicated to supporting our clients at every stage of their journey towards digital transformation.

1.3 Hardware and Software Specifications

1.3.1 Hardware Specification

Hardware Requirement: To ensure optimal performance and reliability, we've meticulously outlined the hardware specifications essential for our project. Initially, we've selected a Core i3 CPU from the 3000 series boasting a 2.30 GHz frequency. This processor's robust processing capability is vital for effectively managing our project's computational requirements. Our system will be equipped with ample memory to support multitasking and effortlessly handle large datasets, complemented by 4GB of RAM. For storage, we've opted for a 512 GB hard disk drive, providing ample space for project files and data. Additionally, we'll integrate a 512 GB SSD (Solid State Drive), enhancing overall system performance and accelerating data access rates. Operating on a 64-bit OS X64 H Processor ensures maximum performance and seamless compatibility with contemporary software. These meticulously chosen hardware components instill confidence as we embark on our project, knowing our system is adept at meeting the demands efficiently and effectively.

1.3.2 Software specification

Window 11 operating system: We've chosen Windows 11 as our operating system for its array of advanced features, fortified security measures, and streamlined user interfaces. Its contemporary design and refined performance not only enhance the user experience but also ensure a stable and secure environment conducive to software development.

Visual Studio Code: As our primary coding environment, VS Code presents an abundance of features finely tuned for modern development workflows. Its broad support for multiple programming languages, vast libraries of extensions, and seamless integration with version control systems all contribute to streamlining the coding process. This fosters enhanced productivity and facilitates collaboration among team members.

MySQL: Opting for MySQL for database management guarantees the efficient handling of data across the development lifecycle. Its user-friendly graphical interface simplifies tasks like database design, modeling, and administration, empowering developers to effortlessly create and optimize databases. Moreover, its seamless compatibility with Windows 11 ensures smooth integration into the development environment.

XAMPP: XAMPP serves as a fundamental component in our project development due to its multifaceted utility in facilitating local web development environments. By integrating Apache, MySQL, PHP, and Perl, XAMPP offers a comprehensive solution for setting up a server environment on a local machine. This is

particularly advantageous during the development phase as it allows us to emulate the production environment locally, enabling seamless testing and debugging of web applications before deployment.

Harnessing the strengths of Windows 11, VS Code, Workbench, and XAMPP, our software development process is primed for scalability and peak performance. Whether managing extensive data loads, testing intricate APIs, or deploying software across varied environments, this comprehensive software stack furnishes the essential tools and resources to address the rigors of contemporary software development. In summary, the integrated use of Windows 11, Workbench, VS Code, and XAMPP constitutes a unified and robust software development ecosystem, adept at navigating the complexities of today's dynamic and interconnected digital terrain.

CHAPTER 2- System Analysis

2.1 Problem Analysis

By identifying and addressing these key challenges, **Gym management system** project aims to create a consistent, personalized, shopping experience that empower users to discover, explore, and buy fashion products with confidence and convenience.

(a) Manual Processes

Many gyms still rely on manual methods for managing administrative tasks such as member registration, class scheduling, and billing. This leads to inefficiencies, errors, and delays in service delivery. Manual processes are prone to human error, resulting in inaccuracies in member records, class schedules, and financial transactions.

(b) Data Fragmentation

Without a centralized system in place, gyms struggle to maintain accurate and up-to-date records of member information, class schedules, equipment inventory, and financial transactions. This fragmentation hampers decision-making and inhibits the ability to provide personalized services. Data may be scattered across multiple spreadsheets or systems, making it difficult to access and analyse.

(c) Member Engagement and Retention

Gyms face challenges in engaging and retaining members due to limited communication channels and ineffective tracking of member preferences and progress. Without targeted engagement strategies, member churn rates may increase, impacting long-term business sustainability. Lack of personalized interaction and feedback mechanisms may lead to reduced member satisfaction and loyalty.

(d) Equipment Downtime and Maintenance

Inefficient equipment management practices, including inadequate tracking of usage, maintenance schedules, and inventory levels, can result in equipment downtime, costly repairs, and compromised member experience. Gyms may struggle to prioritize equipment maintenance tasks, leading to increased risk of accidents and injuries.

(e) Billing and Financial Management Complexity

Managing financial transactions, invoicing, and revenue tracking manually can be time-consuming and error-prone. Gyms may encounter challenges in tracking membership dues, processing payments, and reconciling accounts, leading to cash flow issues and financial instability. Inaccurate billing and invoicing practices may also result in member dissatisfaction and disputes.

2.2 Feasibility Study

2.2.1 Economical Feasibility Study

Personnel Expenses

S.no	Personnel Expenses	Cost
1	System Analyst (1) [8 days/month]	5000/-
2	Programmer (1) [25 days/month]	5000/-
3	Database Specialist (1) [10 days/month]	3000/-
	Total	13000/-

Other Expenses

S.no	Other Expenses	Cost
1	Electricity (200 unit @ 8rs/unit)	1600/-
2	Stationary (for documentation)	500/-
3	Workspace facility (table, chairs)	1500/-
4	Wi-fi	1500/-
	Total	5100/-

Hardware & Software expenses

S.no.	Specification	Cost
1.	Development Server (Express JS)	3000/-
2.	Server Software (O.S.)	1000/-
3.	DBMS Server (MYSQL)	1000/-
Total		Rs. 23,100/-

2.2.2 Technical Feasibility Study

Programming Languages

S.no.	Specification	Details
1.	Frontend	HTML,CSS,JAVASCRIPT
2.	Backend	PHP
3.	Database	MySQL

Hardware Requirements

S.no.	Specification	Description
1.	Processor	Intel core i3 and above generation
2.	RAM	Up to 4 GB
3.	SSD	256 GB
4.	Hard-disk	1TB

Software requirements

S.no.	Specification	Description
1.	Front-End	HTML,CSS,JAVASCRIP
2.	Back-End	PHP
3.	Application	Visual Studio Code, MySQL
4.	Operating System	64 bit (Window 11)
5.	Network	MySQL

2.2.3 Behavioral Feasibility Study

(a) User Acceptance: Evaluate the willingness of gym staff (administrators and trainers) to adopt the GMS. Conduct surveys or interviews to gauge their attitudes, concerns, and expectations regarding the new system. Assess their comfort level with technology and their readiness for training and support.

