

Software Requirement Specification

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1. Project Description

Mental Health Support App

Our Mental Health Support App is built to make mental health care more accessible and personal. It will connect users with local mental health resources based on their location, making it easier to find therapists, support groups, and other nearby services. For people who prefer online care, the app will also offer options for virtual therapy sessions, providing the flexibility to speak with a professional from where they feel the most comfortable. Along with professional support, the app will encourage daily mood tracking and journaling, giving the users a place to reflect on their feelings and monitor their emotional well being. The goal is to provide thoughtful and personalized suggestions that help users feel more in tune with their mental health.

2. Functional Requirements

FR01	Mental Health Resources Page <ul style="list-style-type: none">The software must enable users to access mental health resources, including nearby and virtual therapists, receive activity suggestions such as visiting parks, gyms, art classes, or playing sports, and incorporate their favorite hobbies into a personalized mental health plan.
FR02	Mood Tracker and Journal <ul style="list-style-type: none">The software must enable users to track their mood with daily check-ins and provide journal or reflection questions to encourage regular monitoring and reflection on their emotional well-being.
FR03	AI-driven personalized advice chat <ul style="list-style-type: none">The software must enable users to receive AI-driven personalized advice through a chat feature, offering tailored suggestions based on the users' inputs.

3. Non-Functional Requirements

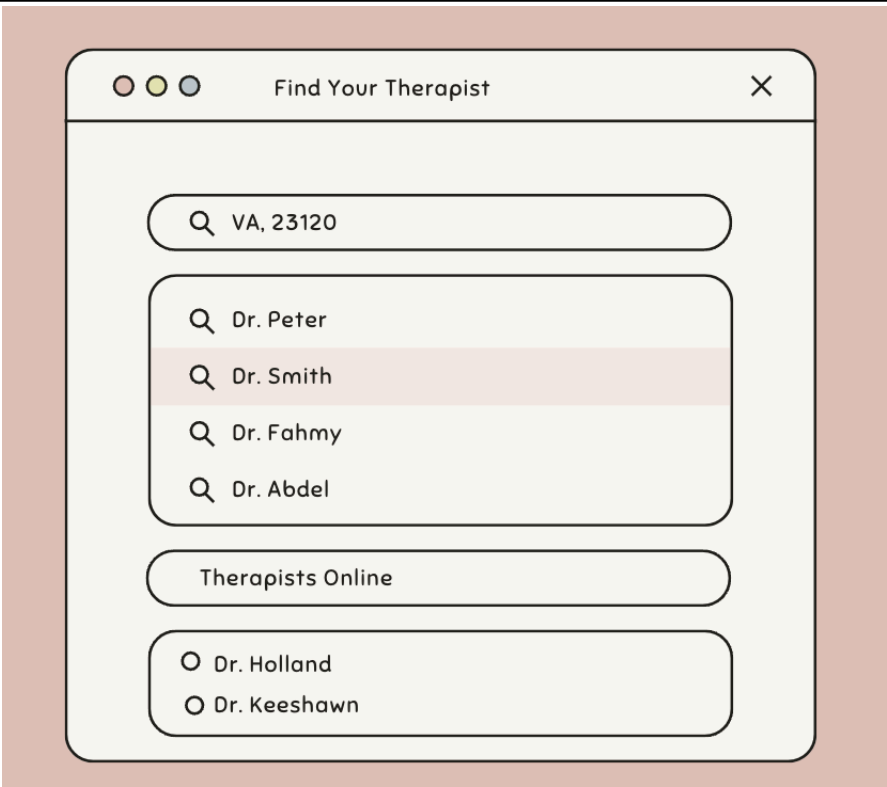
NFRO 1	The app must have an intuitive and user-friendly interface, allowing first-time users to navigate all major features (e.g., accessing mental health resources, mood tracking, and journaling) with no more than three clicks.
NFRO 2	The app must load the main interface within 3 seconds to enhance user engagement and satisfaction.

NFR03	The app must provide clear error messages and guidance for users when an action fails (e.g., failed login attempts or resource access issues) to enhance user understanding and minimize frustration.
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4. Use Case Specification

UC01 Name:	Mental health resources
Description:	The software allows users to find therapists, receive activity suggestions, and find ways to incorporate their hobbies into a personalized mental health plan.
Actor:	User
Entry condition:	The user selects the Mental Health Resources Tab.
Basic path:	<ol style="list-style-type: none"> 1. The user opens the Mental Health Support App.[BR01] 2. The user selects the "Resources" tab where there will be two sections: Find Your Therapist Section: <ul style="list-style-type: none"> • The app displays the "Find Your Therapist" section. • The user chooses to find a therapist either virtually or in person.[A01] [A02] [E01] [PRO01] • Enable Location Services: If selecting in-person options, the app prompts the user to enable location services. • View Therapist List: The app displays a list of therapists based on the user's preferences and location.[BR02] [BR03] • Select Therapist: The user selects a therapist to view more information and contact options. <p>Other Resources Section:[BR04] [BR05]</p> <ul style="list-style-type: none"> • The user scrolls to the "Other Resources" section, which includes various activities, gyms, parks, and actionable tips. • The app displays various options for activities to improve well-being. • Explore Activities: The user selects specific activities or hobbies to learn more about them.
Alternative paths:	<p>[A01] No Therapists Found</p> <ol style="list-style-type: none"> 1. If no therapists match the search criteria, the app informs the user and suggests checking virtual options or modifying filters. <p>[A02] Data Fetching Error</p> <ol style="list-style-type: none"> 1. If there's an error fetching therapists or activities, the app displays an error message and offers options to retry or return to the main menu.
Exception paths:	[E01] No Therapists Found







