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**COMSATS University Islamabad (CUI)**

Software Requirement Specification  
(SRS DOCUMENT)

for

***NeuroSentry***  
Version 1.0

***By***

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Revision History

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Application Evaluation History

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# Introduction

The purpose of this SRS Document is to outline the development of a NeuroSentry App, which aims to provide users with an accessible and easy-to-use tool for monitoring their mental health. This app will offer features such as daily mood tracking, self-assessment quizzes and recommended resources for seeking professional help. The primary goal of the app is to promote mental health awareness and minimize the associated social stigma. by encouraging regular check-ins and selfcare habits. The system is based on the growing need for mental health resources in society, despite the increase in awareness and advocacy many people still face barriers when seeking mental health services, including lack of access, financial constraints, and social stigma. A mobile app that provides users with a private and convenient way to monitor their mental well-being could help bridge this gap.

The NeuroSentry App will be developed with user-centred design principles and informed by existing research on mental health apps. It will be designed to be user-friendly, aesthetically pleasing, and culturally sensitive. The app will also prioritize data privacy and security, with all user data being encrypted and stored securely. Overall, the NeuroSentry App has the potential to make a significant impact on the lives of those struggling with mental health by providing a safe and accessible way to monitor and improve their well-being.

## Purpose

The purpose of this Software Requirements Specification (SRS) document is to define the scope, modules, and functionality, which includes both functional and non-functional requirements, use cases, and external interfaces for the 'NeuroSentry Application.' This innovative application serves as a comprehensive Mental Health Check platform. This SRS document is created for use by the project's development team, including developers, supervisors, and relevant stakeholders. It outlines the functionalities and features of the NeuroSentry Application, and it is intended to guide the development process.The document encompasses all aspects of the NeuroSentry Application's functionality.

## Scope

The proposed project, NeuroSentry using NLP Flutter, aims to provide a user-friendly and accessible application for mental health evaluation and support. The scope of the project includes developing an NLP-based system that can analyze the users' inputs and detect signs of mental distress such as anxiety, depression, and stress. The application will be developed using Flutter, which is a cross-platform mobile app development framework, and will be available for both iOS and Android platforms. The main functionalities of the proposed project include the ability to collect user inputs through a chat interface, analyze the inputs using NLP algorithms, generate reports, and provide personalized mental health advice and support. The application will be designed to provide users with a confidential and secure environment to share their thoughts and feelings without fear of judgment or stigma. The scope also includes the development of an admin panel that will allow mental health professionals to access the user data, track their progress, and provide personalized support. The proposed project will be scalable and will have the potential to be used by mental health professionals, researchers, and individuals who want to assess their mental health. The project aims to contribute to improving mental health awareness, reducing stigma, and promoting the use of technology for mental health.

## Modules

### Module 1: Profile Management

*FE-1: Create a new account by providing basic information such as name, email, and password.*

*FE-2: Log in to the app using the registered email and password.*

*FE-3: Reset password if forgotten using the registered email.*

*FE-4: Validate user input and display error messages if any field is incorrect or missing.*

*FE-5: Encrypt user passwords to ensure data security.*

### Module 2: Serenity AI

*FE-1: Analyze user input to identify mental health concerns, such as anxiety, depression, stress, and other mood disorders.*

*FE-2: Use machine learning algorithms to improve the accuracy of the NLP module over time.*

*FE-3: Integrate with the Mental Health Check-in Module to provide accurate feedback on the user's mental health state.*

### Module 3: Mental Health Check-in

*FE-1: Offer various mental health assessments to identify specific mental health concerns.*

*FE-2: Provide feedback on the user's mental health state and suggest coping strategies based on their answers.*

*FE-3: Allow users to retake assessments to track their progress over time.*

*FE-4: Display personalized results and recommendations based on the user's input and NLP analysis.*

### Module 4: Mood-Meter

*FE-1: Allow users to track their mood on a daily basis, including their emotional state and any physical sensations that they may be experiencing.*

*FE-2: Identify patterns and trends in the user's mood and display them graphically.*

*FE-3: Provide personalized recommendations to improve the user's mood based on the data collected.*

*FE-4: Integrate with the Mindful-Goals Module to remind users to complete mood tracking at regular intervals.*

### Module 5: DeepMind Wellness

*FE-1: Offer mental health-related resources, such as articles, videos, podcasts, and guided meditation sessions.*

*FE-2: Provide personalized tips and suggestions based on the user's specific mental health concerns.*

*FE-3: Allow users to save and bookmark resources for future reference.*

*FE-4: Integrate with the Chat-Care Module to provide immediate assistance and support.*

### Module 6: Emo-Support

*FE-1: Provide access to mental health professionals, including therapists, counsellors, and psychiatrists in their current location.*

*FE-2: Offer clinical support and treatment through virtual consultations.*

*FE-3: Allow users to schedule appointments with mental health professionals within the app.*

*FE-4: Provide reviews and ratings for mental health professionals.*

*FE-5: Offer payment options for professional services.*

### Module 7: Chat-Care Module

*FE-1: A conversational agent that uses natural language processing (NLP) to provide emotional support and guidance.*

*FE-2: Integrate a chat-bot that can offer immediate assistance and support to users.*

*FE-3: Respond to user queries related to mental health concerns, resources, and tips.*

*FE-4: Provide personalized recommendations based on the user's input and NLP analysis.*

*FE-5: Connect users with mental health professionals or peer support groups when necessary.*

### Module 8: SupportSphere

*FE-1: Integrate with social media platforms to provide mental health-related content.*

*FE-2: Provide motivational quotes, success stories, and testimonials from other users.*

*FE-3: Allow users to share their progress and achievements on social media.*

*FE-4: Provide social media feeds of mental health-related content.*

*FE-5: Allow users to connect with mental health professionals and other users through social media.*

*FE-6: Allow users to join or create support groups with peers who have similar mental health concerns.*

*FE-7: Provide a safe and supportive environment for users to share their experiences, coping strategies, and provide mutual support.*

*FE-8: Facilitate group communication and interaction using in-app messaging or video calls.*

*FE-9: Ensure user data privacy and anonymity while participating in support groups.*

*FE-10: Allow users to follow mental health-related hashtags and topics on social media platforms.*

*FE-11: Provide daily mental health-related challenges and activities for users to participate in.*

*FE-12: Allow users to create and share mental health-related content, such as personal stories, artwork, or journal entries.*

*FE-13: Provide access to mental health resources and information through social media platforms.*

*FE-14: Notify users of upcoming mental health events or campaigns on social media platforms.*

*FE-15: Allow users to report inappropriate or harmful content on social media platforms.*

### Module 9: Mindful-Goals

*FE-1: Allow users to set mental health-related goals.*

*FE-2: Track progress towards mental health-related goals.*

*FE-3: Offer personalized recommendations on how to achieve goals.*

*FE-4: Provide reminders and notifications to help users stay on track.*

*FE-5: Allow users to share their goals and progress with mental health professionals or friends and family for support.*

*FE-6: Provide personalized self-care suggestions based on user input and analysis.*

*FE-7: Offer suggestions for exercise, nutrition, mindfulness, and relaxation techniques.*

*FE-8: Allow users to create and customize their self-care plans.*

*FE-9: Provide reminders and notifications to encourage self-care activities.*

## Overview

The following sections contain the detailed description of the system at a lower level of abstraction. The description includes detailed use case description, functional requirements, non-functional requirements, and external interface requirements. The upcoming sections also include a few diagrams that describe the system in a graphical manner. These diagrams include context diagram, event response tables and use case diagram.

# Overall Description

The NeuroSentry App is a pioneering mental health platform, offering an inclusive and user-centric approach to emotional well-being. It provides an intuitive interface for users to register and create profiles, embark on self-assessment journeys, and track their daily moods. With a diverse repository of resources, personalized recommendations, and the ability to schedule virtual appointments with professionals, it bridges the gap between individuals and clinical support. The app encourages support group participation, facilitates chatbot interactions for immediate guidance, and streamlines payment processes. Administrators manage content, ensuring accuracy and compliance, while data analytics generate insights into user behavior. Robust security measures and regular maintenance are integral to this transformative project, ensuring the privacy and well-being of users on their mental health journeys.

## Product Perspective

NeuroSentry is an innovative mental health and wellness solution developed to address the growing need for comprehensive mental well-being support. Unlike existing platforms, it is not a next version or an extension of an established product, nor does it replace any existing application. NeuroSentry represents a pioneering product, designed from the ground up to cater to the diverse needs of individuals seeking mental health support and mental health professionals providing their services. It is a unique system aimed at promoting mental well-being and offering accessible support to users and professionals. To visualize its context, a context diagram will be developed, illustrating the relationships between NeuroSentry and various entities, including users, mental health professionals, external resources, and other related systems. These interactions are at the core of the NeuroSentry application's functionality, highlighting its vital role in promoting mental well-being.

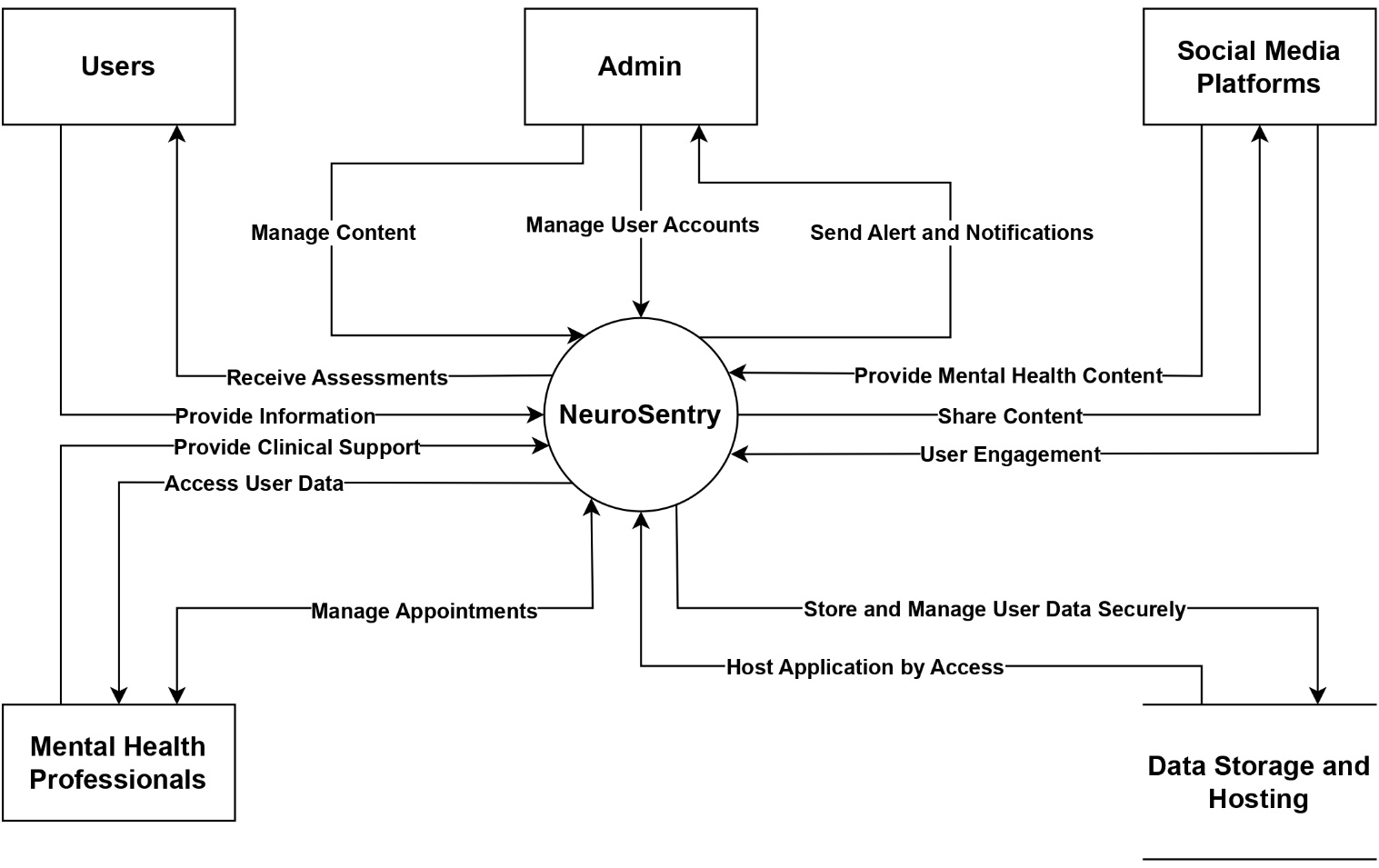


Figure Context Diagram of NeuroSentry

## User classes and characteristics

|  |  |
| --- | --- |
| **User Class** | **Description** |
| Patient | The Patient class represents individuals seeking mental health support through the NeuroSentry app. This class is diverse, encompassing individuals from various demographic backgrounds, age groups, and mental health conditions. Users come to the app for guidance, support, and resources to manage their mental health. They are the primary users of the app, relying on its features, including assessments, mood tracking, and access to mental health professionals, to address their specific needs. User/Patients may access the app from smartphones or tablets, providing flexibility for on-the-go support. |
| Mental Health Professional | The Mental Health Professionals class consists of certified therapists, counselors, and psychiatrists who offer clinical support and therapeutic services through the NeuroSentry app. They use the platform to schedule appointments, conduct therapy sessions, and provide professional assistance to patients. Mental Health Professionals leverage the app's features to offer support and treatment, making it a vital tool in delivering mental health care. |
| Admin | Admins are individuals with elevated privileges within the NeuroSentry app. They play a crucial role in maintaining system integrity and user management. Admins can access user accounts, ensure data security, and manage system analytics and reports. They are responsible for overseeing the smooth operation of the application and handling any issues related to user accounts or data integrity. |
| Community Engagement Facilitator | Community Engagement Facilitators are responsible for creating and maintaining a supportive environment within the NeuroSentry app. They manage support groups, forums, and community discussions, enabling users to interact, share experiences, and provide mutual support. These facilitators play a vital role in fostering a sense of community and encouraging users to engage with each other, creating a supportive space for mental health discussions. |

## Operating Environment

OE-1: The NeuroSentry Mobile Application, developed in Flutter, will be optimized for mobile devices running the Android and iOS operating systems, ensuring compatibility with a wide range of smartphones and tablets..

OE-2: The application will require an internet connection for full functionality and real-time data synchronization. It will be hosted on cloud-based servers and infrastructure suitable for mobile app deployments, providing the necessary scalability and performance.

OE-3: Accessible from anywhere in the world with an internet connection, the NeuroSentry Mobile App will connect users and mental health professionals across geographical boundaries, offering a global reach..

OE-4: User data and content will be securely stored in cloud-based databases, ensuring the redundancy and data integrity necessary for mobile applications. The cloud services used will be selected to meet the specific requirements of a mobile-focused app.

OE-5: The NeuroSentry Mobile Application will adhere to data privacy regulations, with a strong focus on user data protection and security. Stringent measures will be implemented to safeguard user information and ensure compliance with relevant privacy laws.

OE-6: The app's user interface and design will be responsive and tailored for optimal user experiences on mobile devices, including smartphones and tablets. It will be developed with a mobile-first approach, providing seamless navigation and usability on various screen sizes and resolutions.

## Design and Implementation Constraints

CON-1: Cross-Platform Development Framework:

The NeuroSentry mobile application must be developed using the Flutter framework. This constraint is in place to ensure cross-platform compatibility across both Android and iOS devices. Flutter simplifies code maintenance and expedites feature updates.

CON-2: Third-Party NLP Integration:

The application shall incorporate third-party Natural Language Processing (NLP) algorithms for mood analysis and mental health assessment. The choice of the specific NLP service may be limited to pre-existing integration options due to the complexity and specialized nature of NLP technologies.

CON-3: Data Encryption Standards:

All user data, especially sensitive information like health assessments and mood tracking, must be stored and transmitted securely. The application must adhere to industry-standard encryption protocols and practices, such as AES-256 for data at rest and SSL/TLS for data in transit.

CON-4: Scalable Cloud Hosting:

The application's backend, including servers and databases, must be hosted on scalable cloud infrastructure. This constraint ensures that the system can handle increasing user loads without significant reconfiguration or performance degradation.

CON-5: Privacy Regulations Compliance:

The application must comply with data privacy regulations, such as GDPR or HIPAA, depending on the regions where it's available. These regulations impose constraints on data collection, storage, and sharing, influencing the design and implementation of data-handling processes.

CON-6: Secure Payment Gateway:

In cases where payment services are integrated into the app, NeuroSentry must use a secure and reliable payment gateway to process transactions. This constraint may limit the choice to well-established payment processors.

CON-7: Operating System Compatibility:

The application should remain compatible with the two primary mobile operating systems, Android and iOS, ensuring that new OS updates or changes do not disrupt functionality. This constraint requires timely updates to maintain compatibility.

# Requirement Identifying Technique

## Use Case Diagrams

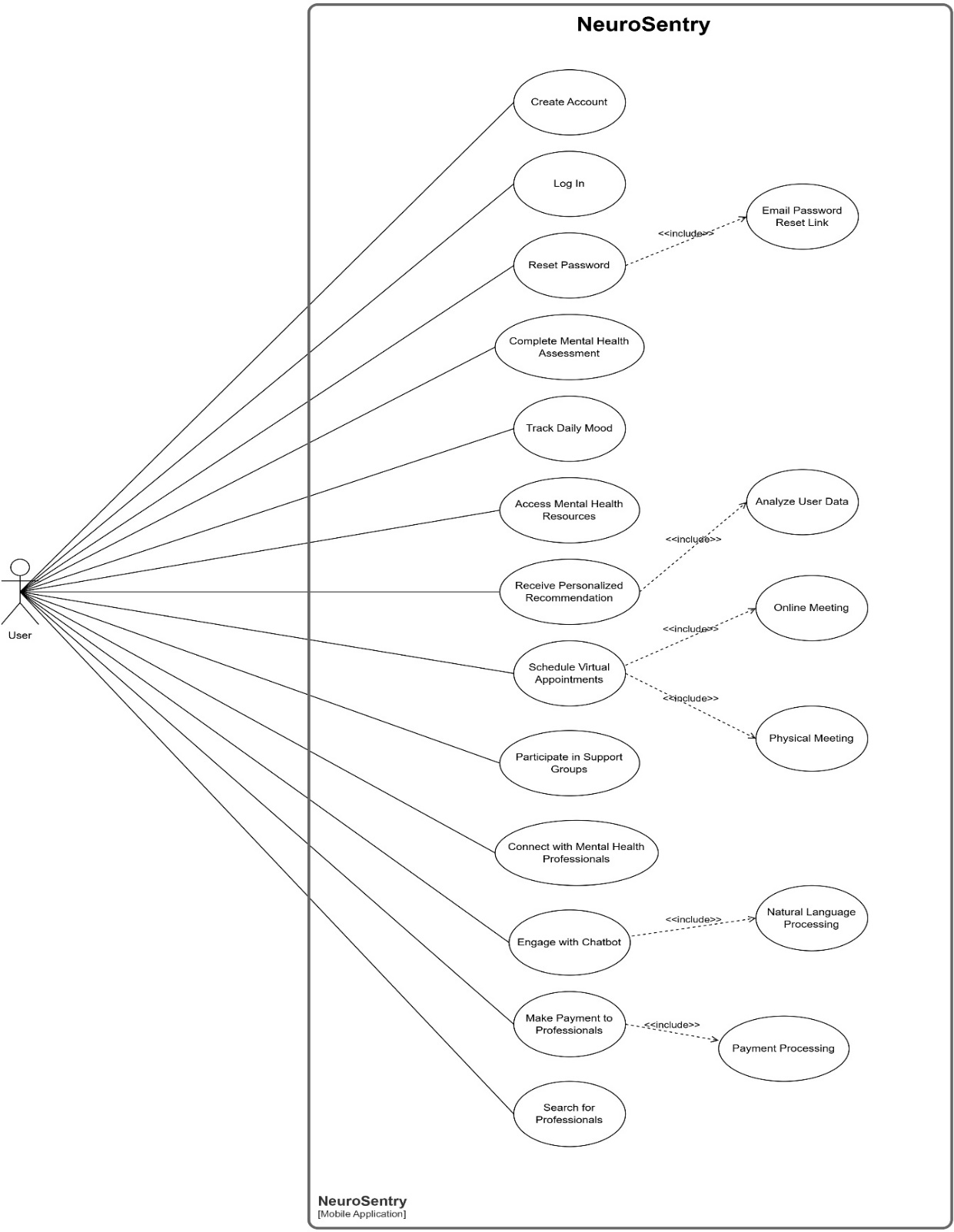


Figure Patient Use Case Diagram



Figure 3: Use Case diagram for Administraor

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Figure 4: Use Case diagram for Mental Health Professional

