Software Requirements Specification

for

HappyPlace

An online counseling Platform

Prepared by

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Revision History

Name	Date	Reason For Changes	Version

1. Introduction

1.1 Purpose

The purpose of this document is to present a detailed description of HappyPlace. It will explain the goals of the project, the features implemented, the navigation of the user interface and finally the limitations and future-proofing aspects of this project.

1.2 Intended Audience

This document is intended for both project managers, who will find the list of functions and requirements useful for ensuring efficient management of the development process. Similarly, the developers will also find this document somewhat useful, as it illustrates some requirements they need to meet when building this product's functions. This document does not illustrate any specific points of failure and uses some technical terms, so it may be less useful to testers and business managers.

1.3 Intended Use

HappyPlace is intended to specifically guide the ones who have little or no idea about the whole process of psychiatric evaluation with simple questions-answers segment to match them with the most suited counselor. Thus, being a one stop destination for all metal health related problems totally online without even disclosing one's identity.

1.4 Product Scope

The objective of HappyPlace is to create a platform that will aid people struggling with different mental health related issues who wish to interact with a professional counselor/psychiatric/psychologist by giving them the opportunity to do so in an online website-based platform at an affordable price. The project will also help the professional counselor/psychiatric/psychologist as an additional income source.
In addition, the project aims to specifically to guide the ones who have little or no idea about the whole process of psychiatric evaluation with simple questions-answers segment to match them with the most suited counselor. Thus, being a one stop destination for all metal health related problems. This means users can easily get matched with the best counselor suited for their problems. Some of the individual features of this platform are already present in various other platforms such as talking with trained volunteers via phone but this is the first ever platform in Bangladesh to directly connect user to counselors without physically going to counselor's chamber.

The ultimate objective of HappyPlace is to provide professional counseling accessible, affordable, convenient- so anyone who struggles with life's challenges can get help, anytime, anywhere.

1.5 Risk Definition

There are some risk factors to online counseling such as confidentiality and security breach. Mental health practitioners have an ethical responsibility to protect and maintain the confidentiality of their clients. With online

therapy the security of the client's records and information could be jeopardized and confidentiality is at greater risk of being inappropriately breached given the written nature of the medium.
Although most sites strive to have security systems to protect confidentiality, it's always recommended to use the latest version of the security software used. Moderators will have to continuously upgrade their technology to prevent security breaches.

Another risk factor is the misconduct of the user/counselor. If any unprofessional or unethical event takes place, it must have to be reported. A guideline will be strictly followed and actions will be taken against the offender.

2. Overall Description

2.1 User Classes and Characteristics

There are three main user classes present in this product. The General User and The Counselors who sees the front-end of the system and is essentially anyone who uses the product, and the Administrator, who also sees the back-end databases and manages the information stored there.

General Users
- Making an account
- Editing user and account details
- Using the features detailed below under System Features

The Counselors
- Request to open an account
- Editing Counselor and account details
- Using the features detailed below under System Features

Administrators
- Viewing user/counselor information
- Managing and updating user/counselor information
- Viewing tables present in the database
- Managing and updating database tables (including details of
- institutions)

2.2 User Needs

A user interreacting with this site would be most likely looking for a solution for their mental health related problems without wanting to go to a counselor physically and also in an affordable price. Some even wouldn't want to disclose their identity and remain anonymous when taking counseling.
On the other hand, Counselors would be wanting to expand their work online and gain potential patients that they wouldn't get in their chamber. They will be able to increase their work hours and even earn more than their chamber.

2.3   Product Functions

Initially, the information regarding counselor/psychiatric/psychologist will be stored in a database. The information itself will be gathered from direct counselor visitation/counselor signup/counselor reference and can be updated at regular intervals.

Afterwards, the user can use the website by first choosing what type of counseling they want. Then the user has to answer some short questionnaire to provide some general and anonymous background about themselves and the issues that they'd like to deal with in online therapy. It would be matched with the most suitable therapist for them. Their answers will also be given to their counselors, as a good starting point in getting to know them. Then the user will be asked to open a private account. After this these details will be stored in a database. The user can then use the various features of the website detailed later in this document.

