

Project Report

on

## **HEALTH AND FITNESS CARE SYSTEM**

Submitted to

**GURU JAMBESHWAR UNIVERSITY OF SCIENCE & TECHNOLOGY,  
HISAR**

In the partial fulfillment of the requirement for the award of degree of

**BACHELOR OF COMPUTER SCIENCE AND ENGINEERING**

(Session: 2018 -2022)



**Under the Supervision of:**

Ms. Manesh

Assistant Professor

Dept. of Computer Science and Engineering

**Submitted by:**

Nisha

Roll No: 181020130004

B.Tech CSE (8<sup>th</sup> semester)

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Department of Computer Science and Engineering

**OM INSTITUTE OF TECHNOLOGY & MANAGEMENT**

**Juglan, Hisar(Haryana)-125001**

**(Affiliated to Guru Jambheshwar University of Science and Technology)**

## **CERTIFICATE**

This is to certify that the Project entitled **“HEALTH AND FITNESS CARE SYSTEM”** submitted in partial fulfilment of requirement for the degree of Bachelor of Technology in the discipline Computer Science and Engineering at **“Om Institute of Technology and Management”, Hisar** during the academic year **2018-2022**, is an authentic work done out by **“Nisha”** bearing roll no. **“181020130004”** under my supervision. The matter embodied in this project has not been submitted elsewhere.

This is further certified that she has completed all the requirement of ordinance for submission of the project which has not been submitted earlier for award for any degree or credential to the most effective of my information and belief.

**Dated:**

**Ms. Manesh**

Assistant Professor

Dept. of Computer Science & Engineering

## **CANDIDATE DECLARATION**

I hereby declare that the project work being presented in this report entitled **“HEALTH AND FITNESS CARE SYSTEM”** in fulfilment of the requirement for the award of the Degree of Bachelor of Technology and is submitted in the department of computer science & Technology, **“Om Institute of Technology and Management”, Hisar** affiliated to **“Guru Jambheshwar University of Science and Technology”, Hisar** is the authentic work carried out by me under the guidance of Professor **Ms. Manesh**. The matter presented in this project has not been submitted by me for the award of any other degree of this or any other Institute/University.

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This is to certify that the above statement made by the candidate is correct to the best of our knowledge.

**Ms. Manesh**

Assistant Professor

Dept. of Computer Science & Engineering

## **PLAGIARISM CERTIFICATE**

I am **Nisha**, Roll No. **181020130004** student of **BACHELOR OF TECHNOLOGY** in the discipline Computer Science & Engineering at Om Institute of Technology and Management, Juglan has completed the work on the topic “**HEALTH AND FITNESS CARE SYSTEM**” and hereby declare that I have checked my project report by Plagiarism Checker X and found to have Similarity Index less than 10% which is acceptable as per university norms and report of the same has been submitted to concerned guide. This thesis can be considered for standardization.

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## **ACKNOWLEDGEMENT**

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I would also like to thank my classmates for sustaining and guiding me to carry out my project works successfully.

And last, but not least I would like to thank my parents without whose support this project couldn't be completed.

**NISHA**

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## **ABSTRACT**

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. These days most people will go online and research products and companies before they make a purchase. For this reason of dependency on online, we develop a website for a **“HEALTH AND FITNESS CARE SYSTEM”** in which user can get all information about the “HEALTH AND FITNESS” and he/she can access or enroll at the gym via online. Usually, the client uses MS Excel or paper, and maintains their records, however it is not possible them to share the data from multiple system in multi user environment, there is lot of duplicate work, and chance of mistake. When the records are changed they need to update each and every excel file. The Smart **“HEALTH AND FITNESS CARE SYSTEM”** eliminates most of the limitations of the existing software. Increasing efficiency and effectiveness, automation, accuracy, user-friendly interface, information availability, communication capacity, maintenance, cost reduction makes our system smarter than the existing system.

This project **“HEALTH AND FITNESS CARE SYSTEM”** is solution fitness center to manage the customers in an easier and more convenient way. The administrator, is able to view all the members of fitness center as well as their details.

This project is a computer-based program and it manages the gym members, the personal and the inventory. This system also maintains the client details, to provide the valuable reports regarding the progress of the gym member.

# **INTRODUCTION**

## **1.1: Introduction**

Health and fitness care system is software which is helpful for customers as well as the admin or authorities. Now a days online service is a best competitive edge for any organization which makes it differ from other organizations. The Online Health and fitness care system which provide best platform for ease of access to the Gym Staff. Customer can check his updates online anytime about fitness or diet plan etc. The focus of this project is about online services for a fitness club but by minimizing all those defects which are found in currently available manually file system. This is a best platform for customers and gym member to interact freely with each other. In this system admin of the system and customer have their accounts (user-name and passwords). This system will be used by only two person (admin and customer). Admin can update everything, customers can only view the daily updates about their fitness updates and can edit his profile data and post a question to admin.

The project is developed by using Python and SQLite on the backend. For the front end, we use HTML5, CSS3, JavaScript, Bootstrap, jQuery.

## **1.2: Project Motivation**

Motivation behind choosing this project is that from the very beginning of pursuing this honour in Bachelor in Computer Science course, I had a plan to do a project using web-based programming technology. The focus of this project is about online services for a fitness club but by minimizing all those defects which are found in currently available manually file system.

- To remove the manual or paper work in the Fitness club.
- Provide a platform with interactive user interface for both customer and admin.
- Save the time of both admin and customer. Get online Plans in an efficient manner.
- To save cost for each user.
- User friendly back.

### 1.3: Objectives

This project is going to be developed with the main objectives like this: -

Objectives of the Health and fitness care system shall enable the user to add members to a gym and manage the fee payment of the gym user. It is a very simple interface developed using PYTHON DJANGO. 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 diet plans for the member. It shall allow the user to change their data (User name and Password). This tool shall hold all the details of gym members.

- The main objective of the project is to design and develop a user friendly system.
- Easy to use and efficient computerized system.
- To develop an accurate and flexible system, it will eliminate data redundancy.
- Computerization can be helpful as means of saving time & money.
- To provide better graphical user interface.
- Less chances of information leakage.
- Provides security to data by using login & password.
  
- Provide an easy interface to add/modify/change id by the user (One shouldn't need to have programming experience in order to add /modify/change id). only need access of some operations like update and read by user authorization given by superuser of admin panel.
  
- To provide information that is accurate, secure, consistent, timely, reliable and complete.
- The objective of this project is to provide management information for decision making.

## **1.4: Challenges**

The proposed system is challenging and I tried my best to develop an online Health and fitness care system.

- For making this project first of all, I learned python, web designing and python framework Django and Django default database SQLite. After that I tried many small task like managements projects. Then I started Fitness and health care system in which I'm facing lots of errors.
- Besides this, I also faces errors on server side while template running and executing simple commands but slowly I resolved all the problems by the guidance of my supervisor, teachers and with the help of my friends.
- I reached at the end of the project only with the guidance of my teachers, my mates and my continue learning attitude.

## **1.5: Literature Review**

The Online Health and fitness care system is an web based portal developed in Python and SQLite. It can be used by health and fitness care institutes or organizations to maintain the records of users and admin easily. It also provides a less time consuming process for viewing, adding, editing and deleting the details of the users. Achieving this objective is difficult using a manual system as the information is scattered, can be redundant and collecting relevant information may be very time consuming. Online Health and fitness care system Project consists numbers of functional elements such as types of exercises monthly plan charts, numbers of yoga exercises charts, types of diet food plans, health based articles, user module for Registration, Edit Profile, Change Password and admin panel for overall control of data. The project provides facilities like online registration and profile creation of users thus reducing paperwork and automating the record generation process in health care and fitness centers. User Information system will store all the details of the customers including their information, diet plans, exercises monthly charts and all the information related to their fitness and diet.

## **1.6: Organization of the Project**

In this project, we have developed an Online Health and fitness care system website. It is a responsive dynamic website with a CMS system built with PYTHON and SQLite. It can be maintained and changed easily because it is based on a database. It has a nice and attractive

front-end interface that is really appealing. Also, the backend has a lot of awesome features that are needed for a health and fitness care organization. Almost all kinds of tasks can be done by without having any kind of programming language knowledge.

It is fully secured websites. To create the software, we have worked on all possible types of basic codes used for principle design based mainly on PYTHON, HTML5, CSS3 and JavaScript. Here we have used a spiral model to create the software. We have collected all kinds of information related to this software from the customer. Actually, it is one kind of Customized software product. The project background model is specially designed on the basis of certain web programming languages like PYTHON, SQLite, JAVASCRIPT, HTML5, CSS3, JQuery etc. In the following section here, we are going to give a brief description of this language in this project.

## **SELECTION OF PROGRAMMING LANGUAGE**

### **2.1 Introduction**

The project is developed by using PYTHON, SQLite and Django Framework on the backend. For the front end, we use HTML5, CSS3, Bootstrap, JavaScript and jQuery.

### **2.2 PYTHON**

Python is a widely used language. It is a high level programming language. Python was designed by Guido van Rossum in 1991. It was developed by Python Software Foundation. It is very easy to use and understand. Python allows developers to develop system in fewer lines of code.

Python is a programming language which helps in work quickly and integrate systems more efficiently and effectively. Python is a high-level, interpreted, interactive and object-oriented scripting language. Python is designed to be easy to read. It is very easy and simple language than others. Python uses English language more but other language uses punctuation.

- **Interpreted** – Python is processed at runtime by the interpreter. Before the execution you do not need to compile the program. It is similar to PERL and PHP language.

- **Interactive** – In the python language you can directly interact with the interpreter after compilation of program.
- **Object-Oriented** – Python is an object oriented language. It supports Object-Oriented style or technique of programming. These function can encapsulate code within objects.
- **Beginner's Language** – Python is a beginner's language. It is an easy language. So, beginners can easily understand this language. It helps in developing of a wide range of applications from simple text processing to WWW browsers to games and in developing websites.

#### ➤ **History of Python:**

Python was developed by Guido van Rossum in late eighties and early nineties at the National Research Institute for Mathematics and Computer Science in the Netherlands. Python is derived from many other languages, including ABC, Modula-3, C, C++, Algol-68, Small Talk and Unix shell and other scripting languages. Python is copyrighted. Like Perl, Python source code is now available under the GNU General Public License (GPL). Python is now maintained by a core development team at the institute, although Guido van Rossum still holds a vital role in directing its progress.