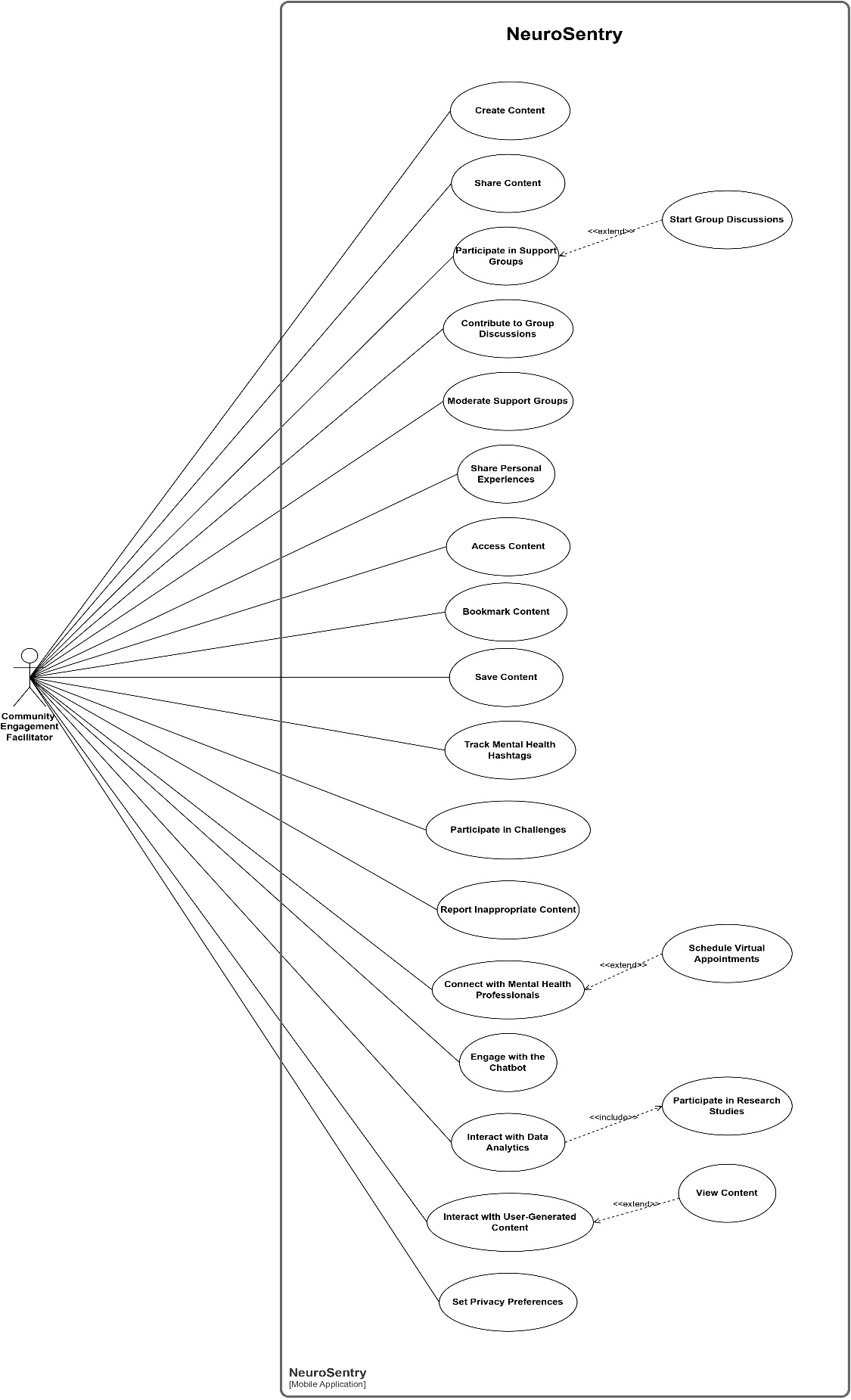


Figure 5 : Use Case diagram for Community Engagement Facilitator

## Detailed Use Cases

***User:***

### ****UC-1: Create Account****

|  |  |
| --- | --- |
| **Use Case Identifier** | UC-1 |
| **Title** | Create Account |
| **Description** | The user can create a new account by providing basic information such as name, email, and password. |
| **Actors** | User |
| **Trigger** | The user indicates the desire to create a new account. |
| **Preconditions** | None |
| **Postconditions** | The user's account is created with the provided information. |
| **Normal Flow** | 1. The user selects the option to create a new account. 2. The user provides their name, email, and password. 3. The system validates the provided information. 4. The system creates a new user account with the provided details. 5. The system sends a confirmation email to the user. 6. The user receives the confirmation email and confirms their account. 7. The user's account is now active, and they can log in. |
| **Alternative Flow** | None |
| **Exceptions** | E-1: Duplicate Email Address   1. If the provided email address is already associated with an existing account, the system will prompt the user to choose a different email address.   E-2: Account Confirmation Time Limit Exceeded   1. If the user fails to confirm their account via the confirmation email within a specified time frame, their account creation process will be considered incomplete, and they will need to initiate the account creation process again. |
| **Business Rule** | BR-1: The password provided by the user must meet certain criteria for security, such as a minimum length, inclusion of special characters, and a combination of upper and lower-case letters.  BR-2: Each email address used for registration must be unique within the system. No two accounts can share the same email address. |
| **Assumptions** | 1. The system has the capability to store user account information securely.  2. The user has a valid and unique email address to use for their account.  3. The user's chosen password meets the system's security requirements.  4. The system has the ability to send email notifications and users can receive emails.  5. The user has access to the email address they provide for account confirmation.  6. The system has a mechanism to prevent duplicate accounts with the same email address.  7. The system follows best practices for data security and encryption to protect user information.  8. Users are responsible for keeping their account credentials (such as email and password) confidential. |

### UC-2: Log In

|  |  |
| --- | --- |
| **Use Case Identifier** | UC-2 |
| **Use Case Name** | Log In |
| **Description** | The user can log in to their account using their registered email and password. |
| **Actors** | Primary Actor: User |
| **Triger** | The user intends to log in to their account. |
| **Postconditions** | PRE1: The user has a registered account in the system. |
| **Postconditions** | POST1: The user is successfully logged in and gains access to their account. |
| **Normal Flow** | 1. User opens the application or website. 2. User selects the "Log In" option. 3. User enters their registered email address and password. 4. User clicks the "Log In" button. 5. The system validates the provided email and password. 6. If the email and password are valid and match an existing user's credentials, the system logs in the user. 7. The user gains access to their account dashboard or relevant features. |
| **Alternative Flow** | None |
| **Exceptions** | E1: Invalid Email or Password  1. If the email or password provided by the user is invalid or doesn't match any existing user's credentials, the system displays an error message.  2. The user can choose to retry entering their email and password or initiate a password reset if needed. |
| **Business Rules** | BR1: User email addresses must be unique in the system.  BR2: Passwords must meet a minimum security requirement (e.g., a minimum length and complexity). |
| **Assumptions** | 1. User registration has been completed, and user data is stored securely. 2. Passwords are stored securely with proper encryption and hashing techniques. 3. The user interface provides clear instructions for logging in and handling errors.   4. Users have a way to reset their password if they forget it. |

### UC-3: Reset Password

|  |  |
| --- | --- |
| **Use Case Identifier** | UC-3 |
| **Use Case Name** | Reset Password |
| **Description** | The user can request a password reset if they forget their password. |
| **Actors** | Primary Actor: User |
| **Triggers** | The user forgets their password and requests a password reset. |
| **Preconditions** | PRE-1: The user has a registered account in the system. |
| **Postconditions** | POST-1: The user receives instructions for resetting their password. |
| **Normal Flows** | 1. User opens the application or website. 2. User clicks on the "Forgot Password" or "Reset Password" link. 3. User is prompted to enter their registered email address. 4. User enters their email address and submits the request. 5. The system verifies that the email address exists in the system. 6. If the email address is valid, the system generates a unique password reset token. 7. The system sends an email to the user's registered email address containing a link to reset their password. 8. The user receives the email and clicks on the password reset link. 9. The system validates the token from the link. 10. If the token is valid and within the allowed time frame, the user is directed to a page where they can enter a new password. 11. User enters a new password and confirms it. 12. The system updates the user's password.   13. The user is notified that their password has been successfully reset. |
| **Alternative Flows** | None |
| **Exceptions** | E1: Invalid Email Address  1. If the email address provided by the user is not found in the system, the system displays an error message.  2. The user is prompted to enter a valid email address.  E2: Token Expired or Invalid  1. If the token from the password reset link is expired or invalid, the system displays an error message.  2. The user is prompted to initiate the password reset process again. |
| **Business Rules** | BR-1: User email addresses must be unique in the system.  BR-2: Password reset tokens have a limited validity period. |
| **Assumptions** | 1. User registration and email validation processes are in place. 2. Password reset tokens are securely generated and stored. 3. Users have access to their registered email address to complete the password reset process. |

#### UC-3.1: Email Password Reset Link

|  |  |
| --- | --- |
| **Use Case Identifier** | UC-3.1 |
| **Title** | Email Password Reset Link |
| **Description** | The system allows a user to request a password reset link via email when they have forgotten their password. |
| **Actors** | Primary Actor: User (Client)  Secondary Actors: System, Email Server |
| **Trigger** | The User initiates a request for a password reset link due to a forgotten password. |
|  |  |
| **Preconditions** | PRE-1: The User is registered with the system.  PRE-2: The User has access to their registered email address.  PRE-3: The User is logged out of their account.  PRE-4: The Email Server is operational and configured for sending emails. |
| **Postconditions** | POST-1: The User receives the email and can use the link to reset their password.  POST-2: The password reset link is temporary and expires after a defined period.  POST-3: The User's password is successfully reset. |
| **Normal Flow** | 1. The User navigates to the login page and clicks on the "Forgot Password" or "Reset Password" link. 2. The User is prompted to enter their registered email address. 3. The User enters their email address. 4. The system validates the email address and its existence in the database. 5. The system generates a unique and temporary password reset token. 6. An email is composed with the password reset link (containing the token). 7. The system sends the email to the User's registered email address via the Email Server. 8. The User receives the email. 9. The User clicks on the password reset link within the email. 10. The system verifies the token's validity and expiration. 11. The User is directed to a page where they can reset their password. 12. The User enters a new password and confirms it. 13. The system updates the User's password in the database. 14. The User is informed that their password has been successfully reset. 15. The User can now log in using their new password. |
| **Alternative Flow** | 4.1. The email address is not found in the database:  The system informs the User that the email address is not registered.  4.2. The email address is not valid (e.g., wrong format):  The system informs the User to provide a valid email address.  9.1. The User doesn't receive the email:  The system advises the User to check their spam folder or resend the email.  The email sent contains incorrect or expired reset token:  The system informs the User that the link has expired or is invalid.  12.1. The entered password does not meet the required criteria:  The system informs the User about password requirements (e.g., length, complexity).  The User does not confirm the password correctly:  The system informs the User that the passwords do not match. |
| **Exceptions** | 1. Email Server Failure: 2. The system logs the failure and notifies administrators. 3. Users are informed about the issue and may be asked to retry the password reset process later. 4. Expired Reset Token: 5. Users receive an error message indicating the token has expired. 6. Users need to repeat the request for a new password reset link. |
| **Business Rule** | BR-1: Password reset links are time-limited and expire after a defined period.  BR-2: Password reset tokens are unique and cannot be reused.  BR-3: Password reset email contents are secured and do not disclose sensitive information.  BR-4: Users must have access to their registered email address for this process.  BR-5: Users must create a strong and secure password during the reset process. |
| **Assumptions** | 1. Users have registered with a valid and reachable email address. 2. The Email Server is functioning properly and configured for sending emails. 3. Users have forgotten their passwords. 4. Password reset tokens are securely generated and transmitted. |

### UC-4: Complete Mental Health Assessments

|  |  |
| --- | --- |
| **Use Case Identifier** | UC-4 |
| **Use Case Name** | Complete Mental Health Assessments |
| **Descriptions** | The user can complete various mental health assessments within the app. |
| **Actors** | Primary Actor: User |
| **Triggers** | The user decides to complete a mental health assessment. |
| **Preconditions** | PRE-1: The user is logged in to the app.  PRE-2: Mental health assessments are available and accessible within the app. |
| **Postconditions** | POST-1: The user receives the results of the completed mental health assessment. |
| **Normal Flows** | 1. User opens the app. 2. User logs in to their account if they are not already logged in. 3. User navigates to the section of the app that offers mental health assessments. 4. User selects a specific mental health assessment to complete. 5. The app presents the selected assessment to the user with a set of questions. 6. User answers the questions honestly and to the best of their ability. 6. After completing the assessment, the app processes the responses. 7. The app generates a summary or score based on the user's responses. 8. The user receives the results of the assessment, which may include recommendations, resources, or further actions to take based on the results. |
| **Alternative Flows** | None |
| **Exceptions** | None |
| **Business Rules** | BR-1: The app provides a variety of mental health assessments that users can choose from.  BR-2: The assessment results are kept confidential and are not shared with others without the user's explicit consent. |
| **Assumptions** | 1. The app offers a range of mental health assessments covering various aspects of mental well-being. 2. User data and assessment results are stored securely and in compliance with privacy regulations. 3. The assessments are designed to provide helpful insights and are not a substitute for professional mental health advice. 4. Users are encouraged to seek professional help if their assessment results indicate a need for it. |

### UC-5: Track Daily Mood

|  |  |
| --- | --- |
| **Use Case Identifier** | UC-5 |
| **Use Case Name** | Track Daily Mood |
| **Descriptions** | The user can log and track their daily mood, emotions, and physical sensations. |
| **Actors** | Primary Actor: User |
| **Triggers** | The user decides to log and track their daily mood. |
| **Preconditions** | PRE-1: The user is logged in to the app. |
| **Postconditions** | POST-1: The user's daily mood, emotions, and physical sensations are logged and stored in the app. |
| **Normal Flows** | 1. User opens the app. 2. User logs in to their account if they are not already logged in. 3. User navigates to the "Daily Mood Tracker" or similar section within the app. 4. User selects the date for which they want to log their mood. 5. User is presented with options to record their mood, emotions, and physical sensations (e.g., using a rating scale or descriptive input). 6. User enters their mood, selects emotions they are experiencing, and describes physical sensations if desired. 7. The app records and stores the user's entries for the selected date. 8. User can view their mood history and trends over time within the app. |
| **Alternative Flows** | None |
| **Exceptions** | None |
| **Business Rules** | BR-1: The app provides a user-friendly interface for recording daily mood, emotions, and physical sensations.  BR-2: User data, including mood entries, is stored securely and in compliance with privacy regulations. |
| **Assumptions** | 1. The app offers an intuitive and user-friendly interface for recording daily mood. 2. User data is stored securely and with a focus on user privacy and data protection. 3. Users may benefit from tracking their mood and identifying patterns over time. 4. The app may provide insights or recommendations based on mood data, but it is not a substitute for professional mental health advice. |

### UC-6: Access Mental Health Resources

|  |  |
| --- | --- |
| **Use Case Identifier** | UC-6 |
| **Use Case Name** | Access Mental Health Resources |
| **Descriptions** | The user can access mental health-related articles, videos, podcasts, and meditation sessions. |
| **Actors** | Primary Actor: User |
| **Triggers** | The user decides to access mental health resources within the app. |
| **Preconditions** | PRE-1: The user is logged in to the app. |
| **Postconditions** | POST-1: The user gains access to mental health-related articles, videos, podcasts, and meditation sessions. |
| **Normal Flows** | 1. User opens the app. 2. User logs in to their account if they are not already logged in. 3. User navigates to the "Mental Health Resources" or similar section within the app. 4. User is presented with a library of mental health-related content, including articles, videos, podcasts, and meditation sessions. 5. User can browse and search for specific content based on their interests or needs. 6. User selects a resource (e.g., an article or meditation session) to view or listen to. 7. The app displays or plays the selected resource for the user. 8. User can access additional resources as needed. |
| **Alternative Flows** | None |
| **Exceptions** | None |
| **Business Rules** | BR-1: The app provides a user-friendly interface for accessing and navigating mental health resources.  BR-2: User data and content usage history are stored securely and in compliance with privacy regulations. |
| **Assumptions** | 1. The app offers a wide range of high-quality mental health-related content, including articles, videos, podcasts, and meditation sessions. 2. User data, including content preferences and usage history, is stored securely and with a focus on user privacy and data protection. 3. Users may benefit from accessing mental health resources to enhance their well-being. 4. The app serves as a valuable information and support resource but is not a substitute for professional mental health advice. |

### UC-7: Receive Personalized Recommendations

|  |  |
| --- | --- |
| **Use Case Identifier** | UC-7 |
| **Use Case Name** | Receive Personalized Recommendations |
| **Descriptions** | The user receives personalized recommendations for self-care and support based on assessments and mood tracking. |
| **Actors** | Primary Actor: User |
| **Triggers** | The user accesses the personalized recommendations feature within the app. |
| **Preconditions** | PRE-1: The user is logged in to the app. - PRE-2: User data, including mood tracking and assessment results, is available for analysis. |
| **Postconditions** | POST-1: The user receives personalized recommendations for self-care and support. |
| **Normal Flows** | 1. User opens the app. 2. User logs in to their account if they are not already logged in. 3. User navigates to the "Personalized Recommendations" or similar section within the app. 4. User selects the option to receive personalized recommendations. 5. The app initiates the "Analyze User Data" process to analyze the user's mood tracking and assessment data. 6. The app generates personalized recommendations based on the analysis, which may include self-care activities, resource suggestions, or support tips. 7. User receives and reviews the personalized recommendations within the app. 8. User can choose to follow or explore the recommended activities or resources. |
| **Alternative Flows** | None |
| **Exceptions** | None |
| **Business Rules** | BR-1: The app provides a user-friendly interface for accessing personalized recommendations.  BR-2: User data, including mood tracking and assessment results, is securely analyzed to generate relevant recommendations. |
| **Assumptions** | 1. The app collects and securely stores user data related to mood tracking and assessments. 2. Analyzing user data allows the app to generate personalized recommendations that align with the user's well-being. 3. User data is processed and analyzed in compliance with privacy regulations, with a focus on data protection. 4. Users may benefit from receiving personalized recommendations for self-care and support as part of their mental health journey. |

#### UC-7.1: Receive Personalized Recommendations

|  |  |
| --- | --- |
| **Use Case Identifier** | UC-7.1 |
| **Title** | Analyze User Data |
| **Description** | The system analyzes user data to gain insights into mental health concerns, patterns, and trends. |
| **Actors** | Primary Actor: System (Serenity AI Module)  Secondary Actors: User (Data Contributor) |
| **Trigger** | The System receives new user data for analysis. |
| **Preconditions** | PRE-1: The User is registered and has provided data.  PRE-2: The Data Analysis Module is operational.  PRE-3: New user data is available for analysis. |
| **Postconditions** | POST-1: The System completes the analysis of user data.  POST-2: Analysis results are available for further use.  POST-3: Insights into mental health concerns, patterns, or trends are obtained. |
| **Normal Flow** | 1. The User contributes new data (e.g., responses to surveys, textual inputs). 2. The System collects and stores the user's data securely. 3. Periodically, the Data Analysis Module initiates data analysis processes. 4. The System applies algorithms and analytics to the user data. 5. The System generates reports, insights, or trends from the analysis. 6. Insights may include patterns of user behaviour, stress levels, or other mental health-related data. 7. Analysis results are saved and can be accessed by authorized users. 8. The System may provide feedback or recommendations based on the analysis results. |
| **Alternative Flow** | * 1. The User contributes data in different formats: * Textual responses * Survey answers * Symptom reporting * Behavioral tracking   1. The Data Analysis Module performs various types of analysis based on the data: * Natural Language Processing (NLP) * Sentiment analysis * Machine learning-based analysis   1. The System provides feedback to the User based on the analysis results: * Suggestions for coping strategies * Recommendations for self-care activities   1. Authorized professionals may access the analysis results for clinical assessments or interventions. |
| **Exceptions** | E-1: No user data is available for analysis:  1. The System provides an alert.  E-2: Data security breaches occur:  1.The System triggers security protocols and alerts.  2.Notifications are sent to affected users. |
| **Business Rule** | BR-1: User data is anonymized and treated with confidentiality.  BR-2: Data analysis complies with data privacy regulations.  BR-3: Data security measures are in place to protect user data.  BR-4: Analysis results are accessible only to authorized users.  BR-5: Analysis algorithms and methods should provide reliable insights.  BR-6: User consent is obtained for data analysis. |
| **Assumptions** | 1. User data is accurate and authentic. 2. Users consent to the analysis of their data. 3. The Data Analysis Module has access to necessary analytical tools and resources. 4. Analysis results are used to enhance the user's mental health experience. |

### UC-8: Schedule Virtual Appointments

|  |  |
| --- | --- |
| **Use Case Identifier** | UC-8 |
| **Use Case Name** | Schedule Virtual Appointments |
| **Descriptions** | The user can schedule virtual appointments with mental health professionals. |
| **Actors** | Primary Actor: User |
| **Triggers** | The user decides to schedule a virtual appointment with a mental health professional. |
| **Preconditions** | PRE-1: The user is logged in to the app. |
| **Postconditions** | POST-1: The user successfully schedules a virtual appointment with a mental health professional. |
| **Normal Flows** | 1. User opens the app. 2. User logs in to their account if they are not already logged in. 3. User navigates to the "Schedule Appointments" or similar section within the app. 4. User selects the option to schedule a virtual appointment. 5. User is presented with the choice of scheduling either an "Online Meeting" or a "Physical Meeting." 6. If the user selects "Online Meeting," the app initiates the "Online Meeting" process. 7. If the user selects "Physical Meeting," the app initiates the "Physical Meeting" process. 8. After completing the respective process, the user receives confirmation of the scheduled appointment details. |
| **Alternative Flows** | None |
| **Exceptions** | None |
| **Business Rules** | BR-1: The app provides a user-friendly interface for scheduling virtual appointments with mental health professionals. |
| **Assumptions** | 1. The app offers the option for users to schedule virtual appointments with mental health professionals. 2. The user's data and appointment details are securely stored and managed. 3. Users may prefer either online or physical meetings with mental health professionals based on their preferences and needs. |

#### UC-8.1: Online Meeting

|  |  |
| --- | --- |
| **Use Case Identifier** | UC-8.1 |
| **Title** | Online Meeting |
| **Description** | The user can participate in or host an online meeting using the application. |
| **Actors** | Primary Actor: User (Meeting Participant), Primary Actor: User (Meeting Participant) |
| **Trigger** | The User chooses to join or host an online meeting. |
|  |  |
| **Preconditions** | PRE-1: The User is logged into the application.  PRE-2: There is an online meeting scheduled or available.  PRE-3: The system is running and can facilitate online meetings. |
| **Postconditions** | POST-1: The User joins or hosts the online meeting.  POST-2: Meeting-related data is updated and stored. |
| **Normal Flow** | 1. The User selects the "Join Meeting" or "Host Meeting" option. 2. If hosting:    * The User provides meeting details (e.g., date, time, topic).    * The System schedules the meeting. 3. If joining:    * The User selects a scheduled meeting from the list.    * The System checks the User's availability and confirms entry. 4. The User joins the meeting room. 5. For the Host User:    * The User sets up the meeting (e.g., invites participants, shares documents). 6. For Meeting Participants:    * Participants interact with each other (e.g., video, audio, chat). 7. The System records the meeting for future reference. 8. The meeting concludes, and participants exit. 9. Meeting data is saved and can be reviewed later. |
| **Alternative Flow** | * 1. The User selects "Schedule Meeting" as the host: * The User provides meeting details. * The System schedules the meeting.   1. The User selects "Join Meeting" as a participant: * The User is prompted to select a scheduled meeting.   1. During the meeting, technical issues arise (e.g., poor connection): * The System provides troubleshooting instructions.   1. The Host User decides to end the meeting prematurely: * The System concludes the meeting and saves the data.   1. Participants are notified. |
| **Exceptions** | None |
| **Business Rule** | BR-1: The User must have a registered account to host or join a meeting.  BR-2: Meeting duration is limited.  BR-3: Meeting participants should follow a code of conduct.  BR-4: Sensitive data shared during the meeting should be protected. |
| **Assumptions** | 1. Participants have the necessary equipment (e.g., camera, microphone) for a virtual meeting. 2. The system ensures data privacy and security for meeting participants. |