A machine learning algorithm is utilized, using both the user details and the details of the counselors in the database, to generate a suitable counselor for each individual user.

2.4 Operating Environment

As it is a web app, this product can be used on all desktop and mobile operating systems that support the use of a web browser. This product should function properly in all major web browsers, on both desktop and mobile, including but not limited to Internet Explorer (9 onwards for best compatibility), Microsoft Edge, Mozilla Firefox, Google Chrome, Opera and Apple Safari.

2.5 Constraints

As this product is being implemented as a web app, the basic functions of the website will experience little design or implementation constraining so long as all the External Interface Requirements, listed below, are made use of properly. The main implementation constraints will come from a lack of time and limited data sets to train any advanced machine learning algorithm.

2.6 Assumptions

This product relies on information gathered from other sources. While it maintains a local copy of the info currently being displayed, there is no way to tell if the original information gathered from a thirdparty website is correct or not.

Additionally, the website is being hosted on a local machine and may be shifted to a third-party web provider. If this is done so, the uptime of the website (the time during which it is accessible) may depend on the third-party.

3. Requirements

3.1   Functional Requirements

1. User Account Information Management
a. Priority – High

b. Description - Users can make an account and input information including, but not limited to, personal information (name, contact details, etc), psychiatric evaluation and preferences (preferred counselor, preferred expertise in counselor, billing information, etc). The user can also use a preexisting account from a third-party account credentials provider, Google.

c. Functional Requirements:
i. R1, Login Screen – There must be a panel or window or page with fields for users to enter an identifier (username or email) and a verifying password.
ii. R2, Registration Screen – There must be a panel or window with fields for users to enter their desired identifier, password, and other details, in order to create an account with our system
iii. R3, Account Info Management Screen – There must be a panel, window or page with fields for users to, once they have logged in, modify or add any of the details mentioned above in section b.

2. Counselor Matching
a. Priority – High
b. Description – Users are matched with counselor, whom would be best for them. These matchings are generated by ML algorithms that use variables from both the user information and counselor information.
c. Functional Requirements –
i. R1, Displaying Match – A panel that displays a recommended counselor with some details.
ii. R2, More Info – Additional Panel displaying the reasons for recommendation.

3. Billing Option
a. Priority – High
b. Description – Users can see the total cost of the counseling that they're choosing at a weekly/monthly/yearly basis, in order to plan out their finances in advance.
c. Functional Requirements –
i. R1, Display Costs – List the different costs involved and the weekly/monthly/yearly sum total.
ii.R2, Payment Information – Let users choose from various way of online payment options.

4. Text and Audio Messaging
a. Priority – High
b. Description - Users can text and audio message the counselor anytime they want
c. Functional Requirements:
i. R1, display a chat box – A separate window or panel in which the user will be able to send text message
ii. R2, Audio messaging – The user will have a separate option to send a voice message to the counselor.

5. Video Session
a. Priority – Medium
b. Description - Users can book a schedule to have live video call with the counselor
c. Functional Requirements:
i. R1, Video calling screen – A separate window or panel where the user will be connected with the counselor in a video call.

6. Scheduling
a. Priority – High
b. Description - Users can schedule a live texting/audio/video calling session in advance.
c. Functional Requirements:
i. R1, display a calendar – A calendar will be shown and the user will be able to see available time slots that they can book to get a live interaction with the counselor

ii. R2, finalizing screen – The user will be asked to choose from texting/audio/video calling session and confirm the time slot.

7. Change Counselor
a. Priority – High
b. Description – Users can request to change their counselor if they feel that the 'matched counselor' isn't compatible with them.
c. Functional Requirements:
i. R1, display switch counselor– In a separate window or panel a warning sign will be shown that all if their current correspondence will be removed when they're assigned a new counselor. With some additional questions such as why the previous counselor wasn't a fit for them, re-evaluating preferences and counselor expertise.