#### ➤ **Python Features:**

- **Easy-to-learn** – In python, there are few keywords and simple structure. So, students can easily understand this language.
- **Easy-to-read** – In the python language code is clearly defined. So, it is easy to read.
- **Easy-to-maintain** – The source code of python is easy to maintain.
- **A broad standard library** – the library of python is very portable and cross platform compatible on UNIX, Windows, and Macintosh.
- **Interactive Mode** – Python supports an interactive mode which allows interactive testing and debugging.
- **Portable** – Python can run on a wide range and variety of hardware platforms. All the hardware has same interface on all platforms.

- **Extendable** – you can add low-level modules to the Python interpreter. These modules enable programmers to add to or customize their tools to be more efficient.
- **Databases** – Python provides interfaces to all databases.
- **GUI Programming** – Python supports GUI applications that can be created and ported to many system calls, libraries and windows systems, such as Windows MFC, Macintosh, and the X Window system of Unix.
- **Scalable** – Python is scalable. Python provides a better structure. It supports the large programs.

## 2.3 SQLite:

SQLite is an open source database, available on every android database. It supports standard relations database features, like SQL syntax, transactions and SQL statements. SQLite is considerably, the lighter version of SQL database.

- Zero-Configuration. SQLite does not need to be “installed” before it is use
- Server less
- Single Database File
- Stable Cross-Platform Database File
- Readable Source Code
- Manifest typing

## 2.4 HTML:

HTML stands for **HyperText Markup Language**. It is used to design web pages using a markup language. HTML is the combination of Hypertext and Markup language.

Hypertext defines the link between the web pages. A markup language is used to define the text document within tag which defines the structure of web pages. This language is used to annotate (make notes for the computer) text so that a machine can understand it and manipulate text accordingly. Most of the markup (e.g. HTML) languages are human-readable. The language uses tags to define what manipulation has to be done on the text.



## **2.5 CSS:**

CSS stands for **Cascading Style Sheets**. CSS is a formatting language used to add styling to web pages. We can change the appearance and the layout of the webpage by using CSS. We can also define how a website's view change in different screens like desktop, tablets and mobile devices. CSS is not a programming language like C, C++. We can set font color, background color, font size, width and height of the box, gives margins and padding, and change the font family using CSS.

## **2.6 JAVASCRIPT:**

JavaScript is a cross-platform, object-oriented scripting language used to make web pages interactive. It is one of the most widely used programming languages to create interactive web pages, web animations as well as it is also used server-side to create dynamic web pages.

JavaScript was first developed by Netscape. It is very easy to learn and use. JavaScript is an open language that can be used by anyone without having a license.

## **2.7 BOOTSTRAP:**

Bootstrap is a potent front-end framework used to create modern websites and web apps. It's open-source and free to use, yet features numerous HTML and CSS templates for UI interface elements such as buttons and forms. Bootstrap also supports JavaScript extensions.

## **2.8 jQuery:**

jQuery is a lightweight, “write less, do more”, JavaScript library. The purpose of jQuery is to make it much easier to use JavaScript on your website. jQuery takes a lot of common tasks that require many lines of JavaScript code to accomplish, and wraps them into methods that we can call with a single line of code. jQuery is a fast, small and makes things like HTML document traversal and manipulation, event handling, animation, and Ajax much simpler with an easy-to-use API that works across a multitude of browsers.

# **SOFTWARE DEVELOPMENT LIFE CYCLE (SDLC)**

## **3.1. INTRODUCTION**

Software development life cycle is a well-defined and structured sequence of stages in software engineering to develop the intended software product. It provides a series of steps to be followed to design and develop a software product efficiently. There are various software development lifecycle models defined and designed which are followed during the software development process. These models are also referred to as software development process models. Each process model follows a Series of steps unique to its types to ensure success in the process of software development.

Following are the most important and popular SDLC models followed in the industry:

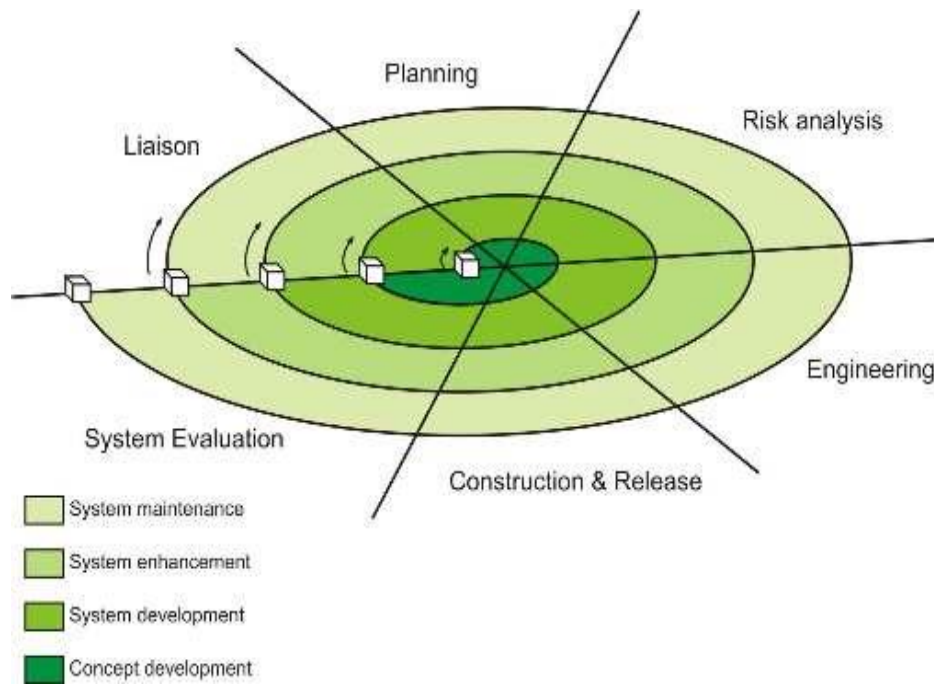
- Waterfall Model
- V-Model
- Iterative Model
- Spiral Model

Here we follow the Spiral Model to build our software.

## **3.2. The Spiral Model:**

The spiral model, originally proposed by Boehm, is evolutionary software process model that couples the iterative nature of prototyping with the controlled and systematic aspects of the linear sequential model. It provides the potential for rapid development of incremental versions of the software. Using the spiral model, software is developed in a series of incremental releases. During early iterations, the incremental release might be a paper model or prototype. During later iterations, increasingly more complete versions of the engineered system are produced. A spiral model is divided into a number of framework activities, also called task regions. Typically, there are between three and six task regions. Figure depicts a spiral model that contains six task regions:

- **Customer communication**—tasks required to establish effective communication between developer and customer.
- **Planning**—tasks required to define resources, timelines, and other project related information.
- **Risk analysis**—tasks required to assess both technical and management risks.
- **Engineering**—tasks required to build one or more representations of the application.
- **Construction and release**—tasks required to construct, test, install, and provide user support (e.g., documentation and training).
- **Customer evaluation**—tasks required to obtain customer feedback based on evaluation of the software representations created during the engineering stage and implemented during the installation stage. Each of the regions is populated by a set of work tasks, called a task set, that are adapted to the characteristics of the project to be undertaken. For small projects, the number of work tasks and their formality is low. For larger, more critical projects, each task region contains more work tasks that are defined to achieve a higher level of formality. In all cases, the umbrella activities (e.g., software configuration management and software quality assurance) noted is applied. As this evolutionary process begins, the software engineering team moves around the spiral in a clockwise direction, beginning at the center. The first circuit around the spiral might result in the development of a product specification; subsequent passes around the spiral might be used to develop a prototype and then progressively more sophisticated versions of the software. Each pass through the planning region results in adjustments to the project plan. Cost and schedule are adjusted based on feedback derived from customer evaluation. In addition, the project manager adjusts the planned number of iterations required to complete the software. Unlike classical process models that end when software is delivered, the spiral model can be adapted to apply throughout the life of the computer software. An alternative view of the spiral model can be considered by examining the project entry point axis, also shown in Figure. Each cube placed along the axis can be used to represent the starting point for different types of projects.



A “concept development project” starts at the core of the spiral and will continue (multiple iterations occur along the spiral path that bounds the central shaded region) until concept development is complete. If the concept is to be developed into an actual product, the process proceeds through the next cube (new product development project entry point) and a “new development project” is initiated. The new product will evolve through a number of iterations around the spiral, following the path that bounds the region that has somewhat lighter shading than the core. In essence, the spiral, when characterized in this way, remains operative until the software is retired. There are times when the process is dormant, but whenever a change is initiated, the process starts at the appropriate entry point (e.g product enhancement). The spiral model is a realistic approach to the development of large-scale systems and software.

Because software evolves as the process progresses, the developer and customer better understand and react to risks at each evolutionary level. The spiral model uses prototyping as a risk reduction mechanism but, more important, enables the developer to apply the prototyping approach at any stage in the evolution of the product. It maintains the systematic stepwise approach suggested by the classic life cycle but incorporates it into an iterative framework that more realistically reflects the real world. The spiral model demands a direct consideration of technical risks at all stages of the project and, if properly applied, should reduce risks before they become problematic.

### ➤ **Advantages of Spiral Model:**

- Software is produced early in the software life cycle.
- Risk handling is one of important advantages of the Spiral model, it is best development model to follow due to the risk analysis and risk handling at every phase.
- Flexibility in requirements. In this model, we can easily change requirements at later phases and can be incorporated accurately. Also, additional Functionality can be added at a later date.
- It is good for large and complex projects.
- It is good for customer satisfaction. We can involve customers in the development of products at early phase of the software development. Also, software is produced early in the software life cycle.
- Strong approval and documentation control.
- It is suitable for high risk projects, where business needs may be unstable. A highly customized product can be developed using this.

### ➤ **Disadvantages of Spiral Model:**

- It is not suitable for small projects as it is expensive.
- It is much more complex than other SDLC models. Process is complex.
- Too much dependable on Risk Analysis and requires highly specific expertise.
- Difficulty in time management. As the number of phases is unknown at the start of the project, so time estimation is very difficult.
- Spiral may go on indefinitely.
- End of the project may not be known early.
- It is not suitable for low risk projects.
- May be hard to define objective, verifiable milestones. Large numbers of intermediate stages require excessive documentation.

## **DOCUMENTATION**

After accepting feasibility report from our departments, I have decided to continue under supervisor, Assistant professor Ms. Manesh, Department of CSE. We have tried to understand the proposed system by detailed study of the various operations that will be performed by a system. System analysis is the process of studying an existing system to determine how it works and how it meets user needs. System analysis lays the groundwork for improvements to the system. The analysis involves an investigation, which is turn usually involves establishing a relationship with the client for whom the analysis is done and with the user of the system. This analysis phase is more of a thinking process. In this phase, we have improved logical aspects of the system.

