Web-based mental coaching application

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2020

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A dissertation submitted for the Degree of Master of Information Technology

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2020

UCSC

Abstract

Currently, the Sri Lankan suicide rate has rapidly increased. Therefore, people need consultation for their problems. But due to busyness of people, they find it hard to reach for consultation. Thus there is a requirement from coaches to implement a web-based mental coaching application. The major objectives of this application are to save time and effort of the clients of coaches and increase efficiency and effectiveness of the consultation process. This system will help with easy document maintenance, situation analysis of the patient, provision of continuous mental training, and continuous measurement of progress of the exercises recommended. On subscription basis, coaches are able to give their service to clients. A person who has subscribed to the system under main coach known as a sub coach. Sub coaches are allowed to provide their services accessing the life wheel, burn down chart, and audio content management. Moreover, they can assign online tasks to the clients and monitor them via system. The system is implemented as a web site under client-server architecture. User interfaces run on the client-side under two-tier client-server design along with the server. The system solution implementation commenced with system planning using ER graph, development of Use case graph and system architecture diagram. Execution was done on Visual Studio using the scripting languages of PHP, JavaScript, HTML, CSS, Bootstrap and Laravel as the framework where MYSQL language was used for database management. The system ensures accuracy and reliability while checking whether the requirement has been met sufficiently while meeting its necessities at a better level.

Declaration

The thesis is my original work and has not been submitted previously for a degree at this or any other university/institute.

To the best of my knowledge, it does not contain any material published or written by another person, except as acknowledged in the text.

Student Name: T. Danoja Madushani

Registration Number: 2016/MIT/040

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_____

Signature: Date:

This is to certify that this thesis is based on the work of Ms. Danoja Madushani under my supervision. The thesis has been prepared according to the format stipulated and is of an acceptable standard.

Certified by:

Supervisor Name: Ms. **M.W.A.C.R Wijesinghe**

_____

Signature: Date:

Acknowledgment

I would be pleased to express my heartfelt gratitude and appreciation to my project supervisor, Ms. M.W.A.C.R Wijesinghe who has been tremendously supporting me throughout the project with her constant avail and expert supervision.

I cannot express enough thanks to Mr. Sampath Gamage for sanctioning development of such a unique system and tremendous support given since the initial stage of this work.

The completion of this project could have not been successful if without the fortification of my dearest family. I need to share the success of this project with my spouse, father, mother, and brother who were exceptionally supportive at each benchmark of the project.

Contents

Table of Figures

List of Tables

Chapter 1

1. Introduction

1.1   Chapter Overview

The primary chapter of this thesis starts with the motivation and the establishment of the study and followed by the extended goals and scope of the project. The chapter concludes with the organization of the paper.

1.2   Motivation

Currently, Sri Lankan suicide rate has rapidly increased. According to the estimate of world health organization, around 800,000 people die each year by suicide [11]. These deaths happen due to several reasons, including economic problems, family problems, fake information spread through social media, misuse of technology, and depression. It is important to have a facility to receive mental treatment as well when required. Because many people can overcome mental health issues with the guidance of mental health professionals. Coaches play a vital role to revive their patients' lives to normal status. But with the current situation a patient does not get many opportunities to meet a coaches for consultation when they want within a short period. Contrary most of the time, patient has to wait long periods to make an appointment. If the patient and coaches have distance difficulty to travel regularly, the patient does not have a proper way to be monitored on their progress and the current status. At the same time, coaches also face some difficulties with their document maintenance, patient situation analysis, and continuous measurement of progress of the exercises provided to the patient, and providing continuous mental training. This system facilitates in addressing the above situations.

This system creates a web application that will cater to the main requirement of facilitating mental training programs to the required clients. The users of the web application can make an appointment through this application. As the next step they should make the first visit to the coach. After the first visit users can get mental training services via the web application using the contents uploaded by the coach. The contents will be audio clips

uploaded by the counsellor using content management system. Multiple coaches can manage each of their patients separately but concurrently.

The inter-connection between patient and the coacher is exceptionally facilitated via this portal. The credibility and confidentiality of each individual's information has been ensured while exceptions and practical situations have been managed well within.

This system move forward the quality and administration of the main coach, administration of sub coaches, administration of clients, and administration of sub coaches' payment process. This system empowers to create a coaching preparation and revise its adequacy and quality of work.

1.3   Aim and Objectives

1.3.1   Aim of the Study

The aim of this project is to develop an information system to manage the counsellors and clients efficiently to provide mental coaching services.

1.3.2   Objectives

The objectives of the system are as follows:

1. To develop a web based system to counsellors and clients for mental coaching process.
    -   There are two separate web-based applications for counsellors and clients. Those two applications are interconnected. The main coach is able to register sub coaches, and the main coach and sub coach able to provide their services to their clients through this system. The clients do not need to visit their counsellors every time. They are able to communicate this via applications. Therefore, these online applications are more economical for both coaches and clients. Thus, using this system enables to break geographical obstruction. Therefore this is more beneficial for the client and the coaches. This will offer lesser time consumption and lesser exertion in participation by both parties towards mental preparing program.

2. The coaching system giving nonstop mental preparing.

   The coacher is able to register their clients and to store client's details in the systems. Based on client's information, coaches are able to practice the clients with continuous mental exercising programs and clients can continue their exercises without any obstacles.

3. To create a web-based framework that will offer assistance in simple report keeping and understanding circumstantial investigation.

   The systemized reports motivate the coaches and clients to minimize paper handling. The coaches can easily analyze data, trace progress, and recognize the trends using system reports. These features would encourage in making accurate decisions and line up performance according to the general goals.

1.4 Scope of the project

In order to refer to the prerequisites of the coaches, the coaching management system has been recognized as one of the vital applications within the mental coaching field. The following functions encompasses the scope of the project.

1.4.1 Functions within the scope of the system

1. Web-based administration portal for the main coach
2. Web Admin portal for Sub Coaches
3. Web-based application for clients of coaches
4. Process of Life wheel
5. Sub coach package subscription

1.4.2 Functions out of the scope of the system

1. The system does not facilitate to evaluate the client's tasks automatically.
2. The system does not facilitate the sub coach performance evaluation.

1.5   Structure of the dissertation

The rest of the report organized as follows

Chapter 2 – Background

Depicts the existing systems and other approaches to understanding the comparable issues.

Chapter 3 – Methodology

Depicts the advances and the strategies that adjust to illuminate the issues were examined here in detail by clearly indicating out how and why these methods and methods are suitable to unravel the issue.

Chapter 4 – Evaluation

Depicts how the evaluation has been done and the details on system testing execution of the solution.

Chapter 5 – Conclusion

Depicts the conclusions of general accomplishments quantitatively and examines the issues experienced, confinements of the created arrangement, and a few advance work.

Chapter 2

2. Background

2.1   Chapter Overview

This chapter outlines a brief descriptive business background and a diagram of the current framework and disadvantages. In this audit, describes the useful and nonfunctional necessities of the proposed system.

2.2   Business Background

The coaching process is an organized discussion among the coach and the client. The coach is a well-trained professional person. The coach helps their client to identify the reason for their difficulties. After that, they help their client overcome those difficulties. Figure 2.1 represent the steps in the coaching process.
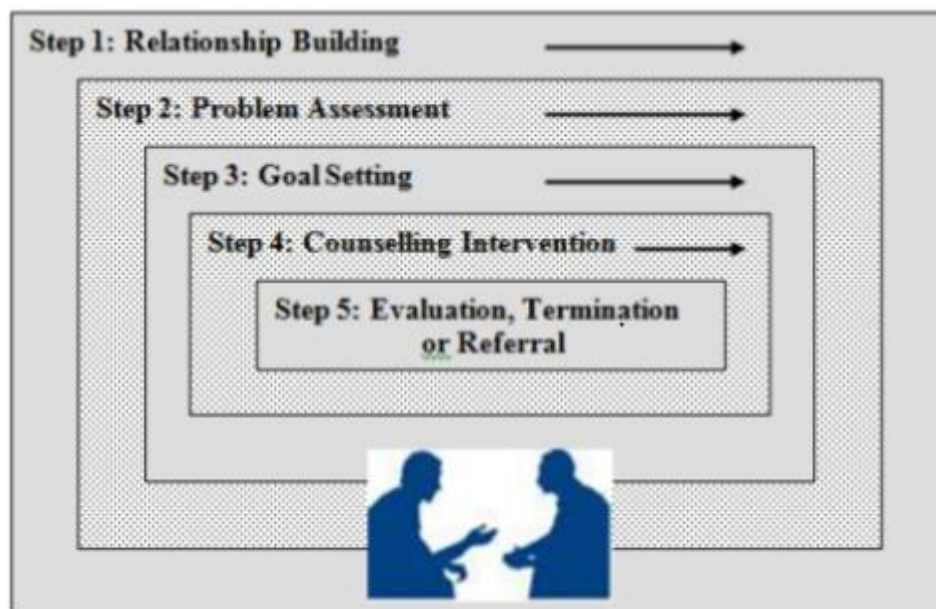

Figure 2.1 Steps in the coaching process

As the first step coach should organize an environment to build a good relationship with the client. The first interview with the client is very important. Because it is the one making the inferences about the coach and the coaching situations. After establishing the

relationship, should do the problem assessment. Upon problem, the assessment coach needs to collect information based on the client's life situation and reasons for seeking coaching. Then that information is classified according to the usefulness of the information. As the next step, coach sets the goals for clients. Those goals are the outcome that the client should achieve at the end of the coaching process. When setting the goals, those should be measurable, feasible, stated in positive terms that emphasize the progress, etc. After setting goals, the coach maintains connection with the client until they finish their task. Within the process, they provide proper guidance and correct path to the client. Upon achieving the goal, coach measures the progress of the client. If the client is in a good position, coach can stop the coaching for that client. If not, coach continues the coaching process. Sometimes, if the client does not satisfy the process, the client will terminate the service.

2.3 Overview of the current system and downsides

2.3.1 Functionalities in the current system

> Client makes an appointment

The client can make an appointment with the coach over the phone.

> Meet the coach and discuss

Then the client will meet the coach and build the relationship between them.