#### UC-8.2: Physical Meeting

|  |  |
| --- | --- |
| **Use Case Identifier** | UC-8.2 |
| **Title** | Physical Meeting |
| **Description** | The user can schedule, participate in, or host physical meetings for in-person interactions. |
| **Actors** | Primary Actor: User (Meeting Participant)  Secondary Actors: Host User (Meeting Organizer), System (Meeting Management) |
| **Trigger** | The User chooses to schedule, join, or host a physical meeting. |
|  |  |
| **Preconditions** | PRE-1: The User is logged into the application.  PRE-2: There is a physical meeting scheduled or available.  PRE-3: The system supports scheduling and managing physical meetings. |
| **Postcondition** | POST-1: The User schedules, joins, or hosts a physical meeting.  POST-2: Meeting-related data is updated and stored. |
| **Normal Flow** | 1. The User selects the "Schedule Meeting," "Join Meeting," or "Host Meeting" option. 2. If hosting:  * The User provides meeting details (e.g., date, time, location). * The System schedules the meeting.  1. If joining:  * The User selects a scheduled physical meeting from the list. * The System checks the User's availability and confirms attendance.  1. The User arrives at the physical meeting location. 2. For the Host User:  * The User sets up the meeting location (e.g., prepares the room, provides materials).  1. For Meeting Participants:  * Participants interact with each other in person.  1. The System records attendance and meeting details. 2. The meeting concludes, and participants depart. 3. Meeting data is saved and can be reviewed later. |
| **Alternative Flow** | * 1. The User selects "Schedule Meeting" as the host: * The User provides meeting details, including the physical location. * The System schedules the meeting.   1. The User selects "Join Meeting" as a participant: * The User is prompted to select a scheduled physical meeting.   1. During the meeting, unexpected issues arise (e.g., location change): * The System provides guidance for resolving the issue.   1. The Host User decides to cancel the meeting. * The System concludes the meeting and notifies participants.   1. The User experiences difficulties in locating the meeting venue:   2. The System provides directions or assistance. |
| **Exceptions** | None |
| **Business Rule** | BR-1: The User should have a registered account to host or join a physical meeting.  BR-2: Meeting locations should be accessible and safe.  BR-3: Participants should adhere to any guidelines or regulations.  BR-4: Data related to physical meetings should be handled securely |
| **Assumptions** | 1. The system ensures data privacy and security during physical meetings. 2. Participants have the means to reach the physical meeting location. 3. Meeting schedules and locations are accurate and updated. |

### UC-9: Participate in Support Groups

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| --- | --- |
| **Use Case Identifier** | UC-9 |
| **Use Case Name** | Participate in Support Groups |
| **Descriptions** | The user can join or create support groups and interact with other users. |
| **Actors** | Primary Actor: User |
| **Triggers** | The user decides to participate in a support group within the app. |
| **Preconditions** | PRE-1: The user is logged in to the app. |
| **Postconditions** | POST-1: The user successfully joins or creates a support group and can interact with other users in the group. |
| **Normal Flows** | 1. User opens the app. 2. User logs in to their account if they are not already logged in. 3. User navigates to the "Support Groups" or similar section within the app. 4. User can choose to either join an existing support group or create a new support group. 5. If the user selects to join an existing group, the app presents a list of available support groups. 6. User selects a support group from the list and requests to join it. 7. If the user selects to create a new group, the app allows them to set the group's name, description, and privacy settings. 8. The app creates the new support group and assigns the user as the group's creator and moderator. 9. In either case (joining an existing group or creating a new group), the user can now interact with other users within the support group by posting messages, sharing resources, and providing support. |
| **Alternative Flows** | None |
| **Exceptions** | None |
| **Business Rules** | BR-1: The app provides a user-friendly interface for participating in support groups.  BR-2: User data and interactions within support groups are managed securely and in compliance with privacy regulations. |
| **Assumptions** | 1. The app offers a platform for users to join or create support groups to connect with others facing similar challenges or interests. 2. User data, including group interactions, is stored securely and with a focus on user privacy and data protection. 3. Support groups serve as a valuable resource for users to find mutual support, share experiences, and access relevant information. |

### UC-10: Connect with Mental Health Professionals

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| --- | --- |
| **Use Case Identifier** | UC-10 |
| **Use Case Name** | Connect with Mental Health Professionals |
| **Description** | The user can connect with mental health professionals for clinical support. |
| **Actors** | Primary Actor: User |
| **Triggers** | The user decides to connect with a mental health professional within the app. |
| **Preconditions** | PRE-1: The user is logged in to the app. |
| **Postconditions** | POST-1: The user successfully connects with a mental health professional for clinical support. |
| **Normal Flows** | 1. User opens the app. 2. User logs in to their account if they are not already logged in. 3. User navigates to the "Connect with Professionals" or similar section within the app. 4. User selects the option to connect with a mental health professional. 5. The app provides a list of available mental health professionals, including their profiles, specialties, and availability. 6. User selects a mental health professional from the list. 7. User schedules an appointment or initiates a session with the selected professional, either through chat, video call, or phone call, based on availability and preference. 8. The user and the mental health professional can communicate securely within the app during the session. 9. After the session, the user can access session notes, recommendations, or follow-up instructions provided by the professional. |
| **Alternative Flows** | None |
| **Exceptions** | None |
| **Business Rules** | BR-1: The app provides a user-friendly interface for connecting with mental health professionals for clinical support.  BR-2: User data and interactions with mental health professionals are managed securely and in compliance with privacy regulations. |
| **Assumptions** | 1. The app offers a platform for users to connect with licensed mental health professionals for clinical support. 2. User data, including interactions with professionals, is stored securely and with a focus on user privacy and data protection. 3. Connecting with mental health professionals within the app serves as a valuable resource for users seeking clinical support and guidance. |

### UC-11: Engage with Chatbot

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| **Use Case Identifier** | UC-11 |
| **Use Case Name** | Engage with Chatbot |
| **Description** | The user can engage with the chatbot for immediate emotional support and guidance. |
| **Actors** | Primary Actor: User |
| **Triggers** | The user decides to engage with the chatbot for emotional support and guidance within the app. |
| **Preconditions** | PRE-1: The user is logged in to the app. |
| **Postconditions** | POST-1: The user successfully engages with the chatbot and receives emotional support or guidance. |
| **Normal Flows** | 1. User opens the app. 2. User logs in to their account if they are not already logged in. 3. User navigates to the "Chatbot" or similar section within the app. 4. User initiates a conversation with the chatbot by typing a message or using voice input. 5. The chatbot utilizes Natural Language Processing (NLP) to understand the user's input. 6. The chatbot provides responses based on the user's input, offering emotional support, guidance, or information as appropriate. 7. User and chatbot continue the conversation as needed, with the chatbot providing responses that aim to assist the user. 8. If the chatbot identifies the need for immediate professional assistance or escalation, it provides guidance on how to seek help from mental health professionals. |
| **Alternative Flows** | None |
| **Exceptions** | None |
| **Business Rules** | BR-1: The app provides a user-friendly interface for engaging with the chatbot for emotional support.  BR-2: User data and interactions with the chatbot are managed securely and in compliance with privacy regulations. |
| **Assumptions** | 1. The app offers a chatbot feature powered by Natural Language Processing (NLP) to provide immediate emotional support and guidance to users. 2. User data, including chatbot interactions, is stored securely and with a focus on user privacy and data protection. 3. The chatbot serves as a valuable resource for users seeking immediate emotional support and guidance, but it is not a substitute for professional mental health services. |

### UC-12: Make Payments to Mental Health Professionals

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| **Use Case Identifier** | UC-12 |
| **Use Case Name** | Make Payments to Mental Health Professionals |
| **Description** | The user can make payments to mental health professionals for their services. |
| **Actors** | Primary Actor: User |
| **Triggers** | The user decides to make a payment for mental health services provided by a professional within the app. |
| **Preconditions** | PRE-1: The user is logged in to the app. - PRE-2: The user has received services from a mental health professional and has an outstanding payment. |
| **Postconditions** | POST-1: The user successfully makes a payment to the mental health professional for their services. |
| **Normal Flows** | 1. User opens the app. 2. User logs in to their account if they are not already logged in. 3. User navigates to the "Payments" or similar section within the app. 4. User selects the option to make a payment for services received from a mental health professional. 5. The app displays the outstanding payment amount and the details of the services received. 6. User provides payment information, which may include credit card details or other payment methods. 7. The app initiates the "Payment Processing" process to securely process the payment transaction. 8. Upon successful payment processing, the user receives a payment confirmation and a receipt for the transaction. 9. The payment is recorded in the user's transaction history and is also reflected in the professional's records as received payment. |
| **Alternative Flows** | None |
| **Exceptions** | None |
| **Business Rules** | BR-1: The app provides a user-friendly interface for making payments to mental health professionals for services.  BR-2: Payment information is handled securely and in compliance with payment processing regulations. |
| **Assumptions** | 1. The app offers a seamless payment process for users to settle outstanding payments for mental health services. 2. User data, including payment information, is handled securely and with a focus on user privacy and data protection. 3. Users are responsible for making payments for the mental health services they receive, and the app facilitates this process. |

#### UC-12.1: Payment Processing

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| **Use Case Identifier** | UC-12.1 |
| **Title** | Payment Processing |
| **Description** | The system facilitates payment processing to compensate mental health professionals for their services. |
| **Actors** | Primary Actor: User (Client)  Secondary Actors: Mental Health Professionals, Payment Gateway |
| **Trigger** | The User requests to make a payment to a mental health professional for their services. |
| **Preconditions** | PRE-1: The User is registered and logged into the system.  PRE-2: The User has engaged with a mental health professional's services.  PRE-3: The Payment Gateway integration is functional.  PRE-4: The User has stored payment methods in their account. |
| **Postconditions** | POST-1: Payment is successfully processed.  POST-2: Payment details are recorded and accessible for both the User and the POST-3: Mental Health Professional.  POST-4: Payment receipts are generated and sent to both parties.  POST-5: User and Mental Health Professional balances are updated accordingly. |
| **Normal Flow** | 1. The User navigates to the "Payment Processing" section. 2. The User selects a specific mental health professional they wish to make a payment to. 3. The system retrieves the details of the selected professional. 4. The User specifies the payment amount. 5. The User chooses the payment method from their stored options (e.g., credit card, PayPal). 6. The User confirms the payment details. 7. The system securely transmits payment information to the Payment Gateway. 8. The Payment Gateway processes the payment. 9. The system receives confirmation of a successful payment. 10. The User and the Mental Health Professional receive payment receipts. 11. User and Mental Health Professional balances are updated. 12. The User and Mental Health Professional are notified of the successful transaction. |
| **Alternative Flow** | 1. The User may edit or select different payment methods. 2. The User can include additional comments or notes with the payment. 3. If the payment fails, the system provides an error message and options for retrying or using an alternative payment method. |
| **Exceptions** | E-1: The User does not have sufficient funds:  1.The system informs the User and offers options to add funds or use a different payment method.  E-2: Payment processing failures:  1.The system logs the failure and informs the User.  2.Users can contact support for assistance in resolving payment issues. |
| **Business Rule** | BR-1: Payment processing complies with relevant financial regulations.  BR-2: Users' financial information is securely stored and processed.  BR-3: Payment details are available for auditing and record-keeping.  BR-4: Payment receipts are generated for transparency.  BR-5: Users can view their payment history and balance.  BR-6: Payment Gateway integration follows industry standards. |
| **Assumptions** | 1. Users have provided accurate and up-to-date payment information. 2. The Payment Gateway is a trusted and reliable service provider. 3. Users have sufficient funds or credit limits for payments. 4. Payment processing complies with regional financial and privacy regulations. |

### UC-13: Search for Mental Health Professionals

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| **Use Case Identifier** | UC-13 |
| **Use Case Name** | Search for Mental Health Professionals |
| **Description** | The user can search for mental health professionals in their area based on location and specialization. |
| **Actors** | Primary Actor: User |
| **Triggers** | The user decides to search for mental health professionals within the app. |
| **Preconditions** | PRE-1: The user is logged in to the app. |
| **Postconditions** | POST-1: The user successfully conducts a search for mental health professionals and views the search results. |
| **Normal Flows** | 1. User opens the app. 2. User logs in to their account if they are not already logged in. 3. User navigates to the "Find Professionals" or similar section within the app. 4. User enters search criteria, including location and specialization (e.g., therapist, counselor). 5. The app initiates a search based on the user's criteria. 6. The app displays a list of mental health professionals who match the search criteria, including their profiles, contact information, specialties, and availability. 7. User can review the list of professionals and select a specific professional for more details or to initiate contact. 8. If the user chooses to initiate contact, the app provides options for scheduling an appointment or sending a message to the selected professional. |
| **Alternative Flows** | None |
| **Exceptions** | None |
| **Business Rules** | BR-1: The app provides a user-friendly interface for searching and finding mental health professionals based on location and specialization.  BR-2: User data and interactions with professionals are managed securely and in compliance with privacy regulations. |
| **Assumptions** | 1. The app offers a search feature that allows users to find and connect with mental health professionals based on their specific needs, location, and preferences. 2. User data, including search criteria and interactions with professionals, is stored securely and with a focus on user privacy and data protection. 3. Users may use the search functionality to identify and connect with mental health professionals who align with their preferences and requirements. |

**Community Engagement Facilitator:**

### UC-14: Create Content

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| Use Case Identifier | UC-14 |
| Use Case Name | Create Content |
| Description | Community Engagement Facilitators can create mental health-related content (articles, videos, podcasts, personal stories) within the app. |
| Actors | Community Engagement Facilitator (User) |
| Triggers | The Community Engagement Facilitator decides to create mental health-related content. |
| Preconditions | PRE-1: The Community Engagement Facilitator is logged into the app. |
| Postconditions | POST-1: The Community Engagement Facilitator successfully creates the mental health-related content. |
| Normal Flows | 1. User opens the app. 2. User logs in if not already logged in. 3. User navigates to the "Create Content" section. 4. User selects the content type (e.g., article, video). 5. User provides content details (title, description, content). 6. User adds tags for discoverability. 7. User uploads or attaches the content. 8. App facilitates content creation and formatting. 9. User previews and publishes the content. |
| Alternative Flows | None |
| Exceptions | None |
| Business Rules | BR-1: The app provides a user-friendly interface for content creation. |
| Assumptions | 1. The app offers a platform for creating mental health-related content. 2. User data and content are managed securely and comply with privacy regulations. |

#### UC-14.1: Share Content

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| Use Case Identifier | UC-14.1 |
| Use Case Name | Share Content |
| Description | Community Engagement Facilitators can share mental health-related content with other app users. |
| Actors | Community Engagement Facilitator (User) |
| Triggers | The Community Engagement Facilitator decides to share mental health-related content within the app. |
| Preconditions | PRE-1: The Community Engagement Facilitator is logged into the app. |
| Postconditions | POST-1: The Community Engagement Facilitator successfully shares the mental health-related content, making it accessible to other users within the app. |
| Normal Flows | 1. User opens the app. 2. User logs in if not already logged in. 3. User navigates to the "Share Content" section. 4. User selects content to share. 5. User chooses the audience for sharing. 6. App facilitates content sharing. |
| Alternative Flows | None |
| Exceptions | None |
| Business Rules | BR-1: The app provides a user-friendly interface for content sharing. |
| Assumptions | 1. The app offers a platform for sharing mental health-related content. 2. User data and content sharing are managed securely and comply with privacy regulations. |

### UC-15: Participate in Support Groups

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| **Use Case Identifier** | UC-15 |
| **Use Case Name** | Participate in Support Groups |
| **Description** | Users can join support groups, engage in discussions, and provide peer support to others. |
| **Actors** | Primary Actor: Community Engagement Facilitator (User) |
| **Triggers** | The Community Engagement Facilitator decides to participate in a support group, engage in discussions, or provide peer support within the app. |
| **Preconditions** | PRE-1: The Community Engagement Facilitator is logged in to the app. |
| **Postconditions** | POST-1: The Community Engagement Facilitator successfully participates in a support group, engages in discussions, and provides peer support to others. |
| **Normal Flows** | 1. Community Engagement Facilitator (User) opens the app. 2. User logs in to their account if they are not already logged in. 3. User navigates to the "Support Groups" or similar section within the app. 4. User selects a support group of interest from the available groups. 5. Within the selected support group, user can view ongoing discussions and topics created by other members. 6. User can join an existing discussion by selecting it, reading the posts, and providing responses or support to other members. 7. User can also initiate a new group discussion by selecting the "Start Group Discussion" option. 8. When starting a group discussion, the user provides a discussion title, description, and relevant tags or categories. 9. User creates the discussion and begins engaging with other members within the discussion thread. 10. User can continue participating in discussions, offering support, or starting new discussions as desired. |
| **Alternative Flows** | None |
| **Exceptions** | None |
| **Business Rules** | BR-1: The app provides a user-friendly interface for Community Engagement Facilitators to participate in support groups, discussions, and peer support activities.  BR-2: User data, including participation in support groups and discussions, is managed securely and in compliance with privacy regulations. |
| **Assumptions** | 1. The app offers a platform for Community Engagement Facilitators to join support groups, engage in discussions, and provide peer support to other users facing similar challenges or interests. 2. User data, including support group interactions, is stored securely and with a focus on user privacy and data protection. 3. Community Engagement Facilitators play a valuable role in providing peer support and fostering a supportive community within the app. |

#### UC-15.1: Start Group Discussion

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| **Use Case Identifier** | UC-15.1 |
| **Title** | Start Group Discussion |
| **Description** | In this use case, a Community Engagement Facilitator initiates a group discussion within the support groups module. |
| **Actors** | Community Engagement Facilitator |
| **Trigger** | The Community Engagement Facilitator indicates the need to initiate a group discussion. |
| **Preconditions** | PRE-1. The Community Engagement Facilitator is logged into the system.  PRE-2. The Community Engagement Facilitator has appropriate permissions to create and start group discussions. |
| **Postconditions** | POST-1. A new group discussion is created within the support groups module.  POST-2. Participants within the support group are notified of the new discussion.  POST-3. The discussion content and any participant interactions are tracked and stored. |
| **Normal Flow** | 1. The Community Engagement Facilitator accesses the support groups module. 2. The system displays the list of available support groups. 3. The Community Engagement Facilitator selects a specific support group in which to start a discussion. 4. The system provides an option to create a new discussion topic within the selected support group. 5. The Community Engagement Facilitator enters the discussion topic, description, and any relevant details. 6. The Community Engagement Facilitator confirms the creation of the discussion. 7. The system creates the new discussion within the selected support group and notifies the participants. 8. Participants within the support group can now access and participate in the discussion. |
| **Alternative Flow** | None |
| **Exception** | None |
| **Business Rule** | BR-1: Only Community Engagement Facilitators with appropriate permissions can start group discussions.  BR-2: Discussions must adhere to the platform's content guidelines and policies |
| **Assumptions** | None |

### UC-16: Contribute to Group Discussions

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| **Use Case Identifier** | UC-16 |
| **Use Case Name** | Contribute to Group Discussions |
| **Description** | Users can actively participate in support group discussions by posting messages, responding to others, and sharing insights. |
| **Actors** | Primary Actor: Community Engagement Facilitator (User) |
| **Triggers** | The Community Engagement Facilitator decides to actively contribute to ongoing group discussions within the app. |
| **Preconditions** | PRE-1: The Community Engagement Facilitator is logged in to the app.  PRE-2: The Community Engagement Facilitator has selected a support group discussion to participate in. |
| **Postconditions** | POST-1: The Community Engagement Facilitator successfully contributes to group discussions by posting messages, responding to others, and sharing insights. |
| **Normal Flows** | 1. Community Engagement Facilitator (User) opens the app. 2. User logs in to their account if they are not already logged in. 3. User navigates to the "Support Groups" or similar section within the app. 4. User selects a support group of interest from the available groups. 5. Within the selected support group, user can view ongoing discussions and topics created by other members. 6. User selects an ongoing discussion they wish to participate in. 7. User reads the existing messages and posts within the discussion to understand the context. 8. User can actively contribute to the discussion by posting messages, sharing insights, responding to other members' posts, and offering support. 9. User continues to engage in the discussion by providing valuable input, sharing personal experiences, and fostering a supportive atmosphere within the group. 10. User can participate in multiple discussions within the support group or across different support groups as desired. |
| **Alternative Flows** | None |
| **Exceptions** | None |
| **Business Rules** | BR-1: The app provides a user-friendly interface for Community Engagement Facilitators to actively participate in group discussions, contribute messages, and share insights.  BR-2: User data, including contributions to group discussions, is managed securely and in compliance with privacy regulations. |
| **Assumptions** | 1. The app offers a platform for Community Engagement Facilitators to actively engage in support group discussions, contribute messages, and share insights to provide peer support and foster a supportive community within the app. 2. User data, including contributions to group discussions, is stored securely and with a focus on user privacy and data protection. 3. Active participation in group discussions enhances the sense of community and support within the app, benefiting users seeking peer support and guidance. |

### UC-17: Moderate Support Groups

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| **Use Case Identifier** | UC-17 |
| **Use Case Name** | Moderate Support Groups |
| **Description** | Users may have the option to moderate support groups by ensuring discussions adhere to community guidelines and assisting other members. |
| **Actors** | Primary Actor: Community Engagement Facilitator (User) |
| **Triggers** | The Community Engagement Facilitator decides to moderate a support group discussion within the app. |
| **Preconditions** | PRE-1: The Community Engagement Facilitator is logged in to the app.  PRE-2: The Community Engagement Facilitator has been assigned or chosen to be a moderator for a specific support group discussion. |
| **Postconditions** | POST-1: The Community Engagement Facilitator successfully moderates the support group discussion, ensuring adherence to community guidelines and assisting other members as needed. |
| **Normal Flows** | 1. Community Engagement Facilitator (User) opens the app. 2. User logs in to their account if they are not already logged in. 3. User navigates to the "Support Groups" or similar section within the app. 4. User selects a support group that they are assigned or chosen to moderate. 5. Within the selected support group, user can view ongoing discussions and topics created by other members. 6. User actively monitors the discussions to ensure that they adhere to community guidelines and remain respectful and supportive. 7. If the user identifies a post or discussion that violates guidelines or requires intervention, they take appropriate action. This may include warning the member, removing inappropriate content, or escalating the issue to app administrators if necessary. 8. User also actively assists other members by providing guidance, answering questions, and fostering a supportive atmosphere within the group. 9. User maintains a visible and positive presence within the support group, helping to create a safe and welcoming environment. |
| **Alternative Flows** | None |
| **Exceptions** | None |
| **Business Rules** | BR-1: The app provides a user-friendly interface for Community Engagement Facilitators to moderate support groups, enforce guidelines, and assist members.  BR-2: User data, including moderation activities and interactions with group members, is managed securely and in compliance with privacy regulations. |
| **Assumptions** | 1. The app offers Community Engagement Facilitators the option to moderate support groups to ensure discussions adhere to community guidelines and to provide assistance to other members as needed. 2. User data, including moderation activities, is stored securely and with a focus on user privacy and data protection. 3. Moderation activities contribute to maintaining a positive and supportive community atmosphere within the app, benefiting users seeking peer support and guidance. |