To develop the system, we have to consider about a key question “What must be done to solve the problem? In this phase we studied the system processes, gathering operational data, understand the information flow, finding out weaknesses and evolving solutions for overcoming the weaknesses of the system so as to achieve the goals. During analysis phase we have concerned with:

- Data analysis
- Data gathering

### **4.1 Data gathering**

To complete this project first we have gathered necessary data or information from our supervisor, our respective teachers, friends, junior students of our department, and the internet. It was complex because our system is unique and needed data are not available. It was expensive too and required a lot of work and time. To gather information, we have used certain sources:

**Documentation**

**&**

**Onsite observations**

### **4.1.1 Documentation**

During data gathering, we searched related information in Google. We found various procedures, manuals, reports, create account forms and many other materials but all information was difficult to assess. We spend a lot of time reading manuals reports and create a roadmap of the project.

## **4.2 Data Analysis:**

To analysis the data that we have gathered we use a data flow diagram and create a road map of the projects. Create projects sketch diagrams.

### **4.2.1 Data Flow Diagram**

A data flow diagram is a short road map that graphically represents how the data moves through the existing system. we have used a data flow diagram in the design process. The data flow diagram provides facilitating communication between us and the user. DFD shows what kinds of information will be input to and output from the system, where the data will come from and go to, and where the data will be stored. It does not show information about the timing of processes, or information about whether processes will operate in sequence or in parallel.

## **Rectangle**

A database is a repository of data here it represented by open ended box. It will contain the data of the menu and price list.



**Rectangle**

## **Square**

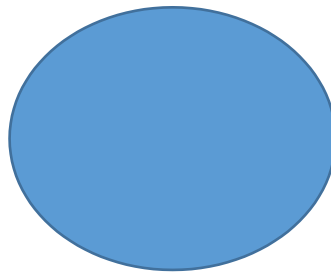
Square contains the number in the calculator that is used in this system.



**Square**

## **Circle**

It will show the main format of the system. The system will provide us the main point of the project.



**circle**

## **Lines**

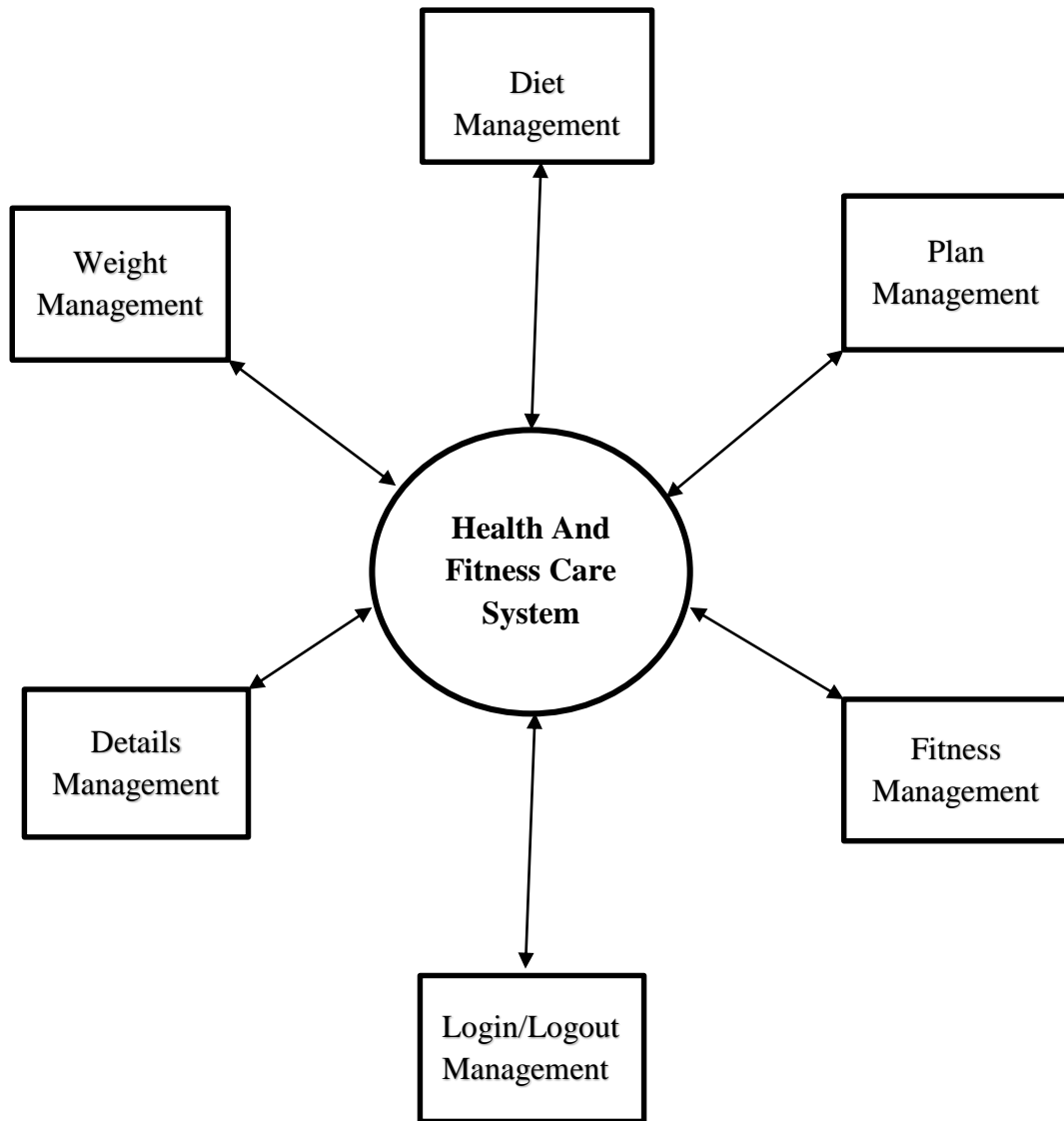
Arrow defines the direction of the data flow. It will connect all the function to the main function of the system.



**Line**



### Data Flow Diagram :



### 4.2.2 ER Diagram

The Entity – Relationship (ER) model was originally proposed by Peter in 1976 as a way to unify the network and relation database views. Simply stated the ER model is a conceptual data model that views the real world as entities and relationships. A basic component of the model is the Entity- Relationship diagram which is used to visually represent data objects.

Since Chen wrote his paper the model has been extended and today it is commonly used for database design for the database designer, the utility of the ER model is:

- It maps well to the relational model. The constructs used in the ER model can easily be transferred into relational tables.
- It is simple and easy to understand with a minimum of training. So, the model can be used by the database designer to communicate the design to the end user.
- In addition, the model can be used as a design plan by the database developer to implement a data model in specific database management software.

### 4.2.3 ER Notation

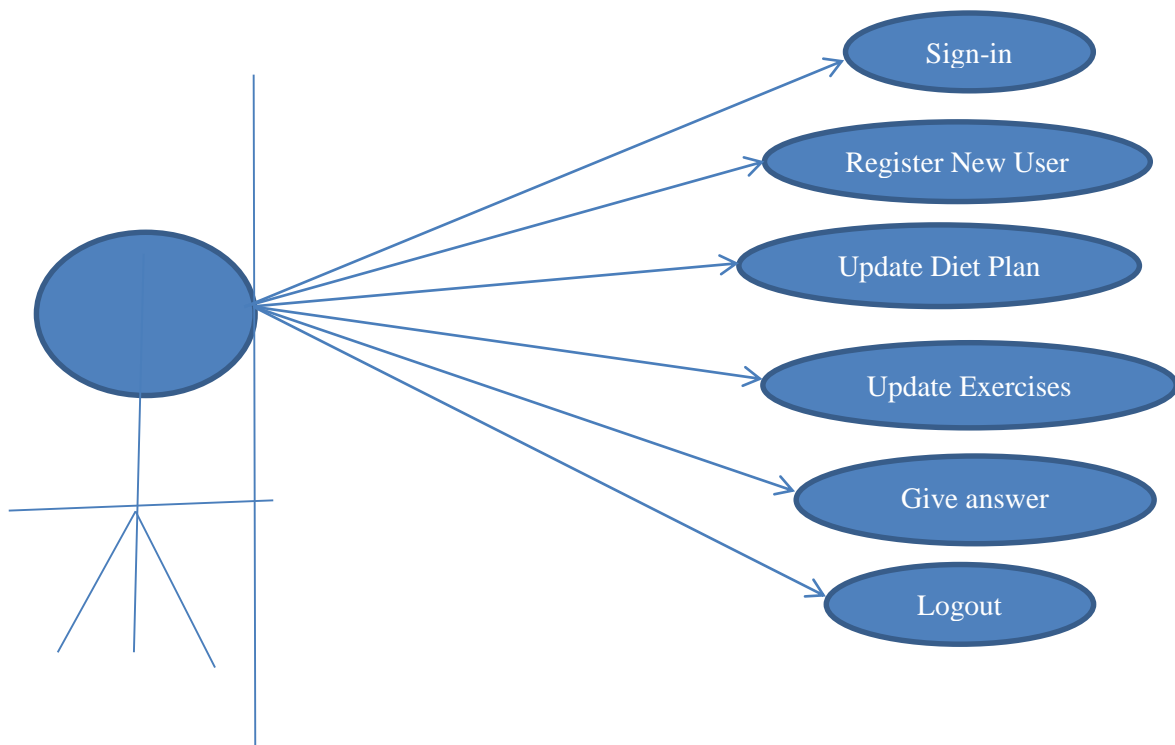
There is no standard for representing data objects in ER diagrams. Each modelling methodology uses its own notation. The original notation used by Chen is widely used in academics texts and journals but rarely seen in either case tools or publications by non-academics. Today, there are a number of notations used, among the more common are crow's foot, Bachman and IDEFIX.

All notational styles represent entities as rectangular boxes and relationships as lines connecting boxes. Each style uses a special set of symbols to represent the cardinality of a connection. The symbols used for the basic ER construct are:

- **Entities:** Entities are represented by labelled rectangles. The label is the name of the entity. Entity names should be singular nouns.
- **Relationships:** Relationships are represented by a solid line connecting two entities. The name of the relationship is written above the line. Relationship names should be verbs.
- **Attribute:** Attribute when included are listed inside the entity rectangle. Attribute which are identifiers are underlined. Attribute names should be singular nouns.
- **Cardinality:** Cardinality of many is represented by a line ending in a crow's foot. If the crow's foot is omitted, the cardinality is one.

