Smart Health Club

Arif Khan, Arjun Kanoujiya, Sharma Thevar, Mayur Kene, Ashraf Siddiqui

Dept. Computer Engineering, Universal College of Engineering, Vasai, India
Dept. Computer Engineering, Universal College of Engineering, Vasai, India
Dept. IT Engineering, Universal College of Engineering, Vasai, India
Dept. Computer Engineering, Universal College of Engineering, Vasai, India
Professor , Dept. Computer Engineering, Universal College of Engineering, Vasai, India

ABSTRACT—Usually, the client uses MS Excel or paper, and maintains their records, however it is not possible for them to share the data from multiple system in multiuser environment, there is lot of duplicate work, and chance of mishap. Every Excel file need to be updated once records are being changed The Smart Health Club rejects most of the disadvantages of the existing software. Increasing efficiency and effectiveness, automation, accuracy, user-friendly interface, information availability, communication capacity, maintenance, cost deduction makes our systems marter than the existing system. We inter mingle some new and blatant features along with all the necessary features. Some of them are user login, platform independent, etc.
Keywords— Smart Health Club, Fitness, Gym Management System, Health Club, Gym, BMI, Calorie Count.

I. INTRODUCTION

The Smart Health Club is a comprehensive software solution designed to streamline and optimize the operations of fitness centres, gyms, and health clubs. This system encompasses a wide range of functionalities, including member management; class scheduling, billing and payments, attendance tracking, inventory management, and reporting, among others. A Second Chance is the name of our fitness centre. This project's primary goal is to automate a gym or fitness facility, making it easier for it to run. It also makes it simple to maintain records in a secure database and makes customer and employee data and schedules conveniently should A web system where a user can have a track of his /her personal health. A person gets are commendation on basis of his physics whether he system streamlines gym operations, enhances member experience, and optimizes resource utilization, helping gym owners and administrators efficiently manage their fitness centres and achieve their business objectives.

II. LITERATURE SURVEY

A literature survey was carried out to find various papers published in international journals suchas IEEE etc. related to GYM Management system.

EXISTING SYSTEM:
- Time consumption: As there cords are to be manually maintain edit consumes a lot of time.
- Paper work: Since records are kept in files and registers, there is a huge amount of paper work involved.
- Storage requirements: The amount of storage space needs increase as files and registers are used.
- Less reliable: Papers are not a tall reliable when used to store important data.
- Difficulty in keeping new records:
- Maintaining fresh records is challenging because there are many new entries from members, as well as information on their accounts and transactions.

In Paper [1] In a word, innovation provides new vitality for modern gymnasium. Modern gymnasium has huge development space in the Internet era. The rational utilization of gymnasium resources should be combined with the technical concept of "Internet +". At the same time, in the process of designing the functional partition of gymnasium, we should plan the layout reasonably, make full use

of each space, and avoid the waste of building space resources.

In Paper [2] a user-friendly gym management system online application. This facilitates the automated system is very essay for both owners and other costumer. It was a simple plan. Minimum is the lower figure. There as on of operating system of almost all the faculties of architecture.

In Paper[3] The system proposed in this article will support gym members by allowing them to manage class bookings, view personal trainer(PT) profiles, and, if they have one-on-one sessions, communicate with their PT via the chat functionality.

(Although the system has been made available for live testing with users, it has not yet been deployed for sustained use.) go for weight loose or weight gain process. And there will be a personal trainer section where a trainer can recommend someone diet and workout plans. User have to follow that guide and have to update to trainer by performing that task. Where a user has a track of his health diet and trainer also.

The aim of the project is to make a user-friendly website with a graphical user interface. The project focuses on making the user experience smooth and problem free. With just one mouse click, the concerned person can store and retrieve any kind of record using the software. Data redundancy is no more problem now. The data modified from one particular data entry form will reflect the modifications at the other related forms too. There is no need to manage bulky registers now as the data stored in the backend database can be rapidly retrieved either from the frontend form itself or directly from the database. The user can check the progress on the website itself without the requirement of downloading an yapp. The system's administrator has complete control over it. The administrator can sign up and access the client profiles. By signing up for more social accounts, users can receive more updates from the system. Customers can view the most recent diet plan and exercise schedule, ask an admin inquiry, and view the admin's response. Customers can connect online with other gym members. Overall, the gym management maintaining a gym schedule. This schedule is based on basic user objectives and progress made in the direction of those objectives. The user inputs and the progress depend from user to user.

In Paper [4] This work provides a conceptual framework of a smart gym. The major problem faced by a user or a customer going to a gym is regarding personalization of workout schedule for a user becomes a costlier affair as it in volves expert man power which eventually increases the cost of the schedule.

In Paper [5] The objective is to define system will be providing the facility to pull the data from the server using a key (such asid) and get the desired report. According to IEEE 405 data format[john Keats] any business that does not have a website is missing out on one of the most powerful marketing tools available to them. The main reason that it is important for businesses to have a website is how people are likely to find you. When the records are changed, they need to update each and every excel file.