> Open a file for client

If the client decides to work with the coach, then the coach collects information about the client and opens the file to the patient.

> Assign tasks to client

Based on the collected information about the client, assign the task to the client. When the task creation is done, the coach uses the manual process of the life wheel.

The coach provides created task for the client. Then the client should complete those tasks according to the advice of the coach. Sometimes when continuing the task client can have some issues. To clarify those issues the client should contact the coach over the phone or should visit.

➢ Reviewing the assigned task

After finishing the task, the client should meet the coach to review the progress. Then comparing the client's progress with his or her previous status, the coach will decide on client's treatment continuity.

➢ Stop treatments

When the client is in a good position coach will stop treatments. If not coach advice to continue the treatments. If the client needs to continue the treatments, the coach will decide on the task considering his or her progress. Either coach will assign a new task or advice to continue previous tasks.

The flowchart is a visualization of current coaching processes. Figure 2.2 represents the flow of the current coaching process.
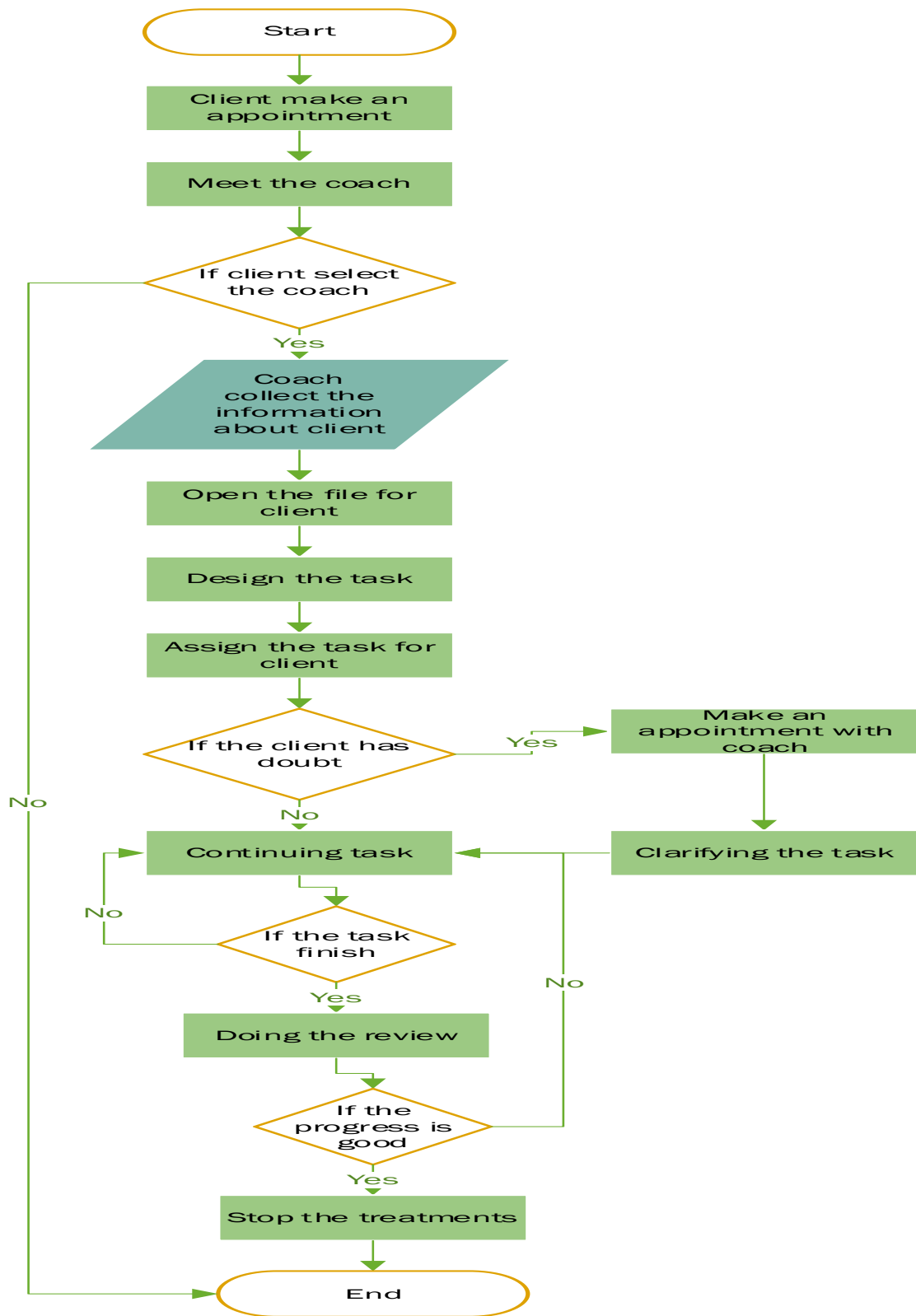
Figure 2.2 Flowchart of the current coaching process

2.3.2 Use case diagram of the current system

The use case diagram could be a visualization of the synergy between the client and the coach. Figure 2.3 represents the current coaching process.
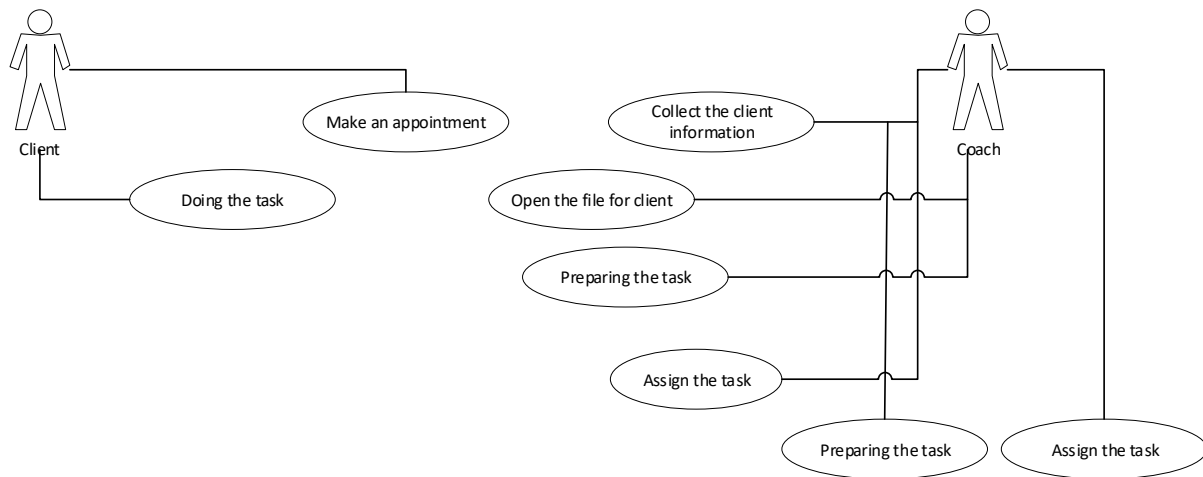
Figure 2.3 Use case diagram of the current coaching process

2.3.3 Limitations of the current system

Following are the problems which occur when using the manual coaching process

1. The coach uses a manual system to maintain client details. Therefore, difficult to maintain client's details.
2. Difficult to assign the task to the client.
3. There is no proper way to review the client's progress on the task.
4. Difficult to analyze the client's progress.
5. The decision-making process is difficult when following the manual process.
6. During the task, the client may need advice from the counsellor, and by then, the client is unable to make an appointment immediately.
7. The efficiency of the process is low.
8. The reliability of the information is low.
9. When the coach is updating data, becomes bit hard.

To overcome the above issues, the new system functionalities have been proposed.

9

2.4 Existing Similar Systems

Following are the related background studies:

2.4.1 Counseling and psychologists in Sri Lanka
<<https://onlinecounselling.io/country/sri-lanka >>

The web site of counseling and psychologists in Sri Lanka contains the counseling treatments and option to make an appointment to the counsellors. There are limited facilities provided by this system. Figure 2.4 represents the home page of the counseling and psychologists in Sri Lanka.
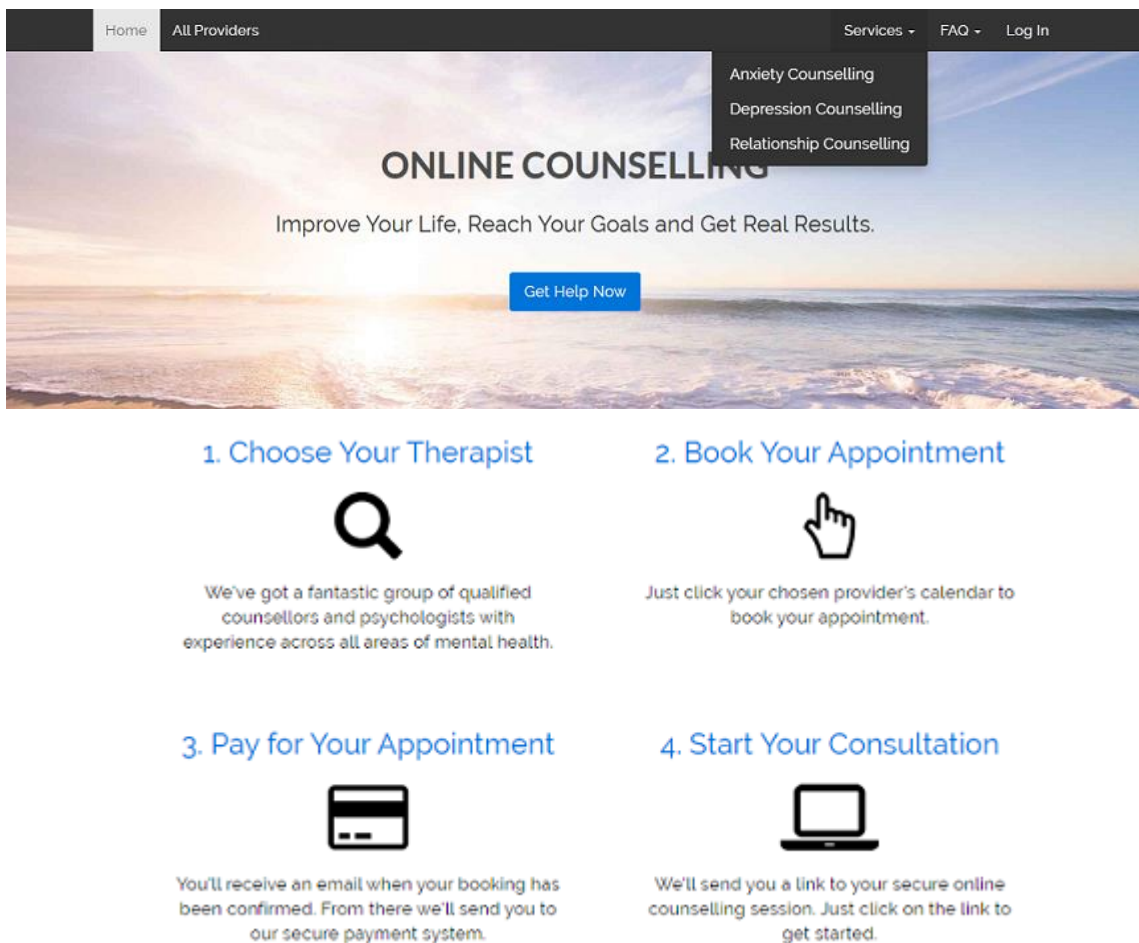
Figure 2.4 Home page of counseling and psychologists in Sri Lanka

