COLLEGE OF APPLIED SCIENCE ADOOR

(Government of Kerala, Managed by IHRD)

(Affiliated to University of Kerala)

Adoor, Kerala

PROJECT REPORT

on

BEFIT

Submitted by

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in partial fulfillment of the
requirements for the award of
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Department of Computer Science

COLLEGE OF APPLIED SCIENCE ADOOR

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CERTIFICATE

Certified that this report titled *"BEFIT"* is a bonafide record of the project work done by

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Under our supervision and guidance, towards partial fulfillment of the requirements for the award of the Degree of BCA (Bachelor of Computer Applications) of the University of Kerala

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ABSTRACT

In recent years, people are suffering with many health issues due to lifestyle.

Obviously “health is wealth” we have heard it a thousand times. We already know fitness start with what we eat .Befit is a web based application designed to help individuals manage their fitness goals and track their progess towards achieving them.The system allows users to create personal profile ,set goals, and monitor their progess through various features such as workout,nutrition tracking and goal tracking,Befit also provide access tp library of exercises,workout plans, and nutrition guides,whisch can be customized to suit individual needs.With befit user can monitor their progress,and stay motivated to achieve their fitness goals.The system is user friendly and can be accessed from any device with an internet connection making it easy for users to stay on track no matter where they are.Befit is an effective tool for anyone looking to improve their fitness levels and lead a healthier lifestyle.

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LIST OF ABBREVATIONS

S. No.	Abbrevation	Full Form
1	Asst. Prof.	Assistant Professor
2	Prof.	Professor
3	HTML	HyperText Markup Langauge
4	CSS	Cascading Style Sheet
5	JS	JavaScript
6	PHP	PHP Hypertext Preprocessor
7	SQL	Structured Query Language
8	DFD	Data Flow Diagram

1. INTRODUCTION

1.1 PROJECT OVERVIEW

The BEFIT is a web based application intended for online users. The main objective of this application is to make it interactive and easy to use. This application is helpful in finding diet plans and calorie counting. The main motive of this project is to find the finding diet plans and calorie counting , dietician , neutrian very easily and time saving. Admin is the main authority of the project. The admin can add nutrian, dietician details. The user can view the exercise and diet plan details added by the dietician. He or she can also view food calories chart. The user can request for their own diet plan. The dietician can view the diet plan request send by the user. He or she can add the diet plan chart to the specified user. The user will get the diet chart. The dietician also add the food calorie details. User can add the payment details and send a message on neutrian and view its reply. The neutrian can view the messages and send a reply.

1.2 OBJECTIVES

1. Provide the users with an easy to use application that can help them manage software from external sources (websites, GitHub).
2. Provide the users a website with a list of available dietician, diet plan information.
3. Provide the functionality for users to give message for neutrian in the form of chat.
4. Give the users helpful documentation on how to use the application to manage diet plan.
5. Provide the users with a forum where they can interact with the neutiran

2. SYSTEM ANALYSIS

2.1 INTRODUCTION

A system is simply a set of components to accomplish an objective. Developing a new system, investigating into the operation and making possible changes in the existing system are called System Analysis. Analysis comprises a detailed study of the various operations performed by a system and their relationships within and outside the system. It is the process of gathering and interpreting facts, diagnosing problems and improving the system using the information obtained.

The objectives of System Analysis include the following

- Identifying the user's needs.
- Performing economic and technical analysis.
- Establishing cost and schedule constraints.

Here the system analyst should study a system with an eye on solving the problem using computers. It is an essential part for the development of a project by a system analyst. System analysis is for finding out what happens in the existing systems, deciding on what changes and new features are required and defining exactly what the proposed system must be. This process of system analysis is largely concerned with determining, developing and agreeing to the user's requirements. It provides prime opportunities to communicate well with the user and conceive a joint understanding of what a system should be doing, together with a view of the relative importance of the system facilities using interactive techniques.

To analyze a system, one has to study the system's work in detail. The system analyst has to understand the functioning and concept of the system in detail, before designing the appropriate computer based system that will meet all the requirements.

2.2 EXISTING SYSTEM

The web application is able to allow end users or requestors to sign up for an account. This requires a lot of hard work and time consumption to complete the task. This may include human errors. In the existing system, it is difficult to retrieve some particular information. Also, all the records are stored manually and it is a tedious task. As a result the security of these records is always a challenging task. In spite of all the efforts undertaken, the destruction of data may happen often. Hence, the computerization of the system of record maintenance is the only solution to reduce the shortcomings of the existing system

Disadvantages

- Chance of loosing information.
- Need a large volume of storage area.
- Reports could not be prepared in time.
- Use and maintenance of paper files, registers and other written matter was very difficult.
- Security of the system depended on the person dealing with it.
- Searching of information was time consuming.
- More man power required.
- Data verification and validation was manual.
- Redundancy of records may occur.

2.3 PROPOSED SYSTEM

This application , to book an dietician t need to visit users for their diet plan and food chart. As a result, most of the process consumes lots of time and man power. The software ‘BEFIT’ will allow speeding up the works of users. The main objective of this application is to make it interactive and easy to use. This application is helpful in finding diet plans and calorie counting. The main motive of this project is to find the finding diet plans and calorie counting , dietician , neutrian very easily and time saving.

Advantages

- Reduces time consumption.
- Avoids unauthorized access on data.
- Redundancy can be avoided.
- Generating food chart
- Generating diet plan chart
- Generate chat for neutrian .

2.4 FEASIBILITY STUDY

A preliminary investigation examines project feasibility. Feasibility study is a small scale system analysis. It is necessary as it evaluates the feasibility of a project at the earliest possible time.

Types of feasibility study:

- Technical feasibility
- Operational feasibility
- Functional feasibility
- Economical feasibility
- Social feasibility

Technical feasibility

It is the study of resource availability that may affect the ability to achieve an acceptable system. The system must be evaluated from the technical viewpoint first. The assessment of this feasibility must be based on an outline design of the system requirements in terms of input, output, program procedure, etc. Having identified the outline of the system, the investigation must go on to suggest the type of equipment, required method of developing the system, and the method of running the system. The outcome of the study was found to be positive.

Operational feasibility

Operational feasibility is the measure of how well a proposed system solves the problems, and takes advantage of the opportunities identified during scope definition and how it satisfies the requirements identified in the requirements analysis phase of system development. The outcome of the study was satisfactory.

Functional feasibility

Here we examine the functions of the system which may work properly when implemented. The proposed system has functions that can be implemented successfully. Hence the project was found to be functionally feasible.

Economical feasibility

It is considered as the final stage of most systems, it includes a broad range of concerns that include cost benefit analysis. The proposed system was found to be economically feasible as its requirements did not require huge expenditure, the group also had the knowledge to undertake this task without any difficulty.

Social feasibility

Social feasibility is a detailed study on how one interacts with others within a system or an organization. Social impact analysis is an exercise aimed at identifying and analyzing such impacts in order to understand the scale and reach of the project's social impacts. This project has a great impact on the adoption of Linux on PCs by making software more accessible and easy to access and maintain.

3. SYSTEM ENVIRONMENT

3.1 INTRODUCTION

A system environment refers to the collection of hardware, software, and data that make up a computer system. This includes the physical components of a computer such as the CPU, memory, storage devices, and input/output devices, as well as the software applications and operating system that run on it. The system environment also includes the network connections and protocols used to communicate with other devices and systems. Understanding the system environment is crucial for troubleshooting, optimizing performance, and developing software applications that work effectively in a particular system environment.

3.2 SYSTEM REQUIREMENTS

3.2.1 Website

Server requirements:

Hardware:

Processor: Any modern dual core processor or greater

RAM: 512MB or greater

Storage: 512MB of free space or greater

Software:

Operating system: Windows

Database: MySQL

Web server: Apache

Programming languages: PYTHON DJANGO

Client requirements:

Any device with an active internet connection and a browser with HTML5 support

3.3 TECHNOLOGIES USED

3.3.1 Programming languages

1. Python

Python is a dynamic, high level, free open source and interpreted programming language. It supports object-oriented programming as well as procedural oriented programming. In Python, we don't need to declare the type of variable because it is a dynamic typed language. For example, x=10, here x can be anything such as String, into etc.

Features in Python

There are many features in Python, some of which are discussed below –

1. Easy to code:

Python is high level programming language. Python is very easy to learn language as compared to other language like c, c#, java script, java etc. It is very easy to code in python language and anybody can learn python basic in few hours or days. It is also developer-friendly language.

2. Free and Open Source:

Python language is freely available at official website and you can download it. Since, it is open-source; this means that source code is also available to the public. So you can download it as, use it as well as share it.

3. Object-Oriented Language:

One of the key features of python is Object-Oriented programming. Python supports object oriented language and concepts of classes, objects encapsulation etc.

4. GUI Programming Support:

Graphical Users interfaces can be made using a module such as PyQt5, PyQt4, python or Tk in python.PyQt5 is the most popular option for creating graphical apps with Python.

5. High-Level Language:

Python is a high-level language. When we write programs in python, we do not need to remember the system architecture, nor do we need to manage the memory.

6. Extensible feature:

Python is an Extensible language. We can write some python code into c or c++ language and also we can compile that code in c/c++ language.

7. Python is Portable language:

Python language is also a portable language. For example, if we have python code for windows and if we want to run this code on other platform such as Linux, Unix and Mac then we do not need to change it, we can run this code on any platform.

8. Python is integrated language:

Python is also an integrated language because we can easily integrated python with other language like c, c++ etc.

9. Interpreted Language:

Python is an Interpreted Language. Because python code is executed line by line at a time. Like other language c, c++, java etc. there is no need to compile python code this makes it easier to debug our code. The source code of python is converted into an immediate form called byte code.

10. Large Standard Library:

Python has a large standard library which provides rich set of module and functions so you do not have to write your own code for every single thing. There are many libraries present in python for such as regular expressions, unit-testing, web browsers etc.