(b) Member Engagement: Assess the receptiveness of gym members to the GMS. Gather feedback through surveys, focus groups, or beta testing to understand their preferences, needs, and challenges. Evaluate their willingness to use digital platforms for tasks such as class registration, attendance tracking, and progress monitoring.

(c) Training and Support: Assess the effectiveness of training and support mechanisms provided for GMS users. Offer comprehensive training sessions tailored to the needs of each user group, including administrators, trainers, and members. Provide ongoing support through user manuals, online tutorials, help desk services, and troubleshooting resources.

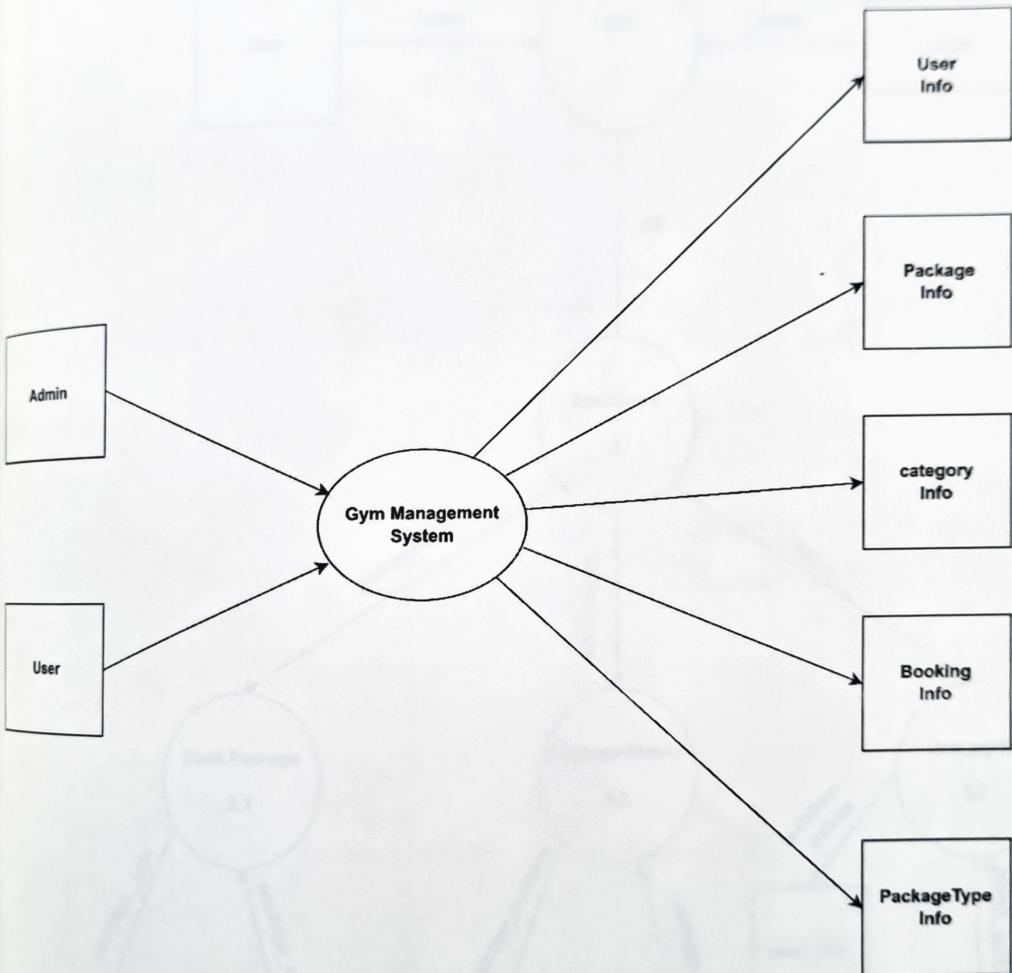
(d) Adoption Rate and Usage Patterns: Monitor the adoption rate and usage patterns of the GMS over time. Track metrics such as user login frequency, feature utilization, and engagement levels to measure the system's effectiveness in meeting user needs and driving behaviour change. Identify any usage barriers or areas of underutilization and take corrective actions as needed.