Using this web site client can contact the counselor, chat and take counseling over the site. Through this system, there is no proper way to evaluate customer's current position, unable to evaluate the progress of the customer exercises.

2.4.2 Fiverr <<https://www.fiverr.com/gigs/counseling>>

The web site of Fiverr has counseling applications, but this site is not limited to counseling. So this site has too many images and navigations because of that difficult to find exact details through this website. Therefore, this site is poor in user-friendliness and attractiveness. Figure 2.5 represents the home page of Fiverr.
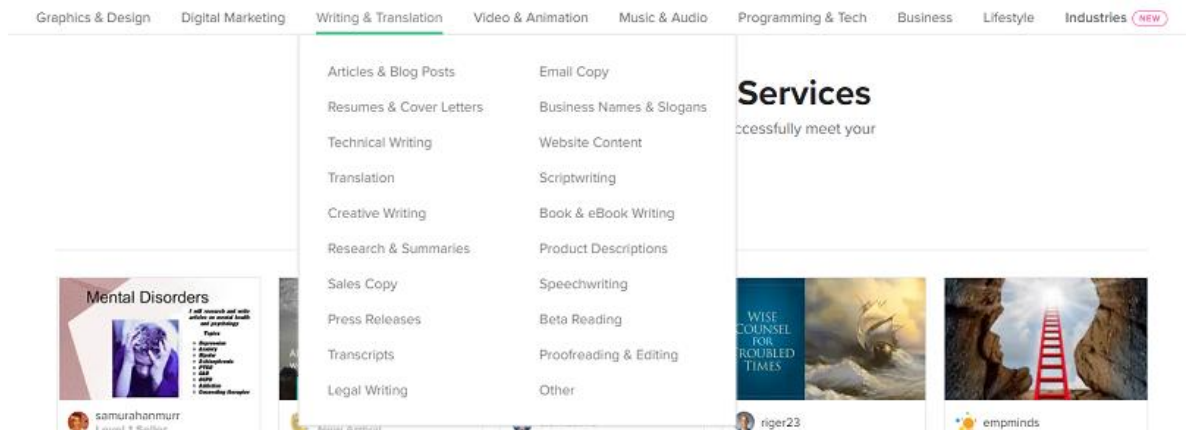
Figure 2.5 Home page of Fiverr

2.4.3 Betterhelp <<https://www.betterhelp.com/>>

Website of BetterHelp contains about counseling treatments and allows making an appointment with the counselors. This site has a few registered counselors and can make an appointment only for them. When the client makes an appointment they will counsel for their client until the client gets confident. But this system did not provide many facilities like mental exercise, progress analysis of clients, etc.

2.4.4 Talkspace <<https://www.talkspace.com/>>

The web site of Talkspace contains the counseling treatments, audio, and can make an appointment to the coaches [4]. But this site limits the number of responses per day. They only respond 1 or 2 times per day. If the clients want more should have to make a video call.

2.5　The identified gap between existing and implemented system

Comparing the implemented system with the existing systems, this system has more highlights than the existing systems which are mentioned above. Those systems utilized web sites only to attract clients. But their counselling processes runs through the windows application. But the system which is implemented encouraged to preserve entire processes through one system. I.e. client has a facility to choose coaches, clients permit to pay online, coaches can assign online tasks, sub coaches can subscribe to the system, provide the life wheel and burn down chart facilities, system subscription, assess customers' current position, etc. A few of the existing systems limited their reactions per day, which have a huge number of menus, and those systems not support every platform. But implemented system not limited their reactions and has constrained menus. In this manner, the implemented system keeps up the user-friendliness than the existing systems. Considering those holes, the developed system which is implemented as a web based system in a client-server environment and able to utilize within either Linux or Windows operating system. When executing this system utilized the most recent innovations to extend the proficiency of the system. Therefore, this system able to preserve a large number of data without system gradualness.

2.6　Chapter Summary

By considering the manual process of coaching, it decreases the efficiency of the coaching process. Likewise, it has so many drawbacks. Therefore, to overcome those issues, has been introduced the automated coaching web application with the new features. The automated system will overcome the drawbacks of the process.

After assessing variations of websites significant to coaching application over audit outlines that there are additional and short cases for each stage which can be catered as positive functionalities frame according to the proposed arrangement. Customer tends to consider this as an option which gives great cognizance around coaching and gives a great understanding of how to outline cognizance with the innovation.

Chapter 3

3. Methodology

3.1   Chapter Overview

This chapter portrays the plan of the system arrangement, innovations, instruments, and methodological approach that was utilized to create the framework. To actualize this framework in more appealing and effective, few apparatuses, advances have been applied. The points of interest of the usage environment, equipment framework, improvement procedures, instruments utilized, database, and application improvement design are depicted in this chapter.

3.2   The System Architecture

The system is hosted as a website that is built upon the client-server architecture. The user interface runs on the client within the two-tier client-server architecture and the database is deployed in the server. It permits client forms to run discretely on diverse computers with server processes. The taking after Figure 3.1 speaks to the proposed system architecture.
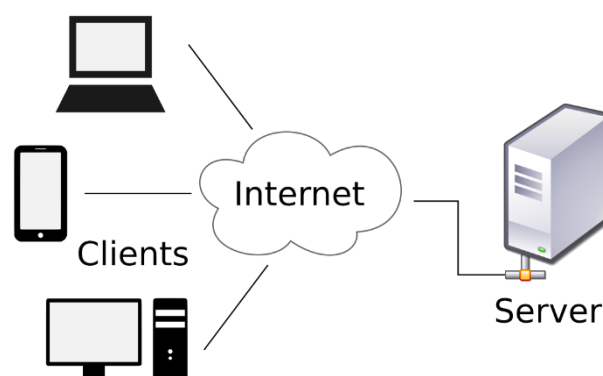
Figure 3.1 Client-Server Architecture of the proposed system

3.3   Functional requirements of the proposed system

Five main parts of the system are,

1. Web-based administration portal for the main coach
2. Web Admin portal for Sub Coaches
3. Web-based application for clients of coaches.
4. Process of Life wheel
5. Sub coach package subscription

3.3.1   Process of life wheel

The Coach first creates the client profile and starts coaching using the life wheel.

➢ The coach opens up the Life Wheel > Discuses the weak areas> Create Goals > Assign the goals to the clients with comments and due dates > Client should be able to view the assigned goals from the web application > should be able to complete once done.

➢ When a goal is completed, a notification must be sent to the relevant coach via email, informing the user's status.

➢ Counsellors should be able to see the client profiles who are under their observation and view the status of progress against assigned goals, using a burn down chart which should indicate the estimated in green and actual in red

➢ The coach should also be able to create action items for themselves under the client profiles and should show them as a list view in the dashboard with the latest due on top.

3.3.2   Services which are performed by coaches

➢ Life Wheel
➢ Mental Training
➢ Mental Exercises
  • Audio Listening

3.3.3   Sub coaches package details

Two types of packages are available:

  I.   Basic
  • The basic will have only the life wheel
  • Available in Monthly and Annually subscription modes
  • The monthly plan should deactivate the sub coach profile until they make payments for subscription

  II.   Advanced
  • This package will have the life wheel and audio content features
  • Available in Monthly and Annually subscription modes
  • The monthly plan should deactivate the sub coach profile until they make payments for a subscription.

3.3.4   Sub coach subscription

The admin should be able to create an Account with Sub Coaches Name and email an automatic password should be sent to the Coach along with the available subscription package details.

Sub coach to log into the portal > Select the preferred plan (Basic / Advance) and the payment mode (Monthly or Annually) and once payment is successful, they should be allowed to create the required categories according to the plans they have.

Sub Coach Services are sometimes a recurring service for a while

So when the Coach talks to the client and decides how many months the client needs, the coach should be able to raise an invoice by selecting the service.

Some services are multiple occurring and some are on request only.

Energy Healing (Multiple)

The Coach should be able to add prices in USD > and conversion rates to be added Customer Currency conversion rates to be able to add.

Use case diagram is used to illustrate the functional requirements of the proposed system.

