

INTRODUCTION:

Our Fitness Management Software System 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.

Fitness Management System 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 Fitness Management Software is a complete gym and recreation facility system program which looks after all of your members, memberships and activities. Our Fitness Management Software provides other lots of functions such as data entry of member/customer, keeping records of all the things about member/customer fees, plan and physical fitness which helps to provide good quality of services to the members/customers to gym managers.

In this proposed system, it also provides the total information about machinery and data of coaches/trainers is also stored in it. Services provided by gym are also handled by this system.

It is the system that will store data about members, employees, products, payroll, receipts of members and all transactions that occur in gym. It is known that exercise is important. Exercise has a great impact in the body as it has all sorts of benefits. Physical activities are very helpful not only on making people fit but also on improving one's personality. If they have a healthy body, they can be productive in daily life. Exercise increases the energy level. Through it delivers oxygen and nutrients to the whole body helping to work more efficiently and boost endurance.

Fitness Centre Management System is to provide a good quality of service to people, fitness gym should have an organized management system that will provide convenience to their staff to perform their work more efficiently. The proposed system will give the list of exercises and it will keep records of gym members, attendance of gym employees, inventory and the payment of bills of the customers. This will help monitoring daily activities in the gym.

The proposed system will be helpful to customers because it will guide them in doing proper exercise and improve the productivity of business of gym owners that will provide an excellent service. The conceptual framework of the proposed Fitness Management System starts in the automation of the manual process from registration and membership, manual setting of workouts and training programs, inventory and transactions and lastly is the generation of reports. The proposed system automates the manual process to come up with the efficient and reliable system that will lessen the manual process.

The user of the system shall be able to add a new gym member. The tool shall add all the necessary details like name, admission date, contact details into the system. The Gym Management System shall also monitor the timings for the member. It shall allow the user to make fee payments. This tool shall hold all the details of gym members. It shall enable the user to make payments monthly, quarterly or annually.

As modernizing is taking over all the systems and digitalizing helps them improve in so many particular ways. The Fitness Management System is one of the systems which helps the administration in speeding up the tasks at the same time reducing the complexity. The present scenario in the gyms is that the records are kept by writing in a file on the paper. Every management task is done manually. This creates a system unreliable and confusing to keep the correct track of the records.

The maintenance of the system like this is hardly required until it needs to change any part of the system. The information about the various things contained in the system are like members, trainers, equipment can get by just a few clicks unlike the paper documents required are serious reading for such information. It also helps in creating the various batch according to their preference or if they want a particular trainer. It made easy to generate the

reports of various operations performed in the gym are like paying the fee it can be stored and later evaluated and get the list of members who did not pay the fees.

It also helps the users in reducing the carbon footprint as the amount of paper is used in company reduces.

This also helps in keeping the standard width of the management system as if there is a case where the administration involves more than one person to manage the gym. This system does not only limit itself to the administration and but also helps the members of the gym. The members can have options like attendance and fee payment, change batch request, etc. This system will also give the layer of security to the administration and the users that only authorized users can access by their credentials.

OBJECTIVE:

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 members/customers, the staff that has the privileges to access, modify and delete record and finally the service, gym provides to its members/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 members/customers-staff relationship in an effective manner.

To develop a user-friendly system that requires minimal user-training.

Objectives of the project This Gym Management System shall enable the user to add members to a gym and manage the fee payment of the gym user. The user of the system shall be able to add a new gym member. The tool shall add all the necessary details like name, admission date, contact details into the system. The Gym Management System shall also monitor the timings for the member. It shall allow the user to make fee payments. This tool shall hold all the details of gym members. It shall enable the user to make payments monthly, quarterly or annually.

The other objectives of the Gym Management System is to provide a system which handles the information of the people coming into the gym and maintaining their health. It takes care of all their health information through schedule management. It even maintains the data of what and all medicines used by the people who join the gym through schedule management. Data will be stored in the database.

Gym Management System allows the user to store the health, schedule and other details, the details of person who is in the gym, gym equipment details etc. This software package allows storing the details of all the data related to gymnasium. The system is strong enough to withstand regressive yearly operations under conditions where the database is maintained and cleared over a certain time of span. The implementation of the system in the organization will considerably reduce data entry, time and also provide readily calculated reports.

Basically, the purpose of this system is to digitalize and create an automated system. The system will perform the task like adding the new member to the gym, removing the member or keeping the payments records and other stuff required in managing the gym properly.