11. Dynamically Typed Language

Python is dynamically-typed language. That means the type (for example- int, double, long etc.) for a variable is decided at run time not in advance. Because of this feature we don’t need to specify the type of variable

.

Django

Django is a Python based free and open-source web framework, which follows the model-template-view (MTV) architectural pattern. Django's primary goal is to ease the creation of complex, database driven websites. The framework emphasizes reusability and plug ability of components, less code, low coupling, rapid development, and the principle of don't repeat yourself. Python is used throughout, even for settings files and data models. Django also provides an optional administrative create, read, update and delete interface that is generated dynamically through introspection and configured via admin models.

Despite having its own nomenclature, such as naming the callable objects generating the HTTP responses views, the core Django framework can be seen as an MVC architecture. It consists of an object-relational mapper (ORM) that mediates between data models (defined as Python classes) and a relational database (Model), a system for processing HTTP requests with a web templating system (View), and a regular-expression-based URL dispatcher (Controller).

Also included in the core framework are:

- A lightweight and standalone web server for development and testing.
- A form serialization and validation system that can translate between HTML forms and values suitable for storage in the database.
- A template system that utilizes the concept of inheritance borrowed from object-oriented programming.
- A caching framework that can use any of several cache methods
- Support for middleware classes that can intervene at various stages of request processing and carry out custom functions
- An internal dispatcher system that allows components of an application to communicate events to each other via pre-defined signal.
- An internationalization system, including translations of Django's own components into a variety of languages
- A serialization system that can produce and read XML and/or JSON representations of Django model instances
- A system for extending the capabilities of the template engine

- An interface to Python's built-in unit test framework
- Django REST framework is a powerful and flexible toolkit for building Web APIs

2. HTML

HTML, or Hypertext Markup Language, is a markup language used for creating web pages and applications. HTML provides the structure and content of a web page, defining headings, paragraphs, links, images, and other elements that make up the page. It is often assisted by technologies such as Cascading Style Sheets and scripting languages such as JavaScript. HTML is a cornerstone technology for web development and is essential for creating any kind of web page or application. HTML is easy to learn and understand, making it accessible to developers of all skill levels.

3. CSS

CSS, or Cascading Style Sheets, is a style sheet language used to describe the presentation and styling of HTML documents. CSS provides the means to control the layout, typography, colors, and other visual aspects of a web page, allowing developers to create visually appealing and engaging websites. CSS is an essential component of web development, working in conjunction with HTML to create a seamless and visually appealing user experience.

4. JavaScript

JavaScript is a popular programming language that is used to create interactive web applications and dynamic user interfaces. Developed by Netscape in 1995, JavaScript has become one of the most widely used programming languages in the world. JavaScript is a client-side scripting language, which means that it runs in the user's web browser and can be used to modify the content and behavior of a web page. JavaScript is an essential tool for web developers, enabling them to create engaging and interactive web applications that respond to user input and events. JavaScript is also used extensively in web development frameworks and libraries, such as React and Angular, which provide a range of pre-built components and tools for building complex web applications. The popularity of JavaScript has led to a large community of developers who contribute to its development, making it a powerful and versatile language that is constantly evolving to meet the needs of modern web development.

The project has made use of the following external JavaScript libraries:

a. Ajax

Ajax (Asynchronous JavaScript and XML) is a web development technique that allows data to be retrieved from a server without reloading the entire page. Ajax enables websites to be more responsive and interactive, as it allows for data to be loaded in the background while the user continues to interact with the page. This technique involves using a combination of JavaScript and XML (or JSON) to send and receive data between the client and server, without disrupting the user experience.

b. jQuery

jQuery is a fast, small, and feature-rich JavaScript library that simplifies HTML document traversal and manipulation, event handling, and AJAX. It is designed to make client-side scripting of HTML easier, and it is widely used for creating interactive web applications. jQuery is an open-source library that supports a variety of browsers, and its easy-to-use syntax makes it a popular choice for web developers.

3.3.2 Services/Tools

1. Apache Web Server

Apache Web Server is a popular open-source web server software that is used to host and serve web pages and other content over the internet. It is highly configurable, scalable and secure, and can run on various operating systems, including Linux, Windows, and macOS. Apache Web Server is widely used and popular because of its simplicity, flexibility, and extensive documentation. Apache Web Server is also popular for its support of multiple programming languages such as PHP, Perl, and Python, making it a great choice for developers who want to build dynamic web applications.

MySQL

Relational database systems are the most important database systems used in the software industry today. One of the most outstanding systems is MySQL.

The important aspects of SQL Server are:

- MySQL is easy to use.
- Embedded database library.
- Commit grouping, gathering multiple transactions from multiple connections together to increase the number of commits per second.

MySQL is a popular choice of database for use in web applications, and is a central component of the widely used LAMP open source web application software stack (and other "AMP" stacks). LAMP is an acronym for "Linux, Apache, MySQL, Perl/PHP/Python." Free-software-open source projects that require a full-featured database management system often use MySQL.

On all platforms except Windows, MySQL ships with no GUI tools to administer MySQL databases or manage data contained within the databases. Users may use the included command line tools, or install MySQL workbench via a separate download. Many third-party GUI tools are also available.

4.SYSTEM DESIGN

4.1 INTRODUCTION

System design is a crucial phase in the software development life cycle where a high-level conceptual design is created for the proposed system. It involves defining the architecture, components, modules, interfaces, and data for a system to satisfy specified requirements. The objective of system design is to translate the requirements gathered during the analysis phase into a detailed design that can be implemented by the developers. A well-designed system is essential for ensuring that the final product meets the user's expectations, is maintainable, scalable, and can be easily modified or updated in the future. A thorough system design is also important for estimating the development effort, cost, and resources required to build the system.

4.2 PROCESS DESIGN

Modules

1. Website
    a. User
        i. Dietician information page
            1. View all dieticians
            2. Send application for dietician
            3. View application status
            4. View diet chart
            5. View food chart
        ii. Available nutrition page
            1. View all nutrition
            2. Send message for nutrition
            3. View reply from nutrition
        iii. Payment
    b. Admin
        i. Website statistics page
        ii. Manage dietician
        iii. Manage nutrition
        iv. View users
        v. View diet report for users
        vi. View payment

c. Dietician
    i. View applications
    ii. Manage diet plan
    iii. Send report to admin
    iv. View food calories
    v. Add food chart
    vi. Add exercise

d. Nutrition
    i. View message
    ii. Send reply for message.

2. Forum
    a. User
        i. Create/View applications
            1. Create/View application and status
            2. View diet plan
            3. Add medical details
            4. Chat details

4.3 DATA FLOW DIAGRAM (DFD)

A data-flow diagram is a way of representing a flow of data through a process or a system (usually an information system). The DFD also provides information about the outputs and inputs of each entity and the process itself. A data-flow diagram has no control flow, there are no decision rules and no loops.

For each data flow, at least one of the endpoints (source and / or destination) must exist in a process. The refined representation of a process can be done in another data-flow diagram, which subdivides this process into sub-processes. The data-flow diagram is a tool that is part of structured analysis and data modeling.

The basic elements of Data Flow Diagram are :

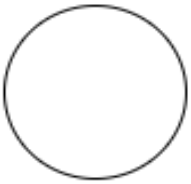
SYMBOL	DESCRIPTION
	**Process** A process denotes some amount of work being done on data
	**External Entity** This represents any outside agency, interacting with the system. It represents the source or destination of data
	Data Flow It represents flow of data between process or external entity and data store
	**Data Store** A data store is place for holding information within the system

Fig 4.4.1 Elements of Data Flow Diagram (DFD)

