

# 1. INTRODUCTION

## 1.1. ABSTRACT

“GYM MANAGEMENT SYSTEM” project is designed to facilitate a gym and fitness center to automate its operations of keeping records and store them in form of a large and user friendly database further facilitating easy access to the personnel

The Project was made in order to effectively and efficiently cater to requirements of the GYM. Very frequently the person who generally holds the tasks to manage the center 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 cumbersome for them to control manually. The usage of separate registers will provide the following problems any wrong data entered mistakenly can brings serious results 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 times consuming.

Main idea behind developing this project is to manage different types of data in fitness center, gym. Using this software we can manage employee attendance details members payments, daily attendance, present and absent days of employees and members. Along with these details gym equipment and payments details are also managed. This software is easy to operate by person with minimum compute skills. Data is maintained in database which helps in retrieving information of specific query within seconds.

## **1.2. PROJECT DESCRIPTION**

GYM Management System is the process whereby records of members are directly stored and can be accessed by the admin interactively in real-time without an intermediary service. Gym Management System is the process of storing members details including health status, payment records, exercise routines etc. who have taken admission to the gym. Since the emergence of the World Wide Web, owners have sought to stored their user details in a digital system for easy access and find out every detail when needed.

The main purpose of this project is to automate a gym or a fitness center and therefore facilitating its operations. It makes the clients and staff data and schedule easily accessible and also making it easy to keep records in a secure database.

### **PROJECT OBJECTIVES:**

- Automating the existing system.
- Reducing time taken to enter client and staff data.
- Making the client data easily accessible.
- Speeding up operations.
- To centralize the management of the gym and fitness center.
- Reduce data loss in the manual system already in place.
- Reduce the cost of maintenance of the gym and data storage and reducing the space occupied the files being used.
- Make data retrieval easy and reduce time wasted when manually searching for data.

- Reduce data redundancy. Redundancy is the repetition of similar data in the system. Redundancy occurs when data is updated so there occurs more than one copy of data which consumes a lot of space.

### **1.3. COMPANY PROFILE**

**IT Navigation Ltd** is a leading IT Training company, which is placed in Madurai to provide best training for Networking, Server Administration, VMware Administration and Internet Security. IT Navigation Ltd gives importance to take care of student's career and provide high quality training to all class of people. Our organization not only provide the platform to build up the bright professional career in networking, Server Administration, VMware Administration and Internet Security but also provides the placement support in reputed companies.

We are proud to be the pioneers in "Hardware and Networking". Just when everyone was bent upon Software, we foresaw the tremendous potential in Hardware and Networking, and successfully emerged as one of the best IT Company for Hardware and Networking Solutions and the best institute for Hardware and Networking Training. Today the two sides of its business are equally balanced. The expertise of its training is coupled with a strong commitment to provide the best Hardware and Networking solutions. This has put IT Navigation Ltd in the unique position of deriving synergies between Network Solutions and IT Training.

**IT Navigation Ltd** is an educational and professional development organization working on various divisions including Software Development, Training, Web development, Corporate Training, Business process and Consultancy. They strive to excel a quality out-put in training individuals, Organization coders,

development and business process with Professionals who are best in the business. They provide industrial exposure by making fresher work on real time projects. They have world class quality trainers who have the industry exposure of around 8 years. Hence, it provides the best training in .Net Technologies, J2EE Programming, PHP Programming and Web Designing.

**IT Navigation Ltd** is an innovative company, based in India that provides a series of Web-based and software applications that have helped their customer create successful business ventures through online initiatives. Web provide all the services that a company needs to get online from web designing to web hosting; we design, promote, program and manage leading-edge Web sites and e-business applications. Above all they provide optimized website promotion in major search engines.

**Services includes:** Professional Web Design, Internet Marketing, Link Building, Ecommerce Solution, Web Application Development, Multimedia Presentations, Customized Software Development, and Business Process Outsourcing- IT/IT

### **On-line Interactive Learning**

We believe in On-line Interactive learning. That is to say, the problems, or doubts which students often face, while sitting before a system, is cleared by our staff as soon as they surface. This way our students learn more.

## **Get experienced while Learning**

After extensive learning, we subject our students to some Real Time situations (which is often created by our staff) and student left alone, to handle the situation, to overcome the problem, with his own solutions in this way, he is getting experienced, even before the completion of course and is very much ready to seek the job with tremendous confidence.

## **Teaching Strategy**

There is a saying, which goes like "It takes lot of beatings to make a pot". here we literally follow this method of beatings; Beatings it is now in the beginning to beat the world later. Our training is vigorous. At IT Navigation Ltd we run strict schedules and conduct several crucial tests so as to prepare you for the challenges you are going to face in the IT world as soon as you step out of IT Navigation Ltd.

## **Technical Facility**

Our labs are enormous and equipped with the latest system available in the industry today. We also have product maintenance engineers who see it to that our systems are full functional at all times. we have a library, shelving books with latest version and edition covering various topics on Real time situation and Troubleshooting, e.t.c.,

## 2. SYSTEM ANALYSIS

System Analysis and Design, is the process of gathering and interpreting facts, diagnosing problem and using the information to recommend improvement to the system. Before development of any project can be pursued, a system study is conducted to learn the details of the current business solution. Information gathered through the study forms the basis for creating alternative design strategies. Virtually all organizations are systems that interact with their environment through receiving input and producing output.

It is a management technique used in designing a new system, improving an existing system or solving problem. System analysis does not guarantee that the user will derive an ideal solution to a problem. This depends solely on the way one design a system to exploit the potential in the method. To put it in another way, creativity is as much as must pre-design the study and problem solving process and evaluate every successive step in the system analysis.

Taking all these factors into account and with the knowledge of the inter-relationship between the various fields and section and their potential interactions, they are consider for developing the whole system in and integrated manner, this project is developed to meet all the criteria in the

The management technique is also helps us in develop and design of the new system or to improve the existing system.

The following Objectives are kept in mind:

- Identify the customer's need.
- Evaluate the system concept for feasibility.

- Perform economic and technical analysis.
- Allocate functions to hardware, software, people, database and other system elements.
- Establish cost and schedule constraints
- Create a system definition that forms the foundation for all subsequent engineering work.

### **Identification of the need:**

In this, there are certain expressions that are being used in the development of the project. And, it is used to identify our needs or source in the project.

- Defining a problem
- Finding the various need for the problem
- Formalizing the need
- Relating the need

Thus, it is the first step for system development life cycle.

### **Initial Investigation**

It is one way of handling the project, it is used to know about the user request and the modification of the system should be done.

The user's request for this project is as follows:

1. Assigning separate work area for different users.
2. Nature of the work

3. Regular update and delete of record
4. Regular calculation of Net Asset Value
5. Supplying the data with the time required.

The user request identifies the need for change and authorizes the initial investigation. It may undergo several modifications before it become a written commitment. Once approved the activities are carried out into action. The proposal, when approved, it initiates a detailed user-oriented specification of system performance and analysis of the feasibility of the evaluating alternative candidate systems with a recommendation of the best system for the job.

## 2.1. EXISTING SYSTEM

In gym management system, if we take the current system and compare with the proposed it is far behind. Every work in the existing is manual and done on the paper.

There might be a computer used somewhere for the work but it's is not doing exactly it's is supposed which is reducing the manual work. Entering everything manual to the computer by creating a file is not exactly we are talking in computerization.