### UC-18: Share Personal Experiences

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| **Use Case Identifier** | UC-18 |
| **Use Case Name** | Share Personal Experiences |
| **Description** | Users can share their own experiences with mental health, recovery, or coping strategies with the community. |
| **Actors** | Primary Actor: Community Engagement Facilitator (User) |
| **Triggers** | The Community Engagement Facilitator decides to share their personal experiences related to mental health, recovery, or coping strategies within the app. |
| **Preconditions** | PRE-1: The Community Engagement Facilitator is logged in to the app.  PRE-2: The user navigates to the "Share Personal Experiences" or similar section within the app. |
| **Postconditions** | POST-1: The Community Engagement Facilitator successfully shares their personal experiences with the community, making them accessible to other users within the app. |
| **Normal Flows** | 1. Community Engagement Facilitator (User) opens the app. 2. User logs in to their account if they are not already logged in. 3. User navigates to the "Share Personal Experiences" or similar section within the app. 4. User selects the option to share a personal experience. 5. User provides details about their personal experience, which may include their mental health journey, recovery process, coping strategies, challenges faced, and lessons learned. 6. User can format and structure their personal experience using text, images, or multimedia content (if supported by the app). 7. User can also categorize their experience under relevant tags or categories to improve discoverability. 8. User reviews their shared personal experience and, if satisfied, chooses to publish it. 9. Published personal experiences become accessible to other users within the app, who can read, engage with, and find support or inspiration from the shared stories. |
| **Alternative Flows** | None |
| **Exceptions** | None |
| **Business Rules** | BR-1: The app provides a user-friendly interface for Community Engagement Facilitators to share their personal experiences related to mental health, recovery, or coping strategies with the community.  BR-2: User data, including shared personal experiences, is managed securely and in compliance with privacy regulations. |
| **Assumptions** | 1. The app offers a platform for Community Engagement Facilitators to share their personal experiences, providing valuable insights, inspiration, and support to other users facing similar challenges or seeking guidance. 2. User data, including shared personal experiences, is stored securely and with a focus on user privacy and data protection. 3. Sharing personal experiences contributes to building a sense of community and empathy within the app, benefiting users seeking connection and shared wisdom. |

### UC-19: Access Content

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| **Use Case Identifier** | UC-19 |
| **Use Case Name** | Access Content |
| **Description** | Users can access and consume mental health-related content created by others within the app. |
| **Actors** | Primary Actor: Community Engagement Facilitator (User) |
| **Triggers** | The Community Engagement Facilitator decides to access and consume mental health-related content created by other users within the app. |
| **Preconditions** | PRE-1: The Community Engagement Facilitator is logged in to the app.  PRE-2: The user navigates to the "Access and Consume Content" or similar section within the app. |
| **Postconditions** | POST-1: The Community Engagement Facilitator successfully accesses and consumes mental health-related content, gaining knowledge, insights, or support from the content shared by others. |
| **Normal Flows** | 1. Community Engagement Facilitator (User) opens the app. 2. User logs in to their account if they are not already logged in. 3. User navigates to the "Access and Consume Content" or similar section within the app. 4. User browses through the available mental health-related content, which may include articles, videos, podcasts, personal stories, or discussions. 5. User selects specific content that interests them. 6. User consumes the content, which may involve reading articles, watching videos, listening to podcasts, or engaging in discussions. 7. While consuming content, the user may interact with the content by liking, sharing, commenting, or saving it for future reference. 8. User can explore and access various pieces of content created by other users or professionals within the app. |
| **Alternative Flows** | None |
| **Exceptions** | None |
| **Business Rules** | BR-1: The app provides a user-friendly interface for Community Engagement Facilitators to access and consume mental health-related content created by others within the community.  BR-2: User data, including interactions with content, is managed securely and in compliance with privacy regulations. |
| **Assumptions** | 1. The app offers a platform for Community Engagement Facilitators to access and consume mental health-related content, gaining knowledge, insights, or support from the content shared by other users and professionals. 2. User data, including interactions with content, is stored securely and with a focus on user privacy and data protection. 3. Accessing and consuming content contributes to users' personal growth and understanding of mental health topics within the app, benefiting the community's well-being and awareness. |

### UC-20: Bookmark Content

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| Use Case Identifier | UC-20 |
| Use Case Name | Bookmark Content |
| Description | Users can bookmark mental health-related content for future reference within the app. |
| Actors | Primary Actor: Community Engagement Facilitator (User) |
| Triggers | The Community Engagement Facilitator decides to bookmark specific mental health-related content for future reference within the app. |
| Preconditions | PRE-1: The Community Engagement Facilitator is logged in to the app.  PRE-2: The user is currently viewing mental health-related content within the app. |
| Postconditions | POST-1: The Community Engagement Facilitator successfully bookmarks the selected content, making it accessible for future reference. |
| Normal Flows | 1. Community Engagement Facilitator (User) opens the app.  2. User logs in to their account if they are not already logged in.  3. User navigates to the section within the app where they can access mental health-related content.  4. User browses and selects specific content (e.g., articles, videos, podcasts) that they want to bookmark.  5. User selects the option to bookmark the chosen content.  6. The app saves the content to the user's profile or designated storage area for future access.  7. User can view and access their bookmarked content from their profile or a designated section within the app. |
| Alternative Flows | None |
| Exceptions | None |
| Business Rules | BR-1: The app provides a user-friendly interface for Community Engagement Facilitators to bookmark mental health-related content for future reference. |
| Assumptions | 1.The app offers a feature for Community Engagement Facilitators to bookmark mental health-related content, allowing them to easily access valuable content for future reference.  2.Bookmarking content enhances users' ability to reference valuable mental health resources within the community. |

#### UC-20.1: Save Content

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| Use Case Identifier | UC-20.1 |
| Use Case Name | Save Content |
| Description | Users can save mental health-related content for future reference or to share with others within the app. |
| Actors | Primary Actor: Community Engagement Facilitator (User) |
| Triggers | The Community Engagement Facilitator decides to save specific mental health-related content for future reference or sharing within the app. |
| Preconditions | PRE-1: The Community Engagement Facilitator is logged in to the app. PRE-2: The user is currently viewing mental health-related content within the app. |
| Postconditions | POST-1: The Community Engagement Facilitator successfully saves the selected content, making it accessible for future reference or sharing. |
| Normal Flows | 1. Community Engagement Facilitator (User) opens the app. 2. User logs in to their account if they are not already logged in. 3. User navigates to the section within the app where they can access mental health-related content. 4. User browses and selects specific content (e.g., articles, videos, podcasts) that they want to save. 5. User selects the option to save the chosen content. 6. The app saves the content to the user's profile or designated storage area for future access. 7. User can view and access their saved content from their profile or a designated section within the app. 8. User may choose to share the saved content with others within the app, if sharing functionality is available. |
| Alternative Flows | None |
| Exceptions | None |
| Business Rules | BR-1: The app provides a user-friendly interface for Community Engagement Facilitators to save mental health-related content for future reference or sharing. |
| Assumptions | 1. The app offers a feature for Community Engagement Facilitators to save mental health-related content, allowing them to easily access and share valuable content within the community. |
|  | 2. Saving content enhances users' ability to reference and share valuable mental health resources, contributing to the community's knowledge and support network. |

### UC-21: Track Mental Health Hashtags

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| **Use Case Identifier** | UC-21 |
| **Use Case Name** | Follow Mental Health Hashtags and Topics |
| **Description** | Users can follow specific mental health hashtags and topics to receive updates and relevant content within the app. |
| **Actors** | Primary Actor: Community Engagement Facilitator (User) |
| **Triggers** | The Community Engagement Facilitator decides to follow specific mental health hashtags or topics to stay informed and receive updates within the app. |
| **Preconditions** | PRE-1: The Community Engagement Facilitator is logged in to the app.  PRE-2: The user is currently viewing mental health-related content within the app. |
| **Postconditions** | POST-1: The Community Engagement Facilitator successfully follows the selected mental health hashtags or topics, enabling them to receive updates and access relevant content. |
| **Normal Flows** | 1. Community Engagement Facilitator (User) opens the app. 2. User logs in to their account if they are not already logged in. 3. User navigates to the section within the app where they can explore mental health-related hashtags or topics. 4. User browses and selects specific mental health hashtags or topics they want to follow. 5. User selects the option to follow the chosen hashtags or topics. 6. The app adds the selected hashtags or topics to the user's profile, indicating that they are now following these subjects. 7. User's feed or content recommendations are updated to include posts, articles, discussions, or content related to the followed hashtags or topics. 8. User can access and view updates and content related to the followed mental health hashtags or topics in their feed or a dedicated section within the app. 9. User may engage with and interact with the content and discussions related to the followed subjects. |
| **Alternative Flows** | None |
| **Exceptions** | None |
| **Business Rules** | BR-1: The app provides a user-friendly interface for Community Engagement Facilitators to follow specific mental health hashtags and topics, enabling them to receive updates and relevant content.  BR-2: User data, including followed hashtags and topics, is managed securely and in compliance with privacy regulations. |
| **Assumptions** | 1. The app offers a feature for Community Engagement Facilitators to follow specific mental health hashtags and topics, allowing them to stay informed and receive updates related to their areas of interest within the mental health community. 2. User data, including followed hashtags and topics, is stored securely and with a focus on user privacy and data protection. 3. Following mental health hashtags and topics enhances users' ability to access and engage with relevant content, contributing to their knowledge and engagement within the community. |

### UC-22: Participate in Challenges

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| **Use Case Identifier** | UC-22 |
| **Use Case Name** | Participate in Challenges and Activities |
| **Description** | Users can engage in mental health challenges and activities suggested by the app or the community. |
| **Actors** | Primary Actor: Community Engagement Facilitator (User) |
| **Triggers** | The Community Engagement Facilitator decides to participate in mental health challenges and activities either suggested by the app or initiated by the community within the app. |
| **Preconditions** | PRE-1: The Community Engagement Facilitator is logged in to the app.  PRE-2: The user is currently exploring the section of the app that presents mental health challenges and activities. |
| **Postconditions** | POST-1: The Community Engagement Facilitator successfully participates in the selected mental health challenge or activity, contributing to their well-being and engagement within the app. |
| **Normal Flows** | 1. Community Engagement Facilitator (User) opens the app. 2. User logs in to their account if they are not already logged in. 3. User navigates to the section within the app that presents mental health challenges and activities. 4. User explores the available challenges and activities, which may include mindfulness exercises, journaling prompts, self-care challenges, or community initiatives. 5. User selects a specific challenge or activity they want to participate in. 6. User follows the instructions or guidelines provided for the selected challenge or activity. 7. User actively engages in the challenge or activity, documenting their progress, experiences, or reflections as necessary. 8. User may interact with other participants within the challenge or activity, sharing insights, support, or encouragement. 9. Upon completing the challenge or activity or as it progresses, the user may receive recognition or rewards based on their participation and contributions. 10. User's engagement with challenges and activities contributes to their well-being, personal growth, and connection within the app's mental health community. |
| **Alternative Flows** | None |
| **Exceptions** | None |
| **Business Rules** | BR-1: The app provides a user-friendly interface for Community Engagement Facilitators to participate in mental health challenges and activities, promoting well-being and engagement within the community.  BR-2: User data, including participation in challenges and activities, is managed securely and in compliance with privacy regulations. |
| **Assumptions** | 1. The app offers a platform for Community Engagement Facilitators to engage in mental health challenges and activities, fostering personal well-being and a sense of community within the mental health app. 2. User data, including participation in challenges and activities, is stored securely and with a focus on user privacy and data protection. 3. Participation in challenges and activities contributes to users' well-being and engagement, promoting a supportive and active mental health community. |

### UC-23: Report Inappropriate Content

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| **Use Case Identifier** | UC-23 |
| **Use Case Name** | Report Inappropriate Content |
| **Description** | Users can report any content or behavior that violates community guidelines or is deemed inappropriate within the app. |
| **Actors** | Primary Actor: Community Engagement Facilitator (User) |
| **Triggers** | The Community Engagement Facilitator encounters content or behavior within the app that violates community guidelines or is deemed inappropriate and decides to report it. |
| **Preconditions** | PRE-1: The Community Engagement Facilitator is logged in to the app.  PRE-2: The user is currently viewing or interacting with content or behavior within the app that they believe violates community guidelines or is inappropriate. |
| **Postconditions** | POST-1: The Community Engagement Facilitator successfully submits a report, alerting app administrators or moderators about the content or behavior in question. |
| **Normal Flows** | 1. Community Engagement Facilitator (User) opens the app. 2. User logs in to their account if they are not already logged in. 3. User encounters content or behavior within the app that they believe violates community guidelines or is inappropriate. 4. User selects the option to report the specific content or behavior. 5. User provides details about why they believe the content or behavior is inappropriate, which may include describing the violation or offense. 6. User submits the report. 7. The app records and logs the report, sending it to app administrators or moderators for review. 8. App administrators or moderators take appropriate action, which may include reviewing the reported content, issuing warnings, or removing the content or user responsible for the inappropriate behavior. 9. User is informed about the outcome of the report, such as the resolution or actions taken. 10. Reporting inappropriate content helps maintain a safe and respectful environment within the app's mental health community. |
| **Alternative Flows** | None |
| **Exceptions** | None |
| **Business Rules** | BR-1: The app provides a user-friendly interface for Community Engagement Facilitators to report inappropriate content or behavior, ensuring a safe and respectful community environment.  BR-2: User data, including reports, is managed securely and in compliance with privacy regulations. |
| **Assumptions** | 1. The app offers a reporting mechanism for Community Engagement Facilitators to report any content or behavior they believe violates community guidelines or is inappropriate, contributing to a safe and respectful environment within the mental health app. 2. User data, including reports, is handled securely and with a focus on user privacy and data protection. 3. Reporting inappropriate content helps maintain the integrity of the mental health community and ensures a positive user experience for all users. |

### UC-24: Connect with Mental Health Professionals

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| **Use Case Identifier** | UC-24 |
| **Use Case Name** | Connect with Mental Health Professionals |
| **Description** | Users can connect with mental health professionals through the app, seeking guidance or support when needed. This use case extends the "Schedule Virtual Appointments" use case, allowing users to schedule virtual appointments with professionals. |
| **Actors** | Primary Actor: Community Engagement Facilitator (User) - Secondary Actor: Mental Health Professionals |
| **Triggers** | The Community Engagement Facilitator decides to connect with mental health professionals for guidance or support through the app. |
| **Preconditions** | PRE-1: The Community Engagement Facilitator is logged in to the app. |
| **Postconditions** | POST-1: The Community Engagement Facilitator successfully initiates a connection with a mental health professional, seeking guidance or support. |
| **Normal Flows** | 1. Community Engagement Facilitator (User) opens the app. 2. User logs in to their account if they are not already logged in. 3. User navigates to the section within the app that facilitates connections with mental health professionals. 4. User explores the profiles of available mental health professionals, including their specialties, qualifications, and availability. 5. User selects a specific mental health professional they want to connect with. 6. User initiates the connection request, indicating their interest in seeking guidance or support. 7. The app notifies the selected mental health professional about the connection request. 8. The mental health professional reviews the request and, if available and appropriate, accepts it. 9. Upon acceptance, the app facilitates communication between the Community Engagement Facilitator and the mental health professional. 10. Users can engage in virtual sessions, chat interactions, or other communication methods with the mental health professional, seeking the guidance or support they need. 11. The interaction between the user and the professional is recorded for reference and follow-up. 12. Users can rate and provide feedback on their experience with the mental health professional, contributing to quality assurance and user feedback. |
| **Alternative Flows** | None |
| **Exceptions** | None |
| **Business Rules** | BR-1: The app provides a user-friendly interface for Community Engagement Facilitators to connect with mental health professionals, seeking guidance or support as needed.  BR-2: User data, including interactions with professionals, is managed securely and in compliance with privacy regulations. |
| **Assumptions** | 1. The app offers a platform for Community Engagement Facilitators to connect with mental health professionals, providing access to guidance and support when required. 2. User data, including interactions with professionals, is stored securely and with a focus on user privacy and data protection. 3. Connecting with mental health professionals enhances users' access to professional support, contributing to their mental well-being and overall experience within the app. |

#### UC-24.1: Schedule Virtual Appointment

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| **Use Case Identifier** | UC-24.1 |
| **Title** | Schedule Virtual Appointment |
| **Description** | In this use case, a Community Engagement Facilitator schedules a virtual appointment with a mental health professional for a participant. |
| **Actors** | Community Engagement Facilitator |
| **Trigger** | The Community Engagement Facilitator indicates the need to schedule a virtual appointment. |
| **Preconditions** | PRE-1. The Community Engagement Facilitator is logged into the system.  PRE-2. The participant has requested or indicated a need for a virtual appointment.  PRE-3. A mental health professional is available for scheduling appointments. |
| **Postconditions** | POST-1. A virtual appointment is scheduled for the participant with a mental health professional.  POST-2. Notifications are sent to the participant and the mental health professional.  POST-3. The appointment details are recorded and stored in the system. |
| **Normal Flow** | 1. The Community Engagement Facilitator accesses the scheduling module. 2. The system provides options for scheduling virtual appointments. 3. The Community Engagement Facilitator selects the participant for whom the appointment is to be scheduled. 4. The system displays the available mental health professionals and their schedules. 5. The Community Engagement Facilitator selects an available time slot with a mental health professional. 6. The system prompts for additional details, such as the reason for the appointment. 7. The Community Engagement Facilitator confirms the appointment details. 8. The system schedules the virtual appointment, sends notifications to the participant and the mental health professional. 9. The appointment details are recorded and stored in the system. |
| **Alternative Flow** | None |
| **Exception** | None |
| **Business Rule** | BR-1: Appointments must be scheduled with available mental health professionals.  BR-2: Only Community Engagement Facilitators can schedule virtual appointments. |
| **Assumptions** | None |

### UC-25: Engage with the Chatbot

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| **Use Case Identifier** | UC-25 |
| **Use Case Name** | Engage with the Chatbot |
| **Description** | Users can engage with the chatbot for immediate emotional support and guidance, as well as referrals to mental health resources or professionals. |
| **Actors** | Primary Actor: Community Engagement Facilitator (User) - Secondary Actor: Chatbot |
| **Triggers** | The Community Engagement Facilitator decides to engage with the chatbot for emotional support, guidance, or access to mental health resources. |
| **Preconditions** | PRE-1: The Community Engagement Facilitator is logged in to the app. |
| **Postconditions** | POST-1: The Community Engagement Facilitator successfully engages with the chatbot, receiving emotional support, guidance, or referrals as needed. |
| **Normal Flows** | 1. Community Engagement Facilitator (User) opens the app. 2. User logs in to their account if they are not already logged in. 3. User navigates to the chatbot interface or section within the app. 4. User initiates a conversation with the chatbot, stating their needs or concerns. 5. The chatbot responds to the user, engaging in a conversation that may involve empathetic responses, active listening, and providing information or resources. 6. User interacts with the chatbot, sharing their feelings, thoughts, or questions related to their mental health and well-being. 7. The chatbot provides immediate emotional support, guidance, or coping strategies based on the user's input. 8. If the chatbot identifies that the user requires more specialized assistance, it may offer to connect the user with a mental health professional or provide information about available resources or helplines. 9. The chatbot maintains a record of the conversation for reference and continuity of support. 10. Users can choose to end the conversation when they feel their immediate needs have been addressed. |
| **Alternative Flows** | None |
| **Exceptions** | None |
| **Business Rules** | BR-1: The app provides a user-friendly interface for Community Engagement Facilitators to engage with the chatbot for emotional support, guidance, and access to mental health resources.  BR-2: User data, including chatbot interactions, is managed securely and in compliance with privacy regulations. |
| **Assumptions** | 1. The app offers a chatbot that Community Engagement Facilitators can engage with for immediate emotional support, guidance, and referrals to mental health resources or professionals, enhancing their access to mental health support within the app. 2. User data, including chatbot interactions, is stored securely and with a focus on user privacy and data protection. 3. Engaging with the chatbot provides users with a convenient and accessible means of receiving emotional support and information related to mental health. |

### UC-26: Interact with Data Analytics

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| **Use Case Identifier** | UC-26 |
| **Use Case Name** | Interact with Data Analytics |
| **Description** | Users may have the option to provide consent for their data to be used in data analytics or research activities within the app. This use case includes the option for users to participate in research studies conducted using app data. |
| **Actors** | Primary Actor: Community Engagement Facilitator (User) |
| **Triggers** | The Community Engagement Facilitator decides to interact with data analytics and potentially participate in research studies within the app. |
| **Preconditions** | PRE-1: The Community Engagement Facilitator is logged in to the app. |
| **Postconditions** | POST-1: The Community Engagement Facilitator successfully provides consent for their data to be used in data analytics or research activities, potentially participating in research studies. |
| **Normal Flows** | 1. Community Engagement Facilitator (User) opens the app. 2. User logs in to their account if they are not already logged in. 3. User navigates to the section within the app that offers the option to interact with data analytics or research activities. 4. User reviews the information about data analytics and research activities, including how their data will be used and the potential benefits. 5. User decides to provide consent for their data to be used in data analytics and research. 6. The app records the user's consent and includes them in the pool of users who may participate in research studies. 7. If a research study becomes available, the user may receive invitations or notifications about the opportunity to participate. 8. User can choose to participate in research studies as they become available, following the study-specific instructions. 9. Users' data, if used in research, is anonymized and treated with strict confidentiality. 10. Users may receive feedback or information about the outcomes or insights gained from research studies they participated in. |
| **Alternative Flows** | None |
| **Exceptions** | None |
| **Business Rules** | BR-1: The app provides a clear and informative interface for Community Engagement Facilitators to interact with data analytics, including the option to participate in research studies.  BR-2: User data used in research activities is anonymized and handled securely, complying with privacy regulations. |
| **Assumptions** | 1. The app offers users the choice to provide consent for their data to be used in data analytics or research activities, respecting their privacy and preferences. 2. User data used in research activities is anonymized and managed securely, ensuring user privacy and data protection. 3. Participating in research studies may contribute to users' understanding of mental health topics and potentially benefit the broader mental health community. |

### UC-27: View and Interact with User-Generated Content

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| **Use Case Identifier** | UC-27 |
| **Use Case Name** | View and Interact with User-Generated Content |
| **Description** | Users can view, interact with, and comment on content shared by others within the app. |
| **Actors** | Primary Actor: Community Engagement Facilitator (User) |
| **Triggers** | The Community Engagement Facilitator decides to explore and interact with user-generated content within the app. |
| **Preconditions** | PRE-1: The Community Engagement Facilitator is logged in to the app.  PRE-2: The user is currently browsing the section of the app that displays user-generated content. |
| **Postconditions** | POST-1: The Community Engagement Facilitator successfully views, interacts with, and may comment on user-generated content, contributing to community engagement and knowledge sharing. |
| **Normal Flows** | 1. Community Engagement Facilitator (User) opens the app. 2. User logs in to their account if they are not already logged in. 3. User navigates to the section within the app that displays user-generated content, which may include articles, posts, stories, or discussions. 4. User explores the available user-generated content, scrolling through posts, articles, or stories created by other app users. 5. User selects a specific piece of content they want to view in detail. 6. User interacts with the content, which may include liking, sharing, saving, or reacting to the content in various ways, depending on the app's features. 7. User may choose to leave comments on the content, sharing thoughts, insights, or feedback with the content creator and other users. 8. User can navigate back to the content feed to continue exploring and interacting with additional user-generated content. 9. Engagement with user-generated content fosters community interaction and knowledge sharing within the app. |
| **Alternative Flows** | None |
| **Exceptions** | None |
| **Business Rules** | BR-1: The app provides a user-friendly interface for Community Engagement Facilitators to view, interact with, and comment on user-generated content, promoting community engagement and knowledge sharing.  BR-2: User data, including interactions with user-generated content, is managed securely and in compliance with privacy regulations. |
| **Assumptions** | 1. The app offers a platform for Community Engagement Facilitators to explore and engage with user-generated content, contributing to community interaction and knowledge sharing. 2. User data, including interactions with user-generated content, is stored securely and with a focus on user privacy and data protection. 3. Interacting with user-generated content enhances users' sense of belonging and engagement within the mental health community, fostering a supportive environment. |