BEFIT

Context level

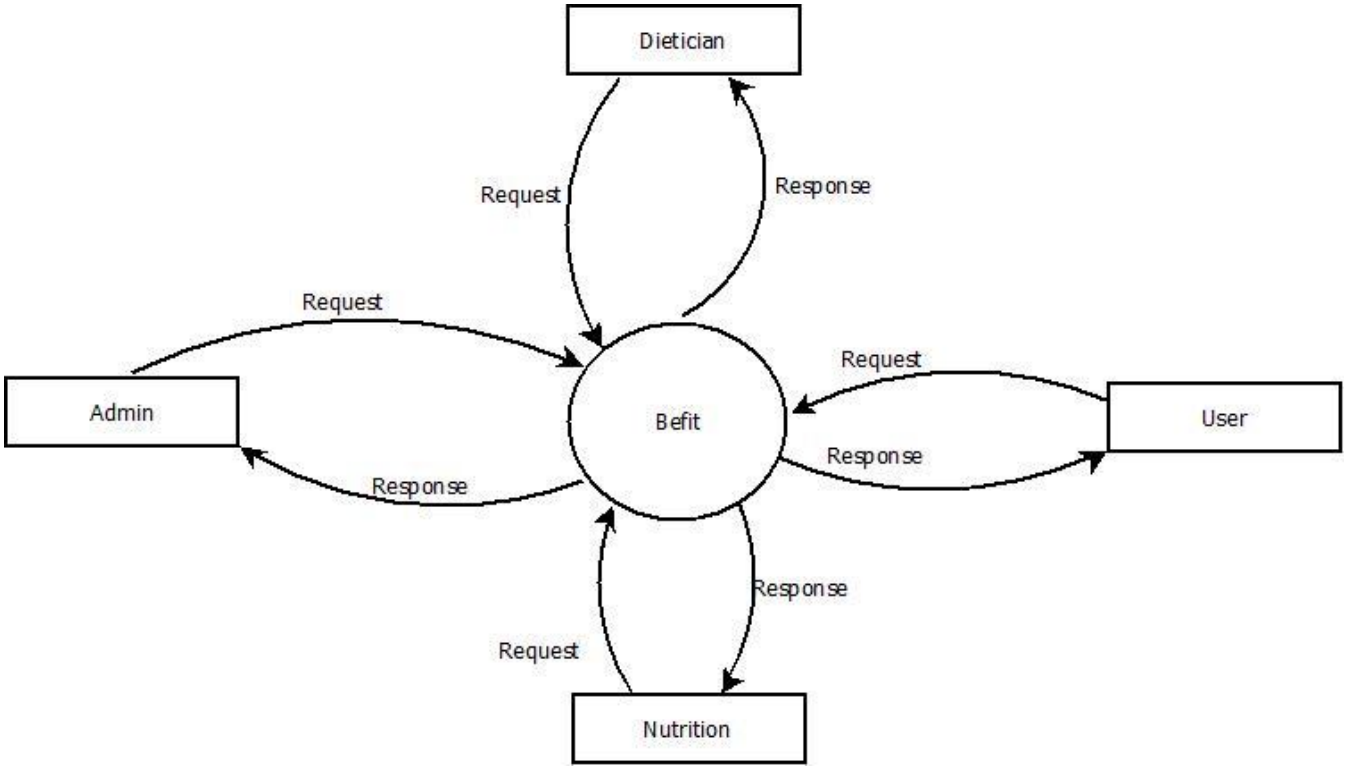


Fig 4.4.2 Context level Data Flow Diagram of BEFIT

Level 1

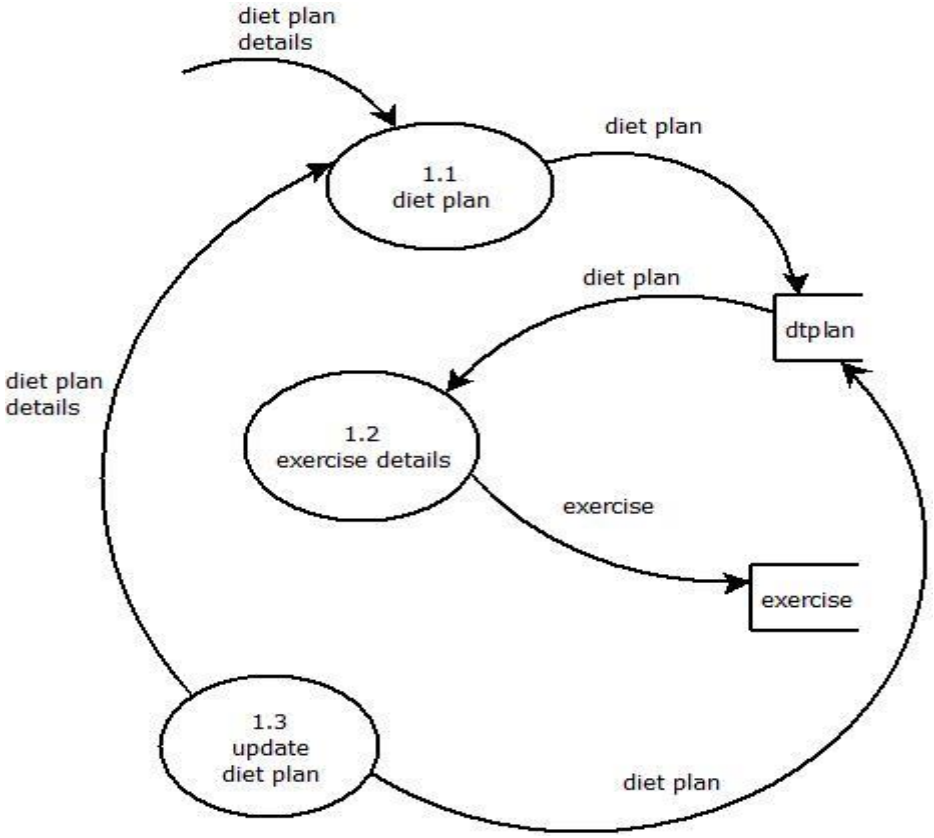


Fig 4.4.3 Level 1 Data Flow Diagram of BEFIT

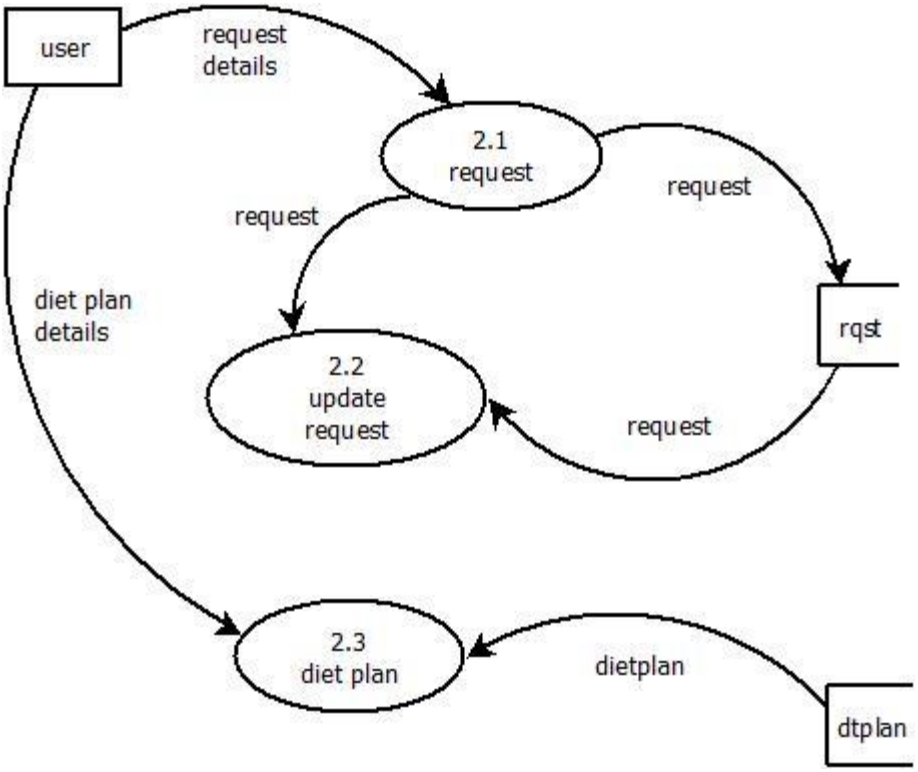


Fig 4.4.5 Level 1 Data Flow Diagram of Website - User

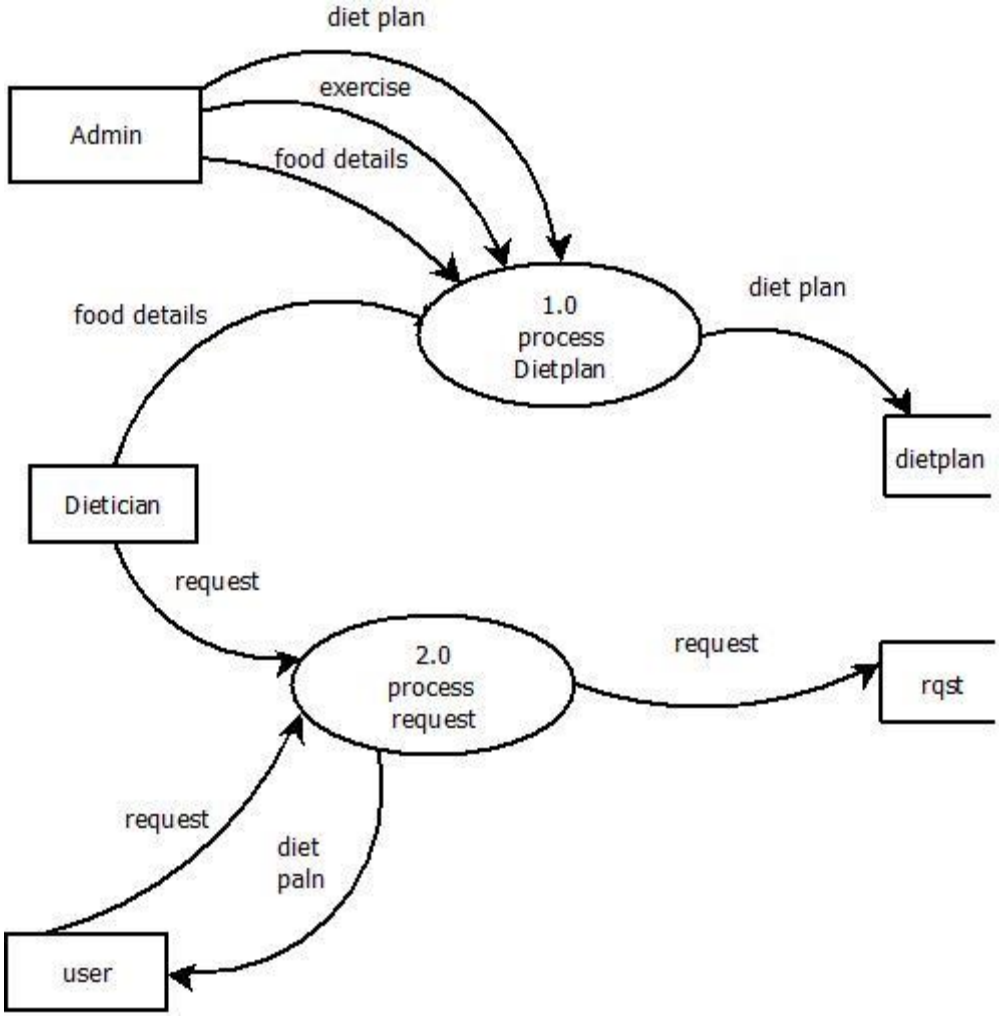


Fig 4.4.6 Level 2 Data Flow Diagram of Website - User

4.4 SYSTEM DATA DESIGN

System data design is an essential aspect of system development that involves the creation of a structured and organized data storage and retrieval system. The database and configuration design are critical components of the data design process, as they provide the foundation for storing and managing the system's data. The database design includes the creation of tables, relationships, and constraints to ensure that data is stored accurately and efficiently. Configuration design, on the other hand, involves defining the various settings and parameters that govern the behavior of the system. Together, these design elements enable the system to operate effectively and efficiently, ensuring that data is stored, retrieved, and utilized in a manner that supports the system's overall functionality.