(e) User Interface Design: Evaluate the usability and intuitiveness of the GMS interface. Conduct usability testing sessions with representatives from each user group to identify navigation issues, accessibility concerns,

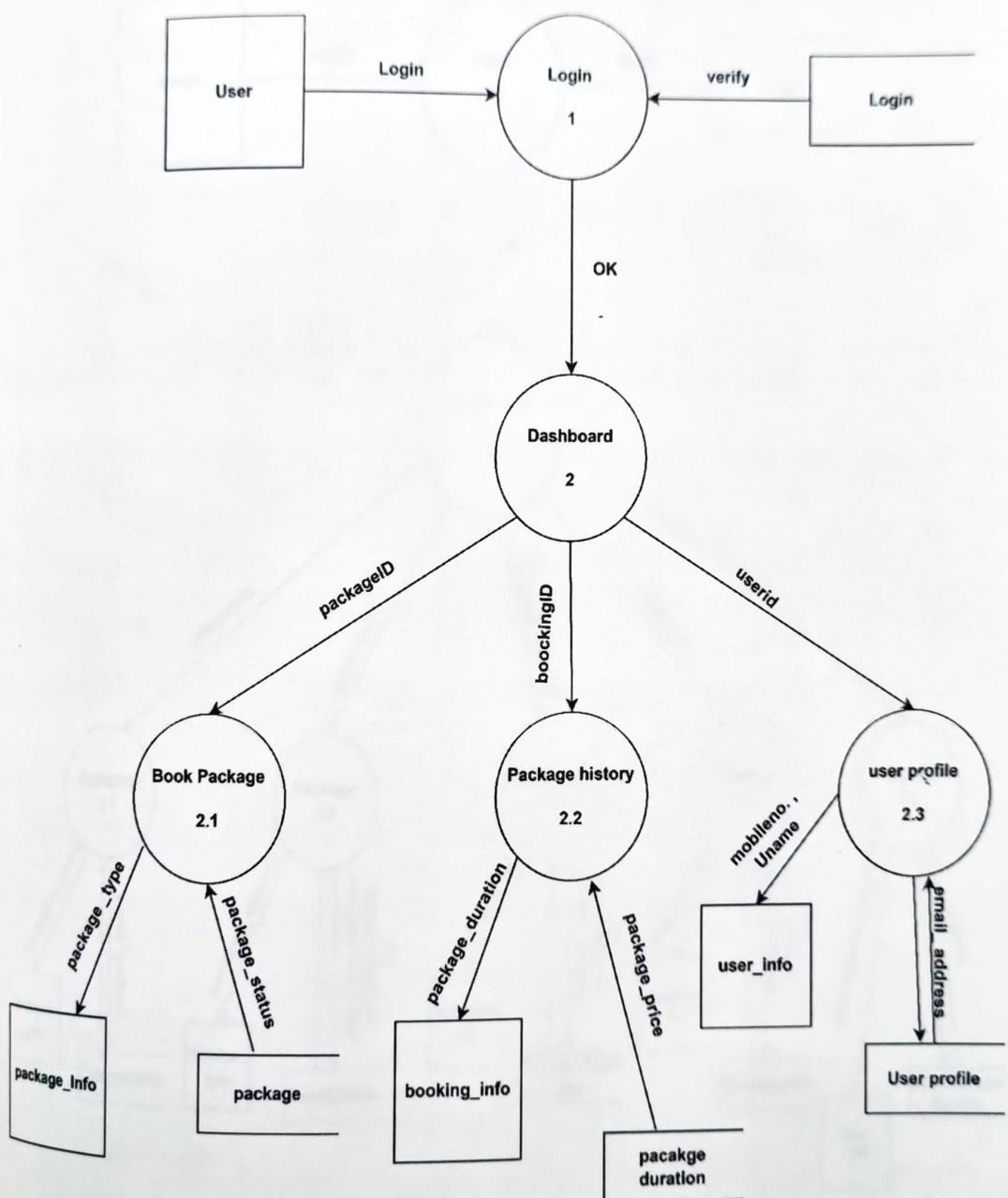
and areas for improvement. Ensure that the interface is visually appealing and easy to navigate on both desktop and mobile devices.