### UC-28: Set Privacy Preferences

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| **Use Case Identifier** | UC-28 |
| **Use Case Name** | Set Privacy Preferences |
| **Description** | Users can configure privacy settings to control who can access their shared content or interactions within the app. |
| **Actors** | Primary Actor: Community Engagement Facilitator (User) |
| **Triggers** | The Community Engagement Facilitator decides to adjust their privacy settings and sharing preferences within the app. |
| **Preconditions** | PRE-1: The Community Engagement Facilitator is logged in to the app.  PRE-2: The user is currently accessing their account settings or privacy preferences section within the app. |
| **Postconditions** | POST-1: The Community Engagement Facilitator successfully configures their privacy settings and sharing preferences, defining who can access their shared content or interactions. |
| **Normal Flows** | 1. Community Engagement Facilitator (User) opens the app. 2. User logs in to their account if they are not already logged in. 3. User navigates to their account settings or privacy preferences section within the app. 4. User reviews the available privacy settings and preferences related to content sharing and interactions. 5. User selects and configures their preferences, which may include options such as: - Setting content visibility (e.g., public, private, friends only). - Choosing who can comment on their posts or content (e.g., everyone, friends, specific groups). - Managing who can send them messages or chat requests (e.g., friends only, no one, specific contacts). - Adjusting notification settings related to content interactions. 6. User saves or applies their chosen privacy settings and preferences. 7. The app records and implements the configured privacy settings for the user's account. 8. Users' content and interactions are now governed by the chosen privacy settings, ensuring that their preferences regarding content visibility and interactions are respected. |
| **Alternative Flows** | None |
| **Exceptions** | None |
| **Business Rules** | BR-1: The app provides a user-friendly interface for Community Engagement Facilitators to set privacy and sharing preferences, giving users control over who can access their shared content and interactions.  BR-2: User data, including privacy settings, is managed securely and in compliance with privacy regulations. |
| **Assumptions** | 1. The app offers users the ability to configure privacy settings and sharing preferences, ensuring that users have control over who can access their content and interactions. 2. User data, including privacy settings, is stored securely and with a focus on user privacy and data protection. 3. Configuring privacy settings enhances users' sense of control and comfort within the app, fostering a supportive and respectful environment. |

**Mental Health Professionals**

### UC-29: Log In

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| **Use Case Identifier** | UC-29 |
| **Use Case Name** | Log In |
| **Description** | Mental health professionals can log in to their accounts within the app to access their professional dashboard. |
| **Actors** | Primary Actor: Mental Health Professionals |
| **Triggers** | The mental health professional initiates the login process by providing their credentials (username and password) to access their account. |
| **Preconditions** | PRE-1: The mental health professional has a registered account in the app. - PRE-2: The mental health professional has valid login credentials (username and password). |
| **Postconditions** | POST-1: The mental health professional successfully logs in and gains access to their professional dashboard. |
| **Normal Flows** | 1. The mental health professional opens the app or navigates to the login screen. 2. The app prompts the professional to enter their login credentials, including their username and password. 3. The mental health professional enters their valid username and password. 4. The app validates the provided credentials against the registered user data. 5. If the credentials are valid and match an existing account, the app grants access to the professional dashboard. 6. The professional gains access to their account, where they can view patient information, schedules, and perform professional tasks. |
| **Alternative Flows** | 1. Invalid Credentials: If the provided credentials are invalid (e.g., incorrect username or password), the app displays an error message and prompts the professional to re-enter their credentials. This process continues until valid credentials are provided or the professional chooses to reset their password. |
| **Exceptions** | None |
| **Business Rules** | BR-1: Only registered mental health professionals with valid credentials can log in and access their professional dashboard. |
| **Assumptions** | 1. Mental health professionals have registered accounts within the app. 2. Professionals are responsible for maintaining the confidentiality and security of their login credentials. |

### UC-30: Access User Data

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| **Use Case Identifier** | UC-30 |
| **Use Case Name** | Access User Data |
| **Description** | Professionals can access user data (with user consent) to monitor their clients' progress and provide personalized support. |
| **Actors** | Primary Actor: Mental Health Professionals |
| **Triggers** | The mental health professional initiates the process of accessing user data by navigating to the appropriate section of the professional dashboard. |
| **Preconditions** | PRE-1: The mental health professional has successfully logged in to their professional account.  PRE-2: User consent has been obtained for accessing their data for treatment and support purposes. |
| **Postconditions** | POST-1: The mental health professional has accessed the user data, enabling them to monitor the client's progress and provide personalized support. |
| **Normal Flows** | 1. The mental health professional logs in to their professional account and is directed to the professional dashboard. 2. Within the dashboard, the professional selects the option to access user data. 3. The app displays a list of clients who have provided consent for data access. 4. The professional selects a specific client from the list. 5. The app grants access to the user data associated with the selected client. 6. The professional can view relevant information such as assessment results, mood tracking, and other data collected through the app. 7. The professional uses this data to monitor the client's progress, identify areas of concern, and provide personalized support and guidance. |
| **Alternative Flows** | 1. No User Consent: If a client has not provided consent for their data to be accessed by the mental health professional, the app will not display their data, and the professional cannot proceed with this use case for that client. |
| **Exceptions** | None |
| **Business Rules** | BR-1: Access to user data by mental health professionals is contingent on obtaining user consent for data access for treatment and support purposes.  BR-2: Access to user data is restricted to authorized mental health professionals with valid accounts. |
| **Assumptions** | 1. Mental health professionals have successfully logged in to their professional accounts. 2. User consent has been obtained for accessing their data for treatment and support purposes. 3. The app ensures the security and confidentiality of user data. |

### UC-31: View User Profiles

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| **Use Case Identifier** | UC-31 |
| **Use Case Name** | View User Profiles |
| **Description** | Professionals can view detailed profiles of their clients, including assessment results, mood tracking history, and personal information. |
| **Actors** | Primary Actor: Mental Health Professionals |
| **Triggers** | The mental health professional initiates the process of viewing user profiles by navigating to the appropriate section of the professional dashboard and selecting a specific client. |
| **Preconditions** | PRE-1: The mental health professional has successfully logged in to their professional account.  PRE-2: User consent has been obtained for accessing the client's profile and data for treatment and support purposes. |
| **Postconditions** | POST-1: The mental health professional has successfully viewed the selected client's profile, including assessment results, mood tracking history, and personal information. |
| **Normal Flows** | 1. The mental health professional logs in to their professional account and is directed to the professional dashboard. 2. Within the dashboard, the professional selects the option to view user profiles. 3. The app displays a list of clients who have provided consent for their profiles to be viewed. 4. The professional selects a specific client from the list. 5. The app presents the selected client's detailed profile, including assessment results, mood tracking history, and personal information (as authorized by the client). 6. The professional reviews the client's profile to gain insights into their mental health status, progress, and relevant information. 7. The professional uses this information to provide personalized support and treatment. |
| **Alternative Flows** | 1. No User Consent: If a client has not provided consent for their profile to be viewed by the mental health professional, the app will not display their detailed profile, and the professional cannot proceed with this use case for that client. |
| **Exceptions** | None |
| **Business Rules** | BR-1: Viewing user profiles by mental health professionals is contingent on obtaining user consent for profile and data access for treatment and support purposes.  BR-2: Access to user profiles is restricted to authorized mental health professionals with valid accounts. |
| **Assumptions** | 1. Mental health professionals have successfully logged in to their professional accounts. 2. User consent has been obtained for accessing the client's profile and data for treatment and support purposes. 3. The app ensures the security and confidentiality of user profiles and data. |

### UC-32: Schedule Appointments

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| **Use Case Identifier** | UC-32 |
| **Use Case Name** | Schedule Appointments |
| **Description** | Professionals can schedule virtual appointments with their clients directly through the app, coordinating convenient meeting times. |
| **Actors** | Primary Actor: Mental Health Professionals |
| **Triggers** | The mental health professional initiates the appointment scheduling process by selecting a specific client and choosing the appointment type (online or physical). |
| **Preconditions** | PRE-1: The mental health professional has successfully logged in to their professional account.  PRE-2: The client has consented to receiving appointments and notifications through the app. |
| **Postconditions** | POST-1: The appointment is successfully scheduled and added to both the professional's and client's schedules. |
| **Normal Flows** | 1. The mental health professional logs in to their professional account and is directed to the professional dashboard. 2. Within the dashboard, the professional selects the option to schedule an appointment. 3. The app displays a list of clients who have provided consent for appointment scheduling. 4. The professional selects a specific client from the list. 5. The app presents options for appointment types: online meeting or physical meeting. 6. The professional selects the desired appointment type. 7. The professional specifies the date and time for the appointment, taking into account both their own availability and the client's preferences if available. 8. The app checks for scheduling conflicts and ensures the selected time slot is available for both parties. 9. If the selected time slot is available, the app confirms the appointment and sends notifications to both the professional and the client. 10. The appointment is added to both the professional's and client's schedules within the app. |
| **Alternative Flows** | 1. Scheduling Conflict: If there is a scheduling conflict (e.g., the selected time slot is already booked), the app will notify the professional and prompt them to choose an alternative time. |
| **Exceptions** | None |
| **Business Rules** | BR-1: Appointment scheduling by mental health professionals is contingent on obtaining user consent for appointment scheduling and notifications through the app.  BR-2: Access to appointment scheduling is restricted to authorized mental health professionals with valid accounts. |
| **Assumptions** | 1. Mental health professionals have successfully logged in to their professional accounts. 2. Clients have consented to receiving appointments and notifications through the app. 3. The app ensures the security and confidentiality of appointment information. |

#### UC-32.1: Schedule Online Meeting

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| **Use Case Identifier** | UC-32.1 |
| **Use Case Name** | Schedule Online Meeting |
| **Description** | In this use case, a Mental Health Professional schedules an online meeting with a user for a virtual mental health session. |
| **Actors** | Primary Actor: Mental Health Professional |
| **Triggers** | The Mental Health Professional initiates the process of scheduling an online meeting. |
| **Preconditions** | PRE-1: The Mental Health Professional is logged into the system. |
| **Postconditions** | POST-1: An online meeting is scheduled and notifications are sent to the user. |
| **Normal Flows** | 1. The Mental Health Professional selects the option to schedule an online meeting. 2. The system displays a list of available time slots for online meetings. 3. The Mental Health Professional selects a preferred time slot and specifies the user for the meeting. 4. The system confirms the scheduling of the online meeting. 5. Notifications are sent to the user with meeting details. |
| **Alternative Flows** | 3.0 E1 No Available Time Slots  1. If there are no available time slots for online meetings, the system notifies the Mental Health Professional.  2. The process is terminated.  4.0 E2 Meeting Scheduling Error  1. If there is an error during scheduling, the system informs the Mental Health Professional.  2. The process is terminated.  Exceptions |
| **Exceptions** | 4.0 E2 Meeting Scheduling Error  1. If there is an error during scheduling, the system informs the Mental Health Professional.  2. The process is terminated. |
| **Business Rules** | BR-1: Online meetings must be scheduled during available time slots.  BR-2: Meeting details and notifications must be sent to the user. |
| **Assumptions** | None |

#### UC-32.2: Schedule Physical Meeting

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| **Use Case Identifier** | UC-32.2 |
| **Use Case Name** | Schedule Physical Meeting |
| **Description** | In this use case, a Mental Health Professional schedules a physical meeting with a user for an in-person mental health session. |
| **Actors** | Primary Actor: Mental Health Professional |
| **Triggers** | The Mental Health Professional initiates the process of scheduling a physical meeting. |
| **Preconditions** | PRE-1: The Mental Health Professional is logged into the system. |
| **Postconditions** | POST-1: A physical meeting is scheduled, and notifications are sent to the user. |
| **Normal Flows** | 1. The Mental Health Professional selects the option to schedule a physical meeting. 2. The system displays a list of available dates and locations for physical meetings. 3. The Mental Health Professional selects a preferred date and location and specifies the user for the meeting. 4. The system confirms the scheduling of the physical meeting. 5. Notifications are sent to the user with meeting details. |
| **Alternative Flows** | 3.0 E1 No Available Dates  1. If there are no available dates and locations for physical meetings, the system notifies the Mental Health Professional.  2. The process is terminated.  4.0 E2 Meeting Scheduling Error  1. If there is an error during scheduling, the system informs the Mental Health Professional.  2. The process is terminated. |
| **Exceptions** | 4.0 E2 Meeting Scheduling Error  1. If there is an error during scheduling, the system informs the Mental Health Professional.  2. The process is terminated. |
| **Business Rules** | BR-1: Physical meetings must be scheduled during available dates and at designated locations.  BR-2: Meeting details and notifications must be sent to the user. |
| **Assumptions** | None |

### UC-33: Conduct Virtual Consultations

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| **Use Case Identifier** | UC-33 |
| **Use Case Name** | Conduct Virtual Consultations |
| **Description** | Professionals can conduct virtual consultations with clients, providing clinical support, therapy, or counseling sessions within the app. |
| **Actors** | Primary Actor: Mental Health Professionals  Secondary Actor: Clients |
| **Triggers** | The mental health professional initiates the virtual consultation process by selecting a scheduled appointment and starting the session within the app. |
| **Preconditions** | PRE-1: The mental health professional has successfully logged in to their professional account.  PRE-2: A scheduled appointment for a virtual consultation exists, and both the professional and the client are available at the appointed time.  PRE-3: The client has consented to virtual consultations through the app. |
| **Postconditions** | POST-1: The virtual consultation session is successfully conducted, and both the professional and the client have participated in the session.  POST-2: Session notes and any relevant data are securely recorded within the app for reference. |
| **Normal Flows** | 1. The mental health professional logs in to their professional account and is directed to the professional dashboard. 2. Within the dashboard, the professional selects a scheduled appointment for a virtual consultation. 3. The app verifies the availability of both the professional and the client at the appointed time. 4. If both parties are available, the app initiates the virtual consultation session, providing a secure and private environment for the session. 5. The professional and the client engage in the virtual consultation, which may include clinical support, therapy, or counseling, based on the client's needs and the professional's expertise. 6. Throughout the session, the app provides necessary tools for communication, including video, audio, and text chat. 7. The professional and the client actively participate in the session, with the professional providing guidance and support. 8. After the session, the app prompts the professional to record session notes, observations, and any relevant data securely within the app. 9. The recorded information is saved for future reference and may be used for treatment planning and progress tracking. |
| **Alternative Flows** | 1. Client Unavailability: If the client is not available at the appointed time, the session may need to be rescheduled or canceled. - Technical Issues: In the event of technical issues or poor network connectivity, the app should provide guidance on troubleshooting or rescheduling the session. |
| **Exceptions** | None |
| **Business Rules** | BR-1: Conducting virtual consultations is contingent on obtaining user consent for virtual sessions through the app.  BR-2: Access to virtual consultation tools is restricted to authorized mental health professionals with valid accounts. |
| **Assumptions** | 1. Mental health professionals have successfully logged in to their professional accounts. 2. A scheduled appointment for a virtual consultation exists, and both the professional and the client are available at the appointed time. 3. The client has consented to virtual consultations through the app. 4. The app ensures the security and confidentiality of virtual consultation sessions and data. |

### UC-34: Send Notifications

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| **Use Case Identifier** | UC-34 |
| **Use Case Name** | Send Notifications |
| **Description** | Professionals can send messages, alerts, or reminders to their clients to stay connected and provide ongoing support. |
| **Actors** | Primary Actor: Mental Health Professionals  Secondary Actor: Clients |
| **Triggers** | The mental health professional initiates the process by composing and sending messages, alerts, or reminders to specific clients within the app. |
| **Preconditions** | PRE-1: The mental health professional has successfully logged in to their professional account.  PRE-2: The professional has an active and established client relationship within the app.  PRE-3: Clients have consented to receiving messages, alerts, or reminders from the professional through the app. |
| **Postconditions** | POST-1: The messages, alerts, or reminders are successfully sent to the specified clients within the app.  POST-2: Clients receive and can access the messages, alerts, or reminders within their app interface. |
| **Normal Flows** | 1. The mental health professional logs in to their professional account and is directed to the professional dashboard. 2. Within the dashboard, the professional selects the option to send messages, alerts, or reminders. 3. The app provides a user-friendly interface for composing and addressing the messages. 4. The professional selects the specific client(s) to whom the message, alert, or reminder is intended. 5. The professional composes the message content, which may include text, attachments, or links to relevant resources. 6. The app ensures that the message format is secure and adheres to privacy standards. 7. The professional reviews and confirms the message details. 8. The app sends the message, alert, or reminder to the specified client(s) within the app. 9. Clients receive notifications of new messages and can access the messages within their app interface. 10. Clients have the option to respond to the message or engage in a conversation with the professional if needed. |
| **Alternative Flows** | 1. Client Opt-Out: If a client chooses to opt out of receiving messages, alerts, or reminders from the professional, their preferences should be respected, and no further messages should be sent. |
| **Exceptions** | None |
| **Business Rules** | BR-1: Sending messages, alerts, or reminders is contingent on obtaining user consent for communication through the app.  BR-2: Access to message-sending tools is restricted to authorized mental health professionals with valid accounts. |
| **Assumptions** | 1. Mental health professionals have successfully logged in to their professional accounts. 2. There is an active and established client relationship within the app. 3. Clients have consented to receiving messages, alerts, or reminders from the professional through the app. 4. The app ensures the security and confidentiality of messages and communication data. |

### UC-35: Provide Personalized Recommendations

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| **Use Case Identifier** | UC-35 |
| **Use Case Name** | Provide Personalized Recommendations |
| **Description** | Professionals can offer personalized recommendations and treatment plans based on their clients' assessments, mood tracking data, and individual needs. |
| **Actors** | Primary Actor: Mental Health Professionals  Secondary Actor: Clients |
| **Triggers** | The mental health professional initiates the process by accessing a client's assessment results, mood tracking data, and other relevant information within the app. |
| **Preconditions** | PRE-1: The mental health professional has successfully logged in to their professional account.  PRE-2: An established client relationship exists within the app, and the client has completed relevant assessments and mood tracking.  PRE-3: Clients have consented to receiving personalized recommendations and treatment plans from the professional through the app. |
| **Postconditions** | POST-1: The mental health professional provides personalized recommendations and treatment plans to the client based on the analysis of assessment results, mood tracking data, and individual needs.  POST-2: Clients receive and can access the personalized recommendations and treatment plans within their app interface. |
| **Normal Flows** | 1. The mental health professional logs in to their professional account and is directed to the professional dashboard. 2. Within the dashboard, the professional selects a specific client for whom they want to provide personalized recommendations. 3. The app provides access to the client's assessment results, mood tracking data, and relevant information. 4. The professional reviews the client's data, taking into account their assessments, mood trends, and individual circumstances. 5. Based on the analysis, the professional formulates personalized recommendations and treatment plans tailored to the client's needs. 6. The professional uses the app's interface to document and communicate the recommendations and treatment plans to the client. 7. The app ensures that the recommendations and treatment plans are securely shared with the client. 8. Clients receive notifications of new personalized recommendations and can access them within their app interface. 9. Clients can review the recommendations and treatment plans, ask questions, or discuss them with the professional. |
| **Alternative Flows** | 1. Client Opt-Out: If a client chooses to opt out of receiving personalized recommendations, their preferences should be respected, and no further recommendations should be provided. |
| **Exceptions** | None |
| **Business Rules** | BR-1: Providing personalized recommendations is contingent on obtaining user consent for communication and personalized guidance through the app.  BR-2: Access to client data and assessment results is restricted to authorized mental health professionals with valid accounts. |
| **Assumptions** | 1. Mental health professionals have successfully logged in to their professional accounts. 2. An established client relationship exists within the app, including completed assessments and mood tracking data. 3. Clients have consented to receiving personalized recommendations and treatment plans from the professional through the app. 4. The app ensures the security and confidentiality of client data and personalized recommendations. |

### UC-36: Review User Data

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| **Use Case Identifier** | UC-36 |
| **Use Case Name** | Review User Data |
| **Description** | Professionals can review and analyze their clients' assessment results, mood tracking trends, and other data to make informed decisions about treatment and support. |
| **Actors** | Primary Actor: Mental Health Professionals  Secondary Actor: Clients |
| **Triggers** | The mental health professional initiates the process by accessing a client's assessment results, mood tracking data, and other relevant information within the app. |
| **Preconditions** | PRE-1: The mental health professional has successfully logged in to their professional account.  PRE-2: An established client relationship exists within the app, and the client has completed relevant assessments and mood tracking. |
| **Postconditions** | POST-1: The mental health professional reviews and analyzes the client's assessment results, mood tracking trends, and other data within the app.  POST-2: The professional uses the insights gained to make informed decisions about treatment and support for the client. |
| **Normal Flows** | 1. The mental health professional logs in to their professional account and is directed to the professional dashboard. 2. Within the dashboard, the professional selects a specific client for whom they want to review and analyze data. 3. The app provides access to the client's assessment results, mood tracking data, and relevant information. 4. The professional reviews and analyzes the data, looking for patterns, trends, and insights. 5. The professional considers the assessment results, mood trends, and other relevant data to make informed decisions about treatment plans, interventions, or support strategies. 6. The professional may document their analysis and decisions within the app for reference and communication with the client. 7. The app ensures that the analysis and decisions are securely stored and can be accessed by the professional for future reference. |
| **Alternative Flows** | None |
| **Exceptions** | None |
| **Business Rules** | BR-1: Access to client data and assessment results is restricted to authorized mental health professionals with valid accounts. |
| **Assumptions** | 1. Mental health professionals have successfully logged in to their professional accounts. 2. An established client relationship exists within the app, including completed assessments and mood tracking data. 3. 3. The app ensures the security and confidentiality of client data and professional analysis. |