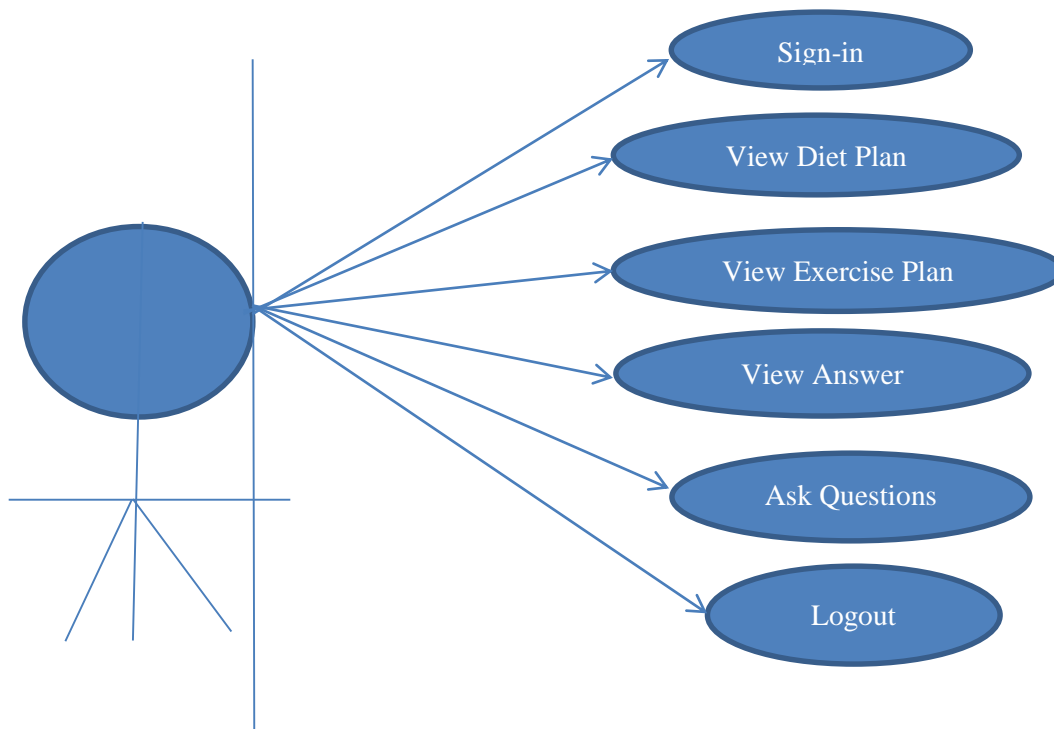
### ➤ User Case Diagram:

- **For Admin:** Here the admin can perform all of the functions which are shown in the given diagram.



➤ **User Case Diagram:**

- **For User :** User can perform all of action which are shown in the diagram. He/She can benefite from this website like this way.



## **HARDWARE AND SOFTWARE REQUIREMENTS**

This section describes the hardware components and software requirements needed for the efficient and effective system running.

### **5.1 Hardware Requirements**

<b>Number</b>	<b>Description</b>	<b>Type</b>
1	Processor	2.4 GHz Processor Speed
2	Memory	2 GB RA
3	Disk Space	500 GB

### **5.2 Software Requirements**

<b>Number</b>	<b>Description</b>	<b>Type</b>
1	Operating System	Windows 8,10 or MAC Ox 10.8, 10.9 or 10.11,LINUX
2	Technology	Python, Web Designing, Django
3	Database	SQL Lite 3
4	IDE	Visual Code

### **5.3 Technology Used**

We have developed this project using the below technology:

1. **HTML:** Page layout has been designed in HTML.
2. **CSS:** CSS has been used for all the designing part.
3. **JavaScript:** All the validation task and animations has been developed by JavaScript.
4. **Python:** All the business logic has been implemented in Python.
5. **SQLite:** SQLite database has been used as database for the project.
6. **Django:** Project has been developed over the Django Framework.

## **SYSTEM DEVELOPMENT**

The development phase is an operational phase of our system. This phase is where we start to write program code for the development of the system. We follow the requirements specification from the design stage and start to create the new system. The Development Phase features a key step in the project system construction. The previous phases lay the foundation for system development, the following phases ensure that the product functions as required.

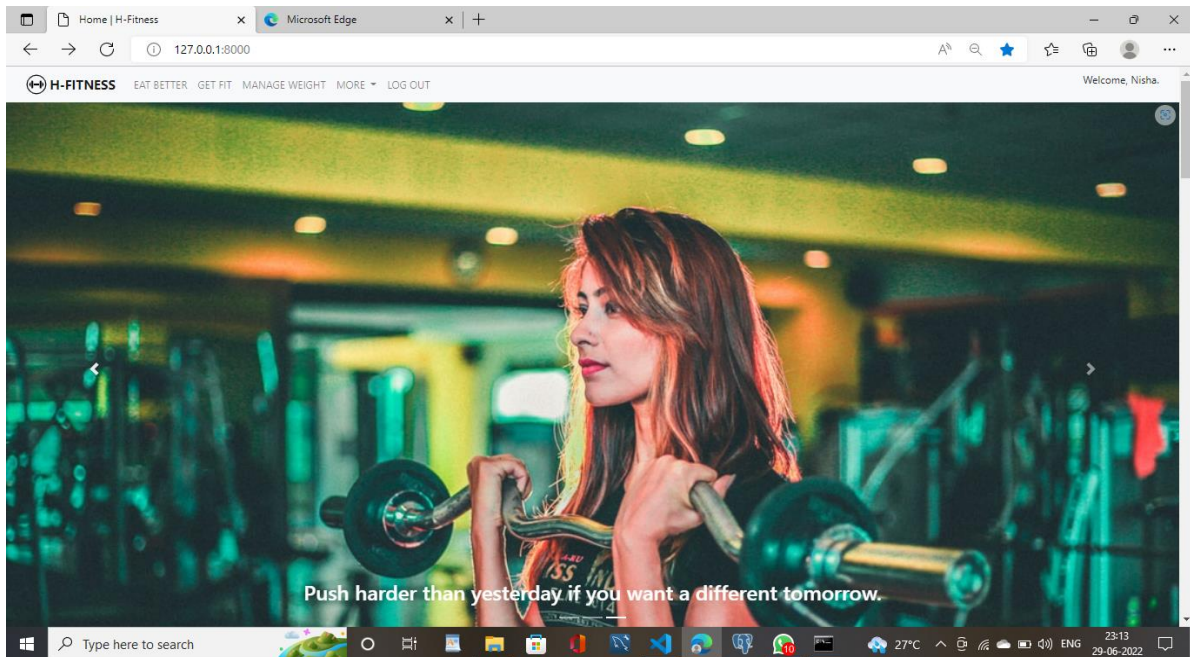
### **6.1 SYSTEM MODULE:**

System module is a software component. An enterprise-level software application contains several modules, and each module serves unique and separate business operations. In this project, I have tried to cover all the basic aspects like validation, password encryption, responsive design, database, etc. Here in this project, there is a total of six modules and they are:

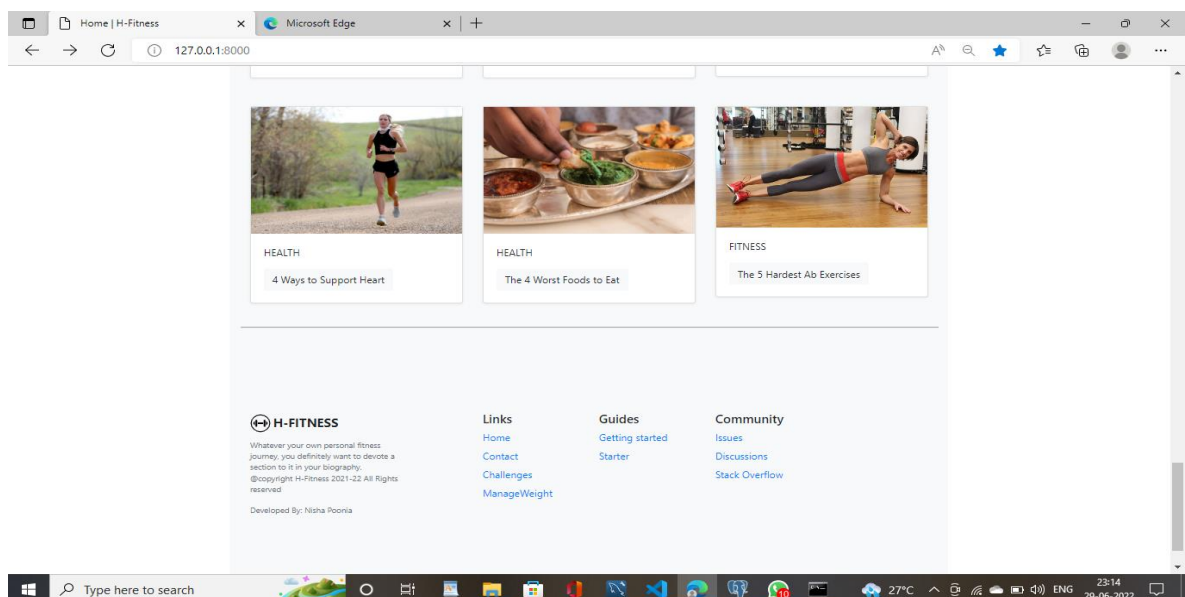
1. Home
2. Eat Better Module
3. Get Fit Module
4. Manage Weight Module
5. More Module
  - 5.1 About Us
  - 5.2 Challenges
  - 5.3 Contact Us
  - 5.4 Admin Login
6. Login/Logout Module

## 1. Home

This is the first page of the website in which user can find all over the overview of this website means he/she can see on the front page that what types of fitness and health care knowledge they provide like Yoga Plan, Exercise Plan and Diet Plan etc.