The objective of the Gym Management System is to handle all the data and manage the clients and employee's attendance within just one software. The software deals with all their well-being data through calendar the executives. It even keeps up the information of what and all medications utilized by the individuals who join the gym through timetable services. Information will be put away in the database.

Gym Management System enables the client to store the health, schedule and different subtleties, the subtleties of individual who is in the gym, gym hardware subtleties and so forth. This product bundle permits putting away the subtleties of the considerable number of information identified with the gym.

The System is sufficiently able to withstand backward yearly tasks under conditions where the database is kept up and cleared over a specific time of range. The usage of the System in the association will significantly decrease information section, time and give promptly determined reports.

SCOPE OF PROPOSED SYSTEM:

It may help collecting perfect management in details. In a very short time, the collection will be obvious, simple and sensible. In a very short time, the collection will be obvious, simple and sensible. It will help a person to know the management of passed year perfectly and vividly. It also helps in current all works relative to Gym Management System. It will be also reduced the cost of collecting the management & collection procedure will go on smoothly.

- The proposed system serves as the automated Fitness Management System that manage the old process of registration, inventory and transactions of the gym. This helps to speed up transaction and give more efficient and reliable data.
- The Fitness Management System is designed in providing productivity in the gym and helps in keeping all the records of daily activity and transactions.
- The administrator has the full rights over the system.
- The user/admin can register and view the members/customers profile data.
- The user/admin can make announcement about anything.
- User/Admin can make attendance of members/customers.
- User/Admin will update evaluation report of members, update diet plan, update exercises, answer to questions made by members.
- Members can view profile data and can update it by using his own account.
- Members can view their evaluation report, updated diet plan, update exercises by trainers and can ask questions to admin and also view answers.
- Members can also view attendance report.
- Easy to maintain tool details, time saving for owner as well as member, efficient traceability, user friendly.
- Data modification can do easily, easy maintenance, data is secure, less time consuming.
- The system will provide timely information and status of the various activities to manage, to facilitate the user of the system.
- Thus, it is concluded that the system is technically, economically and operationally feasible.

SYNOPSIS:

The main objective of the Fitness Centre Management System is to manage the details of fitness centre, fitness master, employee, member, diets. It manages all the information about fitness centre, health, diets. It tracks all the information about employee, members, diets, memberships. It also maintains people's personal records like personal information, reports, attendance, weekly activities.

This project aims to automate gym and fitness admission process as the admission process in gyms and selecting a trainer is difficult. Sometimes it is difficult to get a desired slot timing. Being healthy is the first thing to be kept in mind because most of the time our attitude depends on how we feel. Being healthy gives us the energy to work and do things. It is hard to get admission in health club when slots are full. This health club management system will help to overcome such problems by booking the desired slot online and pay fees by electronic money transfer. In this fitness club system, there is 3 entity namely, Admin, Member, and Trainer. Admin can login using credentials. Admin can manage packages by adding cost, discount and deleting old packages. Admin can manage member details by adding, updating and deleting. Admin can view the package details of an individual member. Admin can also view the member's attendance taken by the trainer. Members can login using credentials. They can view their profile and list of trainers. They can also view the package and payment details. Members can give feedback on their trainers. They can make payments via card details. A trainer can log in using credentials. A trainer can set their profile. A trainer can take member's attendance daily, they can also change their password in case of security. The user of the system shall be able to add a new gym member. The tool shall add all the necessary details like name, admission date, contact details into the system. The Gym Management System shall also monitor the timings for the member. It shall allow the user to make fee payments. This tool shall hold all the details of gym members. It shall enable the user to make payments monthly, quarterly or annually.

FEATURES:

It provides the searching facilities based on various factors such as fitness center, employee, members, diets.

The transactions are executed in offline mode. It tracks all the information of fitness master, employee, members, diets, etc.

It manages the information of fitness master.

It shows the information and generates reports of the members.

It deals with maintaining the information and transactions of members.

Editing, adding and updating of records is improved which results in proper resource management of fitness center data.

It manages the information of members.

Integration of all records of diets.

NEED FOR COMPUTERIZATION:

- It requires software, which will store data about members, trainers, managers, employees, products and all the receipts and all transactions that occur in gym.
- To provide better graphical user interface.
- Computerization can be helpful as means of saving time and money.
- In computer system the person has to fill the various forms & number of copies of the forms can be easily generated at a time.
- In computer system, it is not necessary to create the manifest but we can directly print it, which saves our time.
- To assist the staff in capturing the effort spent on their respective working areas.
- To utilize resources in an efficient manner by increasing their productivity through automation.
- The system generates types of information that can be used for various purposes.
- It satisfies the user requirement.
- It is easy to understand by the user and operator.
- It is easy to operate.
- Have a good user interface.
- It is expandable.
- Delivered on schedule within the budget.