	<ul style="list-style-type: none">Scenario: No therapists match the search criteria. This could be due to no therapist being found at the specific location.Response: Message indicating "No therapists found. Please adjust your search criteria." <p>[E02] Failed to Load Resources</p> <ul style="list-style-type: none">Scenario: Error loading resources due to network issues.Response: Message stating "Unable to load resources. Please check your internet connection."																				
Business Rules:	<p>[BR01] User Authentication: Users must create an account and log in to access personalized features and resources within the app.</p> <p>[BR02] Therapist Verification: All therapists listed in the app must be verified and licensed in their respective states or countries to ensure users receive legitimate support.</p> <p>[BR03] Location Accuracy: The app must accurately detect user location for in-person therapist searches and provide nearby options based on the current location or manually entered zip code/city.</p> <p>[BR04] User Preferences: The app must allow users to customize their preferences for therapist searches (e.g., specialty, availability) and activity suggestions (e.g., type of activities, location).</p> <p>[BR05] User Notifications: Users must receive timely notifications for reminders related to mood tracking, therapy sessions, and new activity suggestions based on their preferences.</p>																				
Data description	<table><tr><th>Name</th><th>Type</th><th>Length</th><th>Mask</th></tr><tr><td>Location</td><td>String</td><td>50</td><td>VA, 23120</td></tr><tr><td>Therapist Name</td><td>String</td><td>50</td><td>FirstName LastName</td></tr><tr><td>Therapist Description</td><td>String</td><td>1000</td><td>Paragraph</td></tr><tr><td>Activities List</td><td>String Array</td><td>1000</td><td>List</td></tr></table>	Name	Type	Length	Mask	Location	String	50	VA, 23120	Therapist Name	String	50	FirstName LastName	Therapist Description	String	1000	Paragraph	Activities List	String Array	1000	List
Name	Type	Length	Mask																		
Location	String	50	VA, 23120																		
Therapist Name	String	50	FirstName LastName																		
Therapist Description	String	1000	Paragraph																		
Activities List	String Array	1000	List																		
Prototype:	[PRO01] Find your therapist either in person based on your location or online.																				




[PRO02] Resources list and actional tips



UC02 Name:	Mood Tracker and Journal
Description:	Track the user's mood with daily check-ins and provide journal or reflection questions to encourage regular monitoring and reflection on their emotional well-being.
Actor:	The User
Entry condition:	<p>The user selects the "Journal" option</p> <p>The user must be logged into the app and access the mood tracker and journal feature from the main menu or dashboard</p>
Basic path:	<ol style="list-style-type: none"> 1. The program displays three options to the user 2. The user opens the mood tracker and journal section 3. The system prompts the user with a mood check-in for the day (ex: "how are you feeling?", ...)[PRO01] [BR01] 4. The user selects an emotional state from a predefined list (ex: happy, sad, excited, anxious, ...)[E01] 5. The system then provides journal or reflection questions (ex: "what made you feel this way", "What can help you improve you improve your mood?")[PRO02] 6. The user writes responses to the journal questions in a text field[A01] [A02] [BR01] 7. The system saves the user's mood entry and journal responses for that day 8. The system displayed a visual representation of the user's mood trends over time (like a mood chard)[BR02] 9. And as a bonus, the system can display a cool animation while showing the chart (it could animate building the chart)
Alternative paths:	<p>[A01]</p> <ul style="list-style-type: none"> • The user completes the mood check-in but opts not to answer the journal prompts • The system saves the mood entry without journal responses <p>[A02]</p> <ul style="list-style-type: none"> • The user can write freely if they do not want to answer a journal prompt • The system saves the user's selected journal entry
Exception paths:	<p>[E01]</p> <ul style="list-style-type: none"> • The user fails to submit a mood check-in for the day