In Paper [6] This software package allows storing the details of all the data related to a gymnasium. The newly developed site for gym is more suited than the manual database because it provides the facilities like, larges to rage capacity, high speed, more accuracy and high security. This in such kind of system. "Redundancy" means repetition. The data modified or updated at a particular place may not be data modified or updated at the other related place which may create in consistencies in data handling,

III. PROBLEM STATEMENT
The existing systems aren't as user-friendly as compared to our proposed system. The earlier systems used to have communication gaps as few members used to handle all the customers, but our system will itself handle all the customers, providing all the facilities that customers should receive.

What was the Problem?

Existing system was manual.

i. Time consuming as data entry which include calculations took lot of time.

ii. Searching was very complex as there could be 100's of entry every year.

iii. The proposed system is expected to be faster than the existing system.

iv. The Project was made in order to effectively and efficiently cater to requirements of the fitness centre. Very frequently the person who generally holds the tasks to manage the centre needs to keep records of all the transactions as well as data manually. Generally, In order to structure these tasks Separate Registers are maintained. This whole process thus becomes quite cumber some for them to control manually. Moreover, any wrong data entered mistakenly can brings serious results.

v. This Manually Managed system of the store was also heavily prone to the data

loss due to certain causes Misplacement of Registers, Destruction of Registers. Unauthorized access to registers etc, which can bring worst consequences.

vi. The cost of maintenance of data and records of occurrence of transactions is very high.

vii. Searching a particular data specific to particular requirements is also very tedious in such system. In order to retrieve records, The responsible person needs to manually locate the appropriate register and locate the appropriate placement of that particular record which may be very time consuming.

We have gone through the papers very precisely and found out that each system created had some glitches with respect to managing the data of the system, Hence, we have concluded that our system will overcome all the disadvantages.

IV. PROPOSED SYSTEM

The "Smart Health Club" is an application which in PHP and MYSQL which automate the gym system with enables one as tool to manage users' details. The" Smart Health Club" effectively manages and handles all the function of gym and fitness centre. The Smart Health Club requires a system that will handle all the necessary and minute details easily and proper database security accordingly to the user. They require software, which will store data of gym member and all transactions that occur in Gym. Smart Health Club is a web-based application using PHP and MySQL project uses Visual Studio as frontend and SQL server as backend and for the designing HTML and CSS is used. The system proposed has many advantages, The proposed system is extremely secure because login requires a username and password that are unique to each department, giving each department a unique perspective of the client information. It offers a broad variety of specific criteria in each window the client uses to search for a better and more expedient resolution. It keeps track of all transactions and criteria in reports. Separately manages employee information to take into account the needs of the gym and member information for all exercise. Stores information about regular products. This system can run on any windows operating system. The sequence of the exercises to be performed is not completely rigid and the schedule is more or less dynamic.   Whether a particular machine is occupied by another user and if so, since when, is used in order to predict the future availability of the machine. This prediction along with precedence constraints of the exercises is used to formulate a dynamic workout for the user.

V. METHODOLOGY

This block diagram describes the working of Smart Health Club. It is a connecting link between the user and database. When you start the web application, you will see the homepage. It asks you to Login if you don't have user-id you can register. On the successful Register or Login admin would go to admin side whilst user would go to user side. Admin has access to add members, mark attendance, payment and members information. User side would contain access to choose the package, payment method and to track attendance. Further if you want to ask queries you can use AI chatbot, if not then simply logout of the system.

ER Diagram:
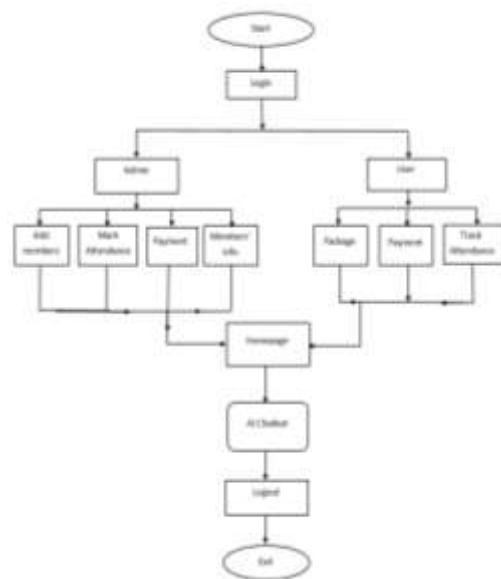
Data Flow Diagrams:

A Data Flow Diagram (DFD) is a traditional visual representation of the information flows within a system. A neat and clear DFD can depict the right amount of the system requirement graphically. It can be manual, automated, or a combination of both. It shows how data enters and leaves the system, what changes the information, and where data is stored. The objective of a DFD is to show the scope and boundaries of a system as a whole. It may be used as a communication tool between a system analyst and any person who plays a part in the order that acts as a starting point for

redesigning a system. The DFD is also called as a data flow graph or bubble chart.
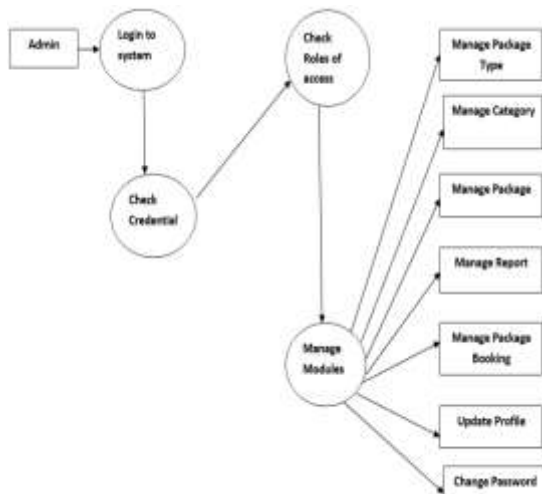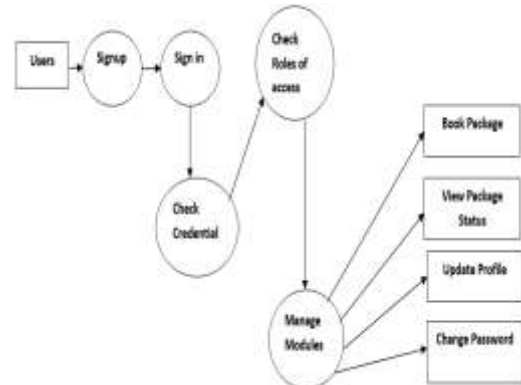
- Zero Level DFD:

- First Level DFD
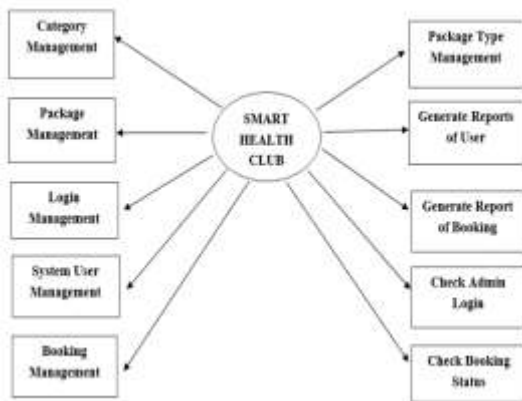
- Second Level DFD

Second Level DFD (Admin)

Second Level DFD (User)

- Login module:
The system will allow the users to log into the system with their own account. After login in the system, the system will access relevant data to user based on their username and password. The login module also allows the user to change to password for the security purpose.

- Account module:
The system will allow the administrator to create account for users. The system will allow the administrator to delete account of users. The system will allow the administrator to activate users' account.

- Plan/Membership type module:
The system will allow the Manager to add new plan details the plan details consists membership ID, membership name, days, and Rates. The system will allow the Manager to edit plan details. The system will allow the Manager to delete plan details.

- Payment Module:
The system will allow the Cashier to add trainer payment. The system will allow the cashier to edit trainer payment. The system will allow the Cashier to delete trainer payment.

VI. IMPLEMENTATION
The aforementioned components in our system work in tandem in order to provide a reliable workout schedule to the user. Whenever a user registers for a gym membership, his/her fitness device is provided a unique ID and a relationship is established between his/her fitness device and the gym equipment. A new database entry is made for the user which contains the user's age, height, weight, BMI, Body fat% and other relevant information. Initially, the user is asked to perform a set of predefined exercises to identify his/her

capabilities. The system contains various flexible levels ranging from complete beginner to advance which are managed using the level management module. The assessment of the user ability identifies the appropriate level in which the user must be placed. Every level has a predefined weekly schedule which comprises of a set of exercises to be performed on the daily basis. There are various constraints on the performance of exercises such as; an isolation exercise must be preceded by a compound exercise which in turn must be preceded by a full body warm-up. These constraints, if any, are explicitly mentioned in the predefined weekly schedule. The history information of the user, as well as the machine feedback, is utilized to make the workout schedule much more user.

VII. CONCLUSION

The project titled as Smart Health Club was deeply studied and analysed to design the code and implement. It was done under the guidance of the experienced project guide. All the current requirements and possibilities have been taken care during the project time. Smart Health Club is a web based application which secures and manages note information that are important to the users.

The system's administrator has complete control over it. The administrator can sign up and access the client profiles. Any announcement can be made by the admin. The goal of this project was to create a system for keeping track of all member's packages, their requirements and trainer's information. All user requirements have been addressed, and it has been made as user-friendly as possible. Goal attained: The system can give the owner an interface so he can replicate the data he wants. Friendliness to users: Despite the fact that the majority of the system is designed to operate in the background, attempts have been made to make the foreground interaction with the user as seamless as possible.

VIII. REFERENCES

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