2.3 Data Flow Diagram

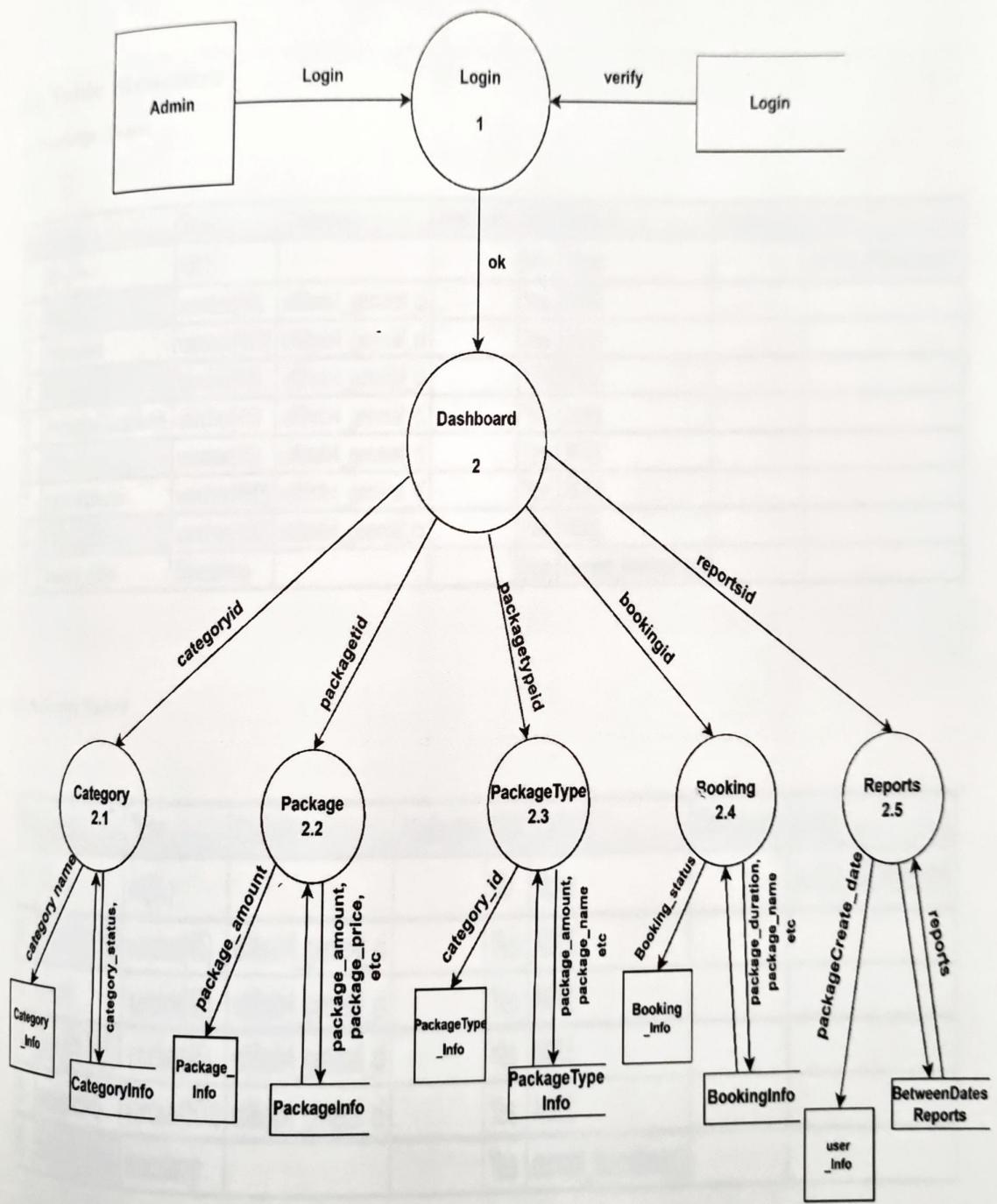
2.3.1 DFD 0



2.3.2 DFD 1 For User



2.3.3 DFD 1 For Admin



CHAPTER 3- System Design

3.1 Table Structure

a) Package Table

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra
1	<u>id</u>	int(11)			No	None		AUTO_INCREMENT
2	<u>category</u>	varchar(45)	utf8mb4_general_ci		Yes	NULL		
3	<u>titlename</u>	varchar(450)	utf8mb4_general_ci		Yes	NULL		
4	<u>PackageType</u>	varchar(45)	utf8mb4_general_ci		Yes	NULL		
5	<u>PackageDuration</u>	varchar(45)	utf8mb4_general_ci		Yes	NULL		
6	<u>Price</u>	varchar(45)	utf8mb4_general_ci		Yes	NULL		
7	<u>uploadphoto</u>	varchar(450)	utf8mb4_general_ci		Yes	NULL		
8	<u>Description</u>	varchar(450)	utf8mb4_general_ci		Yes	NULL		
9	<u>create_date</u>	timestamp			Yes	current_timestamp()		

b) Admin Table

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra
1	<u>id</u>	int(11)			No	None		AUTO_INCREMENT
2	<u>name</u>	varchar(45)	utf8mb4_general_ci		Yes	NULL		
3	<u>email</u>	varchar(45)	utf8mb4_general_ci		Yes	NULL		
4	<u>mobile</u>	varchar(45)	utf8mb4_general_ci		Yes	NULL		
5	<u>password</u>	varchar(100)	utf8mb4_general_ci		Yes	NULL		
6	<u>create_date</u>	timestamp			Yes	current_timestamp()		

c) Booking Table

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra
1	id	int(11)			No	None		AUTO_INCREMENT
2	package_id	varchar(45)	utf8mb4_general_ci		Yes	NULL		
3	userid	varchar(45)	utf8mb4_general_ci		Yes	NULL		
4	booking_date	timestamp			Yes	current_timestamp()		
5	payment	varchar(45)	utf8mb4_general_ci		Yes	NULL		
6	paymentType	varchar(45)	utf8mb4_general_ci		Yes	NULL		

d) Category Table

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra
1	id	int(11)			No	None		AUTO_INCREMENT
2	category_name	varchar(45)	utf8mb4_general_ci		Yes	NULL		
3	status	varchar(45)	utf8mb4_general_ci		Yes	0		

e) Package Type Table

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra
1	id	int(11)			No	None		AUTO_INCREMENT
2	cate_id	varchar(45)	utf8mb4_general_ci		Yes	NULL		
3	PackageName	varchar(45)	utf8mb4_general_ci		Yes	NULL		