The existing system requires a lot of manual work which results in taking more time than it should. The operations like updating and synchronizing data are also done manually in the existing system that is not automated and again time-consuming process.

These practices are not at all reliable as the one wrong entry can take a lot of time in detection and then there is a correction. Humans are prone to errors and can mistakes often unless it has some inbuilt programs which can take check the input and save from error.

We introduced the system to reduce the manual work effectively as there is the backend of the system which will take care of synchronizing and updating of the data for the system.

So, if there is any change in the system data it will appear to all other users of the system. As the system was not online the member cannot see their timeline that

the event generated by them in past such as fee payment, attendance, batch timing and trainer profile etc.

Keeping an automated system is also helps in managing the member's information secure and safe. As it can only be seen by the administrator with the correct credentials which is not an option in the existing system.

Unless the records are kept in a physically safe location such as a locker. Some major drawbacks of the existing system:

Required a lot of paperwork and the process takes time.

Everything is done on the paper and these are highly prone to damages and requires a good amount of security and space to store.

Required Buying of goods more frequent as compared to online system e.g.: paper, pen.

Likely to have an error.

Lack of storage space for the handwritten documents.

Require more physical work and manpower

Information is not available globally to both clients and employees hence location restriction

## **2.2. PROPOSED SYSTEM**

In gym management system, after the planning and analysis phase of the system gets completed. Then the next phase required to transform the collected required system information into structural blueprint which will serve as a reference while constructing the working system.

It is a phase when most of the risks and error unveiled so it's is good practices to take care of this thing from the start.

This is a fully fledged system which will be the backbone of the while management of the gym so ignoring the risk or error is not an option as later it can make a greater form of itself.

So, it is better to minimize the problems faced by both staff and the manager in the Organization

## 2.3. FEASIBILITY STUDY

The objective of the feasibility study is not only to solve the problem but also to acquire a sense of its scope. The reason for doing this is to identify the most beneficial project to the organization.

There are three aspects in the feasibility study:

1. Technical Feasibility
2. Financial Feasibility
3. Operating Feasibility

### Technical Feasibility

Technical feasibility is the study of the software and how it is included in the study of our project. Regarding this there are some technical issues that should be noted they are as follows:

- Is the necessary technique available Theand how it is suggested and acquired?
- Does the proposed equipment have the technical capacity to hold the data required using the new system?
- Will the system provide adequate response that is made by the requester at an periodic time interval
- Can this system be expanded after this project development
- Is there a technique guarantees of accuracy, reliability in case of access of data and security

The technical issues are raised during the feasibility study of investigating our System. Thus, the technical consideration evaluates the hardware requirements,

software etc. This system uses PHP as front end and MySQL as back end. They also provide sufficient memory to hold and process the data. As the company is going to install all the process in the system it is the cheap and efficient technique.

This system technique accepts the entire request made by the user and the response is done without failure and delay. It is a study about the resources available and how they are achieved as an acceptable system. It is an essential process for analysis and definition of conducting a parallel assessment of technical feasibility.

Though storage and retrieval of information is enormous, it can be easily handled by MySQL. As the MySQL can be run in any system and the operation does not differ from one to another. So, this is effective.

### **Economical Feasibility**

An organization makes good investment on the system. So, they should be worthwhile for the amount they spend in the system. Always the financial benefit and equals or less the cost of the system, but should not exceed the cost.

- The cost of investment is analyzed for the entire system
- The cost of Hardware and Software is also noted.
- Analyzing the way in which the cost can be reduced

Every organization wants to reduce their cost but at the same time quality of the Service should also be maintained. The system is developed according to the estimation of the cost made by the concern. In this project, the proposed system will definitely reduce the cost and also the manual work is reduced and speed of work is also increased

## **Operational Feasibility**

Proposed project will be beneficial only when they are turned into an information system and to meet the organization operating requirements. The following issues are considered for the operation:

- Does this system provide sufficient support for the user and the management?
- What is the method that should be used in this project?
- Have the users been involved in the planning and development of the projects?
- Will the proposed system cause any harm, bad result, loss of control and accessibility of the system will lost?

Issues that may be a minor problem will sometimes cause major problem in the operation. It is the measure of how people can able to work with the system. Finding out the minor issues that may be the initial problem of the system. It should be a user-friendly environment. All these aspect should be kept in mind and steps should be taken for developing the project carefully.

Regarding the project, the system is very much supported and friendly for the user. The methods are defined in an effective manner and proper conditions are given in other to avoid the harm or loss of data. It is designed in GUI interface, as working will be easier and flexible for the user.

They are three basic feasibility studies that are done in every project.

### **3.SYSTEM SPECIFICATION**

#### **3.1 HARDWARE SPECIFICATION**

Processor	: Core 2 Duo
Speed	: 2 GHz
Hard disk capacity	: 80GB
RAM capacity	: 512MB RAM
Keyboard	: 104 keys
Mouse	: Logitech
Monitor	: 15" Monitor

#### **3.2 SOFTWARE SPECIFICATION:**

Operating system	: Windows 7
Front end	: Visual Basic 6.0
Back End	: MS Access

### **3.2.1 INTRODUCTION TO THE OPERATING SYSTEM**

Each and every system has its own operating system. An operating system is the master control program that runs the computer and acts as a scheduler. It controls the flow of signal from CPU to various parts of the computer. It is the first program loaded into the computer's memory after the computer is switched on. Popular operating system includes MS-DOS, OS/2, Windows 95, XP, Windows7 NT and UNIX.

### **OVERVIEW OF WINDOWS 7**

Windows 7 is the Microsoft Corporation's latest upgrade to its operating system known as Windows. Windows 7 uses the graphical user interface, which determines how to interact with the computer. Windows 7 is a highly evolved product, tightly integrated with the graphical user interface (GUI), it is very possible to the internet.

### **FEATURES OF WINDOWS 7**

There are several features, which accomplish Windows 7. It has several enhancements added to the Windows 7 version. In this internet connections can be viewed using internet explorer.

### **OBJECTIVES OF WINDOWS 7**





- ✍ Graphical User Interface (GUI)
- ✍ Desktop
- ✍ Graphical Device Interface
- ✍ Dynamic Data Exchange
- ✍ Object Linking and Embedding

## **GRAPHICAL USER INTERFACE**

The graphical user interface increases ease of use and its intuitive design makes learning windows easy. Windows is an event driven operating system and the user's interactions in terms of events and messages. An operating system identifies these events for what they signify and pass it on to the actual application towards which the event is directed in the form of message.

### **DESKTOP**

Desktop is an area seen when the Windows XP is started. The four main features seen in desktop area are;

-  Shortcut icons
-  Task bar
-  Start button
-  Time and Status

### **GRAPHICAL DEVICE INTERFACE**

The graphical device interface provides a set of standard function that let applications communicate with graphics device including displays and printers, without knowing anything about the devices.

### 3.2.2 OVERVIEW OF FRONT END

Microsoft Visual Basic operating system the quickest and easiest way to create application for the graphical user interface environment. Visual Basic makes things more productive by providing appropriate tools for different areas of graphical user interface's development coding in graphical user interface.

Visual Basic 6.0 is the easier way to create single user a client/server applications for Microsoft windows.