3.4   The Use case diagram

The Use case diagram is a visualization of the interaction between the coach, sub coaches, and the client of the system. Figure 3.2 represents the detail use case diagram.
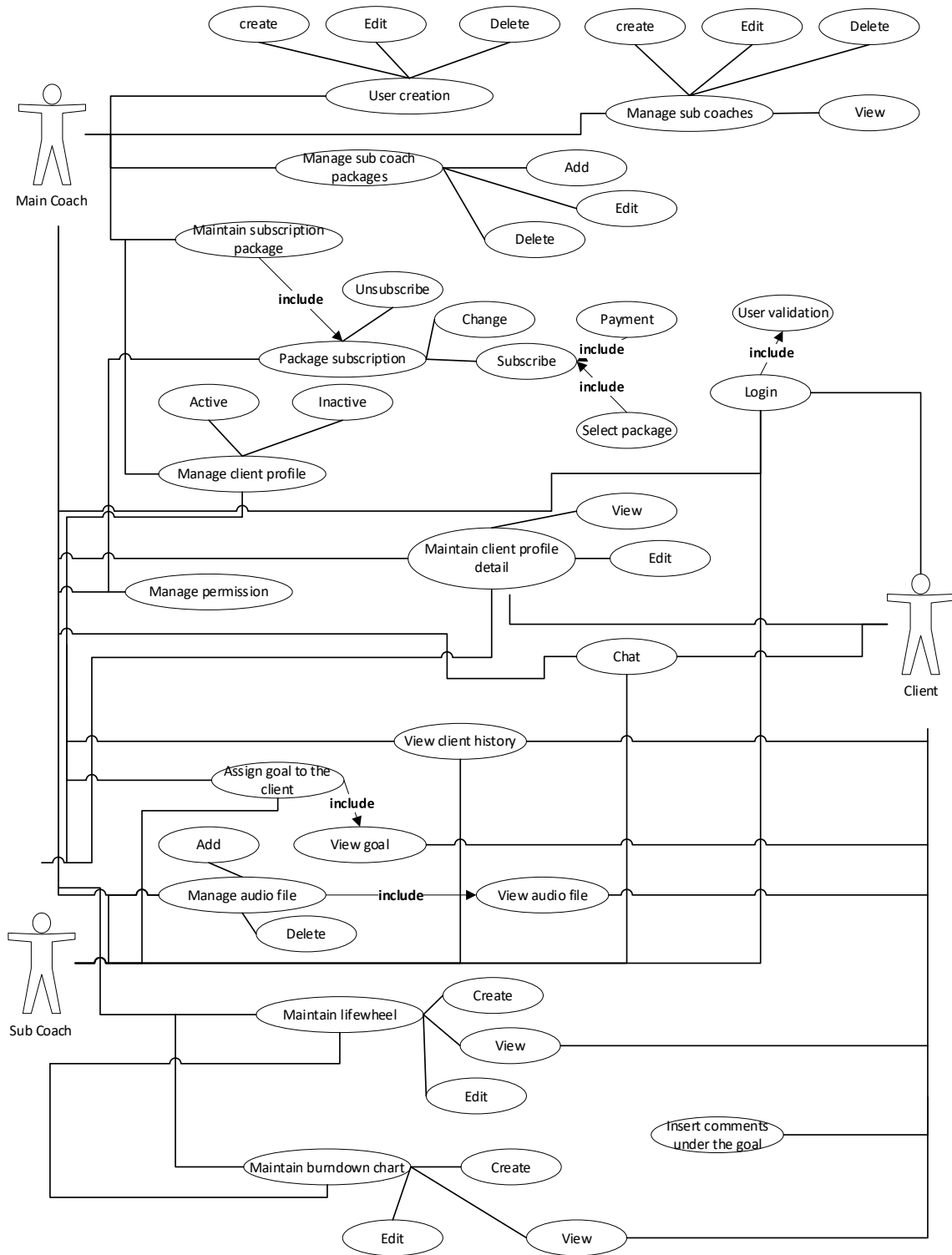
Figure 3.2 Detailed use case diagram

The system cooperates with three dynamic on-screen characters in one participate system. The following users are accessible within the system.

- Main coach
- Sub coach

- Client

Concurring to the system, capacities of the client parts can be categorized as follows,

➢ **Main Coach**

Functions of the main coach, administration portal is as below:

- User creation (create, edit, delete)
- Manage sub coach packages (add, edit, delete)
- Maintain a subscription package.
- Manage client profile (active, inactive)
- Manage permission.
- Maintain client profile detail. (view, edit)
- Chat with clients.
- View client history.
- Assign a goal to the client.
- Manage audio file (add/delete)
- Maintain life wheel (create, edit, view)
- Maintain burn down chart (create, edit, view)

➢ **Sub Coaches**

Functions of the sub coaches are as below:

- User creation (create, edit, delete)
- Manage permission.
- Maintain client profile details (view, edit)
- Chat with clients.
- View client history.
- Assign a goal to the client.
- Manage audio file (add, delete)
- Maintain life wheel (create, edit, view)
- Maintain burn down chart (create, edit, view)
- Manage client profile detail (edit, view)

- Package subscription (subscribe, change, unsubscribe)

➢ **Clients**

The user can register under the main coach or sub coach known as a client. The functions of the clients are as below.

- Maintain client profile detail (edit, view)
- View client history.
- View goal.
- Insert comments under the goal.
- View audio file.
- View the life wheel.
- View burn down chart.
- Chat with coaches.

Processes of the main coach

Figure 3.3 represents the processes of the main coach.
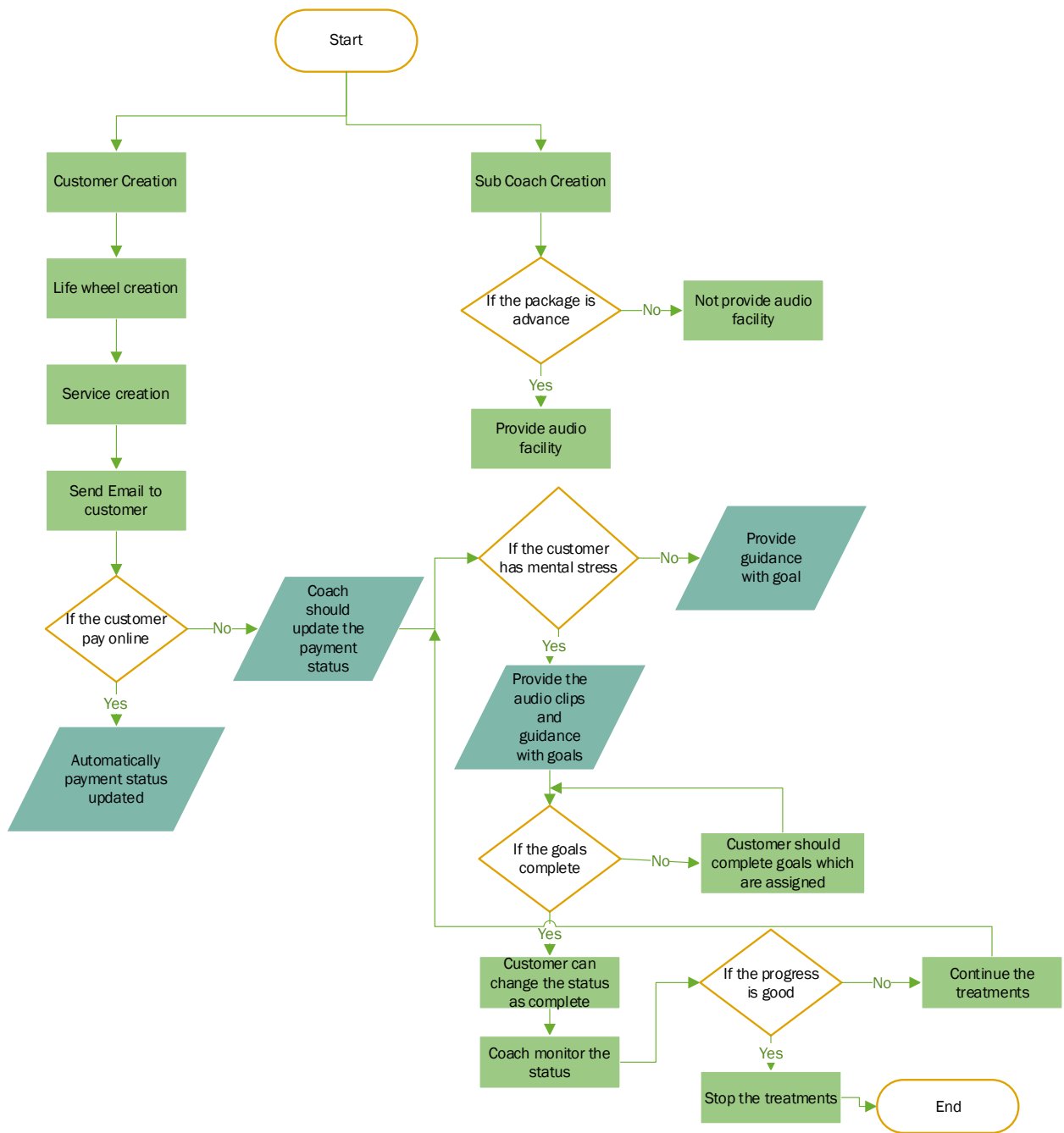
Figure 3.3 Processes of the main coach

Process of sub coaches payment process

Figure 3.4 represents the process of the sub coaches' payment process.
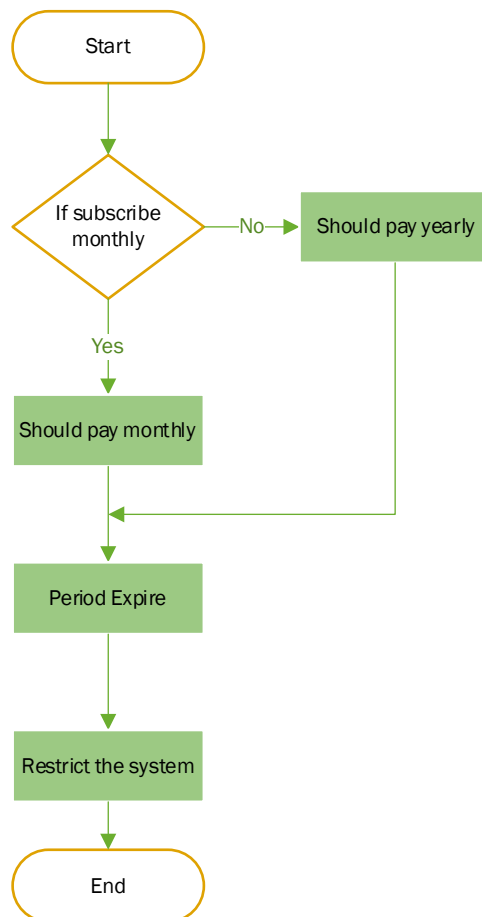
Figure 3.4 Payment process of sub coaches

3.5 Nonfunctional Requirements

Consider the following nonfunctional requirement,

- Efficiency:

  The patient and coaches do not need to carry any paper materials. Not required to oversee a gigantic number of records and well-maintained information

- User-friendliness:

  Attractive user interfaces and easily can navigate throughout the system

- Security:

  The backend will be developed using PHP Programming language and will be developed using a token-based authentication

- Availability and customization:

  The patient can self-handle his wellbeing by looking at the profile information.