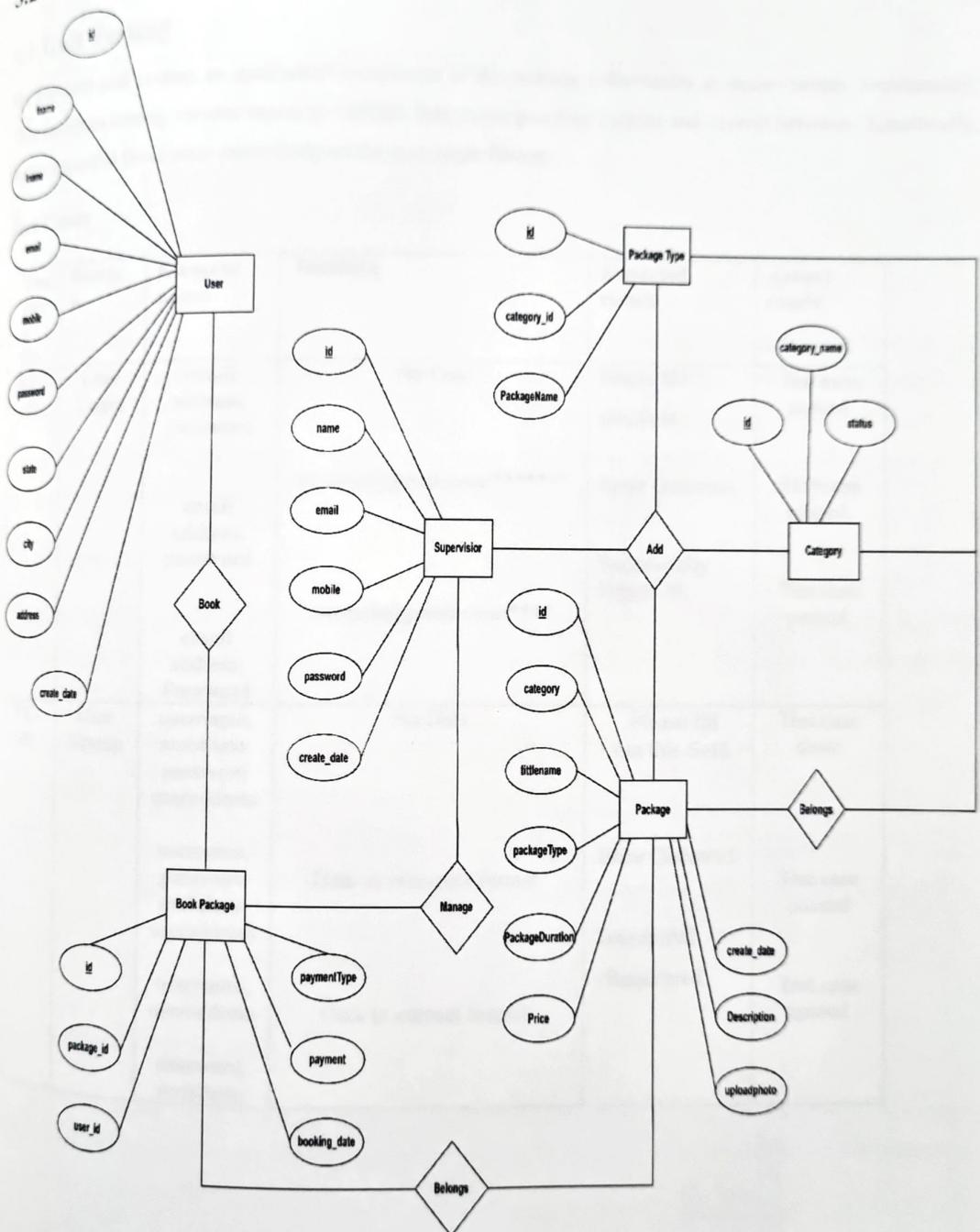
g) Payment Table

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra
1	<u>id</u>	int(11)			No	None		AUTO_INCREMENT
2	<u>bookingID</u>	varchar(45)	utf8mb4_general_ci		Yes	NULL		
3	<u>paymentType</u>	varchar(45)	utf8mb4_general_ci		Yes	NULL		
4	<u>payment</u>	varchar(45)	utf8mb4_general_ci		Yes	NULL		
5	<u>payment_date</u>	timestamp			Yes	current_timestamp()		

g) User Table

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra
1	<u>id</u>	int(11)			No	None		AUTO_INCREMENT
2	<u>fname</u>	varchar(45)	utf8mb4_general_ci		Yes	NULL		
3	<u>lname</u>	varchar(45)	utf8mb4_general_ci		Yes	NULL		
4	<u>email</u>	varchar(45)	utf8mb4_general_ci		Yes	NULL		
5	<u>mobile</u>	varchar(45)	utf8mb4_general_ci		Yes	NULL		
6	<u>password</u>	varchar(100)	utf8mb4_general_ci		Yes	NULL		
7	<u>state</u>	varchar(45)	utf8mb4_general_ci		Yes	NULL		
8	<u>city</u>	varchar(45)	utf8mb4_general_ci		Yes	NULL		
9	<u>address</u>	varchar(200)	utf8mb4_general_ci		Yes	NULL		
10	<u>create_date</u>	timestamp			Yes	current_timestamp()		

Entity Relationship Diagram



CHAPTER 4- Testing

4.1 Unit Testing

We conduct unit testing on each small component of the website individually to ensure proper functionality. This involves testing various inputs to validate their corresponding outputs and overall behavior. Specifically, we've executed these tests extensively on the user login feature.