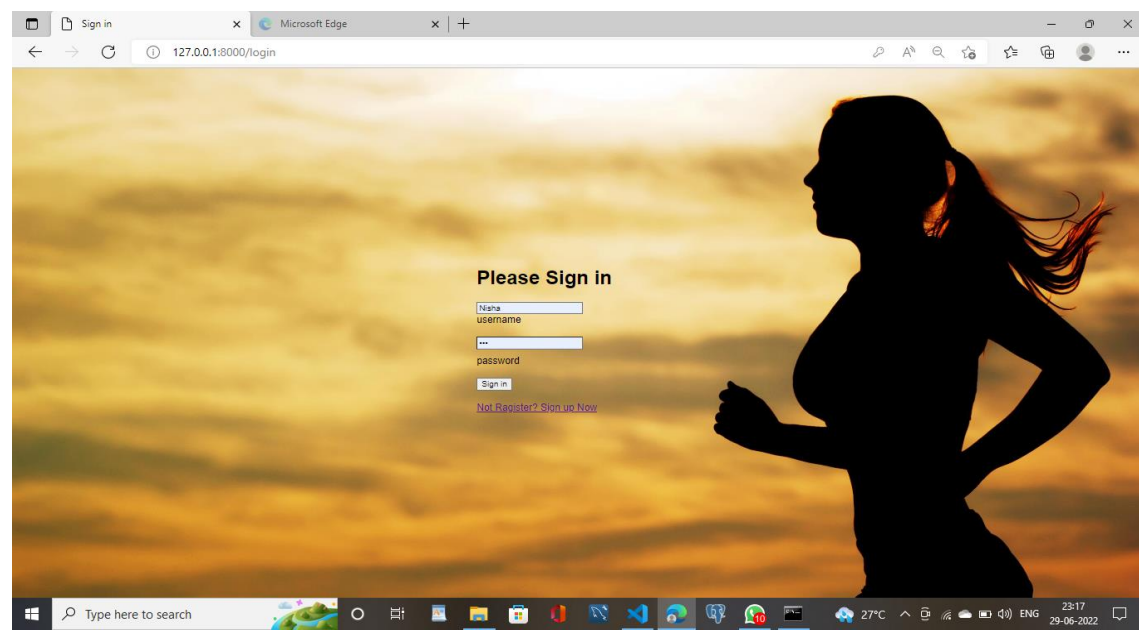
- It also having food articles like if we click on any of article then it will give a brief clearance of food plan which we have to follow for good health.



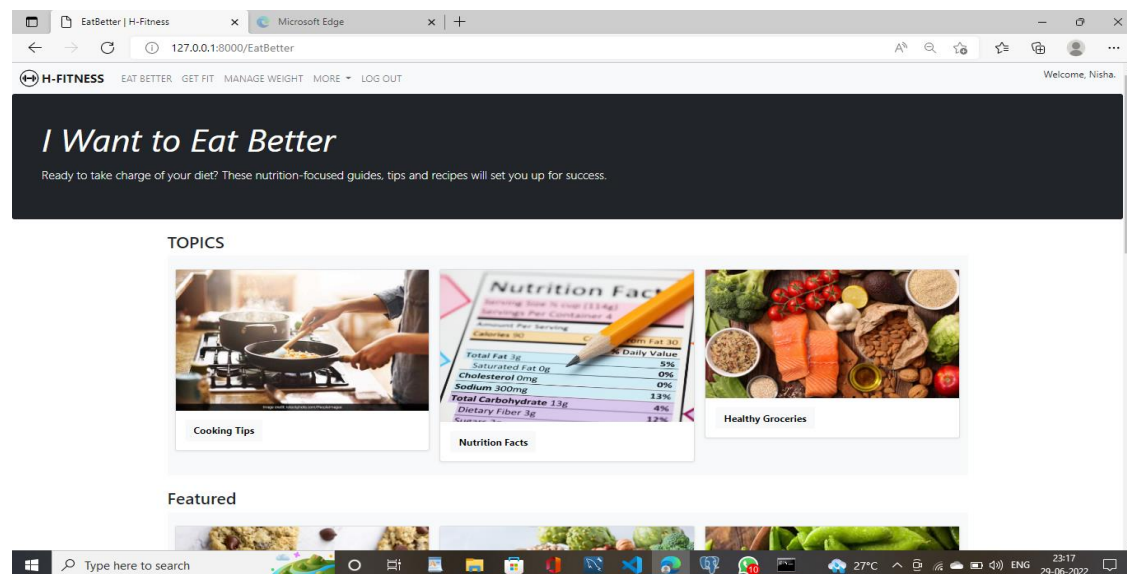
All pages also having bottom navigation bar which means we can navigate throughout the website from the bottom of the website also so its can be better approach of creating bottom navigation bar.

## 2. Eat Better Module

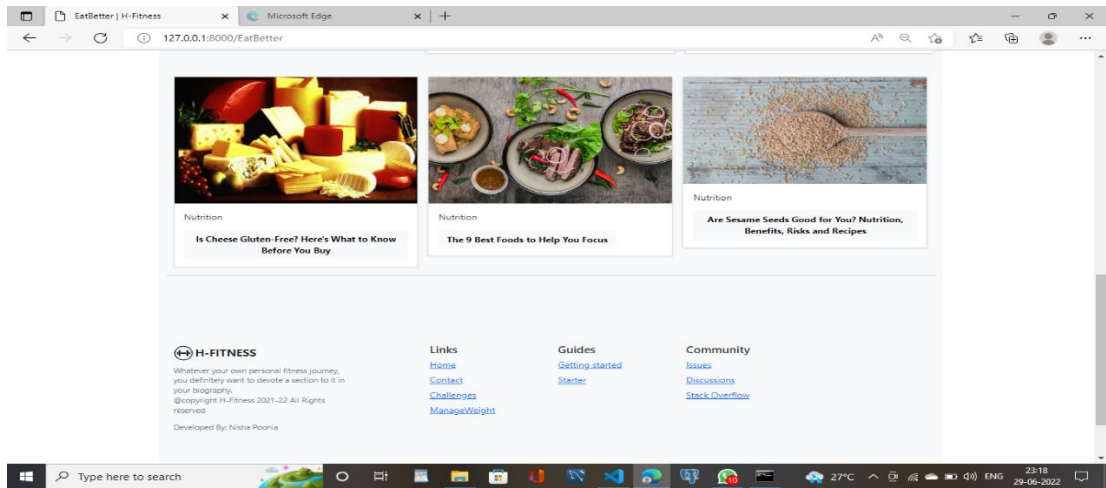
If we want to access any page of website other than home page than we have to first sign in because all the pages of the website are secure pages which we can access only after Sign In.



- After sign in we can access the eat better page likewise other can be accessed.

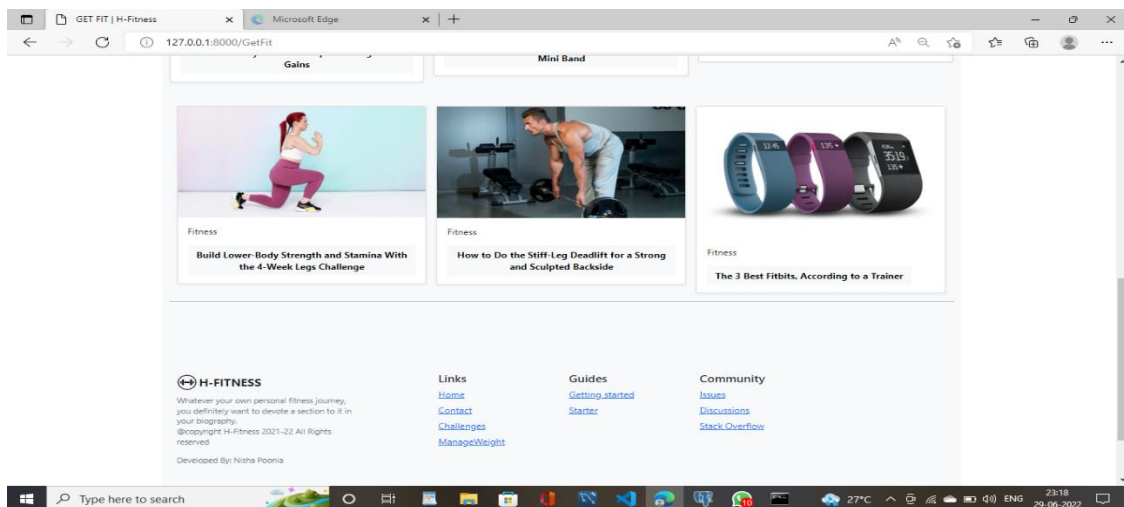
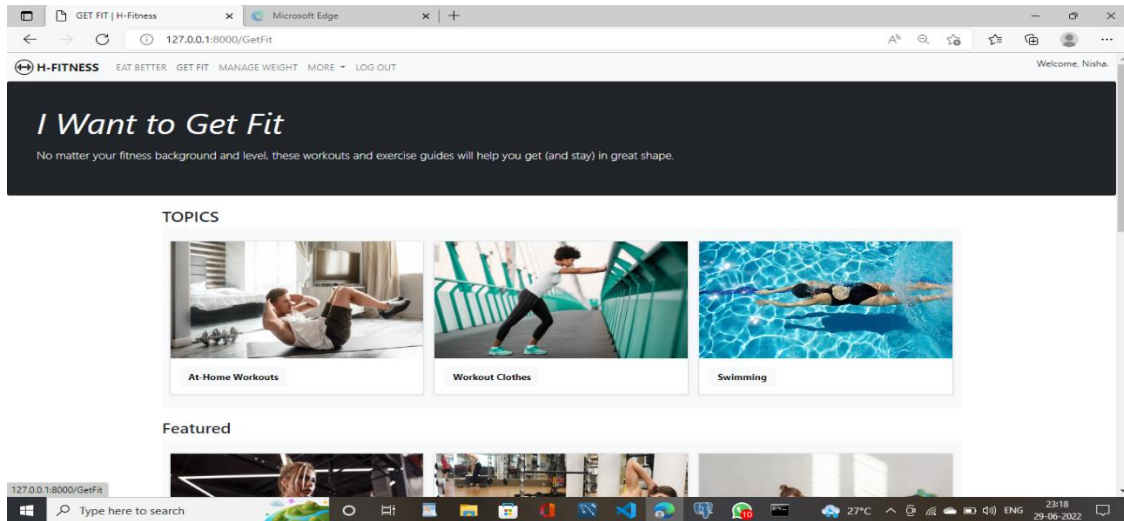