Website

1. Table Name: video

Description: This table is used for exercise details.

Field name	Datatype	Constrain	Description
YID	Int	Primary key	Video id
YName	Varchar	Not null	video name
YTYPE	Varchar	Not null	video type
YDESC	Varchar	Not null	description
YPIC	varchar	Not null	Video

2. Table Name: Calorie
Description: This table is used for calorie details

Field name	Datatype	Constraints	Descriptions
Calid	Int	Primary key	Calorie id
fname	Varchar	Not null	Food name
amount	Varchar	Not null	Amount
calories	Varchar	Not null	Calories

2 Table Name:diet chart
Description: This table is used for diet details

Field name	Datatype	constraints	Descriptions
ID	int	Primary key	Calorie id
DTID	int	Foreign key	Dietician id
DAY	varchar	Not null	Day
PBF	varchar	Not null	Morning drink
BF	varchar	Not null	Breakfast
LU	varchar	Not null	Lunch
EV	varchar	Not null	Evening food
DN	varchar	Not null	Dinner
TNOT	varchar	Not null	total number of days
des	varchar	Not null	description

3 Table Name: Diet

Description: This table is used for diet details

Field name	Datatype	Constraints	Descriptions
DTID	Int	Primary key	Dietician id
SDATE	date	Not null	Starting date
EDATE	date	Not null	Ending date
NOD	int	Not null	Number of days
RQID	int	Foreign key	Rgistration id

5.Table Name:Exercise

Description: This table is used for exercise details

Field name	Datatype	Constraints	Descriptions
EXID	Int	Primary key	Exercise id
ENAME	varchar	Not null	Exercise name
ETYPE	varchar	Not null	Exercise type
EDESC	varchar	Not null	Exercise description
EVIDEO	varchar	Not null	Exercise video

6. name:feedback

Description: This table is used for feedback details

Field name	Datatype	Constraints	Descriptions
fid	Int	Primary key	feedback id
Fdk	varchar	Not null	Feedback
Dte	Date	Not null	Date
Uid	Int	Foreign key	User id

7 Table Name:Login

Description: This table is used for login details

Field name	Datatype	Constraints	Descriptions
uid	Int	Foreign key	Login id
uname	varchar	Not null	user name
upass	varchar	Not null	User password
utype	varchar	Not null	User type

8 Table Name:Registration

Description: This table is used for registration details

Field name	Datatype	Constraints	Descriptions
RID	Int	Primary key	Registration od
FIRST_NAME	varchar	Not null	First name
LAST_NAME	varchar	Not null	last name
ADDRESS	varchar	Not null	address
PHONE	varchar	Not null	Phone number
EMAIL	varchar	Not null	email
GENDER	varchar	Not null	Gender
DOB	varchar	Not null	Date of birth
PASSWORD	varchar	Not null	password

9 Table name: Request diet plan details

Description: This table is used for request diet plan details

Field name	Datatype	Constraints	Descriptions
rqid	Int	Primary key	Request id
cid	varchar	Foreign key	Dietician child id
wght	varchar	Not null	Weight
hght	varchar	Not null	Height
bmi	varchar	Not null	Bmi
res	varchar	Not null	request
status	varchar	Not null	Status
Uid	Int	Foreign key	User id
Uname	Varchar	Foreign key	User name
Dte	Date	Not null	Date
Did	Int	Foreign key	Dietician id

10 Table Name: medical

Description: This table is used for medical details details

Field name	Datatype	Constraints	Descriptions
RID	Int	Primary key	medical od
Rid	Int	Foreign key	Registration id
Name	varchar	Not null	Name
Age	Int	Not null	Age
Gnder	varchar	Not null	Gender
Height	varchar	Not null	Height
Weight	varchar	Not null	Weight

11 Table Name: dietician

Description: This table is used for dietician details

Field name	Datatype	Constraints	Descriptions
DID	Int	Primary key	Dietician id
Name	varchar	Not null	Name of dietician
Email	varchar	Not null	Email
Gender	varchar	Not null	Gender
PHONE	varchar	Not null	Phone number
EMAIL	varchar	Not null	email

12 Table Name: nutrition

Description: This table is used for nutrition details

Field name	Datatype	Constraints	Descriptions
RID	Int	Primary key	Nutrition id
Name	varchar	Not null	Name
Age	Int	Not null	Age
Details	varchar	Not null	Details
File	varchar	Not null	File
Email	varchar	Not null	email
Cno	Bigint	Not null	Contact number
Addr	varchar	Not null	Address

13 Table Name: chat

Description: This table is used for chat details

Field name	Datatype	Constraints	Descriptions
CID	Int	Primary key	Chat
Name	varchar	Foreign key	Name
Uid	Int	Foreign key	User id
Nid	Int	Foreign key	Nutrition id
Nname	Varchar	Foreign key	Nutrition name
Date	Date	Not null	Date
Msg	varchar	Not null	Message
Rdte	Date	Not null	Reply date
Rmsg	varchar	Not null	Reply messages