Test Cases

Test case ID	Section	Element name	Testdata	Expected result	Actual result
TC-01	User Login	email address, password	No Data	Please fill this field.	Test case passed.
		email address, password	amitesh@gmail.com/***** *	Error Occurred.	Test case passed.
		email address, Password	amitesh@gmail.com/****	Successfully logged in.	Test case passed.
TC-02	User Signup	username, mobileno, password useraddress	No Data	Please fill out this field.	Test case done
		username, password mobileno useraddress	Data in incorrect format.	Error Occurred.	Test case passed
		username, useraddress ,	Data in correct format.	Successfull yRegistered	Test case passed
		password, mobileno			

TC-03	Admin Login	email, password	No data admin@gmai....., ***** (Incorrect Data) admin@gmai....., ***** (Incorrect Data) admin@gmai....., ***** (Correct Data)	Error message displayed. Pop-up message displayed. Pop-up message displayed.	Please fill out the field. Invalid email and password Login successful	Test case passed Test case passed Test case passed
-------	-------------	-----------------	--	--	--	--

The login button on the Login Page is disabled by default until the user enters both their valid email and password in the input fields. This measure ensures that the admin has provided the required information before attempting to log in. Once both fields are filled, the user is able to log in and access the dashboard, but only if the entered data is valid and correct. Logging in as a user will navigate to the user dashboard, and will allow users to make changes to their profiles, vehicle view, and access the available features on the

4.2 System testing

System testing is a type of software testing that evaluates the entire system including all its components. Tests how the different component of the application navigate to another component. Verify that only user can able to access the user module. Verify that user dashboard has all the required option to manage all types of data.

Test Case ID	Description
Test Case 1	Only authorized user can login
Test Case 2	Only the login user can give review
Test Case 3	Verify that user dashboard has all the required option to manage all the types of data

4.3 Compatibility Testing

Compatibility testing refers to the process of testing its compatibility across different platforms, devices, browsers, operating system, and network environments. The objective is to ensure that the website functions work properly and consistently for users.

Test Cases

Test Scenario	Element Name	Element Type	Input	Expected Result	Actual Result	Test Result
1	Device Compatibility	Responsiveness on different devices	Checking Responsiveness on devices for e.g., Laptops, tablets, Smartphones	Website will adapt different screen sizes on different devices without any disbalancing	As expected, the website is full responsive and working perfectly	Passed
2	Operating System Compatibility	Checking website behavior on different operating systems	Working on different Operating Systems e.g., Android systems, macOS, iOS, Windows, etc.	There shouldn't be any changes in website Designing, Working, Accessibility and Performance speed, while switching the Operating System	As Expected, The Website is working all same even on different Operating System expect Linux operating system	Passed
3	End-user Security	Data Security	Testing security measures of users	The logged in user will be able to see his/her own details related information only or correct user-profile is opened for user while logging in	As Expected, Details of login Email is shown, no details of other user are visible to all. Hence Secured	Passed

CHAPTER 5- Implementation

5.1 Visual studio Code

- a. Firstly go to the official website of visual studio code <https://visualstudio.microsoft.com/downloads>.
- b. Now select the one which you want to install according to your system click on the download button.
- c. Now click on install button
- d. Follow up installation process and choose options that are suitable to your need
- e. Click on exit

5.2 MySQL

- a. First go to the official website of MySQL <https://www.mysql.com>.
- b. There you will find the download button
- c. Then click on MySQL community (GPL) downloads
- d. Click on MySQL installer for windows
- e. Click on the first download link
- f. Then click on he custom button
- g. Expand MySQL server then expand MySQL server 8.0
- h. Then double click on the latest version
- i. Click on next
- j. Click on execute
- k. Set your password click on next
- l. Then automatically MySQL workbench window will open

5.3 XAMPP

- a. Visit the official XAMPP website at <https://www.apachefriends.org>
- b. Navigate to the download section.
- c. Choose the appropriate version for your operating system (Windows, macOS, Linux).
- d. Set the destination folder where you want to install XAMP select next.
- e. Click on next and then finish.
- f. Verify the XAMPP properly installed or not.

In this project, the user journey begins with the registration process, where individuals are required to create an account by providing necessary details such as name, email address, and password. Upon successful registration, users gain access to the platform's functionalities. A key feature of the dashboard is the ability for users to view parking status and receipts for vehicles registered under their mobile number. Users can input their registered mobile number and retrieve information regarding the parking status of their vehicles. This includes details such as current parking location, duration, and any associated fees.

CHAPTER 6- Sample Forms and Reports

i) Home PLANS

The screenshot shows the homepage of a website for 'GYM MS' (Gym Management System). The header features a red-to-orange gradient bar with the text 'GYM MS' and 'Gym Management System'. Below the header, there is a navigation menu with links for 'HOME', 'ABOUT', 'CONTACT', and 'ADMIN'. A 'Login' link is located in the top right corner. The main content area has a large orange background with the word 'HOME' in white. Below 'HOME', the tagline 'Physical Activity Or Can Improve Your Health' is displayed in a smaller font.



PRICING PLANS

ii) REGISTRATION FORM

REGISTRATION

amitesh

singh

amiteshsingh40@gmail.com

8770186057

Madhya Pradesh

Gwalior

REGISTER NOW

HOME

Physical Activity Or Can Improve Your Health



PRICING PLANS

Practice Yoga to perfect physical beauty, take care of your soul and enjoy life more fully!

USER PRICING PLANS

PRICING PLANS

Practice Yoga to perfect physical beauty, take care of your soul and enjoy life more fully!