#### OBJECTIVES OF VISUAL BASIC 6.0

- ☞ Visual Basic 6.0 programming environment
- ☞ Working with forms
- ☞ Developing an application
- ☞ Variables, data types and modules
- ☞ Procedures and control structures
- ☞ Arrays in Visual Basic

Using the above objective of Visual Basic 6.0, a complete code for a program can be written.

#### INTEGRATED DEVELOPMENT ENVIRONMENT (IDE)

One of the significant changes in Visual Basic 6.0 is the integrated development environment (IDE). IDE is terms that are commonly used in the programming words to describe the interface and the environment that we use to create our applications. The IDE is also commonly referred to as the design environment of the program. **The Visual Basic IDE components**

- Menu bar
- Tool bar
- Project explorer
- Properties windows
- Form layout window
- Tool box
- Form designer
- Object browser

## **MULTIPLE DOCUMENT INTERFACE (MDI)**

The multiple document interface allows us to create an application that maintains the multiple forms within a single container form. Applications such as Microsoft Excel and Microsoft Word for windows have multiple document interface.

A multiple document interface allows the user display multiple document at the same time, with each document displayed in its own window document. Windows or contained in a parent windows, which provides a work space for all the document windows in the applications. For example, Microsoft Excel allows us to create and display window is confined to area of the Microsoft Excel parent window.

## **CREATING MULTIPLE DOCUMENT INTERFACE APPLICATION**

We must use the following procedure to create a multiple document interface form and its child forms.

To create a multiple document interface application.

- Create a multiple document interface form, from the insert menu, and choose multiple document interface form.
- Create the applications child forms. To create a multiple document interface form, create a new form (or open an existing one) and set its multiple document interface child property to true.

## **MENU BAR**

The menu bar displays the commands that are required to build an application. The main menu items have the sub menu items that can be chosen when needed.

## **TOOL BAR**

The tool bars in the tool box provides quick access to the commonly used commands and a button in the tool bar clicked once to carry out the action represented by it. There are various tool bar buttons used for various purposes, they are listed below:

- Add form
- Add module
- Open project
- Save project
- Menu editor and so on.

## **PROJECT EXPLORER**

The project explorer window is below the tool bar at the right most corner of the screen. The project explorer serves as a quick reference to the various

elements of a project namely form, classes and modules. In addition to forms, the project explorer window also lists code modules and classes.

## **PROPERTIES WINDOW**

The properties window is docked under the project explorer. The properties window exposes various characteristics of selected objects. Each and every form in an application is considered as an object, each object in Visual Basic has characteristics such as color and size. All these characteristics of an object are called its properties. All of these properties are displayed in the properties window.

## **TOOL BOX**

The tool box contains a set of controls that are used to place on a form at design time there by creating the user interface area. Additional controls can be included in the tool box by using components, menu item on the project menu.

## **OBJECT BROWSER**

The object browser allows us to browse through the various properties, events and methods that are made available to us. Selecting object browser from the view menu accesses it.

## **DAO (DATA ACCESS OBJECT)**

This new data access technology features a simple object model, better integration with other Microsoft and non-Microsoft technologies, a common interface for both local and remote data access, remote and disconnected record sets, a user-accessible data binding interface and hierarchical record set.

## DATA ENVIRONMENT

**The Data Environment designer provides an interactive, design-time environment for creating DAO objects.**

## DAO DATA CONTROL

**The new OLE DB aware data source control that functions much like the intrinsic data and remote Data controls, in that it allows us to create a database application with minimum code.**

## OLE DB SUPPORT

**OLE DB is a set of COM interface that provide application with uniform access to data stored in device information source relational & non – relational.**

## DATA REPORT

**Allow us to use drag and drop to Quickly create reports from any record set , including hierarchical record set .**

## TEXT BOX

**A TEXT Box control, sometimes called an edit field or edit control, displays information entered at design time, entered by the user, or assigned to the control in code at run time.**

## TIMER

**A timer control can execute code at regular intervals by causing a timer event to occur. The TIMER control, invisible to the user, is useful for background processing.**

## *LABEL*

**A LABEL control is a graphical control and we can use to display text that a user can't change directly.**

## COMBO BOX

A Combo box control combines the features of a Text Box control and a LIST Box control users can enter information in the text box portion or select an item from the list box of the control.

## DBLIST

The Data List control is a data bound List box that is automatically populated from a field in an attached data source, and optionally updates a field in a related table of another data source.

### **3.2.3 OVERVIEW OF BACK END**

The back end is used to store the data's on the database table. In the back end databases can be created and its links to the front end using several types of database connectivity options such as DAO, ADO etc.

### **DATABASES AND DATABASE MANAGEMENT SYSTEMS (DBMS)**

A database is simply a grouping of related information organized for easy processing and retrieval. The actual data in a database is stored in tables. A table is made up of columns (fields) and rows (records). The rows contain identically structured pieces of information and can be termed as records. Otherwise a record is a collection of columns that contain values.

The database management system accomplishes the task of storing and retrieving the large volumes of data in databases with the large volume of data in databases with the help of high level commands. The DBMS hides low level details, such as how data are stored in a database and frees the programmer to concentrate on managing information, rather than on the specifics of manipulating links among them.

In this software development we are using a back end as Microsoft Access.

### **MICROSOFT ACCESS**

This database let us to store and organize information in sets of tables. After creating a database, we can look at each item of information in a form as though it were recorded on an index card. We can perform calculations and statistics such as totals and average, and we can sort the information, find specific items and create reports.

Tables are the basic building blocks of a database. In addition to tables, a database can include queries forms, reports and other components, all of which allows us to view and manipulate database information in a variety of ways.

## **OVERVIEW OF MS-ACCESS**

### **ENTITY**

This is to describe that conceptual data units or objects represented as rectangles.

### **RELATIONSHIPS**

It represents real-world associates among one or more entities and is represented as diamonds.

### **UNIQUENESS AND KEYS**

In Ms-Access the master database (.mdb) file contains number of tables. Each table contains rows and columns. The relational modal dictates that every row in a database must be unique. If your database allows duplicate rows, you will be forever lost.

### **PRIMARY KEY**

A primary key is made up of one or more attributes whose value or values uniquely identify each record in a table. In a relationship, a primary key is used to refer to specific records in one table from another table. A primary key is called a foreign key when it is referred to, from another table.

## **DATA INTEGRITY**

Enforcing data integrity involves preserving the consistency and correctness of data stored in your database by

- ★ Validating the contents of individual fields
- ★ Validating data in one table with respect to one another
- ★ Verifying field with respect to another

## **DATA TYPE IN MS-ACCESS**

There are different data types in Access

- Numeric
- Text
- Currency
- Date/time
- Logical

## **QUERIES**

Query is used to extract information from the table based on performing certain conditions. This is mainly used for reports. In this query we can include more than one table at a time. From the queries we can get a result.

## 4. MODULES DESCRIPTION

Gym Management System ideal way to manage complete Gym operation. It has different user roles like Member, admin user.