4.5 USER INTERFACE DESIGN

Website

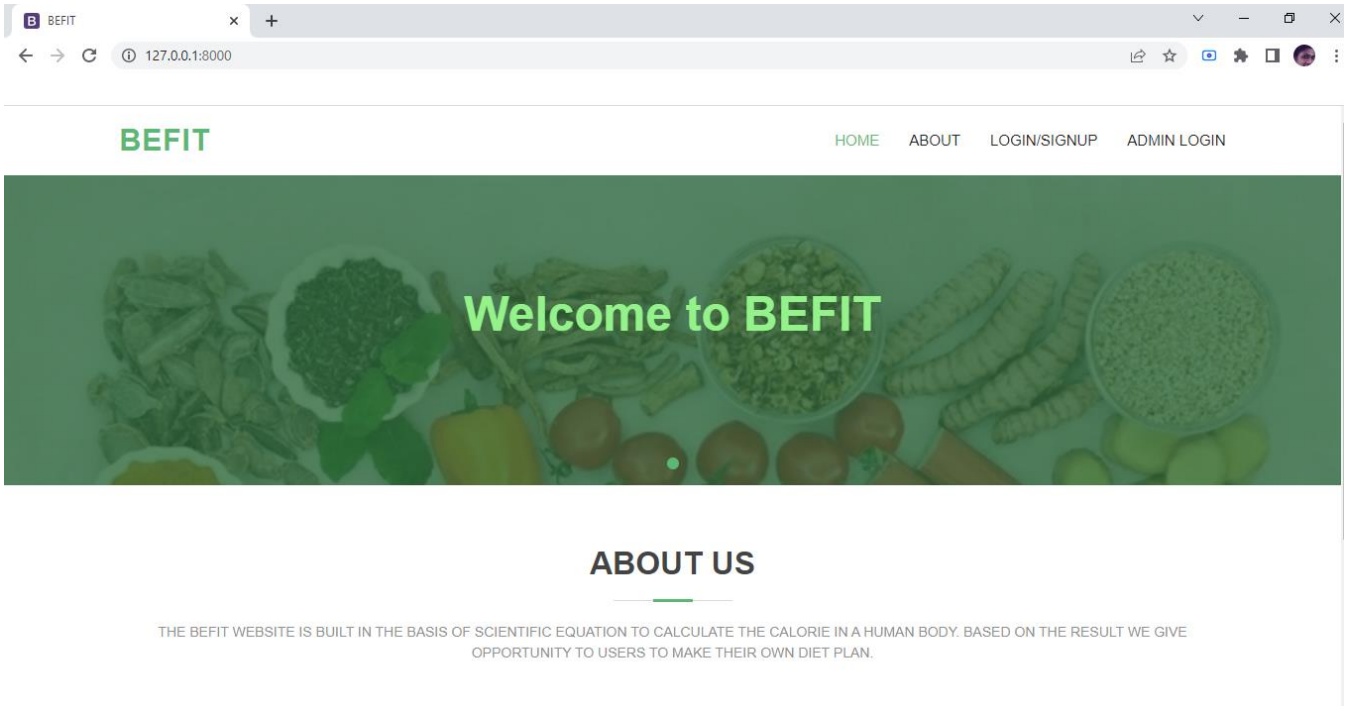


Fig 4.7.6 Screenshot of Website's home page

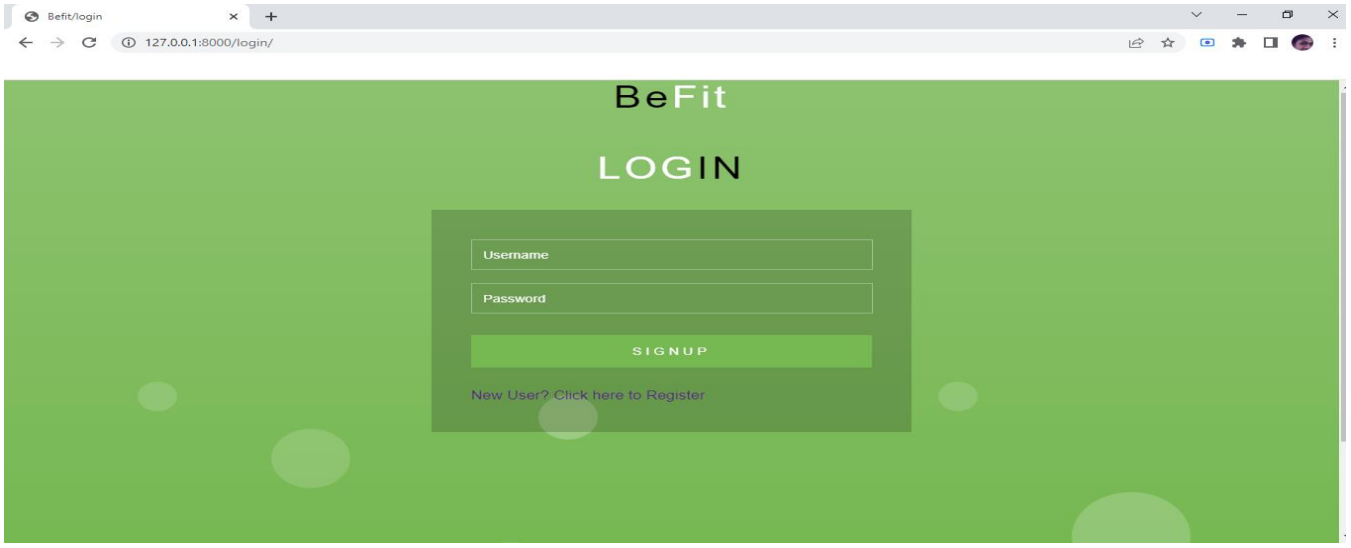


Fig 4.7.7 Screenshot of login page in website

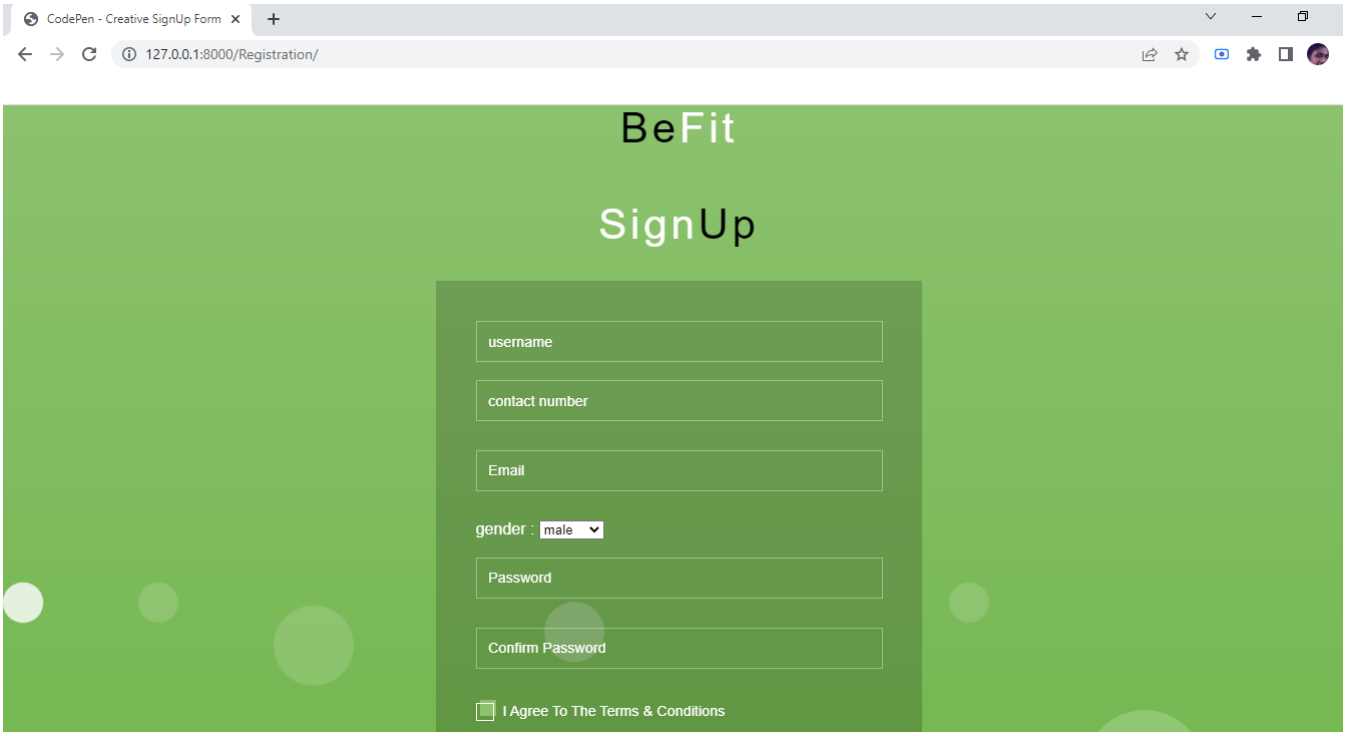


Fig 4.7.8 Screenshot of registration in website

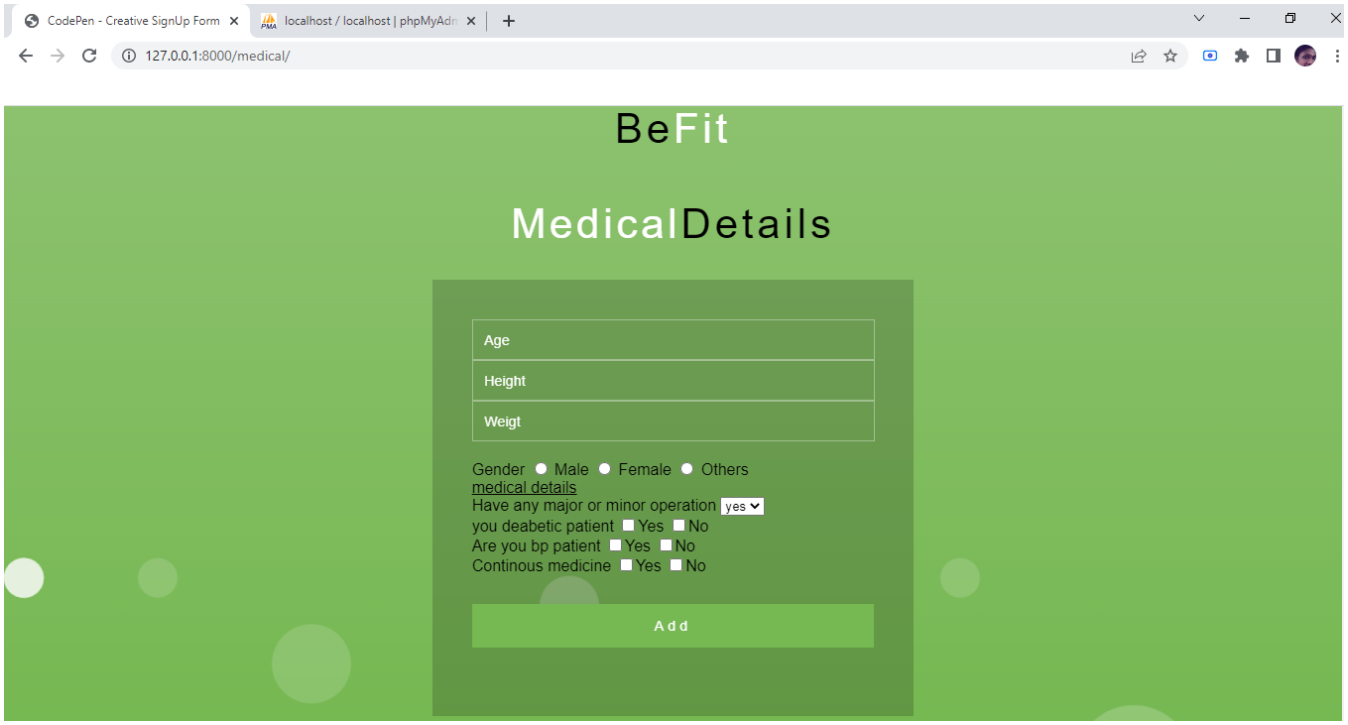


Fig 4.7.9 Screenshot of medical details in website

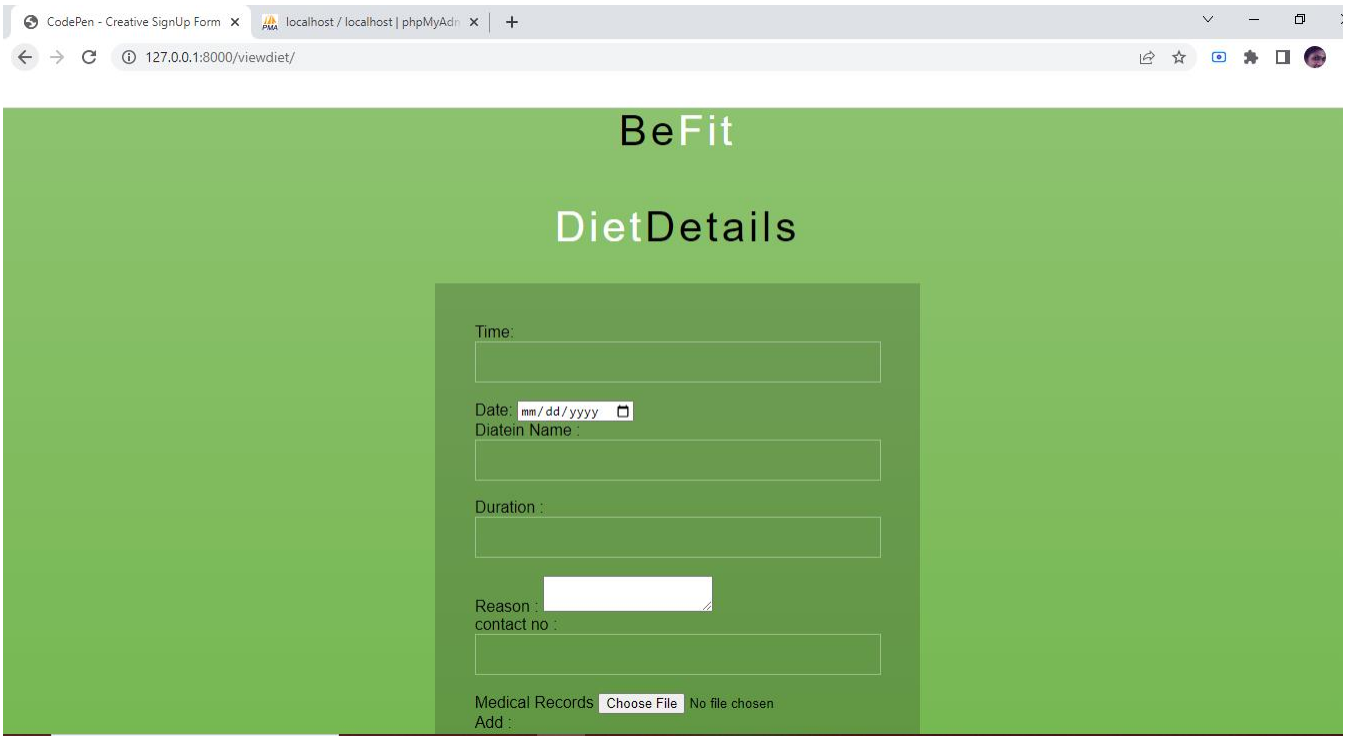


Fig 4.7.10 Screenshot of diet in website

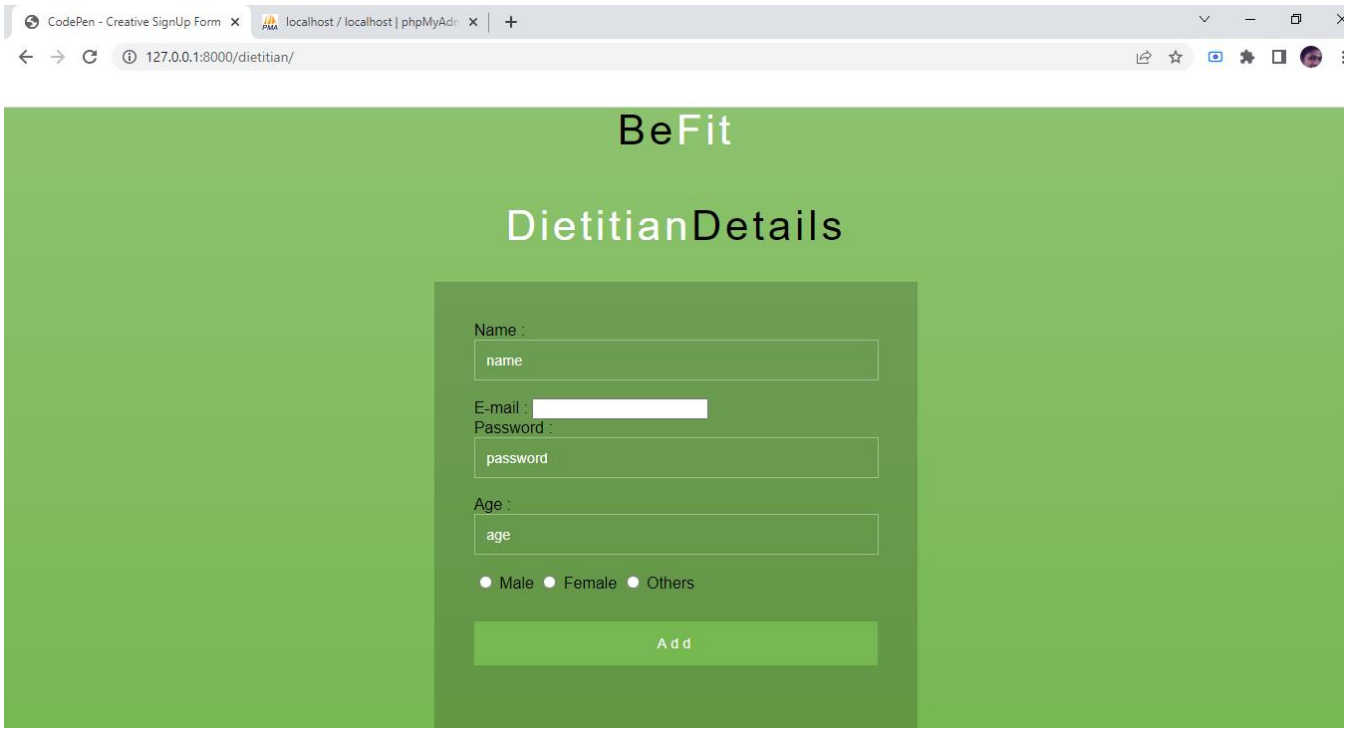


Fig 4.7.11 Screenshot of dietician form in website

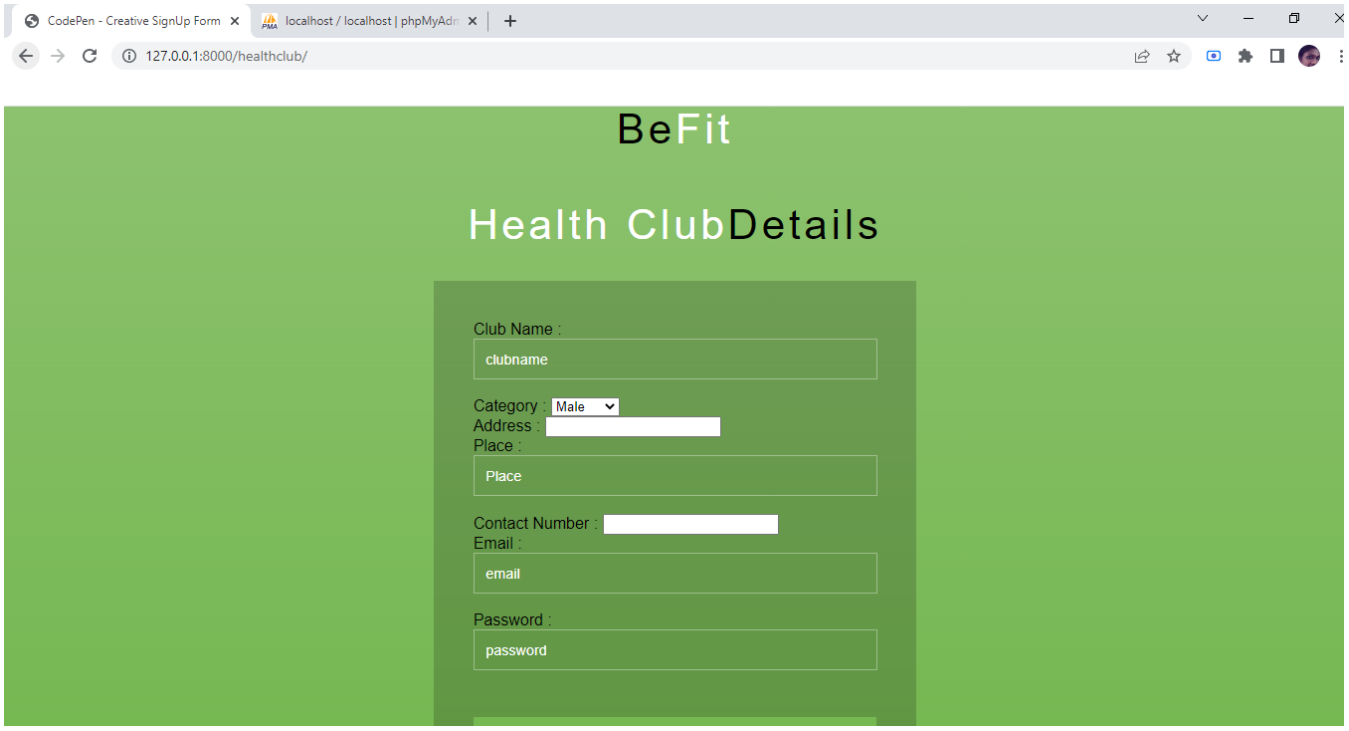


Fig 4.7.12 Screenshot of health club in Forum

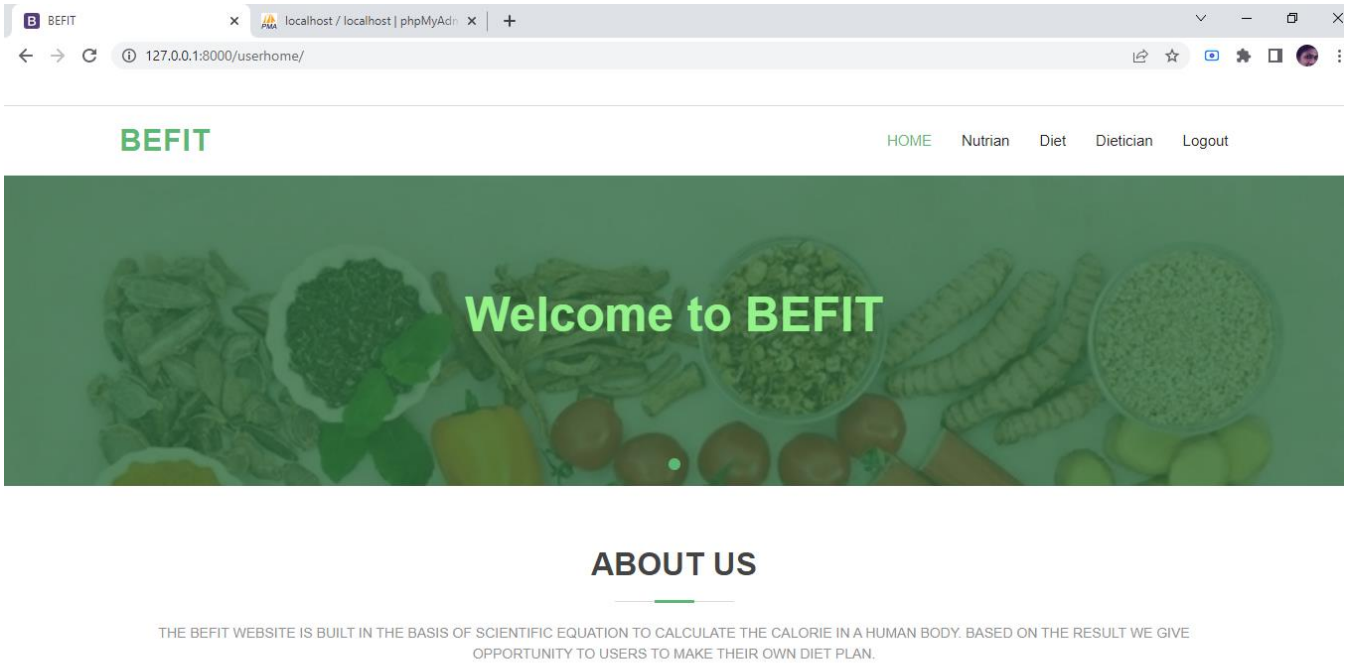


Fig 4.7.13 Screenshot of user home page

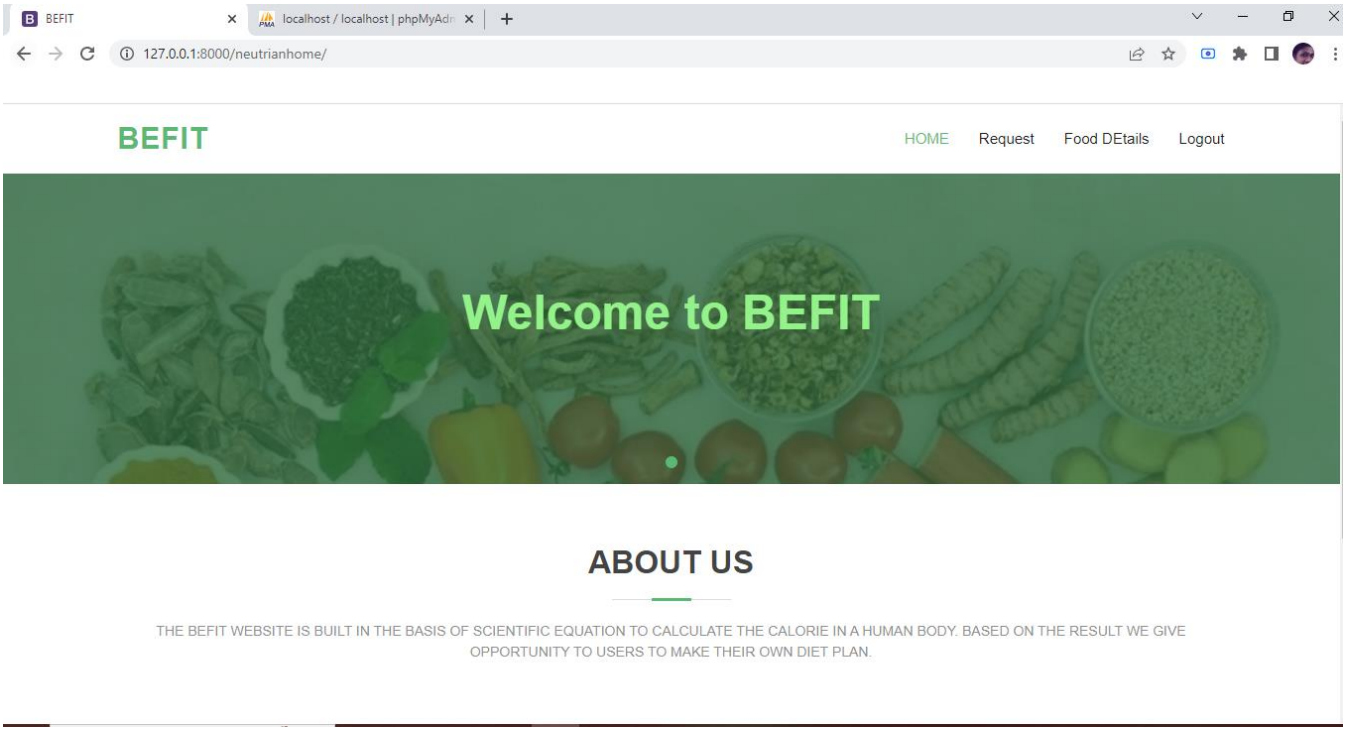


Fig 4.7.14 Screenshot of nutrition home page

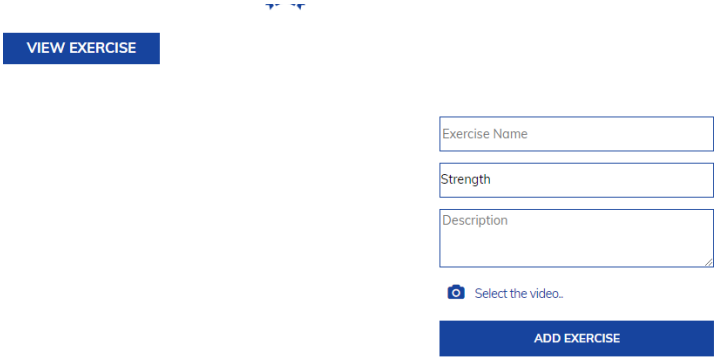


Fig 4.7.15 Screenshot of Exercise page

Fig 4.7.16 Screenshot of diet chart page

REQUEST ID	HEIGHT	WEIGHT	BODY MASS INDEX	RESULT	STATUS	ACTION	
5	134.0	60.0	33.4150144798	Obesity (Class 1)	Diet Plan Added		
6	182.0	62.0	18.7175461901	Normal Weight	Request Sent		Add Diet Plan
7	168.0	50.0	17.7154195011	Under Weight	Diet Plan Added		
8	168.0	50.0	17.7154195011	Under Weight	Request Sent		Add Diet Plan
10	168.0	98.0	34.7222222222	Obesity (Class 1)	Request Sent		Add Diet Plan

Fig 4.7.17 Screenshot of Diet plan request

REGISTERED USERS

ID	FIRST NAME	LAST NAME	EMAIL	PHONE	ADDRESS	GENDER	ACTION
2	Arjun	Sajan	arjunsajan2@gmail.com	9544203910	Kunathil House, Mechilpara, Trivandrum	Male	DELETE
7	achu ddd	raj	q@gmail.com	7894561234	PADINJAREKUDIYIL HOUSE, der, der der	Male	DELETE
8	Sneha	A	sneha@gmail.com	9878657657	Kochi	Female	DELETE

Fig 4.7.18 Screenshot of view users

ID	NAME	TYPE	DESCRIPTION	TUTORIAL	ACTION
15	qw	Strength	fdfggb		
16	nhbh	Strength	fvb		
17	gg	Strength	jhhj		

Fig 4.7.19 Screenshot of view exercise

5. CODING

5.1 INTRODUCTION