FREE FITNESS GEAR
PACKAGE

600

3 MONTH

3 MONTHS MEMBERSHIP
PACKAGE

800

6 MONTH

HIGH FIFGDFGDF

12000

4 MONTH

Free Fitness Gear Complimentary
OnePass



Book Six Days Different Trainers
Class designed for fast Weight Loss
/ Weight Gain with combination of
Latest Workouts in addition to
complimentary access to gym area
with personal training.



hfdgfhfgh

fdgdfg



USER BOOKING HISTORY

GYM MS
Gym Management System

HOME ABOUT CONTACT BOOKING HISTORY

BOOKING HISTORY

Sr.No	bookingdate	title	PackageDuration	price	Description	category_name	PackageName	Action
1	2024-04-20 13:24:00	3 Months Membership Package	6 Month	800	Book Six Days Different Trainers Class designed for fast Weight Loss / Weight Gain with combination of Latest Workouts in addition to complimentary access to gym area with personal training.	Category1	fdgdfg	View

ADMIN ADD PACKAGE

GYMS

Welcome Admin

Add Package

Category: Category1

Package Type: Select Package

Title Name: NEW

Package Duration: 3 Months

Price: 1200

Description:

B I U Font Size: Font Family: Font Format:

New offer

Submit

ALL BOOKINGS

The screenshot shows the 'All Bookings' page. The sidebar on the left includes links for Dashboard, Category, Package Type, Package, Booking History, and Report. The main content area has a heading 'All Bookings' and a table with columns: Sr.No, bookingId, Name, Email, bookingdate, PackageName, Title, and Action. A message 'No data available in table' is displayed. At the bottom, it says 'Showing 0 to 0 of 0 entries' and includes 'Previous' and 'Next' buttons.

ADMIN ADD CATEGORIES

The screenshot shows the 'Admin Add Categories' page. The sidebar on the left includes links for Dashboard, Category, Package Type, Package, Booking History, and Report. The main content area has a heading 'Categories' and a form titled 'Add Category' with a text input containing 'CARDIO' and a 'Submit' button. Below the form is a table with columns: Sr.No, Name, and Action. It shows two entries: '1 Category1' and '2 Category2', each with a 'Delete' button. At the bottom, it says 'Showing 1 to 1 of 1 entries' and includes 'Previous' and 'Next' buttons.

BOOKING REPORT

Booking Report

From Date: dd-mm-yyyy To Date: dd-mm-yyyy

Submit

Show: 10 entries

Sr.No	Name	email	bookingdate	PackageDuration	price	category_name	PackageName
No data available in Table							

Showing 0 to 0 of 0 entries

Previous Next

MANAGE PACKAGES

Manage Packages

Show: 10 entries

Sr.No	Category	Package Type	Title	Package Duration	Price	Action
No data available in table						

Showing 0 to 0 of 0 entries

Previous Next

CHAPTER 7- Conclusion

In conclusion, our journey with the gym management system has been transformative, but it's just the beginning. As we navigate the evolving fitness landscape, we're committed to leveraging technology to deliver exceptional member experiences. Through innovation, collaboration, and continuous improvement, we're confident in the endless possibilities for our gym management system and the community it serves.

The gym management system has been instrumental in revolutionizing our fitness facility, yielding tangible improvements in efficiency, member experience, and data-driven decision-making. By automating administrative tasks and enhancing communication channels, the system has alleviated staff burdens while elevating member satisfaction. Furthermore, data analysis insights have empowered informed decision-making regarding resource allocation and service optimization. Overall, the system has proven to be a transformative tool, enhancing both member satisfaction and operational effectiveness.

Looking forward, numerous opportunities exist to further enhance and expand the gym management system. Integrating with wearable devices for real-time health tracking, developing a dedicated mobile app for enhanced accessibility, and expanding services to include nutrition tracking and online coaching are promising avenues. Additionally, predictive analytics and machine learning capabilities could enable more accurate anticipation of member needs, fostering even more personalized experiences. Embracing emerging technologies and fostering innovation will ensure our gym management system remains at the forefront of industry advancement.

Efficiency Improvement: The gym management system has significantly enhanced operational efficiency by automating various tasks such as membership management, class scheduling, and payment processing. This has led to smoother workflows and reduced administrative burden.

Enhanced Member Experience: By providing features like online booking, personalized workout plans, and progress tracking, the system has improved the overall experience for gym members. This has resulted in higher satisfaction levels and increased retention rates.

Data-Driven Decision Making: The system has generated valuable insights through data analysis, such as member attendance patterns, popular classes, and peak hours. These insights have enabled better decision-making regarding resource allocation, marketing strategies, and facility management.

Streamlined Communication: Communication between staff and members has been streamlined through features like automated notifications, feedback channels, and messaging systems. This has fostered better engagement and communication within the gym community.

Integration with Wearable Devices: Incorporating integration with wearable fitness devices would enable real-time tracking of members' activities and health metrics. This data could be used to personalize workout plans and provide more tailored recommendations.

Enhanced Mobile Experience: Developing a dedicated mobile app for the gym management system would allow members to access features like class booking, progress tracking, and communication on-the-go. This would further improve convenience and accessibility.

Expansion of Services: The system could be expanded to include additional services such as nutrition tracking, online coaching, and virtual classes. This would cater to a wider range of member needs and preferences, thereby increasing the value proposition of the gym.

Enhanced Personalization: Utilizing machine learning algorithms to analyze member data could facilitate more personalized recommendations and experiences. This could include customized workout plans, targeted promotions, and tailored content based on individual preferences and goals.