### **Dashboard:**

- Quick view of important Gym Modules
- Different report for management
- Calendar with important event and notices

### **Gym Member Module**

- Record complete details of Gym subscriber
- Add vital measurement for each member
- Keep track of member's physical statics

### **Activity module**

- Manage activities available in gym
- Assign activity to each membership plan

### **Membership module**

- Admin can define different membership plans
- Membership price management

### **Payment Module:**

- Manage all the payment receipts
- Record all expenses

## 5. SYSTEM DESIGN

### 5.1. INPUT DESIGN

The input design is the link between the information system and the user. It comprises the developing specification and procedures for data preparation and those steps are necessary to put transaction data in to a usable form for processing can be achieved by inspecting the computer to read data from a written or printed document or it can occur by having people keying the data directly into the system. The design of input focuses on controlling the amount of input required, controlling the errors, avoiding delay, avoiding extra steps and keeping the process simple. The input is designed in such a way so that it provides security and ease of use with retaining the privacy. Input Design considered the following things:

- What data should be given as input?
- How the data should be arranged or coded?
- The dialog to guide the operating personnel in providing input.
- Methods for preparing input validations and steps to follow when error occur.

## **OBJECTIVES**

1. Input Design is the process of converting a user-oriented description of the input into a computer-based system. This design is important to avoid errors in the data input process and show the correct direction to the management for getting correct information from the computerized system.

2. It is achieved by creating user-friendly screens for the data entry to handle large volume of data. The goal of designing input is to make data entry easier and to be free from errors. The data entry screen is designed in such a way that all the data manipulates can be performed. It also provides record viewing facilities.

3. When the data is entered it will check for its validity. Data can be entered with the help of screens. Appropriate messages are provided as when needed so that the user will not be in maze of instant. Thus the objective of input design is to create an input layout that is easy to follow

## 5.2. OUTPUT DESIGN

A quality output is one, which meets the requirements of the end user and presents the information clearly. In any system results of processing are communicated to the users and to other system through outputs. In output design it is determined how the information is to be displaced for immediate need and also the hard copy output. It is the most important and direct source information to the user. Efficient and intelligent output design improves the system's relationship to help user decision-making.

1. Designing computer output should proceed in an organized, well thought out manner; the right output must be developed while ensuring that each output element is designed so that people will find the system can use easily and effectively. When analysis design computer output, they should Identify the specific output that is needed to meet the requirements.
2. Select methods for presenting information.
3. Create document, report, or other formats that contain information produced by the system.

The output form of an information system should accomplish one or more of the following objectives.

- ❖ Convey information about past activities, current status or projections of the
- ❖ Future.
- ❖ Signal important events, opportunities, problems, or warnings.
- ❖ Trigger an action.
- ❖ Confirm an action.

### 5.3. DATABASE DESIGN

#### ADDRESS:

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra
1	<b>id</b> 🔑	varchar(20)	latin1_swedish_ci		No	None		
2	<b>streetName</b>	varchar(40)	latin1_swedish_ci		No	None		
3	<b>state</b>	varchar(15)	latin1_swedish_ci		No	None		
4	<b>city</b>	varchar(15)	latin1_swedish_ci		No	None		
5	<b>zipcode</b>	varchar(20)	latin1_swedish_ci		Yes	NULL		

#### ADMIN:

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra
1	<b>username</b> 🔑	varchar(20)	latin1_swedish_ci		No	None		
2	<b>pass_key</b>	varchar(20)	latin1_swedish_ci		No	None		
3	<b>securekey</b>	varchar(20)	latin1_swedish_ci		No	None		
4	<b>Full_name</b>	varchar(50)	latin1_swedish_ci		Yes	NULL		

#### ENROLLS\_TO:

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra
1	<b>et_id</b> 🔑	int(5)			No	None		AUTO_INCREMENT
2	<b>pid</b> 🔑	varchar(8)	latin1_swedish_ci		No	None		
3	<b>uid</b> 🔑	varchar(20)	latin1_swedish_ci		No	None		
4	<b>paid_date</b>	varchar(15)	latin1_swedish_ci		Yes	NULL		
5	<b>expire</b>	varchar(15)	latin1_swedish_ci		Yes	NULL		
6	<b>renewal</b>	varchar(15)	latin1_swedish_ci		Yes	NULL		


## HEALTH\_STATUS:

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra
1	hid 🔑	int(5)			No	None		AUTO_INCREMENT
2	calorie	varchar(8)	latin1_swedish_ci		Yes	NULL		
3	height	varchar(8)	latin1_swedish_ci		Yes	NULL		
4	weight	varchar(8)	latin1_swedish_ci		Yes	NULL		
5	fat	varchar(8)	latin1_swedish_ci		Yes	NULL		
6	remarks	varchar(200)	latin1_swedish_ci		Yes	NULL		
7	uid 🔑	varchar(20)	latin1_swedish_ci		No	None		




## PLAN:

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra
1	pid 🔑 🔑	varchar(8)	latin1_swedish_ci		No	None		
2	planName	varchar(20)	latin1_swedish_ci		No	None		
3	description	varchar(200)	latin1_swedish_ci		No	None		
4	validity	varchar(20)	latin1_swedish_ci		No	None		
5	amount	int(10)			No	None		
6	active	varchar(255)	latin1_swedish_ci		Yes	NULL		

## TIMETABLE:

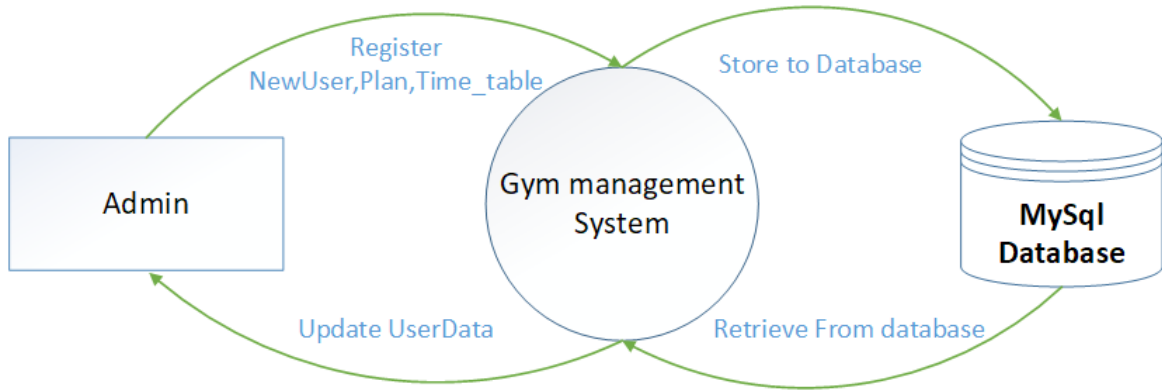
#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra
1	<b>tid</b> 	int(12)			No	None		AUTO_INCREMENT
2	<b>tname</b>	varchar(45)	latin1_swedish_ci		Yes	NULL		
3	<b>day1</b>	varchar(200)	latin1_swedish_ci		Yes	NULL		
4	<b>day2</b>	varchar(200)	latin1_swedish_ci		Yes	NULL		
5	<b>day3</b>	varchar(200)	latin1_swedish_ci		Yes	NULL		
6	<b>day4</b>	varchar(200)	latin1_swedish_ci		Yes	NULL		
7	<b>day5</b>	varchar(200)	latin1_swedish_ci		Yes	NULL		
8	<b>day6</b>	varchar(200)	latin1_swedish_ci		Yes	NULL		