3.6 Sequence diagrams

The following Figure 3.5 sequence diagram describes the sub coach package subscription process and Figure 3.6 sequence diagram describe the process of life wheel
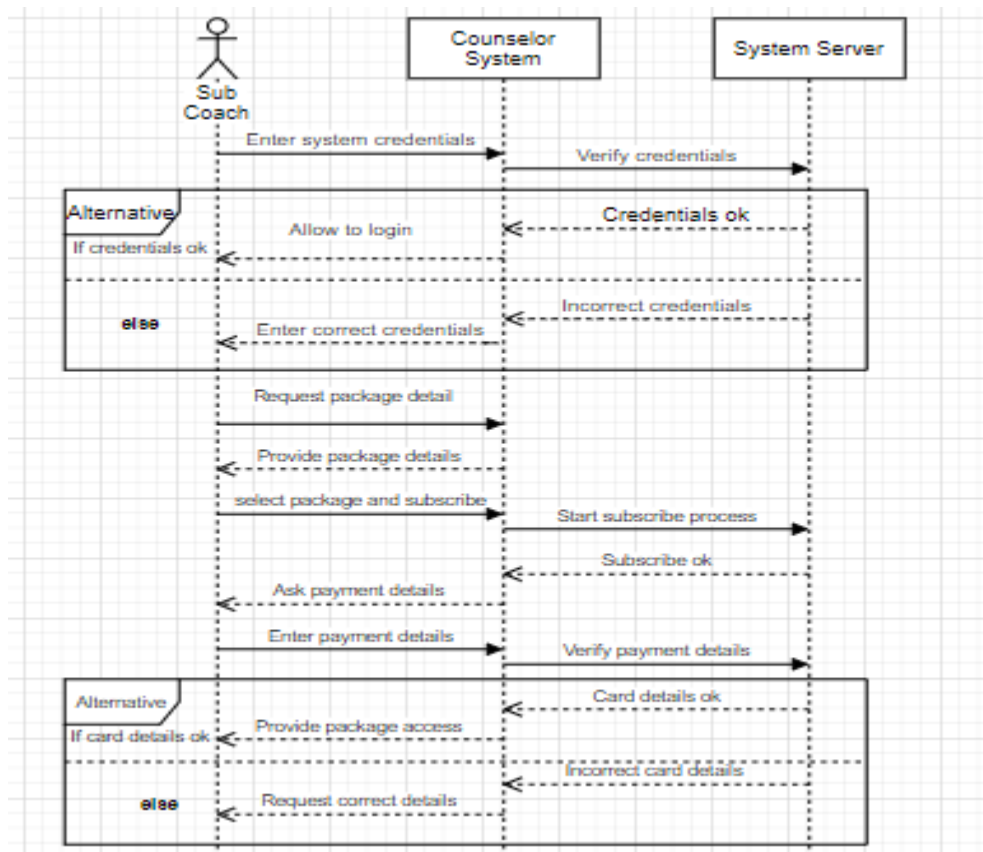
Figure 3.5 Sequence diagram of the sub coach package subscribe
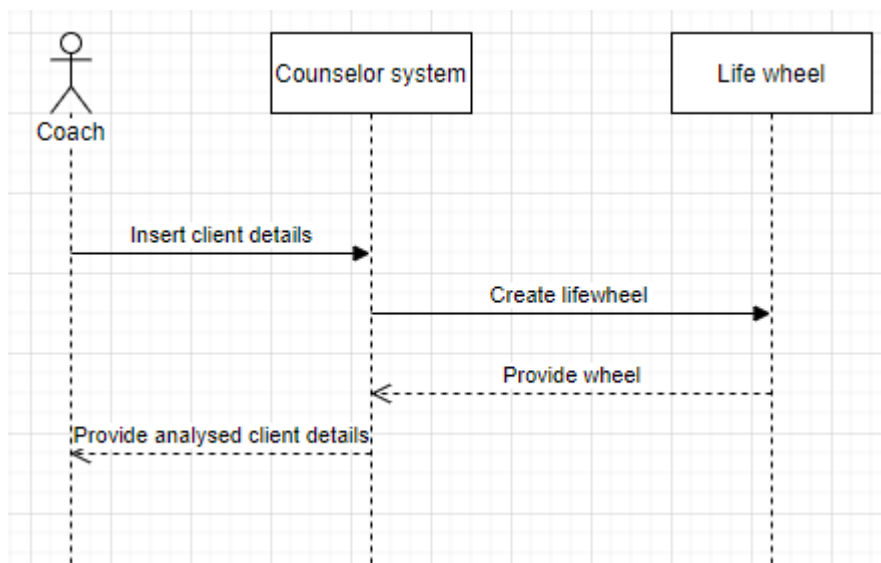
Figure 3.6 Sequence diagram of the life wheel process

User Interface Design and Implementation

Implementation is the arrangement of the venture, where the hypothetical plan gets to be a working system and gives clients the certainty that the modern system will work productively and successfully.

The proposed system encompasses a major concern over giving an appealing and user-friendly interface. By making the framework more appealing, usable, productive, and client neighborly; the end-users will have the crave to utilize the system more and will result in bringing competitive advantage. Client interfacing is outlined based on the forms of client parts. Following Figure 3.7 represent the user login, Figure 3.8 represent the customer creation, Figure 3.9 represent the customer list, Figure 3.10 represent the category creation, Figure 3.11 represent life categories and Figure 3.12 represent the wheel of excellence in the implemented system.
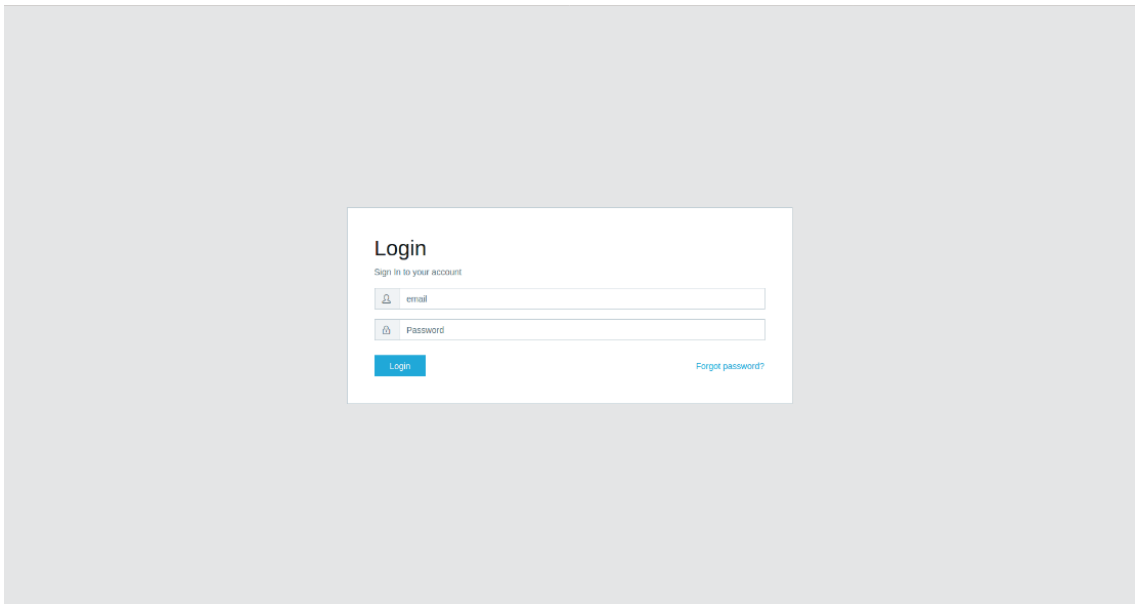
Figure 3.7 User login
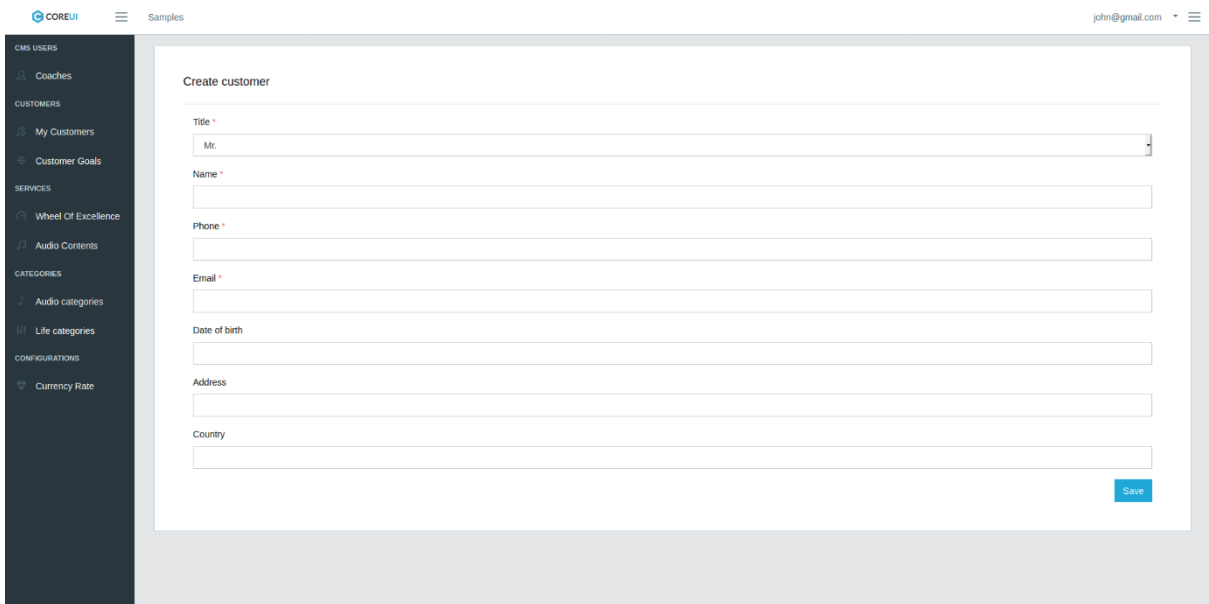
Figure 3.8 Customer creation