FEASIBILITY STUDY:

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 time spent on it.

It enables the developer foresee the future of the project and usefulness.

It also enables the ability to meet their user needs and effective use of resources.

There are three types of feasibility that are mentioned below:

- Technical feasibility
- Economical feasibility
- Operational feasibility

- ***TECHNICAL FEASIBILITY:***

Technical feasibility focuses around the existing computer system (hardware and software) and to what extent it supports the proposed addition.

Example: If the current computer is operating at 80% capacity- an arbitrary ceiling- then running another application could overload the system or require additional hardware. Also, the tools, operating system and programming language used in this process are compatible. 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 system, 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. Technical Gyms raised during the investigation are:

- 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 never version of same software supports older versions, the system may still be used. So, there are minimal constraints involved with this project. The system has been developed using Java.

- ***ECONOMICAL FEASIBILITY:***

Economic analysis is the most frequently used method for evaluating the effectiveness of the system. Most commonly known as cost/benefit analysis. The procedure is to determining the benefits and savings that are expected and compared them with costs. If benefits overweigh costs, then the decision is made to design and implement the system.

Economic feasibility considers:

- The cost to conduct a full system investigation.

- The cost of hardware and software for the class of application.
- The benefits in the form of reduced cost or fewer errors.
- The proposed system will provide fast and efficient automated environment instead of slow and error prone manual system.
- The system will have GUI interface.
- The system will provide service to view various information if required.

- ***OPERATIONAL FEASIBILITY:***

This application is very easy to operate as it is made user-friendly with the help of effective GUI tools. Main consideration is user's easy access to all functionality and the organization is trained enough to use newer application.

DATA DICTIONARY:

Table	Description	Datatype
LOGIN	username	varchar
	password	varchar

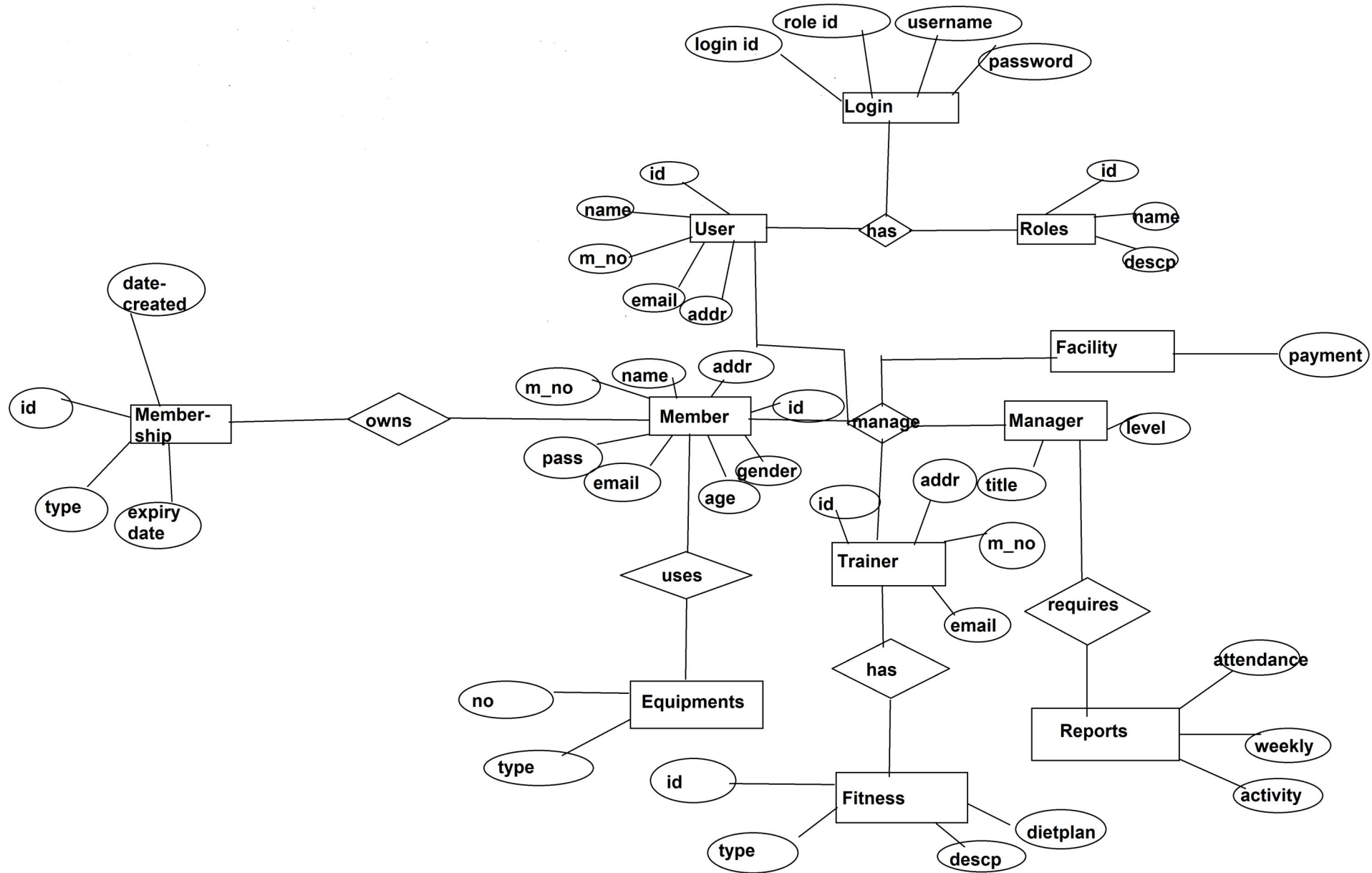
Table	Description	Datatype
ADD USER DETAILS		
	u_id	int
	name	varchar
	m_no	int
	email	varchar
	address	varchar