### UC-37: Update Treatment Plans

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| **Use Case Identifier** | UC-37 |
| **Use Case Name** | Update Treatment Plans |
| **Description** | Professionals can modify and update clients' treatment plans as needed, adapting to changes in their mental health status and goals. |
| **Actors** | Primary Actor: Mental Health Professionals  Secondary Actor: Clients |
| **Triggers** | The mental health professional initiates the process when they determine that a client's treatment plan needs modification based on changes in the client's mental health status and goals. |
| **Preconditions** | PRE-1: The mental health professional has successfully logged in to their professional account.  PRE-2: An established client relationship exists within the app, and the client has an existing treatment plan. |
| **Postconditions** | POST-1: The mental health professional modifies and updates the client's treatment plan within the app.  POST-2: Clients receive notifications and can access the updated treatment plan within their app interface. |
| **Normal Flows** | 1. The mental health professional logs in to their professional account and is directed to the professional dashboard. 2. Within the dashboard, the professional selects a specific client for whom they want to update the treatment plan. 3. The app provides access to the client's existing treatment plan, including goals, interventions, and progress tracking. 4. The professional reviews the client's mental health status and progress, considering any changes or developments. 5. Based on the assessment, the professional decides to modify and update the treatment plan as needed. 6. The professional uses the app's interface to document and communicate the updated treatment plan to the client. 7. The app ensures that the updated treatment plan is securely shared with the client. 8. Clients receive notifications of the updated treatment plan and can access it within their app interface. 9. Clients can review the updated treatment plan, ask questions, or discuss it with the professional. |
| **Alternative Flows** | 1. Client Opt-Out: If a client chooses to opt out of receiving updates to their treatment plan, their preferences should be respected, and no further updates should be provided. |
| **Exceptions** | None |
| **Business Rules** | BR-1: Access to client data and treatment plans is restricted to authorized mental health professionals with valid accounts. |
| **Assumptions** | 1. Mental health professionals have successfully logged in to their professional accounts. 2. An established client relationship exists within the app, including an existing treatment plan. 3. Clients have consented to treatment plan updates and communication with the professional through the app. 4. The app ensures the security and confidentiality of client data and treatment plans. |

### UC-38: Access Support Group Interactions

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| **Use Case Identifier** | UC-38 |
| **Use Case Name** | Access Support Group Interactions |
| **Description** | Professionals can view interactions and discussions within support groups to monitor their clients' participation and provide guidance if necessary. |
| **Actors** | Primary Actor: Mental Health Professionals  Secondary Actor: Clients (group members) |
| **Triggers** | The mental health professional initiates the process when they wish to review and monitor their clients' interactions within support groups. |
| **Preconditions** | PRE-1: The mental health professional has successfully logged in to their professional account.  PRE-2: An established client relationship exists within the app, and the client is a member of one or more support groups. |
| **Postconditions** | POST-1: The mental health professional gains insights into their clients' interactions and discussions within support groups.  POST-2: The professional can use these insights to provide guidance or support to clients as needed. |
| **Normal Flows** | 1. The mental health professional logs in to their professional account and is directed to the professional dashboard. 2. Within the dashboard, the professional selects a specific client for whom they want to review support group interactions. 3. The app provides access to the client's interactions within the relevant support groups, including posts, comments, and discussions. 4. The professional reviews the client's interactions, paying attention to the content, tone, and frequency of participation. 5. Based on their review, the professional can identify any issues or concerns that may require guidance or support. 6. The professional can use the app's messaging or communication features to provide guidance or support to the client as needed, addressing any issues or offering encouragement. 7. The app ensures that the professional's communication with the client is securely facilitated. |
| **Alternative Flows** | None |
| **Exceptions** | None |
| **Business Rules** | BR-1: Access to client support group interactions is restricted to authorized mental health professionals with valid accounts. |
| **Assumptions** | 1. Mental health professionals have successfully logged in to their professional accounts 2. An established client relationship exists within the app, and the client is a member of one or more support groups. 3. Clients have consented to their support group interactions being accessible to their mental health professionals. 4. The app ensures the security and confidentiality of client interactions within support groups. |

### UC-39: Monitor Progress

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| **Use Case Identifier** | UC-39 |
| **Use Case Name** | Monitor Progress |
| **Description** | Professionals can track and monitor their clients' progress over time, making adjustments to their treatment plans as required. |
| **Actors** | Primary Actor: Mental Health Professionals  Secondary Actor: Clients |
| **Triggers** | The mental health professional initiates the process when they want to assess their client's progress and make adjustments to the treatment plan. |
| **Preconditions** | PRE-1: The mental health professional has successfully logged in to their professional account.  PRE-2: An established client relationship exists within the app, and the client has an existing treatment plan. |
| **Postconditions** | POST-1: The mental health professional reviews and assesses the client's progress, noting any improvements or challenges.  POST-2: Based on the assessment, the professional may choose to make adjustments to the client's treatment plan.  POST-3: Clients receive notifications of any updates or changes to their treatment plans and can access them within their app interface. |
| **Normal Flows** | 1. The mental health professional logs in to their professional account and is directed to the professional dashboard. 2. Within the dashboard, the professional selects a specific client for whom they want to monitor progress. 3. The app provides access to the client's assessment results, mood tracking history, and treatment plan. 4. The professional reviews the client's mental health status and progress, considering any changes or developments. 5. Based on the assessment, the professional decides whether adjustments to the client's treatment plan are necessary. 6. If adjustments are needed, the professional uses the app's interface to modify the treatment plan. 7. The app ensures that the updated treatment plan is securely shared with the client. 8. Clients receive notifications of any updates to their treatment plan and can access it within their app interface. 9. Clients can review the updated treatment plan, ask questions, or discuss it with the professional. |
| **Alternative Flows** | 1. Client Opt-Out: If a client chooses to opt out of receiving updates to their treatment plan, their preferences should be respected, and no further updates should be provided. |
| **Exceptions** | None |
| **Business Rules** | BR-1: Access to client data and treatment plans is restricted to authorized mental health professionals with valid accounts. |
| **Assumptions** | 1. Mental health professionals have successfully logged in to their professional accounts. 2. An established client relationship exists within the app, including an existing treatment plan. 3. Clients have consented to treatment plan updates and communication with the professional through the app. 4. The app ensures the security and confidentiality of client data and treatment plans. |

### UC-40: Provide Crisis Intervention

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| **Use Case Identifier** | UC-40 |
| **Use Case Name** | Provide Crisis Intervention |
| **Description** | In emergency situations or when clients express thoughts of self-harm or harm to others, professionals can provide immediate crisis intervention and guide clients to appropriate resources. |
| **Actors** | Primary Actor: Mental Health Professionals  Secondary Actor: Clients |
| **Triggers** | The mental health professional initiates the process when they identify an emergency situation or when a client expresses thoughts of self-harm or harm to others. |
| **Preconditions** | PRE-1: The mental health professional has successfully logged in to their professional account.  PRE-2: An established client relationship exists within the app, and the client is currently in communication with the professional.  PRE-3: The professional has identified signs of crisis or imminent danger during their interaction with the client. |
| **Postconditions** | POST-1: The mental health professional provides immediate crisis intervention to ensure the safety and well-being of the client.  POST-2: The professional guides the client to appropriate emergency resources, such as crisis hotlines, local authorities, or emergency medical services.  POST-3: The app securely logs the crisis intervention interaction for reference and reporting purposes. |
| **Normal Flows** | 1. The mental health professional logs in to their professional account and is directed to the professional dashboard. 2. Within the dashboard, the professional is in communication with a specific client. 3. During the interaction, the professional identifies signs of crisis or imminent danger expressed by the client. 4. The professional initiates immediate crisis intervention, engaging in empathetic and supportive conversation while prioritizing the client's safety. 5. Based on the severity of the situation, the professional may contact emergency services or crisis hotlines on behalf of the client, providing necessary information. 6. The professional guides the client to appropriate emergency resources and encourages them to seek immediate assistance if required. 7. The app ensures that the crisis intervention interaction is securely logged for reference and reporting purposes. 8. 8. After the crisis has been addressed and the client's safety is assured, the professional continues to provide appropriate support or assistance as needed. |
| **Alternative Flows** | None |
| **Exceptions** | None |
| **Business Rules** | BR-1: Access to crisis intervention features is restricted to authorized mental health professionals with valid accounts.  BR-2: The safety and well-being of the client are the top priorities during crisis intervention, and professionals should follow established guidelines and protocols. |
| **Assumptions** | 1. Mental health professionals have successfully logged in to their professional accounts. 2. An established client relationship exists within the app. 3. The professional has identified signs of crisis or imminent danger during their interaction with the client. 4. The app ensures the security and confidentiality of crisis intervention interactions and logs. |

### UC-41: Access Resources

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| **Use Case Identifier** | UC-41 |
| **Use Case Name** | Access Resources |
| **Description** | Professionals can access mental health resources, articles, research, and best practices within the app to enhance their knowledge and provide evidence-based care. |
| **Actors** | Primary Actor: Mental Health Professionals |
| **Triggers** | The mental health professional initiates the process when they want to access mental health resources, articles, research, or best practices to enhance their knowledge and provide evidence-based care to their clients. |
| **Preconditions** | PRE-1: The mental health professional has successfully logged in to their professional account.  PRE-2: The app provides access to a library of mental health resources, articles, research, and best practices. |
| **Postconditions** | POST-1: The mental health professional gains access to the requested mental health resources, articles, research, or best practices.  POST-2: The professional can use the acquired knowledge to enhance their care and support for their clients. |
| **Normal Flows** | 1. The mental health professional logs in to their professional account and is directed to the professional dashboard. 2. Within the dashboard, the professional navigates to the "Resources" or "Research" section of the app. 3. The app provides a library of mental health resources, articles, research, and best practices categorized by relevant topics and areas of interest. 4. The professional selects the desired resource or research article they wish to access. 5. The app grants the professional access to the selected resource, allowing them to read, download, or utilize it for reference. 6. The professional can use the acquired knowledge to enhance their care and support for their clients, ensuring evidence-based practices. |
| **Alternative Flows** | None |
| **Exceptions** | None |
| **Business Rules** | BR-1: Access to mental health resources, articles, research, and best practices is available exclusively to authorized mental health professionals with valid accounts.  BR-2: Professionals should use the acquired knowledge responsibly and in line with ethical standards and best practices in mental health care. |
| **Assumptions** | 1. Mental health professionals have successfully logged in to their professional accounts. 2. The app provides a comprehensive library of mental health resources, articles, research, and best practices. 3. Professionals are committed to enhancing their knowledge and providing evidence-based care to their clients. |

### UC-42: Join or Create Support Groups

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| **Use Case Identifier** | UC-42 |
| **Use Case Name** | Join or Create Support Groups |
| **Description** | Professionals can join existing support groups or create new ones to facilitate peer support and discussion among clients. |
| **Actors** | Primary Actor: Mental Health Professionals |
| **Triggers** | The mental health professional initiates the process when they want to join an existing support group or create a new one within the app to facilitate peer support and discussion among their clients. |
| **Preconditions** | PRE-1: The mental health professional has successfully logged in to their professional account.  PRE-2: The app provides functionality for joining existing support groups or creating new ones. |
| **Postconditions** | POST-1: The mental health professional gains access to the selected support group or successfully creates a new support group.  POST-2: The professional can facilitate peer support and discussion among their clients within the support group. |
| **Normal Flows** | 1. The mental health professional logs in to their professional account and is directed to the professional dashboard. 2. Within the dashboard, the professional navigates to the "Support Groups" or "Peer Support" section of the app. 3. The app provides options to either join an existing support group or create a new one. 4. If the professional chooses to join an existing support group, they select the desired group from a list of available groups. 5. The app grants the professional access to the selected support group, allowing them to participate in discussions and offer guidance to their clients. 6. If the professional chooses to create a new support group, they provide relevant details such as the group's name, description, and topic. 7. The app creates the new support group and assigns the professional as the group's facilitator. 8. The professional can now facilitate peer support and discussion among their clients within the support group. |
| **Alternative Flows** | None |
| **Exceptions** | None |
| **Business Rules** | BR-1: Access to support groups and the ability to create new ones are available exclusively to authorized mental health professionals with valid accounts.  BR-2: Professionals are responsible for maintaining a safe and supportive environment within the support groups, adhering to ethical and professional standards. |
| **Assumptions** | 1. Mental health professionals have successfully logged in to their professional accounts. 2. The app provides functionality for joining existing support groups or creating new ones. 3. Professionals are committed to facilitating peer support and discussion among their clients. |

### UC-43: Receive Payments

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| **Use Case Identifier** | UC-43 |
| **Use Case Name** | Receive Payments |
| **Description** | Professionals can receive payments from clients for their services through the app, with options for fee collection and invoicing. |
| **Actors** | Primary Actor: Mental Health Professionals  Secondary Actor: Clients |
| **Triggers** | The process is triggered when a client makes a payment to a mental health professional for their services within the app. |
| **Preconditions** | PRE-1: The mental health professional has successfully logged in to their professional account.  PRE-2: The client has successfully logged in to their client account.  PRE-3: The app provides functionality for processing payments. |
| **Postconditions** | POST-1: The payment is successfully processed, and both the mental health professional and the client receive confirmation of the transaction.  POST-2: The payment history is recorded for both the professional and the client. |
| **Normal Flows** | 1. The mental health professional logs in to their professional account and is directed to the professional dashboard. 2. The client logs in to their client account. 3. The client navigates to the payment section of the app to make a payment for the professional's services. 4. The app provides options for the client to enter payment details, including the amount, payment method, and any additional information. 5. The client confirms the payment. 6. The app processes the payment, deducts the appropriate fees if applicable, and transfers the payment amount to the mental health professional's account. 7. Both the mental health professional and the client receive confirmation of the successful transaction. 8. The payment history is recorded in both the professional's and the client's accounts for reference. |
| **Alternative Flows** | None |
| **Exceptions** | None |
| **Business Rules** | BR-1: Payments are processed securely and in compliance with relevant financial regulations.  BR-2: Professionals should provide transparent and accurate fee information to clients.  BR-3: Clients should have access to payment receipts and transaction history for their records. |
| **Assumptions** | 1. Both the mental health professional and the client have successfully logged in to their respective accounts. 2. The app provides functionality for processing payments securely. 3. Professionals and clients are responsible for ensuring accurate payment information. |

### UC-44: Review Client Feedback

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| **Use Case Identifier** | UC-44 |
| **Use Case Name** | Review Client Feedback |
| **Description** | Professionals can view client ratings, reviews, and feedback to continuously improve their services. |
| **Actors** | Primary Actor: Mental Health Professionals |
| **Triggers** | The process is triggered when the mental health professional wishes to view client ratings, reviews, and feedback within the app. |
| **Preconditions** | PRE-1: The mental health professional has successfully logged in to their professional account.  PRE-2: Clients have provided ratings, reviews, and feedback for the professional's services. |
| **Postconditions** | POST-1: The mental health professional reviews client ratings, reviews, and feedback.  POST-2: The professional may take actions based on the feedback to improve their services. |
| **Normal Flows** | 1. The mental health professional logs in to their professional account and is directed to the professional dashboard. 2. Within the dashboard, the professional navigates to the "Client Ratings and Feedback" section of the app. 3. The app displays a list of client ratings, reviews, and feedback for the professional's services. 4. The professional reviews the ratings and reads the comments and feedback provided by clients. 5. The professional may take actions such as responding to feedback, addressing concerns, or making improvements to their services based on the received feedback. 6. The app provides options for the professional to acknowledge or respond to client feedback as appropriate. |
| **Alternative Flows** | None |
| **Exceptions** | None |
| **Business Rules** | BR-1: Ratings and feedback are provided by clients in a transparent and honest manner.  BR-2: Professionals should use client feedback constructively to improve their services.  BR-3: Client identities and feedback should be kept confidential. |
| **Assumptions** | 1. The mental health professional has successfully logged in to their professional account. 2. Clients have provided ratings, reviews, and feedback for the professional's services. 3. Ratings and feedback are intended to be constructive and helpful for professional development. |

### UC-45: Generate Reports

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| **Use Case Identifier** | UC-45 |
| **Use Case Name** | Generate Reports |
| **Description** | Professionals can generate reports summarizing clients' progress, assessment results, and treatment history for documentation and analysis. |
| **Actors** | Primary Actor: Mental Health Professionals |
| **Triggers** | The process is triggered when the mental health professional wishes to generate reports for their clients within the app. |
| **Preconditions** | PRE-1: The mental health professional has successfully logged in to their professional account.  PRE-2: Sufficient data and client information are available for report generation. |
| **Postconditions** | POST-1: The mental health professional generates reports for one or more clients.  POST-2: The generated reports are stored and made available for the professional's reference. |
| **Normal Flows** | 1. The mental health professional logs in to their professional account and is directed to the professional dashboard. 2. Within the dashboard, the professional navigates to the "Report Generation" section of the app. 3. The app provides options for the professional to select specific clients for whom they want to generate reports. 4. The professional chooses the clients and the type of reports they wish to generate (e.g., progress reports, assessment summaries, treatment history). 5. The app processes the request and generates the selected reports based on the clients' data and history. 6. The generated reports are displayed to the professional within the app. 7. The professional may download or save the reports for documentation and analysis. |
| **Alternative Flows** | None |
| **Exceptions** | None |
| **Business Rules** | BR-1: Generated reports should accurately reflect clients' progress and history.  BR-2: Reports should be securely stored and accessible only to authorized professionals. |
| **Assumptions** | 1. The mental health professional has successfully logged in to their professional account. 2. Sufficient client data and information are available for report generation. 3. Reports are intended for professional use, documentation, and analysis. |

### UC-46: Refer Clients to Specialized Care

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| **Use Case Identifier** | UC-46 |
| **Use Case Name** | Refer Clients to Specialized Care |
| **Description** | If clients require specialized care beyond the professional's scope, they can refer clients to other mental health professionals or resources. |
| **Actors** | Primary Actor: Mental Health Professionals |
| **Triggers** | The process is triggered when the mental health professional identifies that a client requires specialized care that is beyond their own scope of practice. |
| **Preconditions** | PRE-1: The mental health professional has successfully logged in to their professional account.  PRE-2: The client's needs have been assessed, and it is determined that specialized care is required.  PRE-3: Information about available specialized care resources and professionals is accessible within the app. |
| **Postconditions** | POST-1: The mental health professional initiates the referral process for the client.  POST-2: The client receives information and guidance regarding the referral. POST-3: The client is connected to the specialized care resource or professional. |
| **Normal Flows** | 1. The mental health professional logs in to their professional account and is directed to the professional dashboard. 2. The professional reviews the client's case and assessments, identifying that specialized care is required. 3. Within the app, the professional initiates the referral process for the client. 4. The app provides options for the professional to select the type of specialized care needed (e.g., specific condition, therapy type). 5. The professional selects the appropriate specialized care resource or professional from the available options within the app. 6. The app generates a referral request or message to the selected specialized care resource or professional, providing relevant client information and context. 7. The client is informed about the referral and provided with information regarding the specialized care resource or professional, including contact details and next steps. 8. The client may choose to accept the referral and initiate contact with the specialized care resource or professional. |
| **Alternative Flows** | None |
| **Exceptions** | None |
| **Business Rules** | BR-1: Referrals should be made based on a thorough assessment of the client's needs and requirements for specialized care.  BR-2: Client consent should be obtained before initiating a referral. |
| **Assumptions** | 1. The mental health professional has successfully logged in to their professional account. 2. Client needs have been assessed, and it is determined that specialized care is required. 3. Information about available specialized care resources and professionals is accessible within the app. 4. Referrals are intended to connect clients with the most suitable specialized care. |

### UC-47: Protect Client Confidentiality

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| **Use Case Identifier** | UC-47 |
| **Use Case Name** | Protect Client Confidentiality |
| **Description** | Professionals must adhere to strict data privacy and confidentiality standards, ensuring that client information is securely handled and protected. |
| **Actors** | Primary Actor: Mental Health Professionals |
| **Triggers** | The process is triggered when the mental health professional accesses or handles client information within the app. |
| **Preconditions** | PRE-1: The mental health professional has successfully logged in to their professional account.  PRE-2: Client information is accessible within the app. |
| **Postconditions** | POST-1: The mental health professional has appropriately handled client information in compliance with data privacy and confidentiality standards. |
| **Normal Flows** | 1. The mental health professional logs in to their professional account and is directed to the professional dashboard. 2. The professional accesses client information within the app, which may include assessment results, mood tracking data, and personal information. 3. The professional ensures that they only access client information that is necessary for providing care and support. 4. The professional follows strict data privacy and confidentiality protocols, including encryption, access controls, and secure communication, to protect client information from unauthorized access or disclosure. 5. The professional reviews and updates client information as needed for treatment and support, ensuring accuracy and relevance. |
| **Alternative Flows** | None |
| **Exceptions** | None |
| **Business Rules** | BR-1: Professionals must adhere to legal and regulatory requirements related to data privacy and confidentiality.  BR-2: Client information should only be accessed and used for the purpose of providing mental health services and support.  BR-3: Any potential data breaches or security incidents must be reported and addressed promptly. |
| **Assumptions** | 1. The mental health professional has successfully logged in to their professional account. 2. Client information is accessible within the app. 3. Strict data privacy and confidentiality standards and protocols are in place to protect client information. |

**Administration:**

### UC-48: Manage User Accounts

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| **Use Case Identifier** | UC-48 |
| **Use Case Name** | Manage User Accounts |
| **Description** | The administrator can create, update, and deactivate user accounts within the app. |
| **Actors** | Primary Actor: Administrator  Secondary Actors: None |
| **Trigger** | The administrator intends to manage user accounts. |
| **Preconditions** | PRE1: The administrator is logged in to the system. |
| **Postconditions** | POST1: User account changes (create, update, deactivate) are saved. |
| **Normal Flow** | 1. The administrator logs in to the system. 2. The administrator navigates to the "User Management" section. 3. The system displays options for creating, updating, or deactivating user accounts. 4. The administrator selects the desired action (create, update, deactivate). 5. The administrator provides the necessary user information (e.g., username, email, role). 6. The system saves the changes to the user account. |
| **Alternative Flow** | None |
| **Exceptions** | E1: Duplicate Email Address   1. If the email address provided by the administrator already exists in the system, the system displays an error message. 2. The administrator must provide a unique email address. |
| **Business Rules** | BR1: User accounts must have a unique email address.  BR2: User accounts can be deactivated, but not permanently deleted. |
| **Assumptions** | 1. User data is stored securely and can be accessed for account management purposes. 2. User registration and account creation processes are complete and accurate. 3. Proper authentication measures are in place to verify the administrator's identity. 4. The user interface provides clear instructions and options for managing user accounts. |