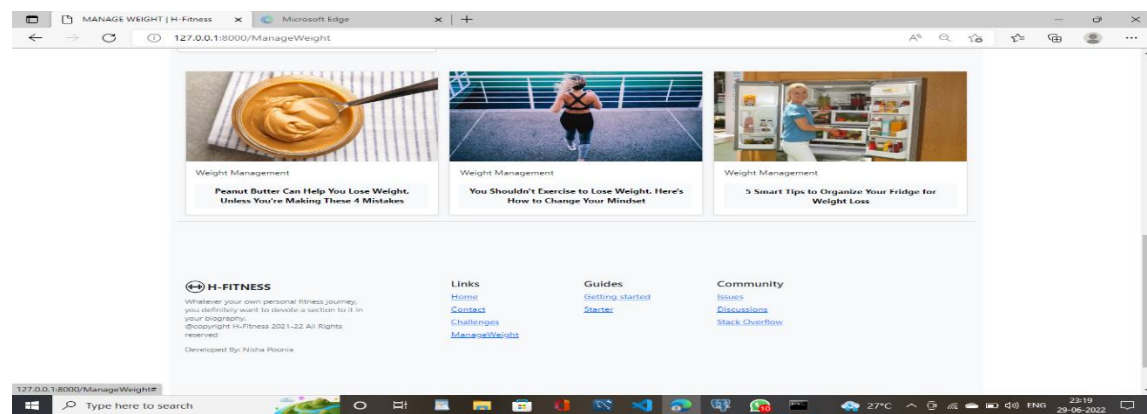
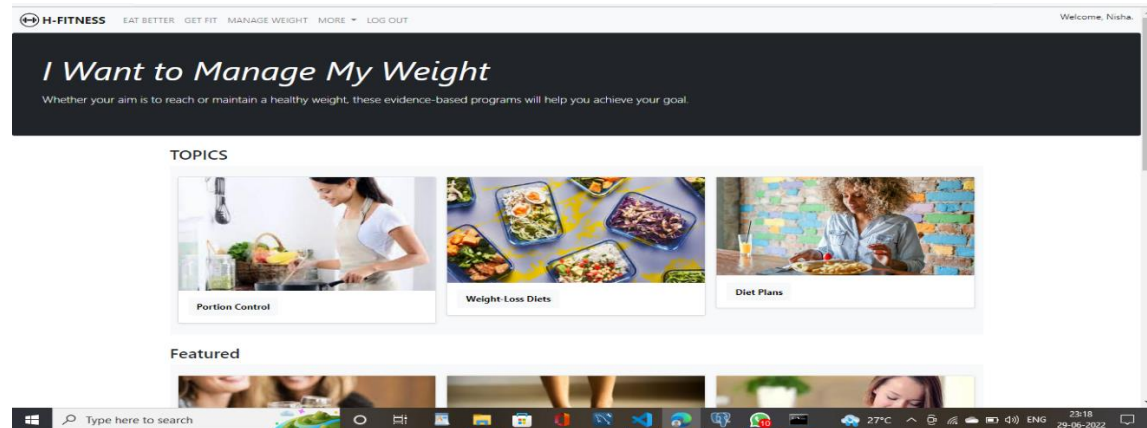
### 3. Get Fit Module

From this page we can get all the knowledge of Fitness Wears, Types of workouts, Yoga's and Exercises which will be helpful for maintenance of our good health.



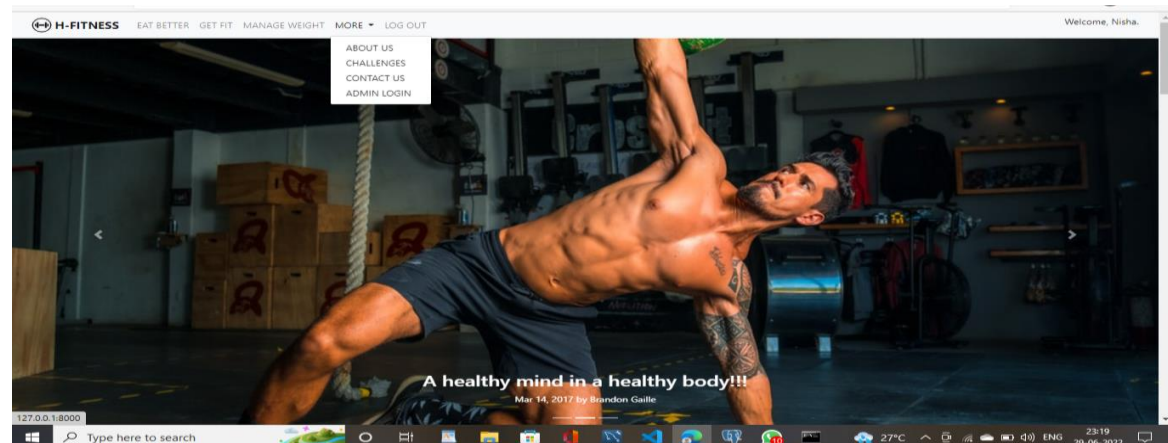
## 4. Manage Weight Module

This page include Portion control, weight-Loss diet, diet plans, smart tips for organize your fridge for weight loss, weight loss statistics tips etc. are the some factors which will helpful for weight loss.



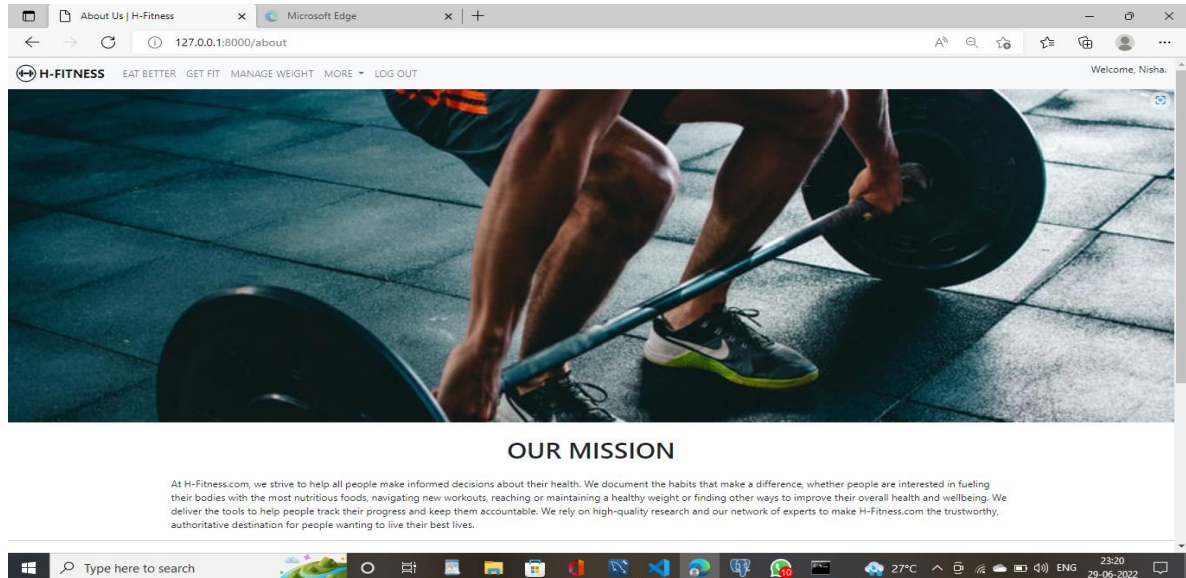
## 5. More Module

The more module having different sub modules which are About Us, Challenges, Contact Us, Admin login and every module have its own functionalities.



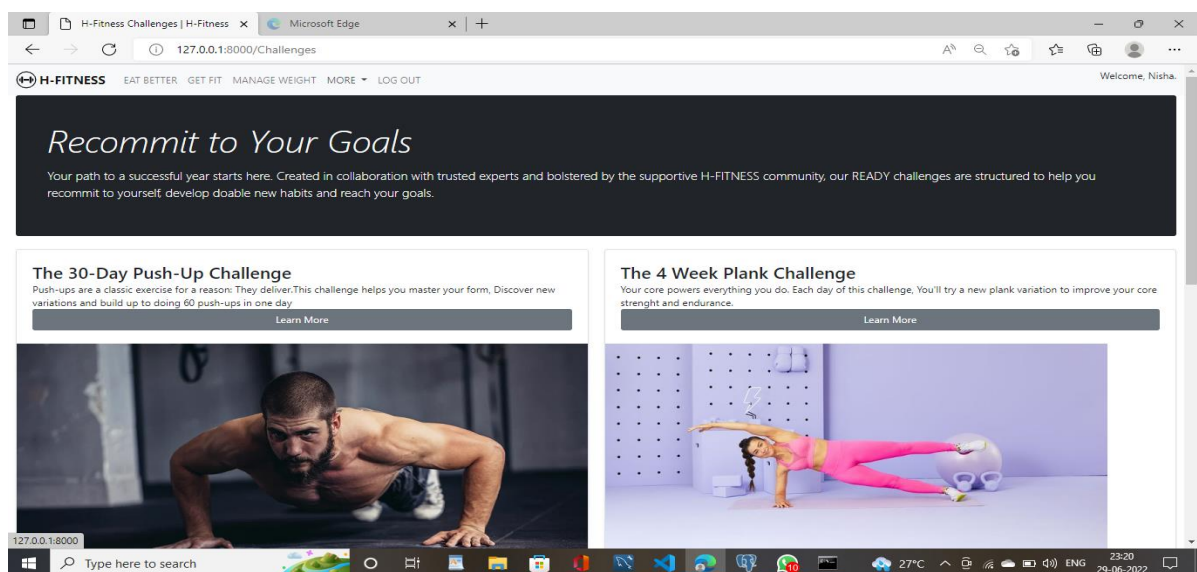
## 5.1 About Us

About us sub module describe who we are and what is our mission of starting this and how we impact the others life through our mission.