Table	Description	Datatype
ADD NEW MEMBER		
	id	int
	name	varchar
	address	varchar
	m_no	int
	email	varchar
	age	int
	gender	varchar
	receipt_no	int

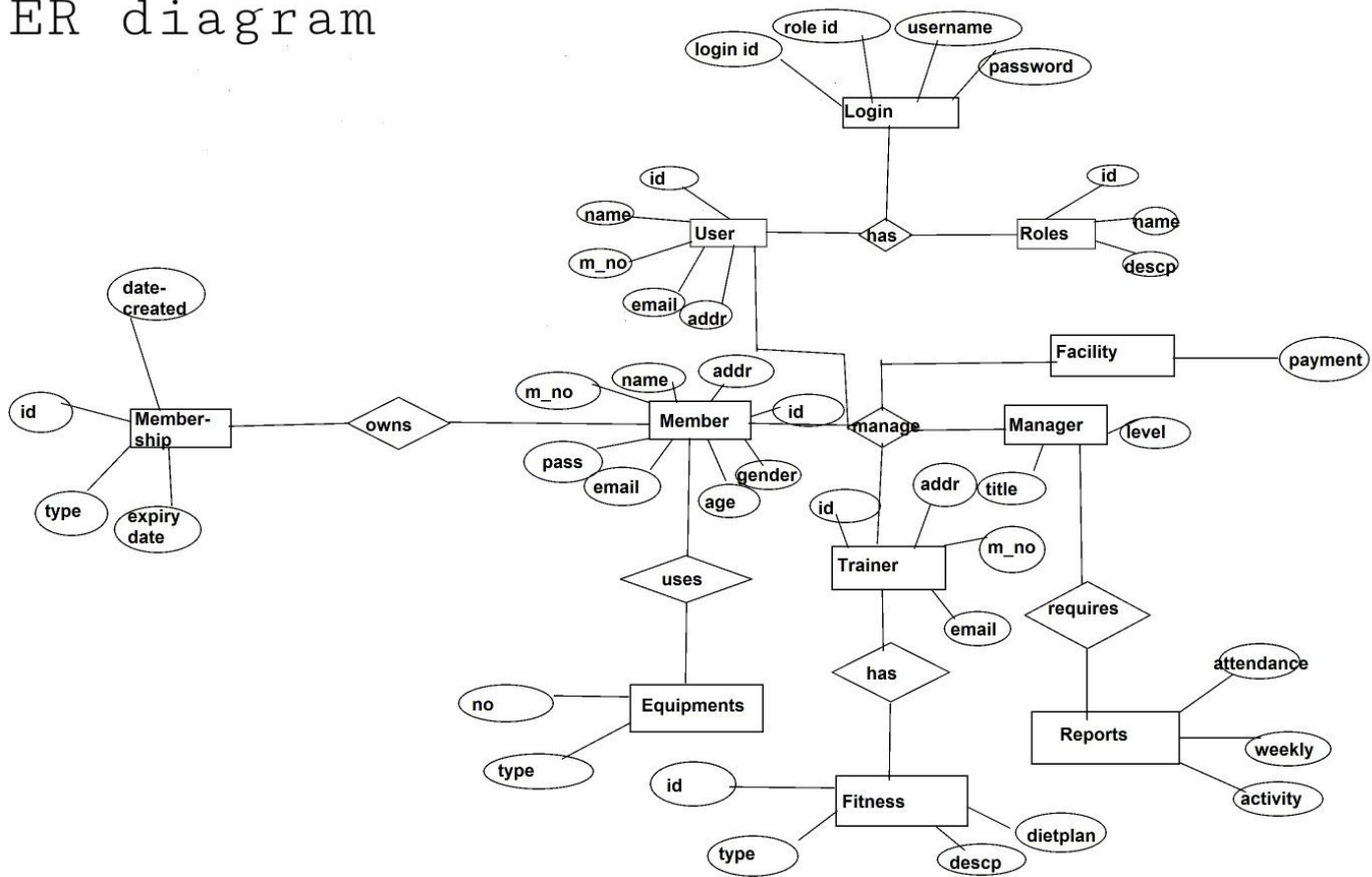
Table	Description	Datatype
ADD MEMBERSHIP DETAILS		
	m_id	int
	type	varchar
	Enrolment date	date
	Expiry date	date