	<ul style="list-style-type: none">The system may send a reminder notification for the user to complete their daily mood check-in																									
Business Rules:	<p>[BR01] User Data Confidentiality</p> <ul style="list-style-type: none">All user mood entries and journal responses must be encrypted and stored securely <p>[BR02] User Analytics</p> <ul style="list-style-type: none">The app may provide the user with weekly or monthly analytics based on their mood data but should not share this information without user consent																									
Data description	<table><tr><th>Name</th><th>Type</th><th>Length</th><th>Mask</th><th></th></tr><tr><td>Mood Entry</td><td>String</td><td>255 chars</td><td>N/A</td><td></td></tr><tr><td>Journal Response</td><td>String</td><td>2000 chars</td><td>N/A</td><td></td></tr><tr><td>Mood Timestamp</td><td>DateTime / Int / Double</td><td>N/A</td><td>N/A</td><td></td></tr><tr><td>User ID</td><td>String</td><td>50 chars</td><td>N/A</td><td></td></tr></table>	Name	Type	Length	Mask		Mood Entry	String	255 chars	N/A		Journal Response	String	2000 chars	N/A		Mood Timestamp	DateTime / Int / Double	N/A	N/A		User ID	String	50 chars	N/A	
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Prototype:	<p>[PRO01]</p> <ul style="list-style-type: none">A simple UI that allows the user to select their mood from an emoji-based or color-coded list <p>How are you feeling today? (Type the emotion)</p> <div><div><p>Worried</p></div><div><p>Angry</p></div><div><p>Sad</p></div><div><p>Surprised</p></div><div><p>Happy</p></div><div><p>Confused</p></div></div> <p>[PRO02]</p> <ul style="list-style-type: none">A text box allowing the user to input a journal entry with optional prompts for guided reflection <p>Input Journal Entry Here:</p> <div><div>Begin typing here...</div></div>																									

UC03 Name:	AI-driven personalized advice chat
Description:	A chat feature that offers personalized advice and feedback. The response is based on the user's input, taking the user's specific needs into account.
Actor:	The User
Entry condition:	The user selects "AI Advice Chat"
Basic path:	<ol style="list-style-type: none"> The system presents the chat: [PRO01] <ul style="list-style-type: none"> The system displays a text box The text box suggests users to type an input [BR04] Allows the user to select a preset input (ex. Sleep issues) User types their question or statement [A01][E01][E02] Chat gives advice and feedback based on input [BR01][BR03][PRO02]
Alternative paths:	[A01] AI Chat <ol style="list-style-type: none"> If the user opts to use a preset input: <ul style="list-style-type: none"> A list of suggestions display for users to select from. Character limit <ul style="list-style-type: none"> Text box has a 400 character limit, with a counter displayed at the bottom (ex. 3/400) Unsupported Characters <ul style="list-style-type: none"> Special Characters and emojis invalid and ignored by the system
Exception paths:	[E01] Empty Field <ol style="list-style-type: none"> System display message alerting the user if not filling out the text box System prompts user to return and insert an input [E02] Character Limit exceeded <ol style="list-style-type: none"> System warns user when character limit has been exceeded System prompts user to return and modify input
Business Rules:	[BR01] Responses <ul style="list-style-type: none"> Chat bot responses can not exceed 1000 characters [BR02] Chat input <ul style="list-style-type: none"> Chat input can not exceed 400 characters [BR03] Response Styles <ul style="list-style-type: none"> Direct Advice: Provide straightforward answers or recommendations. Guided Exploration: Lead users through a series of questions to refine their needs and offer personalized insights. Resource Sharing: Offer links to articles, videos, or tools based on user input. [BR04] User Input Types

	<ul style="list-style-type: none">● Predefined Questions: Users select from a list of common queries or scenarios to streamline the interaction.																
Data description	<table><tr><th>Name</th><th>Type</th><th>Length</th><th>Mask</th></tr><tr><td>topics</td><td>String</td><td>240</td><td></td></tr><tr><td>userQuestions</td><td>String</td><td>400</td><td></td></tr><tr><td>chatbotResponses</td><td>String</td><td>1000</td><td></td></tr></table>	Name	Type	Length	Mask	topics	String	240		userQuestions	String	400		chatbotResponses	String	1000	
Name	Type	Length	Mask														
topics	String	240															
userQuestions	String	400															
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Prototype:	<div><p>[PRO01] UI where the users can ask questions and get generated answers</p><p> Welcome to ChatTherapy!</p><p>Your AI-driven assistant for all mental health related queries.</p><p>Feel Free to ask me anything from the topics below!</p><ul style="list-style-type: none">◦ Stress and Anxiety◦ Depression and Low Mood◦ Relationship Issues◦ Self-Esteem and Self-Worth◦ Grief and Loss◦ Loneliness and Isolation◦ Workplace Stress◦ Goal Setting and Motivation◦ Sleep Issues◦ Career and Life Goals◦ And so much more ...<div><p>Your question</p><p>What do you want to ask about?</p></div><div><p>ChessBot Response</p><p>ChessBot will respond here...</p></div></div> <p>[PRO02] Chatbot giving a personalized answer based on the question asked</p> <div><p>Your question</p><p>I'm feeling stressed</p></div> <div><p>ChessBot Response</p><p>I'm here to listen and support you. Please feel free to share what's on your mind and what's causing you stress or anxiety. Remember that it's important to talk about your feelings and seek help when needed.</p></div>																