8. Counselor Dashboard
a. Priority – High
b. Description - Counselors can request to open an account and input basic information for the verification process including personal information (name, contact details, degree, experience etc), After manual registration of the counselor they can log into their account. The dashboard will include a current patient list, scheduler, billing info, text and audio messaging, video calling.
c. Functional Requirements:
i. R1, Login Screen – There must be a panel or window or page with fields for counselors to enter an identifier (username or email) and a verifying password.
ii. R2, Account Open Request Screen – There must be a panel or window with fields for counselors to enter their name, contact details, degree, experience and other details, in order to submit a request to create an account with our system.
iii. R3, Account Info Management Screen – There must be a panel, window or page with fields for counselors to, once they have logged in, modify or add any of the details mentioned above in section b.

3.2 Nonfunctional Requirements

1. **Performance Requirements**
The website should be efficient on memory and loading times. Every page should load in less than one second with a modern internet connection of 1 Mbps.

2. **Safety Requirements**
The website, once deployed on a web server rather than a local host, should get an HTTPS connection certificate, in order to ensure when a user enters the website, they know their data is secure and the connection is encrypted.

3**. Security Requirements**
As this website will contain personal data regarding its users, security must be maintained. Users should be cautioned from putting sensitive data anywhere, and their passwords will be stored in hashed form in order to prevent brute-force access to their accounts. Users and Administrators should also be discouraged from sharing their account credentials, to prevent data breaches.

4. **Software Quality Assurances**
The main requirements here is that the system is straightforward and easy to use, since it is a replacement of other pre-existing solutions to the same problem where those solutions are convoluted and a hassle to use properly.

5. **Business Rules**

A comprehensive business terms & policy must be maintained. It'll be needed for both the general users and the counselors.

4. Other Requirements

1. Federated User Credentials

In addition to making their own accounts whose credentials are stored in the project's database, users will have the option of using their Google accounts to log in. As Google is one of the largest and widely used platforms on the internet, many of our users may already have their own Google accounts. This would reduce the hassle for a new user of the website and improve ease of access. Again, security must be maintained on both the developers' and users' side, in order to ensure the users do not suffer any security breaches regarding their Google account.

Appendix

1. Appendix A: Glossary

Administrator – A person, preferably an employee of the owner of this product, who will manage the back-end of the system

Database – A group of tables organized in a manner as to be related to each other and so maintain ease of updating, usage and maintenance.

(Web) Server – A computer that will contain the website and assorted applications and enable anyone to access it at any time the computer is active.

PHP – Hypertext Preprocessor. A programming language used to connect a website's front-end to back-end databases.

Website – A series of pages that may be viewed in a web browser software, which are available on almost all PCs and modern mobile phones. A short list of common web browsers is mentioned in the Operating Environments section.

User Story:

User Story	Acceptance Criteria	Confirmation
As a Patient, I should be able to sign up on the website	- The user will be required to enter: Name, Email, and Password - The user will confirm their password by entering their desired password again - The user must enter an email which has not yet been registered in the site - There will be an optional choice of adding user phone number - Password must be at least 8 characters, with at least 1 number - Information from the form is stored in the registrations database - Protection against spam is working	- A confirmation email to the email address provided if the submission is valid - A user can not submit a form without filling out all of the mandatory fields. If so, error message will be shown.
As a Patient/Counselor, I should be able to log in on the website	The user must provide log in details correctly to get logged in to the system.	- Successful login will ask the user if they want to save password - Unsuccessful login will give error messages wrong email/password and a forget password option - Inactivity for 30 minutes will automatically logout from the user account.
As a Patient I want to match with a counselor, who would be best for me	- The user will be required to answer some question or select categories accurately regarding their problem. - Then a Machine Learning algorithm will sort and match them to the best possible counselor	- If all the questions are answered successfully then a message will be shown to the user that he'll be matched with a counselor in 24 hours - Without answering all the question matched with a counselor button won't be available for the user - If no counselor is available in 24 hours, a message and email will be sent to the user about extending the