Figure 3.9 Customer list

Figure 3.10 Category creation
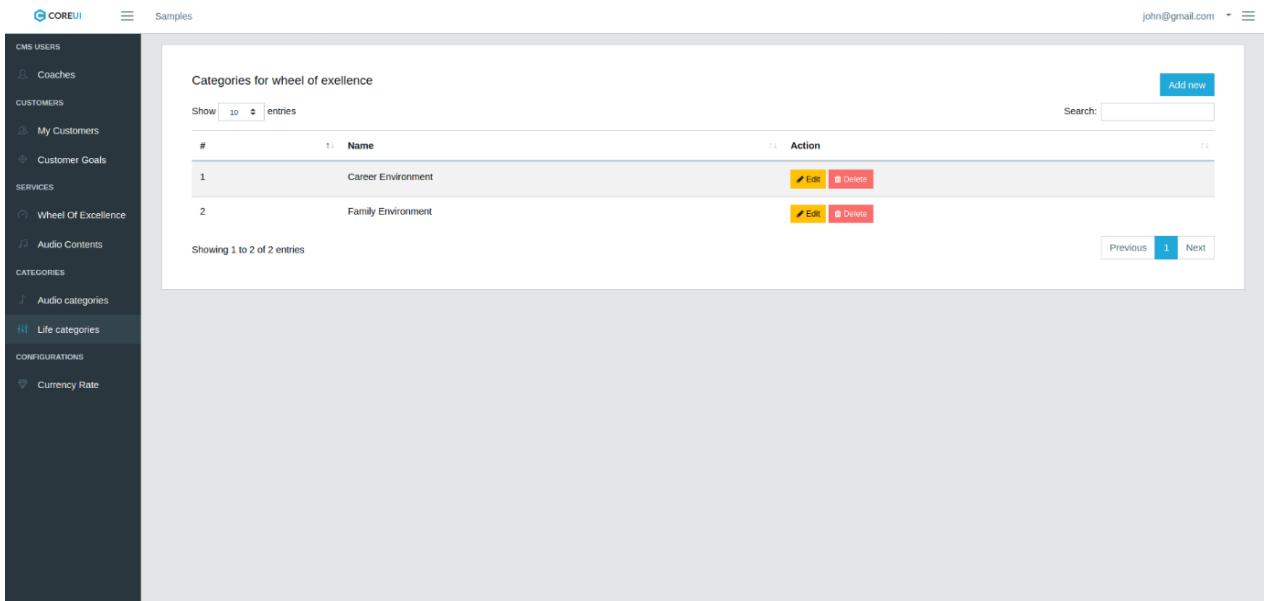
Figure 3.11 Life categories
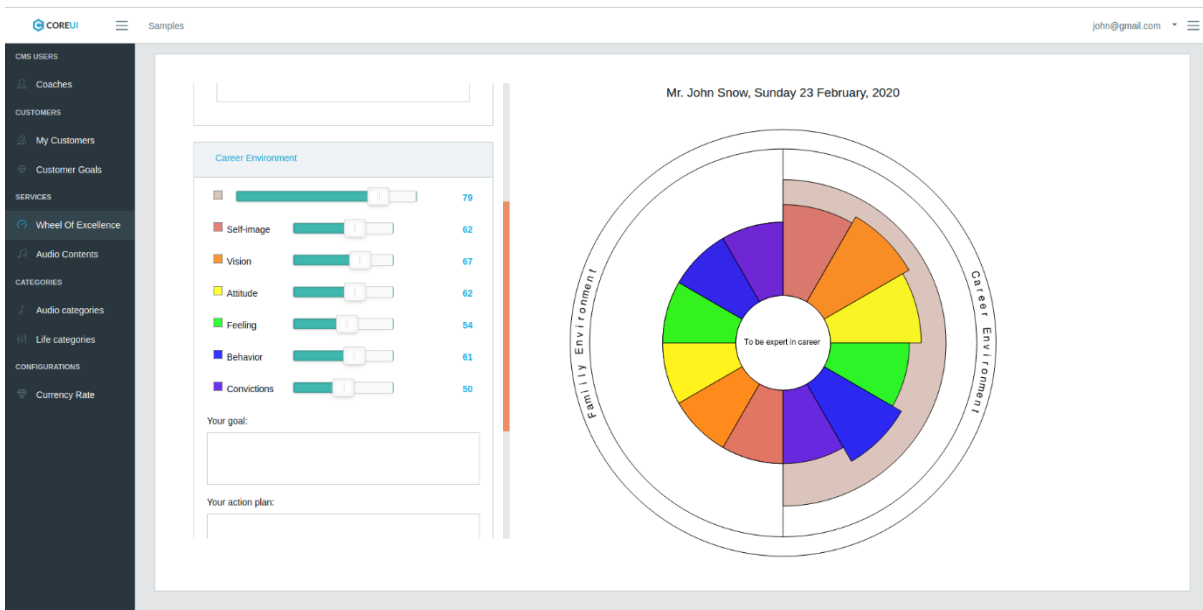
Figure 3.12 Wheel of excellence

3.7 Database design ER diagram
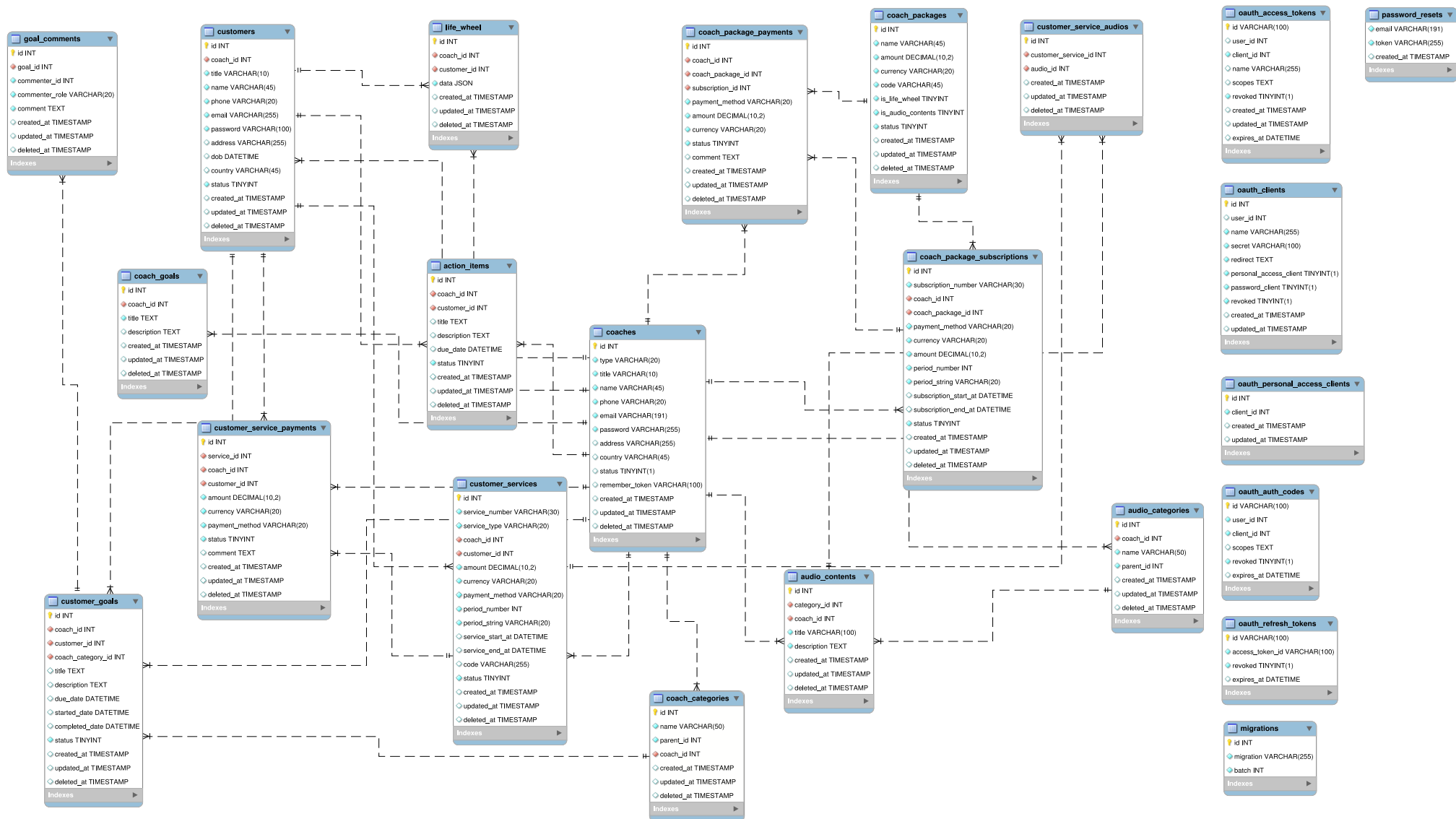
Figure 3.13 ER diagram for the proposed system

Database design is the organization of information agreeing to a database demonstration. The system architect decides what information must be kept away and how the information components interrelate. The database plan is utilized to indicate the structure of trade objects utilized within the client/server system. The database plan includes classifying the information and distinguishing interrelationships.

3.8 Technologies used
3.8.1 Software

1. *Operating System*

This project has enabled utilizing the Linux based OS. This is often chosen since it is open source and there are high security and its accessible command-line choices. Utilizing that choice simply to do the server setup portion.

2. *Infrastructure Programs*

▪ PHP Server

 This is to run the PHP program.

▪ MySQL 5.6

 Usually used for database administration. This utilized to manage the database with MySQL. The system utilized MySQL as a relational DB since of early recognized substances and their relationships.