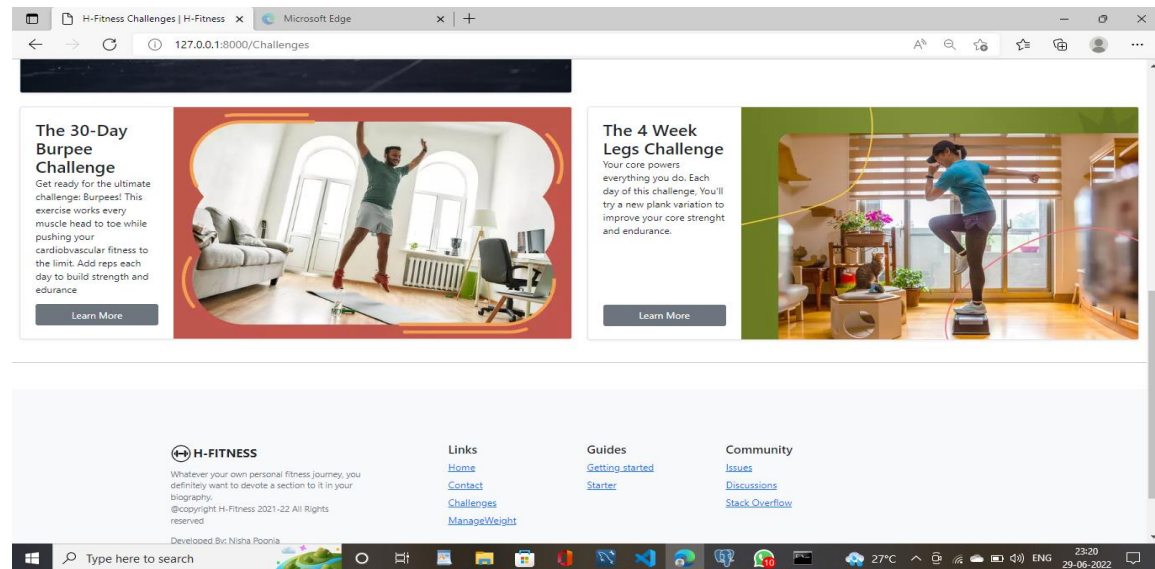
## 5.2 Challenges

This section include different types of monthly exercise charts which will help beginners to follow and maintain their health and fitness. And these charts plans also motivate beginner to complete monthly plan on time so after that they also become good and fit.

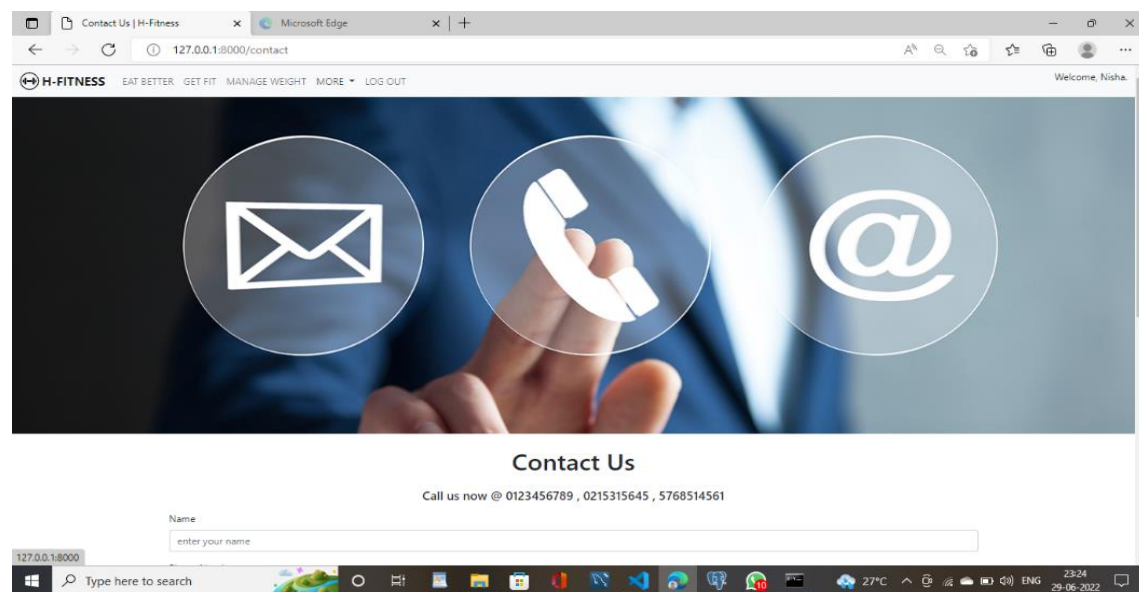




If we click any of the chart that will show you a complete monthly exercise chart which you can follow and fit according to your required body fitness exercise.

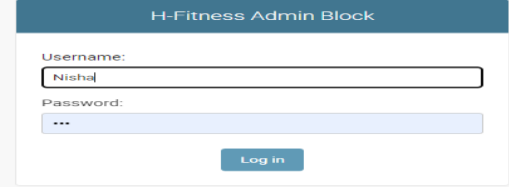


## 5.3 Contact Us

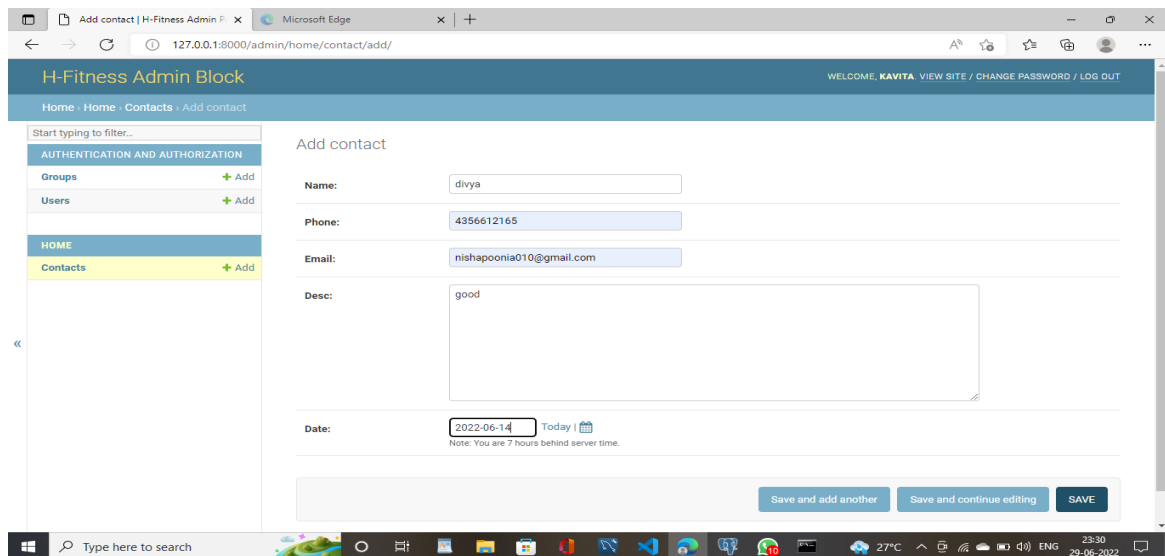


## 5.4 Admin Login

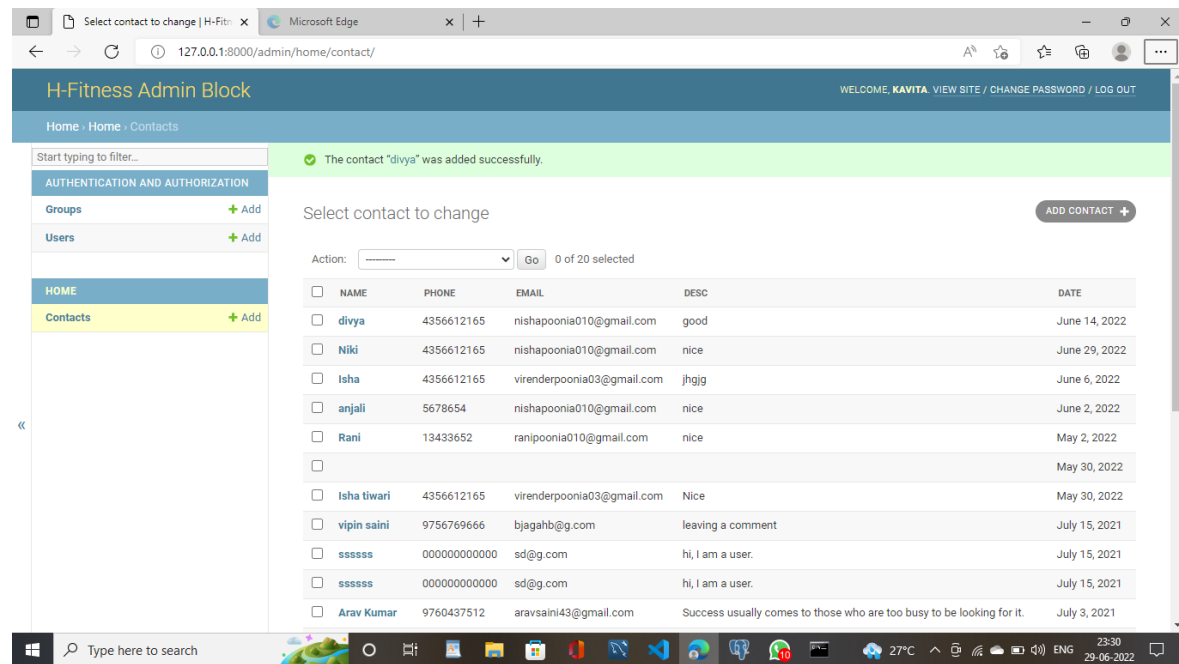
At admin panel super user and authorized user can delete, update, modify and read the data of users.



A login form titled "H-Fitness Admin Block". It contains two input fields: "Username:" with the text "Nisha" entered, and "Password:" with three dots indicating a masked password. Below the fields is a blue "Log in" button.



A screenshot of the "H-Fitness Admin Block" dashboard in a Microsoft Edge browser. The browser address bar shows "127.0.0.1:8000/admin/home/contact/add/". The dashboard has a blue header with "H-Fitness Admin Block" and "WELCOME, KAVITA VIEW SITE / CHANGE PASSWORD / LOG OUT". A breadcrumb trail reads "Home > Home > Contacts > Add contact". On the left is a sidebar with a search bar and two main sections: "AUTHENTICATION AND AUTHORIZATION" containing "Groups" and "Users" (each with a "+ Add" link), and "HOME" containing "Contacts" (with a "+ Add" link). The main content area is titled "Add contact" and contains form fields for "Name:" (divya), "Phone:" (4356612165), "Email:" (nishapoonia010@gmail.com), "Desc:" (good), and "Date:" (2022-06-14). A note below the date field states "Note: You are 7 hours behind server time." At the bottom right of the form are three buttons: "Save and add another", "Save and continue editing", and "SAVE". The Windows taskbar at the bottom shows the search bar, taskbar icons, and system tray with the date "29-06-2022" and time "23:30".



## FILES AND DATABASE

We have organized three databases for Health and Fitness Care System. It can be accessed directly or sequentially by registered. The database determines files, records, fields, and characters. It can be easily controlled and updated. This database and its table and component are described by using the flow diagram that is given below:

Three databases of Health and Fitness Care System are listed:

- Home Contact
- Auth User
- Auth permission

### ➤ Home Contact

This database consists of 20 row table of data like id, user name, phone number, email id, description and date of joining of health and fitness care center.