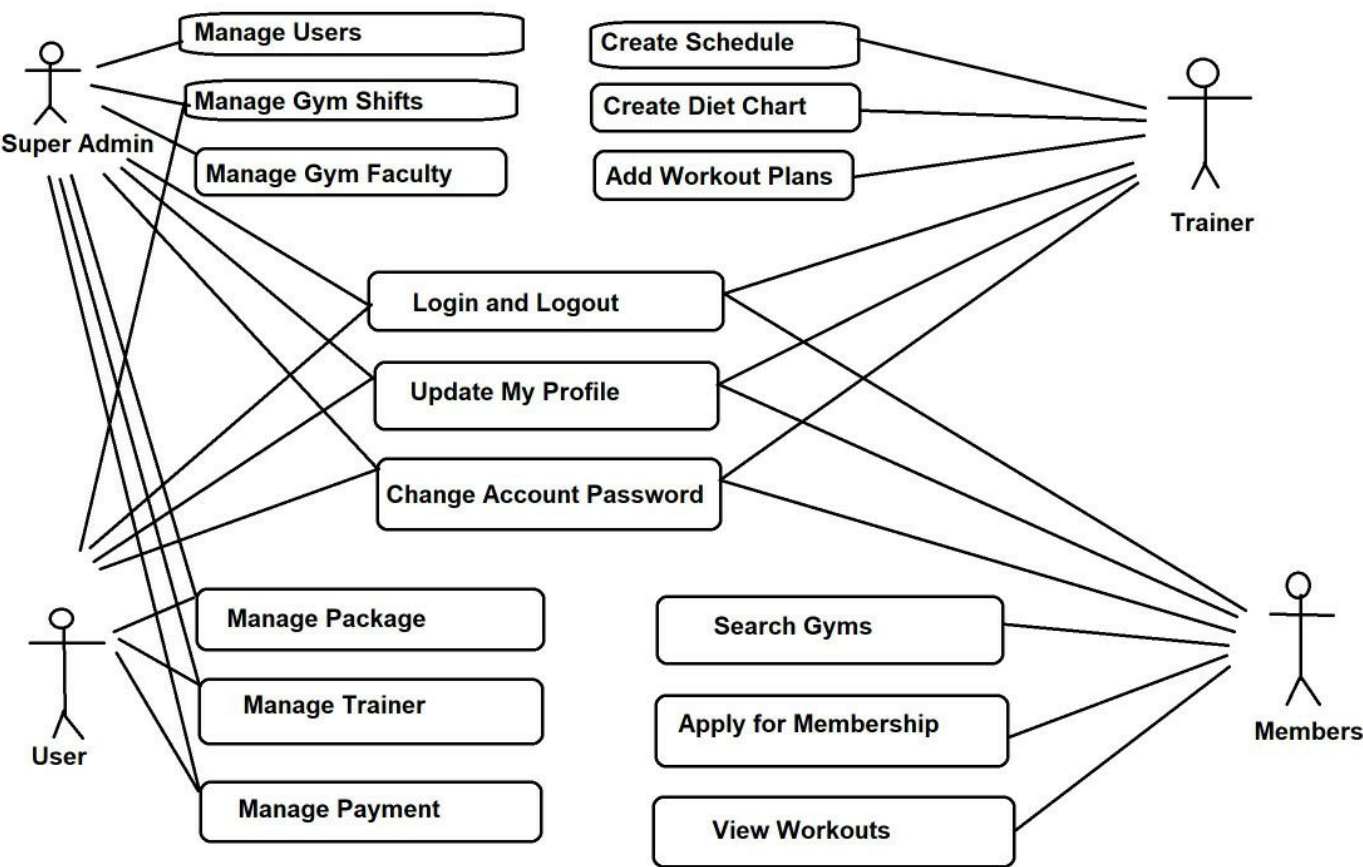
DATA DICTIONARY:

Type	Description	Datatype
ADD PAYMENT DETAILS		
	m_id	int
	receipt_no	int



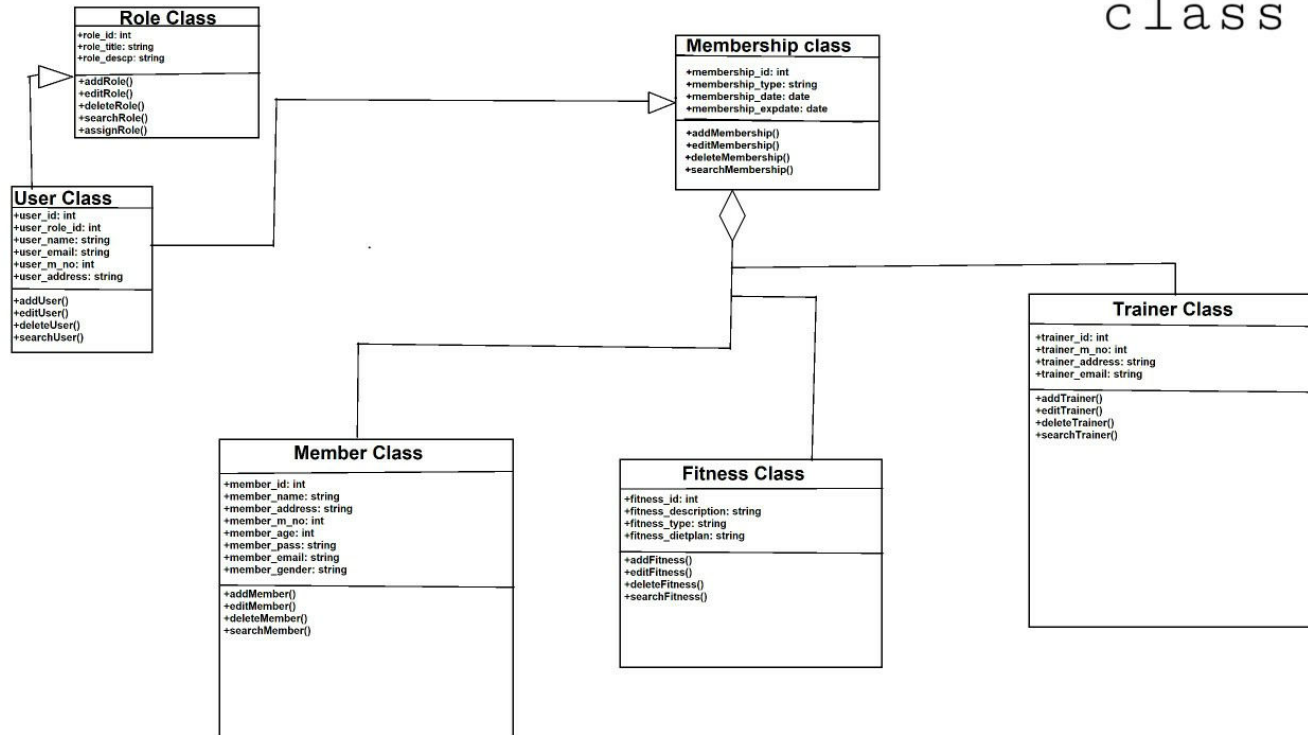
ER diagram



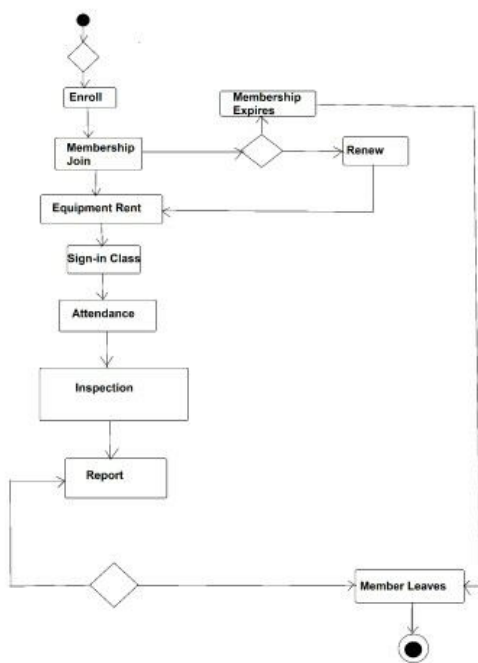


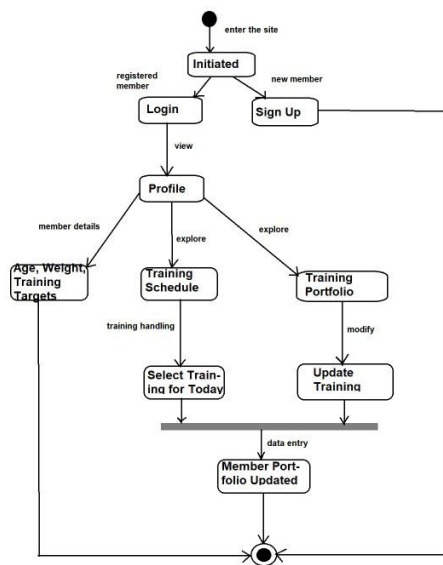
use case diagram

class diagram

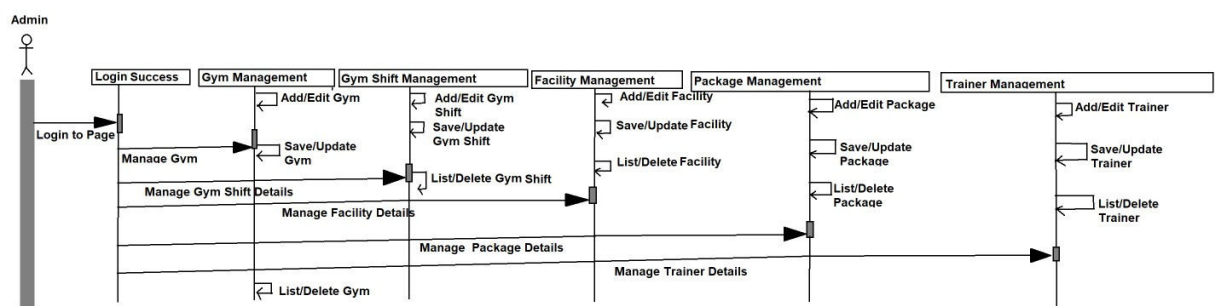


activity diagram





state chart diagram



sequence diagram

TESTING STRATEGIES:

- LOGIN:

Test case id	Description	Input data	Expected result	Actual result	Remark
1.	Username should not be NULL	NULL	Display message	Display message	done
2.	Password should not be NULL	NULL	Display message	Display message	done
3.	Wrong username and password	Enter details	Display message	Display message	done
4.	Correct username and password	Enter details	Redirected	Redirected	done

- REGISTER:

Test case id	Description	Input data	Expected result	Actual result	Remark
1.	Username should not be NULL	NULL	Display message	Display message	done
2.	Password should not be NULL	NULL	Display message	Display message	done
3.	Mobile no. should not be NULL	NULL	Display message	Display message	done
4.	Member should not be NULL	NULL	Display message	Display message	done

- REGISTRATION:

Test case id	Description	Input data	Expected result	Actual result	Remark