3. *Programming languages*

Utilized PHP 7 as the center dialect for both back-end and front-end applications since it is commonly utilizing the steady server-side programming dialect. This venture incorporates both the CMS side operations and a REST API for interfacing with the client-side app. The JSON information sort utilized for communication for the API.

- PHP 7

  Server-side programming language. The Laravel framework is used
  for this project.

- JavaScript

  JavaScript and JQuery are used for front-end functionalities.

- HTML and CSS

  HTML, CSS, and Bootstrap 4 are used for UI designs.

4. *Tools used for documentation*

- Microsoft Visio

  This is used for drawing charts.

- MySQL workbench

  This is used for the drawing ER diagrams.

3.8.2 Hardware Requirements

- Personal Computer
- Hosting server

3.9 Test plan

The program testing handling is one stage inside the implementation program improvement preparation. All the modules of the web-based mental coaching application will unit test and perform integration testing afterwards in order to recognize the issues while coordinating. Doing useful testing to distinguish loop holes and practical scenarios in case they can occur unexpectedly. At last, framework testing will do on the completed framework covering both useful and non-functional prerequisites. As a portion of framework testing, client acknowledgment testing was carried out at the client's premises to guarantee the framework works fine and as intended.

3.10   Chapter Summary

This chapter outlined the hardware infrastructure, software, technologies, and apparatuses utilized to create the usage environment to oversee the method. The innovation and instruments portrayed are broadly utilized to create comparative complex systems.

Chapter 4

4. Evaluation

4.1 Chapter Overview

Program testing is the method of executing a program to discover mistakes within the code. It may be a handle of assessment by the system or partially to ensure that the system outcome fulfills and indicates the requirement or not. By and large, no system is culminating due to communication issues between client and engineer, time imperatives, or conceptual botches by the developer.

4.2 System Test Plan

The program testing handle was carried out in a couple of phases. All the modules are unit tested and after that, the integration tests were performed to distinguish on the off chance that they are practically carrying on as anticipated when coordinates. At long last, framework testing is done on the completed system covering both utilitarian and non-functional prerequisites. As a portion of framework testing, client acknowledgment testing was carried out at the client's premises to guarantee the framework works fine and as intended.

By utilizing test information and utilizing them to execute the test plans (as test cases has been depicted underneath), will determine whether the system in framework will perform as anticipated.

4.3 General Test Cases

4.3.1 Test cases for the "User creation" module

- Verify add new user button on the client page.
- Verify 'create user page' pop up.
- Verify that all indicated areas are shown on the registration page.
- Verify that interface page has both submit and cancel button after entering all the desired areas, cancels the submit request, and resets all the fields.
- Verify that, not filling the required areas and clicking the submit button will lead to a validation error
- Check approval on numeric areas by entering letter sets and extraordinary characters.
- Verify that entering blank spaces on obligatory areas leads to validation error.
- Check approval when a bungle of the password and confirmation password.

Test cases of the user creation module and their expected outcome are as in figure 4.1, 4.2, 4.3 and 4.4

Test Case Template

Test Designed by:	Danoja Madushani
Test Designed date:	2/4/2020

Test Case ID:	TC_1
Test Priority(Low/Medium/High):	Medium
Module Name:	User Login
Test Title:	Verify login with a valid user name and password
Description:	Test the login page

Test Executed by:	Danoja Madushani
Test Execution date:	2/4/2020

Preconditions:	The user should have a valid username and password
Dependencies:	

Step	Test Steps	Test Data	Expected Results	Actual Result	Status(Pass/Fail)
1	Navigate to login	Enter the URL	Login page should appear	Login page appeared	Pass
2	Login with correct Username and correct Password	User: admin Password: abcd@1234	Successfully can be logged in	Successfully logged in	Pass
3	Login with correct Username and incorrect Password	User: admin Password: abc1234	Pop up should come with the error message as Invalid password	Pop up appeared with the error message as Invalid password	Pass
4	Login with incorrect Username and correct Password	User: adm Password: abcd@1234	Pop up should come with the error message as No user found	Pop up appeared with the error message as No user found	Pass
5	Login with incorrect Username and incorrect Password	User: adm Password: abcd@12345	Pop up should come with the error message as No user found	Pop up appeared with the error message as No user found	Pass

6	Validate leave the Username field blank	Password:abcd@1234	The message should display under the user name as please enter the user name	The message displayed under the user name as please enter the user name	Pass
7	Validate leave the Password field blank	User:admin	The message should display under the password as please enter the password	The message displayed under the password as please enter the password	Pass
8	Validate leave both the Username and Password fields blank		The message should display under the user name as please enter the user name and message should display under the password as please enter the password	The message displayed under the user name as please enter the user name and message displayed under the password as please enter the password	Pass
9	Validate the UI on the Login Screen		All the screen controls should get displayed with correct spelling and grammar; All the screen controls should get aligned properly;	All the screen controls get displayed with correct spelling and grammar; All the screen controls get aligned properly;	Pass

| | 10 | Validate all the error and success messages | | All the error and success messages should get displayed with correct spelling and grammar; All the error and success messages should get aligned properly; | All the error and success messages get displayed with correct spelling and grammar; All the error and success messages get aligned properly; | Pass |

Figure 4.1 Test case template for login

| Post Conditions: | The user is validated with database and successfully login to account. The account session details are logged in database. |

Test Case Template

Test Case ID:	TC_2
Test Priority(Low/Medium/High):	Medium
Module Name:	User Registration
Test Title:	Verify valid user inputs at the user registration process
Description:	Test user inputs

Test Designed by:	Danoja Madushani
Test Designed date:	3/24/2020
Test Executed by:	Danoja Madushani
Test Execution date:	3/24/2020

Preconditions:	The user should have a valid username and password
Dependencies:	

Step	Test Steps	Test Data	Expected Results	Actual Result	Status(Pass/Fail)
1	Verify Add new user button		The button should appear on create coach page	The button appeared on create coach page	Pass
2	Verify mandatory fields were missed		A validation message should get displayed with the field name	The message displayed with the field name	Pass

36

	3	Verify phone number and email were in the correct format	771234569 tdanoja@gmail .com	The system should allow saving the data	The system allowed to save the data	Pass
	4	Verify phone number and email were in an incorrect format	77256324587 fdb	A validation message should get displayed as 'Invalid phone number'	A validation message displayed as 'Invalid phone number'	Pass
	5	Verify the Edit		Edit User Page should load with valid data fetch into respective text boxes	Edit User Page loaded with valid data fetch into respective text boxes	Pass
	6	Verify the create button without fetching data		Mandatory fields should highlight and appropriate messages should display	Mandatory fields highlighted and appropriate messages displayed	Pass
	7	Verify the Create Button with valid data		The record should Save and the message should appear as "Successfully saved"	The record Saved and a message appeared as "Successfully saved"	Pass

8	Verify the saved data displayed in the grid		After saving the record, saved data should display in the user grid	After saving the record, saved data displayed in the user grid	Pass
9	Validate the UI of the register user Screen		All the screen controls should get displayed with correct spelling and grammar; All the screen controls should get aligned properly;	All the screen controls get displayed with correct spelling and grammar; All the screen controls get aligned properly;	Pass
10	Validate all the error and success messages		All the error and success messages should get displayed with correct spelling and grammar; All the error and success messages should get aligned properly;	All the error and success messages get displayed with correct spelling and grammar; All the error and success messages get aligned properly;	Pass

Post Conditions:	The user is validated with the database and successfully log in to account. The account session details are logged in a database.

Figure 4.2 Test case template for user registration

38

Test Case Template

Test Case ID:	TC_3
Test Priority(Low/Medium/High):	Medium
Module Name:	User List
Test Title:	Verify preview of user details
Description:	User List preview

Test Designed by:	Danoja Madushani
Test Designed date:	3/24/2020
Test Executed by:	Danoja Madushani
Test Execution date:	3/24/2020

Preconditions:	The user should have a valid username and password
Dependencies:	

Step	Test Steps	Test Data	Expected Results	Actual Result	Status(Pass/Fail)	Notes
1	Verify the heading		The heading should appear on the page	The heading appeared on the page	Pass	
2	Validate the UI of the register user Screen		All the screen controls should get displayed with correct spelling and grammar; All the screen controls should get aligned properly;	All the screen controls s get displayed with correct spelling and grammar; All the screen controls should get aligned properly;	Pass	

3	Verify the status		When the status is on, the user should active if not should inactive	When the status is on user active if not should inactive	Pass	
4	Verify the edit		When clicking on the edit, page redirect to the edit coach grid	When clicking on the edit page redirected to the edit coach grid	Pass	
5	Verify the delete		When click on the delete confirmation message should display. If we click on the yes record should delete. If we click on no record should not delete	When clicking on the delete confirmation message displayed. If we click on the yes record is deleted. If we click on no record not deleted	Pass	

Post Conditions:	

Figure 4.3 Test case template for the preview of user details

Test Case Template

Test Designed by:	Danoja Madushani
Test Designed date:	3/24/2020
Test Executed by:	Danoja Madushani
Test Execution date:	3/24/2020

Test Case ID:	TC_4
Test Priority(Low/Medium/High):	Medium
Module Name:	User Edit
Test Title:	Verify valid user inputs at the user edit
Description:	Test user inputs at edit option

Preconditions:	The user should have a valid username and password
Dependencies:	

Step	Test Steps	Test Data	Expected Results	Actual Result	Status(Pass/Fail)	Notes
1	Verify the heading		The heading should appear on the page	The heading appeared on the page	Pass	
2	Verify the details		All details should load for correct text boxes	All details loaded for correct text boxes	Pass	

41

				Expected Result	Actual Result	Status	
3	Verify mandatory fields were missed			A validation message should get displayed with the field name	A validation message gets displayed with the field name	Pass	
4	Verify phone number and email were in the correct format	771234569 tdanoja@gmail.com		The system should allow saving the data	The system allowed to save the data	Pass	
5	Verify phone number and email were in an incorrect format	77256324587 fdb		A validation message should get displayed	A validation message displayed	Pass	
6	Verify the save			When press the save button, all the modified data should update	When press the save button, all the modified data updated	Pass	

7	Validate the UI of the register user Screen		All the screen controls should get displayed with correct spelling and grammar; All the screen controls should get aligned properly;	All the screen controls s get displayed with correct spelling and grammar; All the screen controls should get aligned properly;	Pass		
8	Verify the status		When the status is on, the user should active if not should inactive	When the status is on user active if not should inactive	Pass		
9	Verify the view link		When click on the view link should redirect to the general details grid	When clicking on the view link page redirected to the general details grid	Pass		

Post Conditions:	

Figure 4.4 Test case template for user edit

4.3.2 Test cases for the "Add customer goals" module

- Verify add new button show on the customer goals page.
- Verify pop up of creating goal page.
- Verify all the indicated areas are shown on the create goal page.
- Verify the page needs to have save button after entering all the specified fields.
- Verify that entering blank spaces on required areas leads to validation error.
- Verify that all the screen controls should get shown with redress spelling and grammar.
- Verify that all the screen controls should get adjusted properly.