The coding phase in the software engineering paradigm is usually defined after the designing phase. In this phase, the developers or the coders have to implement the software design practically using any computer language(s) so that the software can be created and the user can use it. Now, coding is not just a matter of implementing the code in any suitable language as per the developer's choice. Some norms and standards are set for this purpose which is known as the coding standards.

In this project we have used GoLang as the programming language for the CLI application while HTML, PHP and JS have been used for the website. We Have adhered to the coding standards and ensured that good programming practices have been followed and there is a uniform appearance of the code.

5.2 CODING SNIPPETS

Code for view.py

```
from django.shortcuts import render
from django.db import connection
from django.http import HttpResponse
from django.shortcuts import HttpResponseRedirect,render_to_response,redirect
# def index(request):
#     return render(request,'index.html')

def login(request):
    return render(request,'login.html')

def dietitian(request):
    return render(request,'dietitian.html')

def healthclub(request):
    return render(request,'healthclub.html')

def medical(request):
    return render(request,'medical.html')
```

```
def nutrition(request):
    return render(request,'nutrition.html')

def viewdieti(request):
    return render(request,'viewdieti.html')
def Registration(request):
    return render(request,'Registration.html')
def Registrationaction(request):
    cursor=connection.cursor()
    un=request.GET['username']
    c=request.GET['contact']
    e=request.GET['email']
    g=request.GET['gender']
    p=request.GET['password']
    cp=request.GET['conpass']
    sql="insert into registration(name,email,contactno,gender,password,conpass)values('%s','%s','%s','%s','%s','%s')"%(un,e,c,g,p,cp)
    cursor.execute(sql)
    return render(request,'Registration.html')
def medicalaction(request):
    cursor=connection.cursor()
    a=request.GET['age']
    h=request.GET['height']
    w=request.GET['weight']
    g=request.GET['gender']
    op=request.GET['yes-no']
    db=request.GET['deabetic']
    bp=request.GET['bp']
    mc=request.GET['medical']