## USERS:

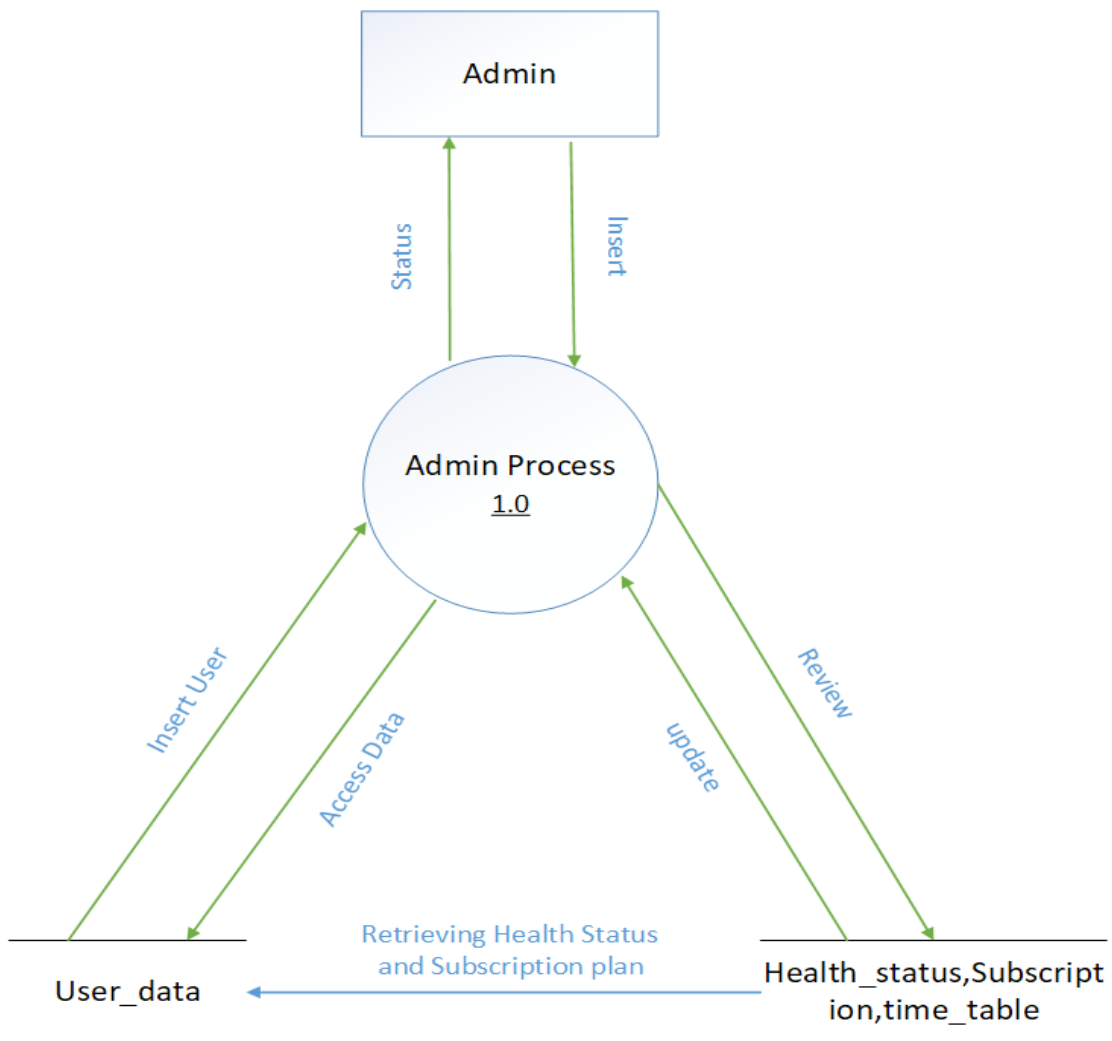
#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra
1	<b>userid</b>  	varchar(20)	latin1_swedish_ci		No	None		
2	<b>username</b>	varchar(40)	latin1_swedish_ci		No	None		
3	<b>gender</b>	varchar(8)	latin1_swedish_ci		No	None		
4	<b>mobile</b>	varchar(20)	latin1_swedish_ci		No	None		
5	<b>email</b> 	varchar(20)	latin1_swedish_ci		No	None		
6	<b>dob</b>	varchar(10)	latin1_swedish_ci		No	None		
7	<b>joining_date</b>	varchar(10)	latin1_swedish_ci		No	None		

## 5.4 DATA FLOW DIAGRAM

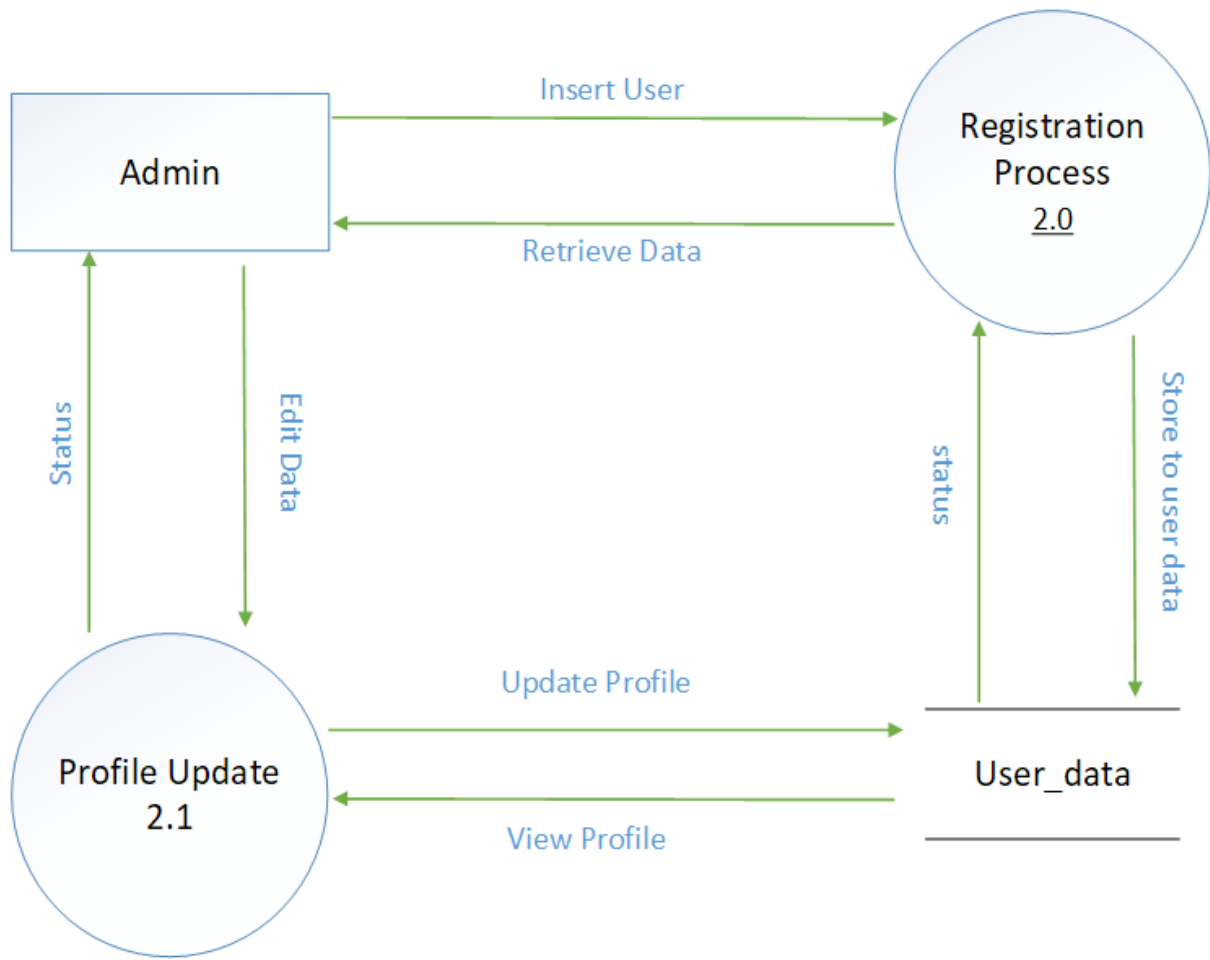
### 0-Level DFD:



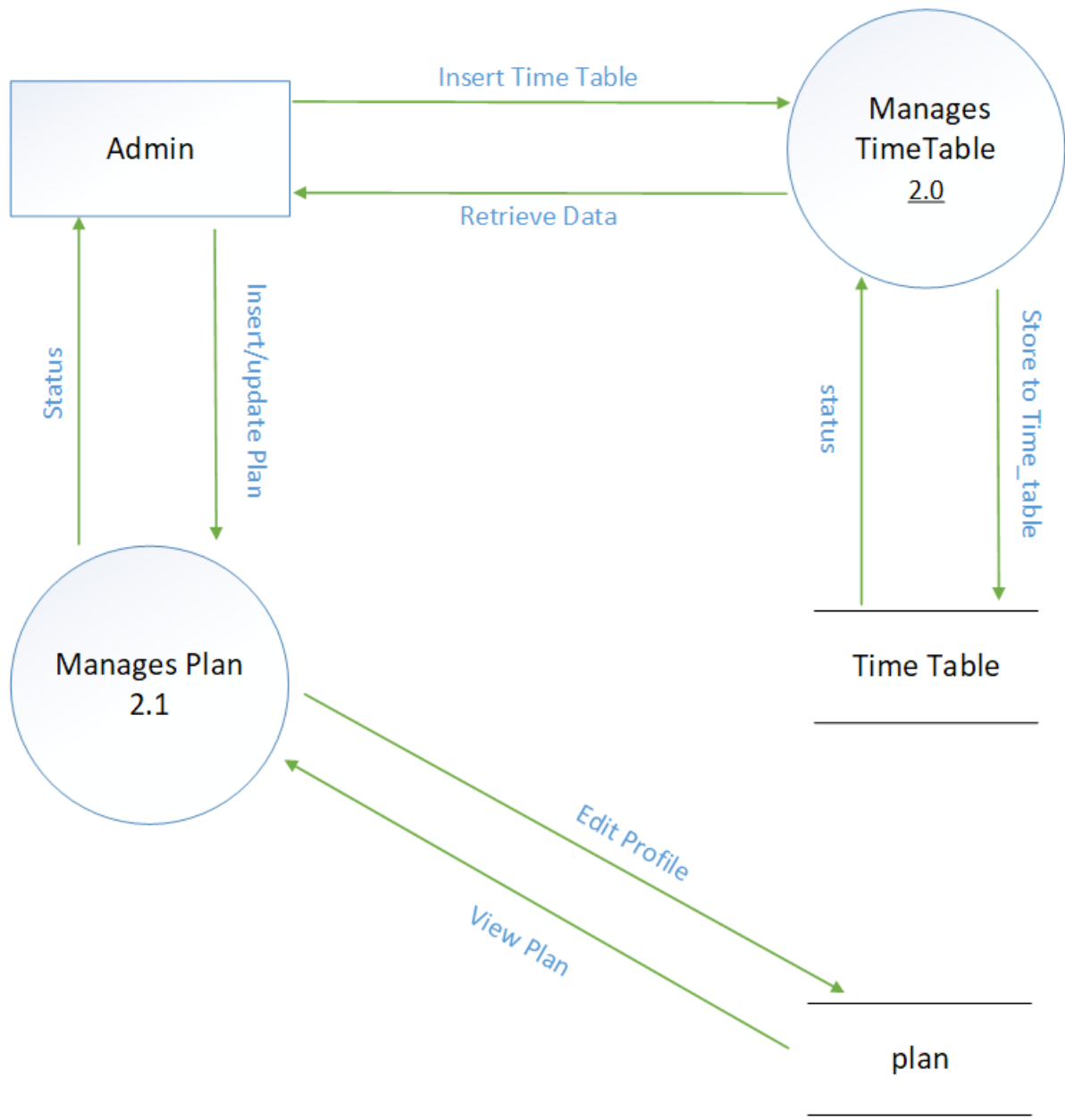
### 1<sup>ST</sup> LEVEL DFD for Admin Processes:



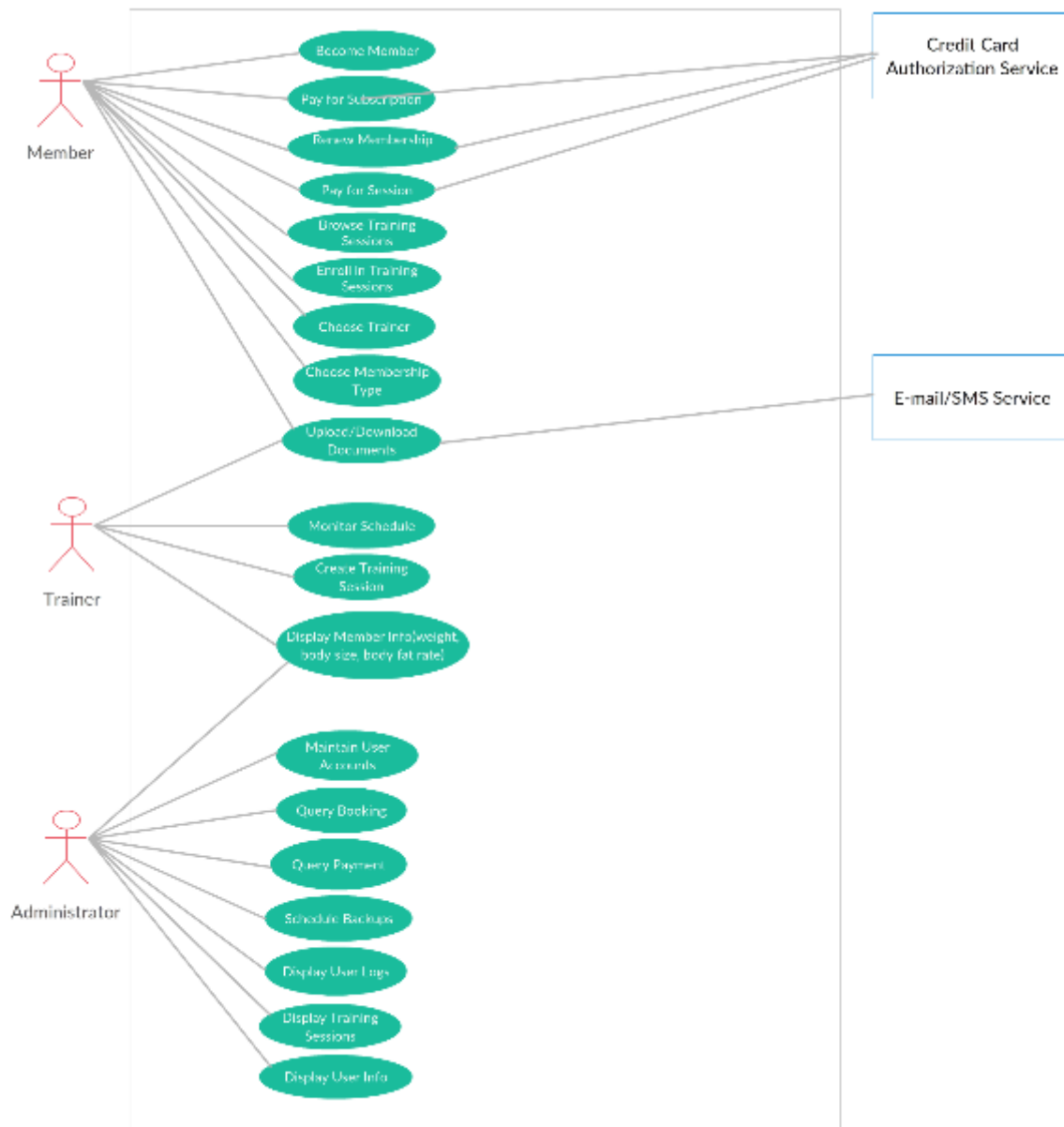
**DFD for USER REGISTRATION and Profile Update:**