Bibliography

1. <https://www.w3schools.com/php/default.asp>
2. <https://www.sitepoint.com/php/>
3. <https://www.google.in/>
4. <https://www.W3school.co.in/>
5. <https://www.geeksforgeeks.co.in/>
6. <https://www.mysql.com/>
7. <https://visualstudio.microsoft.com/downloads>
8. <https://www.apachefriends.prg/download.html/>

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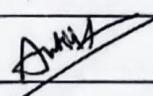
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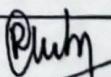
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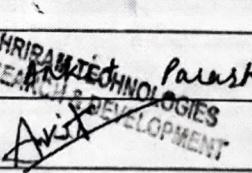
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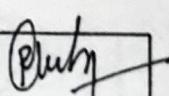
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Criterion	Poor	Average	Good	VeryGood	Excellent
Punctuality/Timely completion of assigned work				✓	
Learning capacity/Knowledge up gradation				✓	
Performance / Quality of work			✓		
Behaviors /Discipline/Team work				✓	
Sincerity/Hardwork			✓		
Comment on nature of work done/Area/Topic	learning HTML CSS and JavaScript				
<u>OVERALL GRADE (Anyone)</u>	<u>POOR/AVERAGE/GOOD/VERYGOOD/EXCELLENT</u>				
<u>Name of Industry Mentor</u>	Ankit Patel SHIRIRAM TECHNOLOGIES RESEARCH & DEVELOPMENT				
<u>Signature of Industry Mentor</u>					

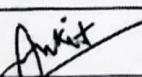
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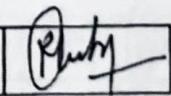
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Industry/Organization	SHRIRAM TECHNOLOGIES RESEARCH & DEVELOPMENT		Date/Duration	01/02/24 - 15/02/24	
Criterion	Poor	Average	Good	VeryGood	Excellent
Punctuality/Timely completion of assigned work				✓	
Learning capacity/Knowledge up gradation			✓		
Performance / Quality of work				✓	
Behaviors /Discipline/Team work				✓	
Sincerity/Hardwork				✓	
Comment on nature of work done/Area/Topic	<p>Engaged in the comprehensive development of website using HTML CSS and JavaScript</p>				
<u>OVERALL GRADE (Anyone)</u>	<u>POOR/AVERAGE/GOOD/VERYGOOD/EXCELLENT</u>				
<u>Name of Industry Mentor</u>	Parashuram				
<u>Signature of Industry Mentor</u>					

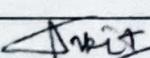
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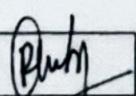
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Industry/Organization	SHIRIRAM TECHNOLOGIES RESEARCH & DEVELOPMENT		Date/Duration	16/02/24 - 29/02/24	
Criterion	Poor	Average	Good	VeryGood	Excellent
Punctuality/Timely completion of assigned work				✓	
Learning capacity/Knowledge up gradation			✓	✓	
Performance / Quality of work					✓
Behaviors /Discipline/Team work				✓	
Sincerity/Hardwork					✓
Comment on nature of work done/Area/Topic	<p align="center">maintain database and perform data storage retrieval in different way & write queries</p>				
<u>OVERALL GRADE</u> <u>(Anyone)</u>	<u>POOR/AVERAGE/GOOD/VERYGOOD/EXCELLENT</u>				
<u>Name of Industry Mentor</u>	<u>Ankit</u> <small>SHIRIRAM RESEARCH & DEVELOPMENT</small>				
<u>Signature of Industry Mentor</u>					

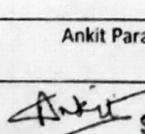
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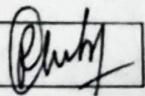
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Criterion	Poor	Average	Good	Very Good	Excellent
Punctuality/Timely completion of assigned work				✓	
Learning capacity/Knowledge up gradation					✓
Performance/Quality of work					✓
Behaviour/Discipline/Team work				✓	
Sincerity/Hard work					✓
Comment on nature of work done/Area/Topic	<i>Worked on admin panel and its features, and user dashboard</i>				
<u>OVERALL GRADE (Any one)</u>	<u>POOR/AVERAGE/GOOD/VERYGOOD/EXCELLENT</u>				
<u>Name of Industry Mentor</u>	Ankit Parashar				
<u>Signature of Industry Mentor</u>	 SHRIRAM TECHNOLOGIES RESEARCH & DEVELOPMENT				

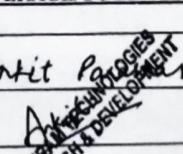
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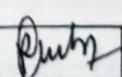
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MENTOR

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Industry/Organization	SHIRIRAM TECHNOLOGIES RESEARCH & DEVELOPMENT		Date/Duration	01/04/24 - 15/04/24	
Criterion	Poor	Average	Good	Very Good	Excellent
Punctuality/Timely completion of assigned work				✓	
Learning capacity/Knowledge up gradation				✓	✓
Performance/Quality of work					✓
Behaviour/Discipline/Team work				✓	
Sincerity/Hard work					✓
Comment on nature of work done/Area/Topic	Marked on finishing the project and testing modules				
<u>OVERALL GRADE (Any one)</u>	<u>POOR/AVERAGE/GOOD/VERYGOOD/EXCELLENT</u>				
<u>Name of Industry Mentor</u>	Ankit Parashar				
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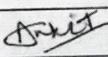
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Learning capacity/Knowledge up gradation				✓	
Performance / Quality of work			✓		
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Sincerity/Hardwork				✓	
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<u>Name of Industry Mentor</u>	Ankit Pathak				
<u>Signature of Industry Mentor</u>	 SHIRIRAM TECHNOLOGIES RESEARCH & DEVELOPMENT				

Receiving Date	31/1/24	Name of Faculty Mentor	Dr. R.S. Jatlin	Sign	
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Punctuality/Timely completion of assigned work				✓	
Learning capacity/Knowledge up gradation				✓	
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Sincerity/Hard work				✓	
Comment on nature of work done/Area/Topic	<i>Worked on Backend PHP connectivity</i>				
OVERALL GRADE (Any one)	POOR/AVERAGE/GOOD/VERYGOOD/EXCELLENT				
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