#### UC-48.1: Create User Accounts

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| **Use Case Identifier** | UC-48.1 |
| **Title** | Create User Accounts |
| **Description** | The Admin can create new user accounts in the system, providing user-specific information and assigning roles and permissions. |
| **Actors** | Primary Actor: Admin  Secondary Actors: System, Database |
| **Trigger** | The Admin initiates the process of creating a new user account. |
|  |  |
| **Preconditions** | PRE-1: The Admin is logged into the system with the necessary privileges.  PRE-2: The Admin has access to user-specific information to complete the account creation.  PRE-3: The system and database are operational. |
| **Postconditions** | POST-1: A new user account is created and stored in the system's database.  POST-2: The user receives login credentials (username and temporary password).  POST-3: The user's account is in an active state.  POST-4: The user is assigned the specified roles and permissions.  POST-5: The user is informed about the account creation. |
| **Normal Flow** | 1. The Admin accesses the "Create User Account" functionality. 2. The Admin provides the necessary user-specific information: 3. User's full name 4. User's contact information (e.g., email) 5. User's role and permissions 6. The Admin submits the information for user account creation. 7. The system validates the provided information. 8. The system generates a unique username. 9. The system generates a temporary password for the new user. 10. The system stores the user's account details in the database. 11. The user receives an email or notification containing their username and temporary password. 12. The user can log in using these credentials and is prompted to change the temporary password upon first login. 13. The user's account is marked as "active." 14. The user's assigned roles and permissions become effective. 15. The Admin is notified that the account creation was successful. 16. The Admin can inform the new user that their account is ready for use. |
| **Alternative Flow** | 4.1. Required information is missing:  1. The system informs the Admin about the missing information and asks to provide it.  4.2. Duplicate User:  1. The system checks for duplicate user information and alerts the Admin if a similar user already exists.  5.1. Username Generation Issue:  1. If the username generation process fails (e.g., due to a system error), the Admin is informed, and the process is retried.  5.2. Temporary Password Generation Issue:  1. If the temporary password generation process fails, the Admin is informed, and the process is retried.  8.1. Notification Failure:  1. If the notification to the user containing their credentials fails to send (e.g., due to email issues), the Admin is alerted and may need to manually provide the user with their credentials.  13.1. User Notification Failure:  1. If the Admin cannot inform the user of their new account, an alternative communication method is used.  2. If all communication attempts fail, the Admin may need to contact the user directly. |
| **Exceptions** | E-1: System Failure:   1. If the system experiences an error during the account creation process, the Admin is alerted, and the process may need to be repeated.   E-2: Database Unavailability:   1. If the database becomes inaccessible during account creation, the process is halted until the database is operational again. |
| **Business Rule** | BR-1: User-specific information must be provided accurately.  BR-2: Usernames must be unique within the system.  BR-3: Temporary passwords must meet security standards.  BR-4: User accounts should be assigned appropriate roles and permissions.  BR-5: Users must be informed about their account creation.  BR-6: New users are prompted to change their temporary password upon first login.  BR-7: Account creation may require further verification processes, depending on the organization's policies. |
| **Assumptions** | 1. The Admin has the necessary privileges to create user accounts. 2. The Admin has access to the required user information. 3. The system and database are operational during account creation. 4. Users need to receive their credentials to access the system. |

#### UC-48.2: Update User Information

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| **Use Case Identifier** | UC-48.2 |
| **Title** | Update User Information |
| **Description** | The Admin can update the user's information in the system, including their contact details, roles, and permissions. |
| **Actors** | Primary Actor: Admin  Secondary Actors: System, Database |
| **Trigger** | The Admin initiates the process of updating user information. |
|  |  |
| **Preconditions** | PRE-1: The Admin is logged into the system with the necessary privileges.  PRE-2: The Admin has access to the user's current information and the updated details.  PRE-3: The system and database are operational |
| **Postconditions** | POST-1: The user's information is updated in the system's database.  POST-2: The user's updated information is effective within the system.  POST-3: The Admin is notified of a successful update.  POST-4: The user is informed about the changes if necessary. |
| **Normal Flow** | 1. The Admin accesses the "Update User Information" functionality. 2. The Admin selects the user whose information needs to be updated. 3. The Admin provides the updated user information:    1. User's full name    2. User's contact information (e.g., email)    3. User's roles and permissions 4. The Admin submits the updated information for the user. 5. The system validates the provided information. 6. The user's information is updated in the system's database. 7. The user's updated information becomes effective within the system. 8. The Admin is notified that the update was successful. 9. The user is informed about the changes if necessary. |
| **Alternative Flow** | 5.1. Required information is missing:   1. The system informs the Admin about the missing information and asks to provide it.   5.2. Duplicate User:   1. The system checks for duplicate user information and alerts the Admin if a similar user already exists.   6.1. Update Failure:   1. If the update process fails (e.g., due to a system error), the Admin is informed, and the process may need to be repeated.   8.1. User Notification Failure:   1. If the Admin cannot inform the user of the changes, an alternative communication method is used. 2. If all communication attempts fail, the Admin may need to contact the user directly. |
| **Exceptions** | E-1: System Failure:   1. If the system experiences an error during the update process, the Admin is alerted, and the process may need to be repeated.   E-2: Database Unavailability:   1. If the database becomes inaccessible during the update, the process is halted until the database is operational again. |
| **Business Rule** | BR-1: User-specific information must be provided accurately.  BR-2: User information must be unique within the system.  BR-3: Updated information should meet organizational standards.  BR-4: Updated information must be effective within the system.  BR-5: Users should be informed about changes if necessary. |
| **Assumptions** | 1. The Admin has the necessary privileges to update user information. 2. The Admin has access to the required user information. 3. The system and database are operational during the update process. 4. Users need to be informed about changes if their information is updated. |

#### UC-48.3: Deactivate User Account

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| **Use Case Identifier** | UC-48.3 |
| **Title** | Deactivate User Account |
| **Description** | Admin can deactivate an existing user account, preventing the user from accessing the system. |
| **Actors** | Primary Actor: Admin  Secondary Actors: System, Database |
| **Trigger** | The Admin initiates the process to deactivate a user account. |
|  |  |
| **Preconditions** | PRE-1: The Admin is logged into the system with the necessary privileges.  PRE-2: The Admin has access to the user accounts management functionality.  PRE-3: The user account to be deactivated exists in the system.  PRE-4: The system and database are operational. |
| **Postconditions** | POST-1: The user account is marked as "deactivated."  POST-2: The user is no longer able to access the system.  POST-3: The user's assigned roles and permissions are temporarily disabled.  POST-4: The Admin receives confirmation that the deactivation was successful.  POST-5: The system logs the deactivation event for auditing purposes. |
| **Normal Flow** | 1. The Admin accesses the "Deactivate User Account" functionality. 2. The Admin identifies the user account to be deactivated. 3. The system validates the request and the user account's existence. 4. The system marks the user account as "deactivated" and disables login access. 5. The user's assigned roles and permissions are temporarily suspended. 6. The Admin receives a confirmation message that the deactivation was successful. 7. The system logs the deactivation event for auditing purposes. 8. The deactivated user is informed about the deactivation event. 9. The user may receive an email notification or a message the next time they attempt to log in. 10. The message explains that their account has been deactivated and provides contact information for further assistance. |
| **Alternative Flow** | 3.1. Invalid User:   1. If the requested user account does not exist, the Admin is alerted, and the process is terminated.   3.2. Protected Account:   1. If the requested user account is protected or has specific restrictions, the Admin is informed and may need to follow a specific process for deactivation.   6.1. System Error:   1. If the system encounters an error during the deactivation process (e.g., technical issues), the Admin is alerted, and the process may need to be repeated.   8.1. User Notification Delay:   1. If there is a delay in notifying the deactivated user, the user should still receive a notification as soon as possible, explaining the deactivation. |
| **Exceptions** | E-1: System Failure:   1. If the system experiences a significant error during the deactivation process, the Admin is alerted, and the process may need to be repeated.   E-2: Database Unavailability:   1. If the database becomes inaccessible during the deactivation process, the process is halted until the database is operational again. |
| **Business Rule** | BR-1: Deactivation should temporarily disable a user's account.  BR-2: User roles and permissions should be suspended during deactivation.  BR-3: Deactivated users should be informed about the deactivation event.  BR-4: The deactivation process may vary depending on the organization's policies and requirements.  BR-5: The system should log deactivation events for auditing purposes. |
| **Assumptions** | 1. The Admin has the necessary privileges to deactivate user accounts. 2. The Admin can identify the user account to be deactivated. 3. The user account to be deactivated exists in the system. 4. The system and database are operational during the deactivation process. 5. Deactivated users need to be informed about the deactivation event. |

### UC-49: Monitor User Activity

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| **Use Case Identifier** | UC-49 |
| **Use Case Name** | Monitor User Activity |
| **Description** | The administrator can view and monitor user activity and interactions within the app. |
| **Actors** | Primary Actor: Administrator  Secondary Actors: None |
| **Trigger** | The administrator intends to monitor user activity. |
| **Preconditions** | PRE1: The administrator is logged in to the system. |
| **Postconditions** | POST1: The administrator has access to user activity logs and reports. |
| **Normal Flow** | 1. The administrator logs in to the system. 2. The administrator navigates to the "User Activity Monitoring" section. 3. The system displays options for filtering and viewing user activity logs. 4. The administrator selects the desired filters (e.g., date range, specific user). 5. The system retrieves and displays relevant user activity logs. |
| **Alternative Flow** | None |
| **Exceptions** | None |
| **Business Rules** | BR1: User activity logs are retained for a specified period.  BR2: Access to user activity monitoring is restricted to administrators. |
| **Assumptions** | 1. User activity logs are generated and stored for monitoring purposes. 2. The system provides tools and interfaces for the administrator to access user activity data. 3. User activities are recorded accurately and in real-time. 4. The administrator has the necessary permissions to access user activity logs. |

### UC-50: Review Content

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| **Use Case Identifier** | UC-50 |
| **Use Case Name** | Review Content |
| **Description** | The administrator can review and moderate user-generated content to ensure it adheres to community guidelines. |
| **Actors** | Primary Actor: Administrator  Secondary Actors: None |
| **Trigger** | The administrator intends to review and moderate user-generated content. |
| **Preconditions** | PRE1: The administrator is logged in to the system. |
| **Postconditions** | POST1: The content is either approved, flagged for further review, or rejected. |
| **Normal Flow** | 1. The administrator logs in to the system. 2. The administrator navigates to the "Content Moderation" section. 3. The system displays a list of user-generated content awaiting review. 4. The administrator selects a piece of content for review. 5. The administrator evaluates the content based on community guidelines. 6. The administrator takes appropriate action (approve, flag, reject). |
| **Alternative Flow** | None |
| **Exceptions** | None |
| **Business Rules** | BR1: Content moderation decisions are final and communicated to users.  BR2: Inappropriate or violating content is promptly removed. |
| **Assumptions** | 1. User-generated content is flagged or reported for review based on community guidelines. 2. The system provides a content moderation interface for the administrator. 3. The administrator has the authority to enforce content moderation policies. 4. The administrator is trained and knowledgeable in content moderation best practices. |

### UC-51: Manage Support Groups

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| **Use Case Identifier** | UC-51 |
| **Use Case Name** | Manage Support Groups |
| **Description** | The administrator can create, edit, or remove support groups within the app. |
| **Actors** | Primary Actor: Administrator  Secondary Actors: None |
| **Trigger** | The administrator intends to manage support groups. |
| **Preconditions** | PRE1: The administrator is logged in to the system. |
| **Postconditions** | POST1: Support group changes (create, edit, remove) are saved. |
| **Normal Flow** | 1. The administrator logs in to the system. 2. The administrator navigates to the "Support Group Management" section. 3. The system displays options for creating, editing, or removing support groups. 4. The administrator selects the desired action (create, edit, remove). 5. The administrator provides the necessary information for the support group (e.g., name, description). 6. 6. The system saves the changes to the support group. |
| **Alternative Flow** | None |
| **Exceptions** | E1: Support Group Name Already Exists:   1. If the support group name provided by the administrator already exists in the system, the system displays an error message. 2. 2. The administrator must provide a unique support group name. |
| **Business Rules** | BR1: Support groups must have a unique name.  BR2: Support groups can be edited or removed, but not permanently deleted. |
| **Assumptions** | 1. The support group feature is integrated into the app's functionality. 2. The system provides an administrative interface for creating, editing, and removing support groups. 3. The administrator has the necessary permissions to manage support groups. 4. Support groups can be created and modified without affecting other core functionalities of the app. |

#### UC-51.1: Create Support Group

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| **Use Case Identifier** | UC-51.1 |
| **Use Case Name** | Create Support Group |
| **Description** | In this use case, an Admin can create a new support group within the system. Support groups are essential for users to connect and share their experiences with similar mental health concerns. |
| **Actors** | Primary Actor: Admin |
| **Trigger** | The Admin initiates the process of creating a support group. |
| **Preconditions** | PRE-1: The Admin is logged into the system with administrative privileges. |
| **Postconditions** | POST-1: A new support group is created and added to the system. |
| **Normal Flow** | 1. The Admin selects the option to create a new support group. 2. The system displays a form to input support group details, such as name, description, and tags. 3. The Admin fills in the required information. 4. The Admin confirms the creation of the support group. 5. The system validates the input and creates the support group. 6. The system notifies the Admin of successful support group creation. |
| **Alternative Flow** | None |
| **Exceptions** | 1.0 E1 Support Group Name Already Exists   1. The system identifies that a support group with the same name already exists. 2. The system informs the Admin that the name is already in use. 3. The Admin must provide a unique name for the support group. |
| **Business Rules** | BR-1: Support groups must have unique names. |
| **Assumptions** | None |

#### UC-51.2: Edit Support Group Information

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| **Use Case Identifier** | UC-51.2 |
| **Use Case Name** | Edit Support Group Information |
| **Description** | In this use case, an Admin can edit the information of an existing support group within the system. Support groups may require updates or changes over time. |
| **Actors** | Primary Actor: Admin |
| **Trigger** | The Admin initiates the process of editing a support group's information. |
| **Preconditions** | PRE-1: The Admin is logged into the system with administrative privileges. |
| **Postconditions** | PRE-2: An existing support group exists in the system. |
| **Normal Flow** | POST-1: The support group's information is successfully updated. |
| **Alternative Flow** | 1. The Admin selects the option to edit an existing support group's information. 2. The system displays the details of the support group, allowing the Admin to modify information such as name, description, and tags. 3. The Admin updates the required information. 4. The Admin confirms the changes to update the support group. 5. The system validates the input and updates the support group's information. 6. The system notifies the Admin of successful information updates. |
| **Exceptions** | 1.0 A1 Support Group Name Already Exists   1. The system identifies that another support group with the same name already exists. 2. The system informs the Admin that the name is already in use. 3. The Admin must provide a unique name for the support group.   2.0 A2 Admin Cancels Update   1. The Admin decides to cancel the update process. 2. 2. The system discards any changes made by the Admin and exits the update mode. |
| **Business Rules** | 1.0 E1 Invalid Information   1. The system detects that some entered information is invalid or incomplete. 2. The system notifies the Admin about the invalid information. 3. 3. The Admin must correct the invalid information to proceed. |
| **Assumptions** | BR-1: Support group names must be unique. |
| **Description** | None |

#### UC-51.3: Remove Support Group

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| **Use Case Identifier** | UC-51.3 |
| **Use Case Name** | Remove Support Group |
| **Description** | In this use case, an Admin can remove an existing support group from the system. This action should be taken with caution as it permanently deletes support group data. |
| **Actors** | Primary Actor: Admin |
| **Trigger** | The Admin initiates the process of removing a support group. |
| **Preconditions** | PRE-1: The Admin is logged into the system with administrative privileges. |
| **Postconditions** | POST-1: The specified support group is permanently removed from the system. |
| **Normal Flow** | 1. The Admin selects the option to remove an existing support group. 2. The system displays a list of all available support groups. 3. The Admin selects the support group to be removed from the list. 4. The Admin confirms the removal of the support group. 5. The system validates the request and permanently deletes the support group data. 6. The system notifies the Admin of the successful removal. |
| **Alternative Flow** | 4.0 E1 Admin Cancels Removal   1. The Admin chooses to cancel the removal of the support group. 2. The system confirms the cancellation, and the process is terminated. |
| **Exceptions** | 1.0 E2 Support Group Deletion Confirmation   1. The system prompts the Admin to confirm the deletion. 2. The Admin chooses to cancel the deletion, and the process is terminated. |
| **Business Rules** | BR-1: Support groups can be deleted by Admins only. |
| **Assumptions** | None |

### UC-52: View Analytics

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| **Use Case Identifier** | UC-52 |
| **Use Case Name** | View Analytics |
| **Description** | The administrator can access analytics and generate reports related to user engagement and app usage. |
| **Actors** | Primary Actor: Administrator  Secondary Actors: None |
| **Trigger** | The administrator intends to view analytics and reports. |
| **Preconditions** | PRE1: The administrator is logged in to the system. |
| **Postconditions** | POST1: The administrator has access to analytics and reports. |
| **Normal Flow** | 1. The administrator logs in to the system. 2. The administrator navigates to the "Analytics and Reports" section. 3. The system displays options for selecting and generating reports (e.g., user engagement, app usage). 4. The administrator selects the desired report type and any relevant filters. 5. The system generates and displays the report. |
| **Alternative Flow** | None |
| **Exceptions** | None |
| **Business Rules** | BR1: Reports may contain sensitive or confidential information and should be handled accordingly.  BR2: Access to analytics and reports is restricted to administrators. |
| **Assumptions** | 1. The app generates and stores relevant analytics and reports for user engagement and app usage. 2. The system provides an analytics dashboard or reporting tool for the administrator. 3. The administrator has the necessary permissions to access analytics and reports. 4. The analytics data is accurate, up-to-date, and representative of user activity. |

### UC-53: Configure App Settings

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| **Use Case Identifier** | UC-53 |
| **Use Case Name** | Configure App Settings |
| **Description** | The administrator can configure various settings related to the app, such as privacy policies, notifications, and security. |
| **Actors** | Primary Actor: Administrator  Secondary Actors: None |
| **Trigger** | The administrator intends to configure app settings. |
| **Preconditions** | PRE1: The administrator is logged in to the system. |
| **Postconditions** | POST1: The app settings are updated and saved. |
| **Normal Flow** | 1. The administrator logs in to the system. 2. The administrator navigates to the "App Settings" section. 3. The system displays options for configuring various settings (e.g., privacy policies, notifications, security). 4. The administrator makes the desired changes to the settings. 5. 5. The system saves the updated settings. |
| **Alternative Flow** | None |
| **Exceptions** | None |
| **Business Rules** | BR1: Changes to app settings should be communicated to users if relevant. BR2: App settings may have dependencies and should be configured accordingly. |
| **Assumptions** | 1. The app provides a settings interface with configurable options (e.g., privacy policies, notifications, security settings). 2. The administrator has the necessary permissions to access and modify app settings. 3. Changes made to app settings are applied and reflected in the app's functionality. 4. The app settings interface is user-friendly and intuitive. |

### UC-54: Manage Chatbot Behavior

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| **Use Case Identifier** | UC-54 |
| **Use Case Name** | Manage Chatbot Behavior |
| **Description** | The administrator can configure and update the behavior of the chatbot, including its responses and capabilities. |
| **Actors** | Primary Actor: Administrator Secondary Actors: None |
| **Trigger** | The administrator intends to manage chatbot behavior. |
| **Preconditions** | PRE1: The administrator is logged in to the system. |
| **Postconditions** | POST1: The chatbot behavior changes are saved and reflected in user interactions. |
| **Normal Flow** | 1. The administrator logs in to the system. 2. The administrator navigates to the "Chatbot Management" section. 3. The system displays options for configuring chatbot behavior (e.g., responses, capabilities). 4. The administrator makes the desired changes to the chatbot behavior. 5. The system saves the updated chatbot behavior. |
| **Alternative Flow** | None |
| **Exceptions** | None |
| **Business Rules** | BR1: Changes to chatbot behavior should be tested to ensure they align with user expectations.  BR2: Chatbot behavior may impact user experience and should be adjusted accordingly. |
| **Assumptions** | 1. The app incorporates a chatbot feature with configurable behavior settings. 2. The system provides an administrative interface for configuring chatbot behavior. 3. The administrator has the necessary permissions to access and modify chatbot settings. 4. Changes made to chatbot behavior settings are implemented effectively in user interactions. |

### UC-55: Monitor Data Security

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| **Use Case Identifier** | UC-55 |
| **Use Case Name** | Monitor Data Security |
| **Description** | The administrator can oversee and ensure the security and privacy of user data within the app. |
| **Actors** | Primary Actor: Administrator  Secondary Actors: None |
| **Trigger** | The administrator intends to monitor data security. |
| **Preconditions** | PRE1: The administrator is logged in to the system. |
| **Postconditions** | POST1: The administrator has access to data security monitoring tools and reports. |
| **Normal Flow** | 1. The administrator logs in to the system. 2. The administrator navigates to the "Data Security" section. 3. The system displays tools and reports for monitoring data security (e.g., encryption status, access logs). 4. The administrator reviews the data security status and any relevant reports. |
| **Alternative Flow** | None |
| **Exceptions** | None |
| **Business Rules** | BR1: Data security monitoring tools should provide real-time or near-real-time information.  BR2: Any security breaches or vulnerabilities should be addressed promptly. |
| **Assumptions** | 1. The administrator is logged in to the system. 2. Data security tools and reports are functional. 3. User interface provides tools for monitoring data security. |

### UC-56: Resolve User Issues

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| **Use Case Identifier** | UC-56 |
| **Use Case Name** | Resolve User Issues |
| **Description** | The administrator can address and resolve issues raised by users, such as technical problems or policy violations. |
| **Actors** | Primary Actor: Administrator  Secondary Actors: None |
| **Trigger** | The administrator is notified of a user issue or identifies it proactively. |
| **Preconditions** | PRE1: The administrator is logged in to the system. |
| **Postconditions** | POST1: The user issue is addressed and resolved to the satisfaction of the user. |
| **Normal Flow** | * 1. The administrator logs in to the system.   2. The administrator receives notification of a user issue or identifies it proactively through monitoring.   3. The administrator investigates the issue to understand its nature and impact.   4. The administrator communicates with the user to gather additional information if needed.   5. The administrator takes appropriate actions to resolve the issue (e.g., providing technical support, enforcing policies).   6. The administrator communicates the resolution to the user and ensures their satisfaction. |
| **Alternative Flow** | None |
| **Exceptions** | None |
| **Business Rules** | BR1: User issues should be addressed promptly and professionally.  BR2: Communication with users regarding issues should be clear and transparent. |
| **Assumptions** | 1. Users can report issues or seek assistance through the app's support channels. 2. The system provides a support ticketing or communication system for users to raise issues. 3. The administrator has the necessary permissions to access and manage user issues. 4. User issues are addressed promptly and professionally to ensure user satisfaction. |