1.	Username already taken	Username= 'ashvini'	Record not inserted	Username already taken	Pass
2.	Mobile no. <10	Contact no. = '2334567821'	Record not inserted	Mobile no. is invalid	Pass
3.	Email id is invalid	Email= 'ashvini'	Invalid email	Email id is invalid	Pass
4.	Username blank	Username= ''	Cannot insert	Username should not be blank	Fail
5.	Password blank	Password= ''	Cannot insert	Password should not be blank	Fail

TESTING STRATEGIES:

- MEMBERSHIP:

Test case id	Description	Input data	Expected result	Actual result	Remark
1.	Membership id= NULL	m_id= ''	Error	Invalid	Fail
2.	Membership id	m_id='1'	Record inserted	Record inserted	Pass
3.	Date format= yyyy-mm-dd	Start-date= '1996-01-05'	Record inserted	Record inserted	Pass
4.	Date format=	End-date= '14-01-2000'	Error	Invalid	Fail

TESTING STRATEGIES:

LIMITATIONS AND DRAWBACKS:

- The existing system only provides text-based interface, which is not as user-friendly as Graphical user Interface.
- Since the system is implemented in Manual, so the response is very slow.
- The transactions are executed in off-line mode, hence on-line data capture and modification is not possible.
- Off-line reports cannot be generated due to batch mode execution.