    sql="insert into medical(age,height,weight,gender,operation,deabetic,bp,medicalcontinous)values('%s','%s','%s','%s','%s','%s','%s','%s')"%(a,h,w,g,op,db,bp,mc)
```

```
    cursor.execute(sql)
    return render(request,'medical.html')
def nutritionaction(request):
    cursor=connection.cursor()
    n=request.GET['name']
    a=request.GET['age']
    d=request.GET['details']
    f=request.GET['file']
    e=request.GET['email']
    c=request.GET['contact']
    ad=request.GET['address']
    p=request.GET['password']
    sql="insert into nutrition(name,age,details,file,email,contactno,address,password)values('%s','%s','%s','%s','%s','%s','%s','%s')"%(n,a,d,f,e,c,ad,p)
    cursor.execute(sql)
    return render(request,'nutrition.html')
def dietitianaction(request):
    cursor=connection.cursor()
    e=request.GET['email']
    p=request.GET['password']
    a=request.GET['age']
    g=request.GET['gender']
    n=request.GET['name']
    sql="insert into dietitian(email,password,age,gender,name)values('%s','%s','%s','%s','%s')"%(e,p,a,g,n)
    cursor.execute(sql)
    return render(request,'dietitian.html')
def healthclub(request):
    return render(request,'healthclub.html')
def healthclubaction(request):
    cursor=connection.cursor()
    cn=request.GET['name']
    ad=request.GET['address']
```

```
    pl=request.GET['place']
    ca=request.GET['category']
    cno=request.GET['contact']
    em=request.GET['email']
    pas=request.GET['password']
    sql="insert into club(name,address,place,category,contactno,email,password)values('%s','%s','%s','%s','%s','%s','%s')"%(cn,ad,pl,ca,cno,em,pas)
    cursor.execute(sql)
    return render(request,'healthclub.html')
def viewdiet(request):
    return render(request,'viewdiet.html')
def viewdietaction(request):
    cursor=connection.cursor()
    t=request.GET['time']
    d=request.GET['date']
    dn=request.GET['name']
    dur=request.GET['duration']
    re=request.GET['reason']
    c=request.GET['contact']
    mr=request.GET['medical']
    sql="insert into viewdietitian(time,date,name,duration,reason,contact,medicalrecord)values('%s','%s','%s','%s','%s','%s','%s')"%(t,d,dn,dur,re,c,mr)
    cursor.execute(sql)
    return render(request,'viewdiet.html')
```