DB Browser for SQLite - C:\Users\Nisha\Desktop\Fitness\Fitness\db.sqlite3

File Edit View Tools Help

New Database Open Database Write Changes Revert Changes Open Project Save Project Attach Database Close Database

Database Structure Browse Data Edit Pragma Execute SQL

auth\_group home\_contact

home\_contact

Table: home\_contact

	id	name	phone	email	desc	date
1	3	harry	9756769667	harry@gmail.com	now it is right in my view.	2021-06-22
2	4	jony kumar	8126530476	jonyasaini5321@gmail.com	can i join in evening, and please tell me the timin...	2021-06-22
3	5	arun saini	8445295229	arunmudafra@gmail.com	tell me the fee structure.	2021-06-22
4	6	rahul	9557378034	kumnarmudafra@gmail.com	this is new page	2021-06-22
5	7	rahul	9557378034	kumnarmudafra@gmail.com	this is new page	2021-06-22
6	8	pawan kumar	8755429171	pawansaini@gmail.com	or kya hall hai jony bhai	2021-06-22
7	9	pawan kumar	8755429171	pawansaini@gmail.com	please reply me	2021-06-22
8	10	pawan kumar	8755429171	pawansaini@gmail.com	please reply me	2021-06-22
9	12	pawan saini	8755429171	hdahhd@gmail.com	hi jony bhai	2021-06-30
10	13	Arav Kumar	9760437512	aravsaini43@gmail.com	Success usually comes to those who are too bus...	2021-07-03
11	14	ssssss	000000000000	sd@g.com	hi, I am a user.	2021-07-15
12	15	ssssss	000000000000	sd@g.com	hi, I am a user.	2021-07-15
13	16	vipin saini	9756769666	bjagahb@g.com	leaving a comment	2021-07-15
14	17	Isha tiwari	4356612165	virenderpoonia03@gmail.com	Nice	2022-05-30
15	18					2022-05-30
16	19	Rani	13433652	ranipoonia010@gmail.com	nice	2022-05-02
17	20	anjali	5678654	nishapoonia010@gmail.com	nice	2022-06-02

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## ➤ Auth User

This database consists of data like password which is encrypted format, last login, is superuser, username, last name, is staff, is active, date of joining and first name.

DB Browser for SQLite - C:\Users\Nisha\Desktop\Fitness\Fitness\db.sqlite3

File Edit View Tools Help

New Database Open Database Write Changes Revert Changes Open Project Save Project Attach Database Close Database

Database Structure Browse Data Edit Pragma Execute SQL

auth\_group auth\_user

auth\_user

Table: auth\_user

	password	last_login	is_superuser	username	last_name	email	is_staff	is_active	date_joined	first_name
1	60000\$eztHYHbVrnDnbyBrylW...	2021-11-21 12:22:35.758815	1	admin	admin	admin@gmail.com	1	1	2021-06-15 06:41:56	mr
2	60000\$cVoSEagGRWJEwdL9z3j...	2021-07-22 02:24:37.221308	1	@jony1234	Kumar	jonyasaini5321@gmail.com	1	1	2021-07-05 03:03:37	Jony
3	20000\$5ieczM5rZzx928DvT9n...	2022-05-30 16:44:01.348077	0	arun	Kumar	kumnarmudafra@gmail.com	0	1	2021-07-14 01:44:03	arun
4	60000\$kh7okS9yakvk25MtzyB...	2021-07-15 06:50:52	0	@alirahat	ali	alirahat@g.com	0	1	2021-07-15 06:15:29	rahat
5	60000\$rMlylITF201glIMSt4n67x...	2021-07-15 06:53:39.862980	0	pawan23	saini	pawankuma@gmail.com	0	1	2021-07-15 06:53:23.119891	pawan
6	60000\$1bm0zhTcdhcvkHWPJux...	2021-07-15 07:11:41.474535	0	vipn2k	kumar	xdgdf@g.com	0	1	2021-07-15 06:59:28.695184	vipin
7	60000\$UosHUmou00AataqyCP...	2021-07-16 02:43:31.001215	0	kapil#3	sapil	kapil@g.com	0	1	2021-07-15 07:25:02.971429	kapil
8	60000\$DPgyY3LicgQyNDPNZqp...	2021-07-17 03:11:49.677589	0	sachin12	parcha	sachin@gmail.com	0	1	2021-07-16 02:56:36.219591	sachin
9	60000\$d3b3CuJXIGLUBE6Olgdl...	2021-07-16 06:58:32.069604	0	ssanky	ss	hgd@h.com	0	1	2021-07-16 03:03:16.496182	ankit
10	60000\$d3b3CuJXIGLUBE6Olgdl...	2021-07-16 03:36:09.230523	0	aksd	sd	asdd@g.com	0	1	2021-07-16 03:13:45.647465	ak
11	60000\$FfzNE2Mf8paYla7TIIWH...	2021-07-17 02:29:01.713961	0	mr_ani	mr	gdhdhg@g.com	0	1	2021-07-17 02:18:21.786606	ani
12	60000\$VHwuR3ajSuecBl2OLy...	2021-07-22 02:28:09.398149	0	anil@11	tyagi	anil@gmail.com	0	1	2021-07-22 02:27:14.656122	anil
13	60000\$PQWqNTmPR0xYJek6TK...	2021-11-21 12:19:21.204137	0	Kailash	joshi	kailashjoshi786@gmail.com	0	1	2021-11-21 12:18:12.554849	kailash
14	60000\$VQpejVWN6wGeZMcblL...	2021-11-25 06:34:37.736153	0	subham	joshi	joshi@gmail.com	0	1	2021-11-25 06:34:27.807392	subham
15	60000\$3ZfrcK234fnRt241ZBED...	2022-02-22 05:29:44.283938	0	anurag	singh	anu@gmail.com	0	1	2022-02-22 05:29:26.150495	anurag
16	20000\$Hko8832QPomD8HXKSh...	2022-04-11 09:48:05.713284	0	alqama	azmi	alqama@gmail.com	0	1	2022-04-11 09:47:17.270418	alqama
17	20000\$Ztna4K0CT1lxc4HP944q...	2022-06-30 06:17:31.160069	0	Nisha	poonia	nishapoonia010@gmail.com	0	1	2022-05-30 08:08:56.306900	Nisha

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## ➤ Auth Permission

This database consists of data like permission id's of authorized users who can perform specific actions, which are authorized by superuser to the users.

DB Browser for SQLite - C:\Users\Nisha\Desktop\Fitness\Fitness\db.sqlite3

File Edit View Tools Help

New Database Open Database Write Changes Revert Changes Open Project Save Project Attach Database Close Database

Database Structure Browse Data Edit Pragma Execute SQL

auth\_group auth\_user auth\_permission

Table: auth\_permission

	id	content_type_id	codename	name
	Filter	Filter	Filter	Filter
1	1	1	add_logentry	Can add log entry
2	2	1	change_logentry	Can change log entry
3	3	1	delete_logentry	Can delete log entry
4	4	1	view_logentry	Can view log entry
5	5	2	add_permission	Can add permission
6	6	2	change_permission	Can change permission
7	7	2	delete_permission	Can delete permission
8	8	2	view_permission	Can view permission
9	9	3	add_group	Can add group
10	10	3	change_group	Can change group
11	11	3	delete_group	Can delete group
12	12	3	view_group	Can view group
13	13	4	add_user	Can add user
14	14	4	change_user	Can change user
15	15	4	delete_user	Can delete user
16	16	4	view_user	Can view user
17	17	5	add_contenttype	Can add content type

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Go to: 1

## SYSTEM TESTING

Build up Our project We Use a Software Testing Process for executing a program with the intent offinding errors is uncovering errors in a program makes it a feasible task and also trying to find the errors (whose presence is assumed) in a program. As it is a destructive process.

### 9.1 Type of testing we use in our Project

Here we just mentioned that how the testing is related to this software and in which way we have to test the software? In our project, we have used 5 types of testing these are listed below

**Unit Testing:** Unit testing where individual program units or object classes are tested. Hereby usingthis testing we have focused on testing the functionality of methods.

**Module Testing:** Where this is the combination of the unit program is called a module. Here wetested the unit program (5-6 programs) is where the module programs have a dependency.



**Sub-system Testing:** Then we combined some modules for the Preliminary System Testing in our Project.

**System Testing:** Where it is the combination of two or more sub-systems and then it is tested. Here we tested the Entire system as per the requirements.

**Acceptance Testing:** Normally this type of testing is done to verify if the system meets the customer specified requirements. After submitting this project to the User then they tested it and determine whether to accept an application. It is the system testing performed by the customer(s) to determine whether they should accept the delivery of the system.

In our project work, an attempt has been made to develop a health and fitness care system or information based website. We develop this project that helps the people and make them aware so that they can know any information related to their health and fitness. To establish this website we use various methodologies. To develop this project we have faced many problems but we hardly tried to develop this project. Our supervisor helps us by giving her valuable opinion, decision and time.

## **FUTURE SCOPE**

The future scope of our project is valuable. Our project time duration was only one year. In this time interval, we developed our project. It was very difficult to complete the project within this time duration. This is our first version of the project so there are many things that remain to implement. In future, we will continuously add many features and develop this website for a large volume.

### **As for other future developments, the following can be done: -**

- ✓ The software has been developed in such a way that it can accept modifications and further changes. The software is very user friendly and future any changes can be done easily.
  
- ✓ Software restructuring is carried out. Software restructuring modifies source code in an effort to make it amenable to future changes. In general, restructuring does not modify the overall program architecture. It tends to focus on the design details of individual modules and on local data structure defined within modules.
  
- ✓ Every system should allow scope for further development or enhancement. The system can be adapted for any further development. The system is so flexible to allow any modification need for the further functioning of programs.

## **CONCLUSION**

The “**HEALTH AND FITNESS CARE SYSTEM**” is successfully for the designed and developed to fulfilling the necessary requirements, as identified in the requirements analysis phase, such as the system is very much user friendly, form level validation and field level validation are performing very efficiently. The new computerized system was found to be much faster and reliable and user friendly then the existing system, the system has been designed and developed step by step and tested successfully. It eliminates the human error that are likely to creep in the kind of working in which a bulk quantity of data and calculations as to be processed. The system results in quick retrieval of information that is very vital for the progress any organization. Cost is minimized in case of stationary. Burden of manual work is reduced as whenever transaction takes place, there is a no need to record it in many places manually.

## **REFERENCES**

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