FUTURE ENHANCEMENTS:

The main objective of Smart Gym Management System is to enhance and upgrade the existing system by increasing its efficiency and effectiveness. The software improves the working methods by replacing the existing manual system with the computer-based system.



User Name:

Password:

Log in



Gym Management Application

overview

get member info

Financial Details

Add New Member

At a Glance...

Id	Name	Contact Number	Address	Registered On	Registered By
13	shital	9898989898	pune	4 May, 2021	admin
14	rahul	5656565656	pimpri	4 May, 2021	admin
15	mrunalini	6767676767	bhosari	4 May, 2021	admin
16	mrunalini	6767676767	bhosari	4 May, 2021	admin
17	vinod	8767656565	chinchwad	4 May, 2021	admin

Date: 2021 / 5 / 12

Time: 6 : 5 : 4



Gym Management Application

overview

get member info

Financial Details

Please Enter a valid ID for get related member Information

Membership ID:

13

Submit

In case of an emergency

emergency contact: 9878787878

Basic Details

Name: shital

NIC: 1234

Contact Number: 9898989898

Address: pune

Email Address: sh@gmail.com

Body Statics

Gender: Female

Height: 5.3

Weight: 69

BMI: 2

Remarks:

Membership Category: Personal training

Membership ID: 13

Registered on: 2021-05-04

Registered By: admin

Receipt No: 1

Payment Plan: 6 months

Last updated on: 2021-05-04

Update Member

Delete Member

Date: 2021 / 5 / 12

Time: 6 : 5 : 57



Gym Management Application

overview

get member info

Financial Details

Please Enter a valid ID for get related member Information

Membership ID: 13

Submit

In case of an emergency

emergency contact: 96787878

Body Statics

Gender: Female

Height: 5.3

Weight: 69

BMI: 2

Remarks:

Update Member

Delete Member

Basic Details

Name: shital

NIC: 1234

Contact Number: 9898989898

Address: pune

Email Address: sh@gmail.com

Membership Category: Personal training

Membership ID: 13

Registered on: 2021-05-04

Registered By: admin

Receipt No: 1

Payment Plan: 6 months

Last updated on: 2021-05-04

Date: 2021/5/12

Time: 6:5:57



Update Member Details

Name:

NO:

Contact Number:

Address/Residence:

Email:

Emergency Contact No:

Membership Category:

payment plan:

Gender:

Height: m

Weight: kg

Remarks:

Not Promotably Saved Status

Clear Local Fields

Add to the Database

Close

Gym Management Application

overview

get member info

Financial Details

Please Enter a valid ID for get related member Information

Membership ID: 13

Submit

In case of an emergency

emergency contact: 9878787878

Body Statics

Gender: Female

Height: 5.3

Weight: 69

BMI: 2

Remarks:

Update Member

Delete Member

Basic Details

Name: shital

NIC: 1234

Contact Number: 9898989898

Address: pune

Email Address: sh@gmail.com

Membership Category: Personal training

Membership ID: 13

Registered on: 2021-05-04

Registered By: admin

Receipt No: 1

Payment Plan: 6 months

Last updated on: 2021-05-04

Date: 2021/5/12

Time: 6:10:36

Remove Member

Do you want to delete shital from database?

Related member ID is 13

Yes

No



Update Member Details

Name:

NIC:

Contact Number:

Address(Residence):

Email:

Emergency Contact No:

Membership Category:

payment plan:

Gender:

Height: m

Weight: kg

Remarks:



Add New Member

Name:	<input type="text" value="Asghari"/>
NIC:	<input type="text"/>
Contact Number:	<input type="text" value="9776645408"/>
Address(Residence):	<input type="text" value="Rm road, golf course"/>
Email:	<input type="text" value="asgharwan.55@gmail.com"/>
Emergency Contact No:	<input type="text"/>

<input type="button" value="Clear Text Fields"/>
<input type="button" value="Add to the Database"/>
<input type="button" value="Close"/>

Membership Category:	<input type="text" value="Main workout area"/>
Receipt No:	<input type="text" value="1"/>
payment plan	<input type="text" value="6 months"/>

Gender:	<input type="text" value="Male"/>
Height:	<input type="text" value="56"/> m
Weight:	<input type="text" value="55"/> kg

Remarks:

<input type="text"/>