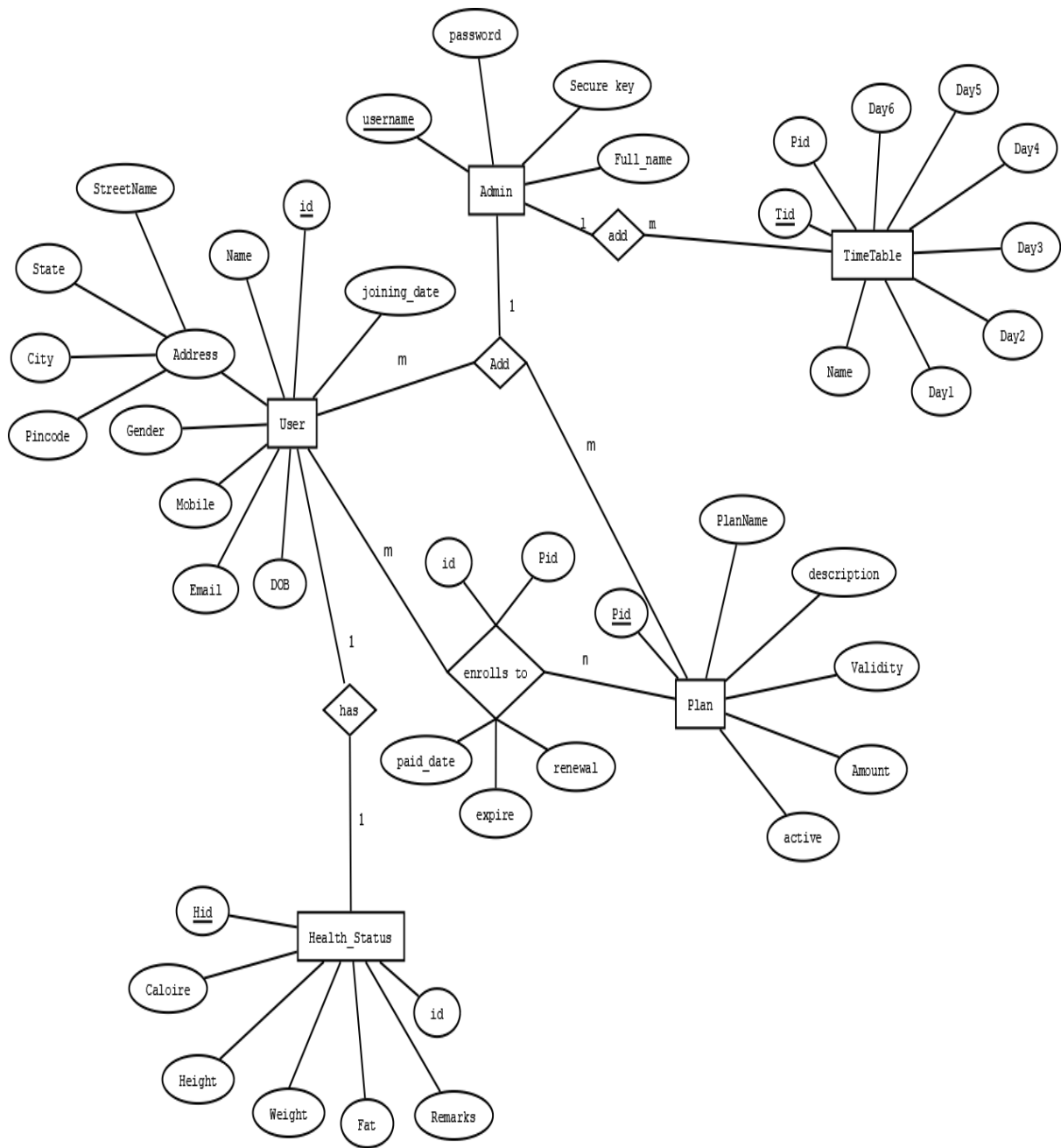
### DFD MANAGE TIMETABLE PLAN:



# Use Case Diagram:



## ER Diagram:



## **6.SYSTEM TESTING AND IMPLEMENTATION**

### **6.1. SYSTEM TESTING**

System Testing is an important stage in any system development life cycle. Testing is a process of executing a program with the intention of finding errors. The importance of software testing and its implications with respect to software quality cannot be overemphasized. Software testing is a critical element of software quality assurance and represents the ultimate review of specification, design and coding. A good test case is one that has a high probability of finding a yet undiscovered error.

Testing is the set of activities that can be planned in advance and conducted systematically. Different test conditions should be thoroughly checked and the bugs detected should be fixed. The testing strategies formed by the user are performed to prove that the software is free and clear from errors. To do this, there are many ways of testing the system's reliability, completeness and maintainability.

#### **Unit Testing**

In the unit testing the analyst tests the program making up a system. The software units in a system are the modules and routines that are assembled and integrated to perform a specific function. In a large system, many modules on different levels are needed.

Unit testing can be performed from the bottom up starting with the smallest and lowest level modules and proceeding one at a time. For each module in a bottom-up testing, a short program executes the module and provides the needed data.

## **Integration Testing**

Integration testing is a systematic technique for constructing the program structure while conducting test to uncover errors associate with interfacing. Objectives are used to take unit test modules and built program structure that has been directed by design.

The integration testing is performed for this Project when all the modules where to make it a complete system. After integration the project works successfully.

## **Validation Testing**

Validation testing can be defined in many ways, but a simple definition is that can be reasonably expected by the customer. After validation test has been conducted, one of two possible conditions exists.

- The functions or performance characteristics confirm to specification and are accepted.
- A deviation from specification is uncovered and a deficiency list is created.

Proposed system under consideration has been tested by using validation testing and found to be working satisfactorily.