4.3.3 Test cases for the "Customer goals" module

- Verify that the search field shown on the user list page.
- Verify that all indicated areas are displayed on the user list page.
- Verify that when clicking on alter, the page navigates to the edit goal grid.
- Verify that clients can alter their status.
- Verify that objectives can be erased when squeezing on the delete.
- Verify that all the screen controls should get shown with redress spelling and grammar.
- Verify that all the screen controls should get aligned properly.

4.3.4 Test cases for the "Wheel of excellence" module

- Verify that the personal information collapse menu available on the left side of the page.
- Verify that add new button available at bottom of the page.
- Verify that after pressing the button generate the new collapse menu.
- Verify that you can rename the newly added collapse menu name.
- Verify that rename and delete buttons are available on the collapse menu.
- Verify that the saving button is working properly.

- Verify that the print button is working properly.

- Verify that measuring points are available in the collapse menu.

- Verify that measurement marks can change.

- Verify that goals can create within the collapse menu.

- Verify that action plans can create within the collapse menu.

- Verify that the life wheel appeared on the right side of the page.

- Verify that the life wheel categorized based on the number of collapsed menu.

- Verify that life wheel change based on the measuring points.

- Verify that the date is displayed above on the life wheel.

- Verify that all the screen controls ought to get shown with redress spelling and grammar.

- Verify that all the screen controls ought to get aligned properly.

4.3.5 Test cases for the "Create audio content" module

- Verify that includes the modern button display on the audio content page.

- Verify that when press on add new button to make an audio content, relevant page pop up.

- Verify that all indicated areas are displayed on create an audio content page.

- Verify that the audio files can be browsed.

- Verify that page enables save button after entering all the desired fields.

- Verify that entering blank spaces on required areas leads to validation error.

- Verify that all the screen controls should get shown with adjust spelling and grammar.

- Verify that all the screen controls should get adjusted properly.

4.3.6 Test cases for the "Audio contents" module

- Verify that the search field display on the page.

- Verify that all indicated areas are shown on the page.

- Verify that when clicking on the edit, the page navigates to the edit audio content grid.

- Verify that audio content can be erased when squeezing on the delete.

- Verify that all the screen controls should get shown with redress spelling and grammar.

- Verify that all the screen controls should get adjusted properly.

4.3.7 Test cases for the "Add categories for the wheel of excellence" module

- Verify that add new button show on the page.

- Verify that create category page pop up.

- Verify that all indicated areas are displayed on the page.

- Verify that page enables save button after entering all the specified fields.

- Verify that entering blank spaces on obligatory areas leads to validation error.

- Verify that the save button working properly.

- Verify that all the screen controls should get shown with redress spelling and grammar.

- Verify that all the screen controls should get aligned properly.

4.3.8 Test cases for the "Categories for the wheel of excellence" module

- Verify that the search field display on the page.

- Verify that all indicated areas are shown on the page.

- Verify that when clicking on the edit, the page navigates to the edit category grid.

- Verify that category can be deleted when press on the delete.

- Verify that made categories shown on the Wheel of excellence page.

- Verify that all the screen controls should get shown with rectify spelling and grammar.

- Verify that all the screen controls should get adjusted properly.

4.3.9 Test cases for the "Sub coach subscription" module

- Verify that when the sub coach login to the system for the primary time, the bundle detail page is loading.

- Verify that package details are displayed.

- Verify that subscribe buttons are available.

- Verify that when press on subscribes button, it directs to the subscription plan page.

- Verify that after the determination of the subscription plan, the page is diverted to PayPal.

- Verify that after the installment, sub coaches can get to the system features.

- Verify that all the screen controls should get shown with adjust spelling and grammar.

- Verify that all the screen controls should get adjusted properly.

The over test cases carried out and confirmed that functionalities are working legitimately as required without creating mistakes to meet its determinations.

Chapter 5

5. Conclusion

5.1   Conclusion

This thesis portrays the improvement preparation for web-based mental coaching applications. The implemented website supposed to increase the efficiency and effectiveness of the coaching process and promotes online coaching process all across the country.

The system was built by capturing the client necessities, clarified and compelled within the necessity investigation stage while enhancing system performance and usability by adding more functionalities within the advancement life cycle because it required to form the system more user friendly.

The system has been implemented agreeing to the coaches' prerequisites and highlighted with extra functionalities such as memberships. The system improvement arrangement begun with system planning utilizing the ER graph, Use case chart and system engineering while for execution Visual Studio Code was used with the Scripting Language of PHP, JavaScript and HTML, CSS, and Bootstrap and Laravel as the framework. MySQL language was utilized for database administration. The system tried to guarantee reliability and unwavering quality and to check whether it meets its expected targets. The system meets its necessities at a higher level.

5.2   Future developments

This system can improve new functionalities. Due to the timeline limitations, a few of the functionalities are not included in the system. In the future, system can be improved by planning the execution of 'after functionalities'.

- Provides the facilities for the main coach to edit the package details through the interface.
- Analysis reports of the client.
- Mobile application.

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Appendix A: Use Case Descriptions`

Appendix A comprises of low-level use case graphs with descriptions.

Following Figure A.1 depicts the use case diagram for Package subscription, change the selected package and unsubscribe
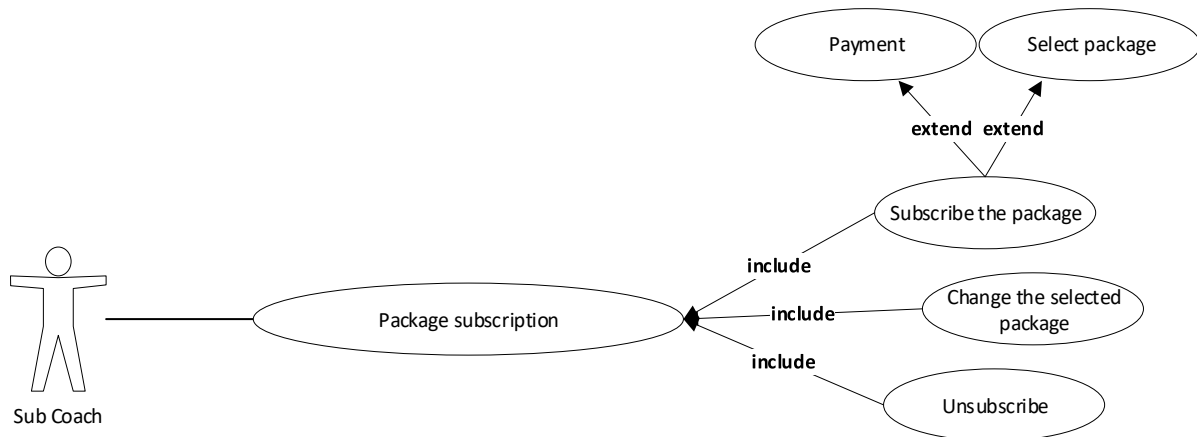
Figure A.1: Use Case for Sub coach subscription module

The above use case is described in Table A.1 and Table A.2

Table A.1**: Use Case Description 1: Subscribe the package**

Use Case ID:	UC 1
Use Case Name:	Sub coach subscription module
Actor:	Sub coach
Description:	This use case depicts how the sub coaches doing the package subscription
Preconditions:	The main coach should create the account for sub coach and need to mail the credentials to sub coach
Post conditions:	The sub coaches should select the package based on their requirements and need to make the relevant payment
Priority:	High
Frequency of Use:	-
Normal Course of Events:	1. Log in to the system 2. Load the subscription page 3. View the package types 4. Press the subscription button which you selected 5. Select the subscription plan

	6. Make the payment
Alternative Courses:	-
Exceptions:	-
Includes:	-
Special Requirements:	There is the possibility to multiple user subscription simultaneously
Assumptions:	-

Table A.2**: Use Case Description 2: Unsubscribe the package**

Use Case ID:	UC 2
Use Case Name:	Sub coach subscription module
Actor:	Sub coach
Description:	This use case depicts how the sub coaches doing the unsubscribe
Preconditions:	The sub coach should have subscribed package
Post conditions:	The sub coaches unable to access the package which is used
Priority:	Medium
Frequency of Use:	
Normal Course of Events:	1. Log in to the system 2. Go to the package detail page 3. Press the unsubscribe button
Alternative Courses:	
Exceptions:	
Includes:	
Special Requirements:	There is the possibility to multiple users unsubscribe simultaneously
Assumptions:	

Table A.3**: Use Case Description 3: Change the package**

Use Case ID:	UC 3
Use Case Name:	Sub coach subscription module
Actor:	Sub coach
Description:	This use case depicts how the sub coaches change their package
Preconditions:	The main coach should unsubscribe the package which he or she had
Post conditions:	The sub coaches should make the payment relevant to the new package
Priority:	Medium
Frequency of Use:	-
Normal Course of Events:	1. Log in to the system 2. Load the subscription page 3. Unsubscribe the used package 4. Press the subscription button which you selected

	5. Select the subscription plan 6. Make the payments
Alternative Courses:	-
Exceptions:	-
Includes:	-
Special Requirements:	Multiple users can change package simultaneously
Assumptions:	-