6. SYSTEM TESTING

6.1 INTRODUCTION

System testing is an important part of the software development life cycle that evaluates the system's compliance with its specified requirements. This testing process is conducted on a complete and integrated system to verify its functionality and performance. The objective of system testing is to detect any defects in the system, including any mismatches in the software and hardware components, and ensure that it meets the user's requirements. It also verifies that the system is ready for deployment and is capable of handling real-world scenarios. System testing can be performed manually or using automated testing tools and techniques to ensure the system is reliable, scalable, and secure.

6.1.1 Unit Testing

Unit testing is a software testing method in which individual units or components of a software application are tested in isolation. The purpose of unit testing is to ensure that each individual unit is functioning as expected and that there are no defects or errors. This method involves writing test cases for each unit, running those test cases, and analyzing the results. Unit testing is typically automated, and it is performed by developers during the development process. By detecting and correcting defects early in the development cycle, unit testing helps to reduce the overall cost of software development and improve the quality of the final product.

6.1.2 Integration Testing

Integration testing is a software testing method in which individual units or components of a software application are combined and tested as a group. The purpose of integration testing is to ensure that the different units or components of the software work together as expected and that there are no defects or errors introduced by the integration. This method involves testing the interactions between different units, verifying the data flow between them, and validating the overall behavior of the software application.

Integration testing can be performed manually or automated, and it is typically performed by developers or testers during the development cycle.

6.1.3 Functional Testing

Functional testing is a software testing method in which the functionality of a software application is tested against the functional requirements or specifications. The purpose of functional testing is to ensure that the software application is performing as expected and that it meets the functional requirements of the end-users. This method involves testing the software application through various scenarios, verifying the input and output data, and analyzing the results. Functional testing can be performed manually or automated, and it is typically performed by testers during the testing phase of the software development life cycle.

6.1.4 Regression Testing

Regression testing is a software testing method in which the software application is retested after a change or modification has been made to the software. The purpose of regression testing is to ensure that the change or modification has not introduced any new defects or errors into the software application. This method involves running a suite of previously executed test cases on the modified software application, verifying the results, and comparing them with the results from the previous version of the software. Regression testing can be performed manually or automated, and it is typically performed by testers during the testing phase of the software development life cycle.

6.1.5 Performance Testing

Performance testing is a software testing method in which the performance of a software application is tested under different load conditions. The purpose of performance testing is to ensure that the software application can handle the expected load and that it meets the performance requirements of the end-users. This method involves simulating real-world scenarios, measuring the response time of the software application, and analyzing the results. Performance testing can be performed manually or automated, and it is typically performed by testers during the testing phase of the software development life cycle.

6.1.6 Acceptance Testing

Acceptance testing is a software testing method in which the software application is tested against the acceptance criteria or requirements specified by the end-users. The purpose of acceptance testing is to ensure that the software application meets the expectations of the end-users and that it is ready for release. This method involves testing the software application through various scenarios, verifying the input and output data, and analyzing the results. Acceptance testing can be performed manually or automated, and it is typically performed by the end-users or a representative during the acceptance phase of the software development life cycle.

6.2 WEBSITE

The following methods of testing were carried out to ensure reliability of the website

6.2.1 Functional testing

Functional testing is a type of software testing that verifies the behavior of a software application against the functional requirements or specifications. The purpose of functional testing is to ensure that the software application performs all the functions as per the requirement and there are no defects or errors in the functionalities. It involves identifying the functional requirements, creating test cases, executing them, and comparing the actual results with the expected results. Functional testing can be done manually or automated, and it is usually performed by testers during the testing phase of the software development life cycle.

6.2.2 Performance testing

Performance testing is a type of software testing that checks how well the software application performs under different load conditions. The purpose of performance testing is to identify the performance issues and bottlenecks in the software application, and to ensure that the application meets the performance requirements of the end-users. It involves simulating the real-world scenarios, measuring the response time of the software application, and analyzing the results. Performance testing can be done manually or

automated, and it is usually performed by testers during the testing phase of the software development life cycle.

6.2.3 Security testing

Security testing is a type of software testing that checks the security of the software application. The purpose of security testing is to identify the vulnerabilities and loopholes in the software application, and to ensure that the application is secure and free from any potential threats. It involves identifying the security requirements, creating test cases, executing them, and analyzing the results. Security testing can be done manually or automated, and it is usually performed by testers during the testing phase of the software development life cycle.

6.2.4 Usability testing

Usability testing is a type of software testing that evaluates the ease of use of the software application. The purpose of usability testing is to identify the issues and difficulties faced by the end-users while using the software application, and to ensure that the application is user-friendly and easy to use. It involves identifying the usability requirements, creating test cases, executing them, and analyzing the results. Usability testing can be done manually or automated, and it is usually performed by testers during the testing phase of the software development life cycle.

6.2.5 Compatibility testing

Compatibility testing is a type of software testing that checks the compatibility of the software application with different hardware, software, and operating systems. The purpose of compatibility testing is to ensure that the software application works smoothly on different platforms, and to identify any compatibility issues. It involves identifying the compatibility requirements, creating test cases, executing them on different platforms, and analyzing the results. Compatibility testing can be done manually or automated, and it is usually performed by testers during the testing phase of the software development life cycle.

6.2.6 Regression testing

Regression testing is a type of software testing that verifies that the changes made in the software application have not affected the existing functionalities. The purpose of regression testing is to ensure that the changes made in the software application have not introduced any new defects or errors, and to ensure that the software application is still working as expected. It involves identifying the changes made, creating test cases, executing them, and analyzing the results. Regression testing can be done manually or automated, and it is usually performed by testers during the testing phase of the software development life cycle.

6.2.7 User acceptance testing

User acceptance testing is a type of software testing that checks whether the software application meets the expectations of the end-users. The purpose of user acceptance testing is to ensure that the software application is ready for release and that it meets the requirements of the end-users. It involves creating test cases based on the user requirements, executing them, and analyzing the results. User acceptance testing is usually performed by the end-users or the representatives of the end-users during the acceptance phase of the software development life cycle.

7. SYSTEM IMPLEMENTATION

7.1 INTRODUCTION

System implementation is the process of putting a software system into action or making it operational. It involves a series of activities that are necessary for deploying the system and making it ready for use by the end-users. This includes the installation and configuration of hardware and software components, database setup, and integration with other systems. The implementation process also involves testing the system to ensure it meets the requirements and specifications outlined during the design and development phases. The goal of system implementation is to ensure a smooth and seamless transition from the old system to the new one, minimizing disruption to business operations and maximizing the benefits of the new system.

7.2 WEBSITE

Implementation is an activity that is contained throughout the development phase. It is the process of bringing a developed system into operational use and turning it over to the user. The new system and its components are to be tested in a structured and planned manner. A successful system should be delivered and users should have the confidence that the system would work efficiently and effectively. The more complex the system being implemented the more involved will be the system analysis and design effort required for implementation. Implementation is the stage of the system when the theoretical design is turned into working system. The implementation involves careful planning investigation of the current system and its constraints on implementing, design of methods to achieve the changeover, training of user over procedure and evaluation change over method. There are three types of implementation:

Maintenance corresponds to restoring something to original conditions, covering a wide range of activities including correcting codes and design errors and updating user support. Maintenance is performed most often to improve the existing software rather than to a crisis or risk failure. The system would fail if not properly maintained. The software maintenance is an important one in the software development because we have to spend more efforts for maintenance. Software maintenance is to improve the software quality according to the requirements. After a system is successfully implemented, it should be maintained in a proper manner. The need for system maintenance is to make the system adaptable to the changes in the system environment. There may be social, economical or technical changes, which affect system being implemented.

8. CONCLUSION

All the requirements and specifications was followed as for as possible and few additional features were added that can make the application more user friendly and less complicated. The project was successfully completed within the time span allotted. All the modules are tested separately and put together to form the main system. Finally the system is tested with real data and it worked successfully. Thus the system has fulfilled the entire objective defined.

9. FUTURE ENHANCEMENT

Any system which has been in use for a number of years gradually decays and become less effective because of change in environment to which it has to be adapted. For the time being it is possible to overcome problems by amendments and minor modifications to acknowledge the need of fundamental changes.

Nothing is perfect; in future we would like our prototype to be more perfect by including future improvements. The proposed system is very easy to handle so everyone can access.

- The entire process of the firm can be computerized.
- More number of item details can be inserted into the database.
- It can be integrated with the web for universal access.

- Upgrading the performance .This system is now implemented at the client machine only but as a future enhancement we can modify the system in such a way to make it work on a client- server network. The system can be even more enhanced by making it an internet based system.
- The efficiency of the developed system can be improved by modification. Today most of the services are based on web services. This system can also be connected online.

10. BIBLIOGRAPHY

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