For example, in this project validation testing is performed against user module. This module is tested with the following valid and invalid inputs for the field staff id.

## **White Box Testing**

White box testing, sometimes called glass-box testing is a test case design method that uses the control structure of the procedural design to derive test cases.

Using white box testing methods, the software engineer can derive test cases that

- Guarantee that all independent paths within a module have been exercised at least once.
- Exercise all logical decisions on their true and false sides.
- Execute all loops at their boundaries and within their operational bounds and
- Exercise internal data structure to assure their validity.

For example in this project white box testing is performed against User module. Without entering text if we apply it displays the message “First add record then save it” else it should be saved.

## **Black Box Testing**

This method treats the coded module as a black box. The module runs with inputs that are likely to cause errors. Then the output is checked to see if any error occurred. This method cannot be used to test all errors, because some errors may depend on the code or algorithm used to implement the module.

## 6.2. SYSTEM IMPLEMENTATION

Implementation is the stage in the project where the theoretical design is turned into a working system. The most critical stage is achieving a successful system and in giving confidence on the new system for the users, what it will work efficient and effectively. It involves careful planning, investing of the current system, and its constraints on implementation, design of methods to achieve the changeover methods.

The implementation process begins with preparing a plan for the implementation of the system. According to this plan, the activities are to be carried out in these plans; discussion has been made regarding the equipment, resources and how to test activities.

The coding step translates a detail design representation into a programming language realization. Programming languages are vehicles for communication between human and computers programming language characteristics and coding style can profoundly affect software quality and maintainability. The coding is done with the following characteristics in mind.

- Ease of design to code translation.
- Code efficiency.
- Memory efficiency.
- Maintainability.

The user should be very careful while implementing a project to ensure what they have planned is properly implemented. The user should not change the purpose of project while implementing. The user should not go in a roundabout way to achieve a solution; it should be direct, crisp and clear and up to the point.

## 7. MAINTENANCE

### MAINTENANCE FUNDAMENTALS

The term “software maintenance” is used to describe the software engineering activities that occur following delivery of a software product to the customer. The maintenance phase of the software life cycle is the time period in which a software product performs useful work.

Maintenance activities involve making enhancement to software products, adapting products to new environments and correcting problems. Software product enhancement may involve providing new functional capabilities, improving user display and modes of interaction, and upgrading external documents. Adaptation of software to a new environment may involve moving the software to a different machine. Problem correction involves modification and revalidation of software to correct errors.

The enhancement of this project can be accomplished easily. That is, any new functional capabilities can be added to the project by simply including the new module in the homepage and giving a hyperlink to that module. Adaptation of this project to a new environment is also performed easily.

#### **7.1. CORRECTIVE MAINTENANCE**

This includes modifications and updating done in order to correct or fix problems, which are either discovered by user or concluded by user error reports.

**Identification & Tracing** - It involves activities pertaining to identification of requirement of modification or maintenance. It is generated by user or system may itself report via logs or error messages. Here, the maintenance type is classified also.

**Analysis** - The modification is analyzed for its impact on the system including safety and security implications. If probable impact is severe, alternative solution is looked for. A set of required modifications is then materialized into requirement specifications. The cost of modification/maintenance is analyzed and estimation is concluded.

**Design** - New modules, which need to be replaced or modified, are designed against requirement specifications set in the previous stage. Test cases are created for validation and verification.

## **7.2. ADAPTIVE MAINTENANCE**

**An activity that modifies the software to properly interface with a changing environment. The system has been modified so that various change include to the new system.**

**Implementation** - The new modules are coded with the help of structured design created in the design step. Every programmer is expected to do unit testing in parallel.

**System Testing** - Integration testing is done among newly created modules. Integration testing is also carried out between new modules and the system. Finally the system is tested as a whole, following regressive testing procedures.

**Acceptance Testing** - After testing the system internally, it is tested for acceptance with the help of users. If at this state, user complaints some issues they are addressed or noted to address in next iteration.

**Delivery** - After acceptance test, the system is deployed all over the organization either by small update package or fresh installation of the system. The final testing takes place at client end after the software is delivered.

Training facility is provided if required, in addition to the hard copy of user manual.

**Maintenance management** - Configuration management is an essential part of system maintenance. It is aided with version control tools to control versions, semi-version or patch management.

### **7.3. ENHANCEMENT MAINTENANCE**

As software is used, the customer/user will recognize additional functions that will provide benefit. Perceptive maintenance extends the software beyond its original functional requirements.

In the case of Net banking system can be added new functions such that the user can able to retrieve the information in a user friendly and it will be very helpful for future development.

**Market Conditions** - Policies, which changes over the time, such as taxation and newly introduced constraints like, how to maintain bookkeeping, may trigger need for modification.

**Client Requirements** - Over the time, customer may ask for new features or functions in the software.

## **8. CONCLUSION**

After implementing the application it will contain the advantages were incomparable to the present contemporary systems used by company. The most admirable feature founded was its simplicity in terms of application to the user but its highly beneficial outputs can't be ignored. The users will be highly benefited after using the system.

It is hoped that this project will help the future developers to modify and implement the system. After modifying some techniques of the programs, it will give us the best performance as our requirements. The project will be very useful for the users.

## 9. FUTURE ENHANCEMENT

Software development is never –ending process and continues the life of the software as per the changing needs of the user from time to time. The project is no doubt has been developed keeping in mind easy modification and enhancement that may be required from time to time.

However, there are many scopes to modify this software. As because due to shortage of time, we here become unable to include many things. We are trying to cover all their existing system for keeping records of the members enrolls but due to shortage of time we become unable to include many things. Due to lake of time I here include none of them and a future scope one can develop these returns which are so much essential. Only with a little more doing it is possible to design the formats for those returns. Moreover, an on-line system will be more helpful to the organization. With almost the same data with only a little modification an on-line system can be designed to fulfill their demands. All these can be considered to be future scope for this project.

## 10. BIBLIOGRAPHY

Good Teachers are worth more than thousand books, we have them in Our Department

### BOOKS

The PHP Bible	-	O'Reilly
Developing PHP	-	Shelly, Bowers
JavaScript Interactive Course	-	Simon
MYSQL	-	Elias M.Awad
RDBMS	-	Lee

### PHP

- [www.php/\(S\(pdfrohu0ajmwt445fanvj2r3\)\)/learn/data-access/](http://www.php/(S(pdfrohu0ajmwt445fanvj2r3))/learn/data-access/)
- [www.w3schools.com/php/default.php](http://www.w3schools.com/php/default.php)
- [www.411php.com/home/sites](http://www.411php.com/home/sites)
- [www.cristiandarie.ro/php-tutorial/](http://www.cristiandarie.ro/php-tutorial/)
- [www.php-tutorials.com/basics/first-website/](http://www.php-tutorials.com/basics/first-website/)

### MYSQL

1. [www.functionx.com/mysql/](http://www.functionx.com/mysql/)
2. [www.technet.microsoft.com/en-us/library/mysql69620.php](http://www.technet.microsoft.com/en-us/library/mysql69620.php)
3. [www.msdn.microsoft.com/en-us/library/ms169620\(mysql\).php](http://www.msdn.microsoft.com/en-us/library/ms169620(mysql).php)
4. [www.softwaretrainingtutorials.com/mysql-2005.php](http://www.softwaretrainingtutorials.com/mysql-2005.php)