		• time to find one for the patient.
As a Patient, I want to modify or add or update and manage any of the details mentioned in my account.	• The user needs to save the modified or updated information	• An email will be sent to the user email address about the changes • Without clicking the save button nothing will be changed
As a Patient I want to see the total cost of the counseling and choose at a weekly/monthly/yearly basis subscription, in order to plan out my finances in advance	• After successfully opening an account and answering all the questions users will be shown a new window with payment options. • Payment will be made via Debit, Credit Card, Rocket and Bkash • The cost and payment history for services will be visible to the user to the payment option.	• After choosing a payment option the user will be taken to a secure window to give additional information. • A confirmation email will be sent to the user after successful payment with a payment slip. • Unmatching of payment information like (card no, validity) will be given an error message. • If transaction failure occurs, then user will be shown a error message also with an email and be redirected to customer service.
As a Patient/Counselor I want to text and audio message the counselor anytime I want. I will have a separate option to send a voice message to the counselor/patient	• It'll open a new window • "Message writer" can enter a message in the message text field and a button to record voice message.	• When the "Message writer" clicks the submit button, then the page will display a message submitted message. • The reviewer will get a notification on a waiting message. • Without an internet connection a message won't be send.
As a Patient I want to book a schedule to have live text/voice/video call with the counselor	• It'll open a new window • User will be able to see a calendar with available time slots to book an appointment with the counselor	• The page should display a confirm message to book • A booking a can be canceled/rescheduled by a counselor/patient. Patient/counselor will be notified by this via email and text message
As an Administrator I want to manually add Counselors, modify changes with the site,	• Log in as admin to add a Counselor • Change internal settings of the site • Modify information and give updates	• Unsuccessful login will give error messages wrong email/password and a forget password option

update counselor information		• Inactivity for 30 minutes will automatically logout from the account.
As a Patient I want to have an option to request to change my counselor if I feel that the 'matched counselor' isn't compatible with me	• First the use has to be matched with a counselor • Then the patient can request for counselor change using a button on the menu.	• The patient will be re-evaluated and matched with another counselor • If no counselor is available in 24 hours, a message and email will be sent to the user about extending the time to find one for the patient.
As a Patients I want have a video session with my Counselor	• User must book an appointment with the scheduling option. • After confirming the appointment user can have the video session in the video session option.	• The page should display a confirm message to book • A booking a can be canceled/rescheduled by a counselor/patient. Patient/counselor will be notified by this via email and text message.
As a Counselor I want to submit a request to open an account and input basic information for the verification process including personal information (name, contact details, degree, experience etc)	• Counselor will be required to enter: Name, Email, contact number, degree and experience • The Counselor must enter an email, contact number which has not yet been registered in the site • Password must be at least 8 characters, with at least 1 number • Information from the form is stored in the registrations database • Protection against spam is working	• After completing the request form, a confirmation email that the request is under processing to the email address provided. • After the verification process, a confirmation email with a link will be sent to the email address provided. • After clicking the link on the confirmation email, Counselors will be asked to fill out some general information and give a password to their account. • A Counselor cannot submit a form without filling out all of the mandatory fields • If a counselor fails the verification process, he/she will be notified via email.
As a Counselor I want a dashboard which will include a current patient list, scheduler, billing info, text and audio messaging, video calling option	• Log in as a Counselor • Counselors will see a new window • It'll display Counselor Bio, reviews, current patient list, new patient list, scheduler, billing info, text and audio messaging, video calling option.	• Successful login will ask the user if they want to save password. • Unsuccessful login will give error messages wrong email/password and a forget password option.

		• Inactivity for 30 minutes will automatically logout from the user account.
As a Patient, I want to cancel my subscription	• User has to go to payment option then cancel subscription button	• User has to re-enter their password • Wrong password will show an error message and a forget password option • User will be given a form to specify why he/she is canceling. • User will be contacted by customer service. • If the user canceled subscription in the free cancelation time frame then the user won't be charged otherwise user will be partially charged.
As a Counselor, I want to drop a patient	• Counselor has to go to patient list the choose to drop a patient	• User has to re-enter their password • Wrong password will show an error message and a forget password option • User will be given a form to specify why he/she is dropping. • User will be contacted by customer service. • Counselor won't get his share of payment • Patient will be notified by SMS and email and be matched with a another counselor.