### UC-57: Manage Maintenance

|  |  |
| --- | --- |
| **Use Case Identifier** | **UC-57** |
| **Use Case Name** | Manage Maintenance |
| **Description** | The administrator can oversee the deployment of app updates and perform routine maintenance tasks. |
| **Actors** | Primary Actor: Administrator Secondary Actors: None |
| **Trigger** | The administrator intends to manage app updates and maintenance. |
| **Preconditions** | PRE1: The administrator is logged in to the system. |
| **Postconditions** | POST1: App updates and maintenance tasks are scheduled and executed as needed. |
| **Normal Flow** | 1. The administrator logs in to the system. 2. The administrator navigates to the "Updates and Maintenance" section. 3. The system displays options for scheduling and managing app updates and maintenance tasks. 4. The administrator selects the appropriate actions (e.g., scheduling updates, performing maintenance). 5. The system executes the scheduled tasks. |
| **Alternative Flow** | None |
| **Exceptions** | None |
| **Business Rules** | BR1: App updates and maintenance tasks should be scheduled during periods of low user activity to minimize disruption.  BR2: Updates and maintenance should be thoroughly tested before deployment. |
| **Assumptions** | 1. The app requires periodic updates and maintenance to ensure optimal performance. 2. The system provides tools and interfaces for scheduling and managing updates and maintenance tasks. 3. The administrator has the necessary permissions to initiate and oversee updates and maintenance. 4. Updates and maintenance tasks are planned and executed during periods of low user activity. |

#### UC-57.1: Schedule Updates

|  |  |
| --- | --- |
| **Use Case Identifier** | UC-57.1 |
| **Title** | Schedule Updates |
| **Description** | In this use case, an Admin schedules software updates and patches for the system. |
| **Actors** | Admin |
| **Trigger** | The Admin initiates the process to schedule software updates. |
| **Preconditions** | PRE-1: The Admin is logged into the system.  PRE-2: The system has available software updates and patches. |
| **Postconditions** | POST-1: The scheduled updates are recorded in the system.  POST-2. Notifications are sent to relevant parties about the scheduled updates. |
| **Normal Flow** | 1. The Admin accesses the update scheduling module. 2. The system provides a list of available software updates and patches. 3. The Admin selects the updates to be scheduled. 4. The Admin specifies the date and time for the updates. 5. The system confirms the scheduled updates. 6. Notifications about the scheduled updates are sent to relevant parties. |
| **Alternative Flow** | None |
| **Exceptions** | None |
| **Business Rule** | BR-1: Updates must be scheduled during a maintenance window.  BR-2: Only Admins can schedule software updates |
| **Assumptions** | None |

#### UC-57.2: Test Updates

|  |  |
| --- | --- |
| **Use Case Identifier** | UC-57.2 |
| **Title** | Test Updates |
| **Description** | In this use case, an Admin tests the scheduled software updates and patches to ensure they work correctly. |
| **Actors** | Admin |
| **Trigger** | The Admin initiates the testing of scheduled updates. |
| **Preconditions** | PRE-1: The Admin is logged into the system.  PRE-2: Software updates are scheduled for testing. |
| **Postconditions** | POST-1: The updates are tested and confirmed to work correctly.  POST-2: Test results and feedback are recorded in the system. |
| **Normal Flow** | 1. The Admin accesses the testing module. 2. The system provides a list of scheduled software updates. 3. The Admin selects the updates to be tested. 4. The Admin performs testing and verifies the updates. 5. Test results and feedback are recorded in the system. |
| **Alternative Flow** | None |
| **Exceptions** | None |
| **Business Rule** | BR-1: Updates must be tested before deployment.  BR-2: Only Admins can perform testing. |
| **Assumptions** | None |

#### UC-57.3: Monitor Update Progress

|  |  |
| --- | --- |
| **Use Case Identifier** | UC-57.3 |
| **Title** | Monitor Update Progress |
| **Description** | In this use case, an Admin monitors the progress of scheduled software updates and patches during deployment. |
| **Actors** | Admin |
| **Trigger** | The Admin initiates the monitoring of update progress. |
| **Preconditions** | PRE-1: The Admin is logged into the system.  PRE-2: Software updates are being deployed. |
| **Postconditions** | POST-1: The Admin has a real-time view of the update progress.  POST-2: Any issues or delays are documented in the system. |
| **Normal Flow** | 1. The Admin accesses the monitoring module. 2. The system provides a real-time view of the update progress. 3. The Admin can track the status of each update. 4. Any issues or delays are documented in the system for further action |
| **Alternative Flow** | None |
| **Exceptions** | None |
| **Business Rule** | BR-1: Updates must be monitored during deployment.  BR-2: Only Admins can monitor update progress |
| **Assumptions** | None |

#### UC-57.4: Perform Routine Maintenance

|  |  |
| --- | --- |
| **Use Case Identifier** | UC-57.4 |
| **Title** | Perform Routine Maintenance |
| **Description** | In this use case, an Admin performs routine maintenance tasks to ensure the system's optimal performance. |
| **Actors** | Admin |
| **Trigger** | The Admin initiates routine maintenance tasks. |
| **Preconditions** | PRE-1. The Admin is logged into the system. |
| **Postconditions** | POST-1. Routine maintenance tasks are completed. |
| **Normal Flow** | 1. The Admin accesses the routine maintenance module. 2. The system provides a list of routine maintenance tasks. 3. The Admin selects and performs the necessary maintenance tasks. 4. Routine maintenance tasks are completed. |
| **Alternative Flow** | None |
| **Exceptions** | none |
| **Business Rule** | BR-1: Routine maintenance tasks must be performed regularly.  BR-2: Only Admins can perform routine maintenance. |
| **Assumptions** | None |

### UC-58: Authorize Integration with Third-party Services

|  |  |
| --- | --- |
| **Use Case Identifier** | **UC-58** |
| **Use Case Name** | Authorize Integration with Third-party Services |
| **Description** | The administrator can authorize and manage integrations with third-party services for additional functionalities. |
| **Actors** | Primary Actor: Administrator  Secondary Actors: None |
| **Trigger** | The administrator intends to authorize integration with a third-party service. |
| **Preconditions** | PRE1: The administrator is logged in to the system. |
| **Postconditions** | POST1: The integration with the third-party service is authorized and functional. |
| **Normal Flow** | 1. The administrator logs in to the system. 2. The administrator navigates to the "Integrations" section. 3. The system displays options for authorizing integrations with third-party services. 4. The administrator selects the desired third-party service and follows the authorization process (e.g., entering API keys, configuring settings). 5. The system verifies the authorization and establishes the integration. |
| **Alternative Flow** | None |
| **Exceptions** | None |
| **Business Rules** | BR1: Integrations with third-party services should adhere to relevant policies and regulations.  BR2: Integrations should be monitored for security and compliance. |
| **Assumptions** | 1. The app supports integration with third-party services to enhance functionality. 2. The system provides an integration authorization interface for the administrator. 3. The administrator has the necessary permissions to authorize integrations with third-party services. 4. Integrations are reviewed for security, compliance, and alignment with app functionality. |

### UC-59: Perform Data Backups

|  |  |
| --- | --- |
| **Use Case Identifier** | **UC-59** |
| **Use Case Name** | Perform Data Backups |
| **Description** | The administrator can implement regular data backups and manage data recovery processes in case of emergencies. |
| **Actors** | Primary Actor: Administrator  Secondary Actors: None |
| **Trigger** | The administrator intends to perform data backups or initiate data recovery. |
| **Preconditions** | PRE1: The administrator is logged in to the system. |
| **Postconditions** | POST1: Data backups are completed, and data recovery processes are initiated successfully if needed. |
| **Normal Flow** | 1. The administrator logs in to the system. 2. The administrator navigates to the "Backup and Recovery" section. 3. The system provides options for initiating data backups or initiating data recovery. 4. The administrator selects the appropriate action (e.g., initiating a backup, recovering data from a backup). 5. The system executes the selected action. |
| **Alternative Flow** | None |
| **Exceptions** | None |
| **Business Rules** | BR1: Data backups should be performed regularly to prevent data loss in case of emergencies.  BR2: Data recovery processes should be tested periodically to ensure they work as intended. |
| **Assumptions** | 1. The app's data is critical and requires regular backups to prevent data loss. 2. The system provides tools and interfaces for initiating data backups and recovery processes. 3. The administrator has the necessary permissions to perform data backups and initiate recovery. 4. Data recovery processes are regularly tested to ensure their effectiveness in emergencies. |

### UC-60: Enforce Compliance with Data Protection Regulations

|  |  |
| --- | --- |
| **Use Case Identifier** | **UC-60** |
| **Use Case Name** | Enforce Compliance with Data Protection Regulations |
| **Description** | The administrator can ensure that the app complies with relevant data protection laws and regulations. |
| **Actors** | Primary Actor: Administrator  Secondary Actors: None |
| **Trigger** | The administrator intends to enforce compliance with data protection regulations. |
| **Preconditions** | PREs1: The administrator is logged in to the system. |
| **Postconditions** | POST1: App policies and practices are in compliance with relevant data protection laws and regulations. |
| **Normal Flow** | 1. The administrator logs in to the system. 2. The administrator navigates to the "Compliance" section. 3. The system provides options for reviewing and updating app policies to ensure compliance. 4. The administrator reviews and updates policies as needed. 5. The system ensures that the updated policies are implemented and communicated to users. |
| **Alternative Flow** | None |
| **Exceptions** | None |
| **Business Rules** | None |
| **Assumptions** | 1. The app handles user data and must comply with relevant data protection laws and regulations. 2. The system provides tools and interfaces for reviewing and updating app policies for compliance. 3. The administrator has the necessary permissions to enforce compliance with data protection regulations. 4. App policies and practices are regularly reviewed and updated to align with changing regulations. |

## Event-Response Tables

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Event** | **Event Frequency** | **Data Elements** | **System State** | **Response** |
| User Registration | Low (Initially) | User-provided information (name, email, etc.) | User registration form | Create a new user account. Generate a confirmation email. |
| User Login | High (Frequent) | User credentials | Login page | Verify user credentials. Grant access to the user's dashboard. |
| Password Reset Request | Low to Medium | User email | Login page | Send a password reset link to the user's email. |
| Password Reset | Low to Medium | Password reset token | Reset password form | Allow the user to reset their password. |
| Complete Mental Health Assessment | Medium (Varies) | User responses to questions | Assessment section | Analyze user responses and provide assessment results. |
| Track Daily Mood | High (Daily) | User mood data (emotions, sensations, etc.) | Mood tracking section | Record the mood data. Display insights or trends. |
| Access Mental Health Resources | Medium (Varies) | User preferences, content database | Resources section | Show available articles, videos, and other resources based on user preferences. |
| Schedule Virtual Appointment | Low to Medium | User preferences, professional availability | Appointment scheduling interface | Schedule the appointment with a professional. |
| Start Group Discussion | Low to Medium | User's group preferences, discussion topic | Support group discussion platform | Create a new discussion thread. |
| Connect with Mental Health Professional | Low to Medium | User's choice of professional | Professional's dashboard | Initiate a secure virtual consultation. |
| Chatbot Provides Emotional Support | Medium (Varies) | User's emotional state, input text | Chatbot interaction interface | Engage in a supportive conversation with the user. |
| Make Payment to Professional | Low to Medium | Payment details (amount, method) | Payment processing | Process the payment securely. Confirm the transaction. |
| Search for Mental Health Professionals | Low to Medium | User's search criteria | Search interface | Display a list of professionals matching the search criteria. |
| Provide Consent for Data Analytics | Low (Varies) | User consent for data usage | Consent management | Collect and anonymize user data for analysis. |
| Interact with User-Generated Content | Medium (Varies) | User comments, likes, posts, etc. | Content section | Display and allow interactions with user-generated content. |
| Professional Reviews and Analyzes User Data | Low to Medium | User assessment data, mood tracking, etc. | Professional's dashboard | Review the user's assessments, mood tracking, and other data. |
| Professional Updates a Treatment Plan | Low to Medium | User treatment plan changes | Professional's dashboard | Modify the client's treatment plan. |
| Professional Provides Crisis Intervention | Low (Varies) | User crisis expression | Crisis intervention interface | Offer immediate support and guide the user to appropriate resources. |
| User Makes a Payment to Professional | Low to Medium | Payment details (amount, method) | Payment processing | Process the payment securely. Confirm the transaction. |
| User Receives a Payment from Professional | Low to Medium | Payment details (amount, method) | Payment processing | Process the payment securely. Confirm the transaction. |
| User Requests Support Group Creation | Low (Varies) | User group creation details | Support group management interface | Create a new support group based on user's request. |
| Professional Joins a Support Group | Low to Medium | Professional's group preferences | Support group interface | Allow the professional to participate in a support group. |
| Professional Initiates a Support Group Discussion | Low to Medium | Discussion topic, professional's input text | Support group discussion platform | Create a new discussion thread within the group. |
| User Requests Content Removal | Low (Varies) | User request for content removal | Content management interface | Review and potentially remove content based on the user's request. |
| User Reports Inappropriate Content | Low (Varies) | User report with details | Content management interface | Review and potentially remove or take action on reported content. |
| User Provides Feedback on Content | Low (Varies) | User feedback, comments, ratings, etc. | Content management interface | Review and respond to user-provided feedback. |
| User Posts in a Support Group | Medium (Varies) | User's group posts, comments, likes, etc. | Support group discussion platform | Allow user interactions within the support group. |
| User Requests Data Download | Low (Varies) | User request for data download | Data management interface | Generate and provide a user data download based on the request. |
| User Provides Consent for Research Data Collection | Low (Varies) | User consent for research data collection | Research data collection management interface | Collect and anonymize user data for research purposes. |
| User Accesses Analytics Reports | Low to Medium | User request for analytics reports | Analytics interface | Provide analytics reports based on user request. |
| User Requests Content Recommendation | Medium (Varies) | User request for content recommendations | Content recommendation engine | Generate and provide personalized content recommendations. |
| User Sets Privacy and Sharing Preferences | Low to Medium | User privacy settings and preferences | Privacy settings interface | Allow the user to configure privacy settings and data sharing preferences. |
| User Connects Social Media Accounts | Low to Medium | User's social media account connection | Social media integration interface | Allow users to connect their social media accounts for content sharing. |
| User Takes Part in a Mental Health Challenge | Low to Medium | User's challenge participation | Challenge and activities interface | Record user participation and progress in mental health challenges. |
| User Gives Feedback on the App | Low (Varies) | User-provided feedback and suggestions | App feedback and improvement management interface | Review and address user feedback to enhance the application. |
| User Reports an Issue or Bug | Low (Varies) | User report of app issues or bugs | Issue and bug reporting system | Review and address reported issues or bugs in the app. |
| App Receives Software Update Notification | Low (Varies) | App update notification | App update and maintenance system | Notify the user of available software updates. |
| App Performs Routine Maintenance | Low (Scheduled) | Maintenance schedule | App maintenance system | Conduct routine maintenance tasks to ensure app performance. |
| App Monitors User Engagement | Medium (Continuous) | User engagement data | Engagement monitoring system | Collect and analyze user engagement data for app improvement. |

# Functional Requirements

## Module 1: Profile Management

### FE-1-Create a New Account

|  |  |
| --- | --- |
| **Identifier** | FR-1.1 |
| **Title** | Create a new account |
| **Requirement** | The user shall be able to create a new account by providing basic information such as name, email, and password. |
| **Source** | User |
| **Rationale** | To allow users to access personalized features and store their data securely. |
| **Business Rule** | Users must provide a valid email address. |
| **Dependencies** | None |
| **Priority** | High |

### FE-2-Login

|  |  |
| --- | --- |
| **Identifier** | FR-1.2 |
| **Title** | User Login |
| **Requirement** | The user shall be able to log in to the app using the registered email and password. |
| **Source** | User |
| **Rationale** | To provide access to the user's profile and data. |
| **Business Rule** | Users must use their registered email and correct password. |
| **Dependencies** | FR-1.1 |
| **Priority** | High |

### FE-3-Reset Password

|  |  |
| --- | --- |
| **Identifier** | FR-1.3 |
| **Title** | Password Reset |
| **Requirement** | The user shall be able to reset their password if forgotten using the registered email. |
| **Source** | User |
| **Rationale** | To provide a way for users to regain access to their accounts in case of forgotten passwords. |
| **Business Rule** | Password reset can only be initiated with a registered email. |
| **Dependencies** | FR-1.2 |
| **Priority** | Medium |

### FE-4-Validate User Input

|  |  |
| --- | --- |
| **Identifier** | FR-1.4 |
| **Title** | User Input Validation |
| **Requirement** | The system shall validate user input and display error messages if any field is incorrect or missing. |
| **Source** | System |
| **Rationale** | To ensure data integrity and user-friendliness. |
| **Business Rule** | Validation errors must be communicated clearly to the user. |
| **Dependencies** | FR-1.1, FR-1.2 |
| **Priority** | High |

### FE-4-Password Encryption

|  |  |
| --- | --- |
| **Identifier** | FR-1.5 |
| **Title** | Password Encryption |
| **Requirement** | The system shall encrypt user passwords to ensure data security. |
| **Source** | System |
| **Rationale** | To protect sensitive user information from unauthorized access. |
| **Business Rule** | Encryption algorithm and keys must meet security standards. |
| **Dependencies** | FR-1 |
| **Priority** | High |

## Module 2: Serinity AI

### FE-1-Mental Health Analysis

|  |  |
| --- | --- |
| **Identifier** | FR-2. 1 |
| **Title** | Mental Health Analysis |
| **Requirement** | The system shall analyze user input to identify mental health concerns, such as anxiety, depression, stress, and other mood disorders. |
| **Source** | System |
| **Rationale** | To provide users with insights into their mental health. |
| **Business Rule** | Analysis should be based on established clinical criteria. |
| **Dependencies** | None |
| **Priority** | High |

### FE-2-Continuous Improvement

|  |  |
| --- | --- |
| **Identifier** | FR-2.2 |
| **Title** | Algorithm Improvement |
| **Requirement** | The system shall use machine learning algorithms to improve the accuracy of the NLP module over time. |
| **Source** | System |
| **Rationale** | Continuous improvement in the accuracy of mental health analysis. |
| **Business Rule** | Algorithm updates should be tested and validated before deployment. |
| **Dependencies** | FR-2.1 |
| **Priority** | Medium |

### FE-3-Intigration with Check-in Module

|  |  |
| --- | --- |
| **Identifier** | FR-2.3 |
| **Title** | Integration with Check-in Module |
| **Requirement** | The system shall integrate with the Mental Health Assessment Module to provide accurate feedback on the user's mental health state. |
| **Source** | System |
| **Rationale** | To provide comprehensive feedback based on assessment data. |
| **Business Rule** | Integration must support data exchange with Assessment Module. |
| **Dependencies** | FR-2.1 |
| **Priority** | High |

## ****Module 3: Mental Health Check-in****

### FE-1-Offer Assesments

|  |  |
| --- | --- |
| **Identifier** | FR-3.1 |
| **Title** | Offer Assessments |
| **Requirement** | The system shall offer various mental health assessments to identify specific mental health concerns. |
| **Source** | System |
| **Rationale** | To help users identify and monitor their mental health. |
| **Business Rule** | Assessments must cover a wide range of mental health concerns. |
| **Dependencies** | None |
| **Priority** | High |

### FE-2-Provide Feedback

|  |  |
| --- | --- |
| **Identifier** | FR-3.2 |
| **Title** | Provide Feedback |
| **Requirement** | The system shall provide feedback on the user's mental health state and suggest coping strategies based on their answers. |
| **Source** | System |
| **Rationale** | To assist users in understanding and managing their mental health. |
| **Business Rule** | Feedback should be based on assessment results. |
| **Dependencies** | FR-3.1 |
| **Priority** | High |

### FE-3-Assesment Retake

|  |  |
| --- | --- |
| **Identifier** | FR-3.3 |
| **Title** | Assessment Retake |
| **Requirement** | The system shall allow users to retake assessments to track their progress over time. |
| **Source** | User |
| **Rationale** | To enable users to monitor changes in their mental health. |
| **Business Rule** | Users can retake assessments at specific intervals. |
| **Dependencies** | FR-3.1 |
| **Priority** | Medium |

### FE-4-Personalizd Results

|  |  |
| --- | --- |
| **Identifier** | FR-3.4 |
| **Title** | Personalized Results |
| **Requirement** | The system shall display personalized results and recommendations based on the user's input and NLP analysis. |
| **Source** | System |
| **Rationale** | To provide tailored advice and insights to users. |
| **Business Rule** | Recommendations should consider the user's history and preferences. |
| **Dependencies** | FR-3.1, FR-3.2 |
| **Priority** | High |

## Module 4: Mood-Meter

### FE-1-Mood Tracking

|  |  |
| --- | --- |
| **Identifier** | FR-4.1 |
| **Title** | Mood Tracking |
| **Requirement** | The user shall be able to track their mood on a daily basis, including their emotional state and any physical sensations that they may be experiencing. |
| **Source** | User Perspective |
| **Rationale** | This requirement is essential to provide users with a means to record their daily mood and physical sensations, which is the primary function of the Mood-Meter module. |
| **Business Rule** | The mood tracking data must be securely stored and accessible only to the user. |
| **Dependencies** | None |
| **Priority** | High |

### FE-2-Mood Trend Display

|  |  |
| --- | --- |
| **Identifier** | FR-4.2 |
| **Title** | Mood Trends Display |
| **Requirement** | The system shall identify patterns and trends in the user's mood and display them graphically. |
| **Source** | System Perspective |
| **Rationale** | This requirement is necessary to help users visualize and understand their mood fluctuations over time. |
| **Business Rule** | The graphical representation of mood trends should be clear and easily interpretable by users. |
| **Dependencies** | FR-4.1 |
| **Priority** | High |

### FE-3-Personalized Rexommendations

|  |  |
| --- | --- |
| **Identifier** | FR-4.3 |
| **Title** | Personalized Recommendations |
| **Requirement** | The system shall provide personalized recommendations to improve the user's mood based on the data collected. |
| **Source** | System Perspective |
| **Rationale** | This requirement aims to offer users actionable suggestions based on their mood data to enhance their emotional well-being. |
| **Business Rule** | Recommendations must be sensitive to the user's privacy and preferences. |
| **Dependencies** | FR-4.1, FR-4.2 |
| **Priority** | Medium |

### FE-4-Integration with Mindful-Goals Module

|  |  |
| --- | --- |
| **Identifier** | FR-4.4 |
| **Title** | Integration with Mindful-Goals Module |
| **Requirement** | The system shall integrate with the Mindful-Goals Module to remind users to complete mood tracking at regular intervals. |
| **Source** | System Perspective |
| **Rationale** | This integration is important to ensure users are reminded to maintain consistent mood tracking as part of their goal-oriented activities. |
| **Business Rule** | Reminders should be configurable and respectful of the user's preferred tracking schedule. |
| **Dependencies** | None |
| **Priority** | Medium |

## Module 5: Deep Mind Wellness

### FE-1- Offer Mental Health Resources

|  |  |
| --- | --- |
| **Identifier** | FR-5.1 |
| **Title** | Offer Mental Health Resources |
| **Requirement** | The DeepMind Wellness module shall offer mental health-related resources, including articles, videos, podcasts, and guided meditation sessions, to the users. Users should be able to access these resources for improving their mental well-being. |
| **Source** | User Perspective |
| **Rationale** | To provide users with readily available and diverse mental health resources to support their well-being. |
| **Business Rule** | None |
| **Dependencies** | None |
| **Priority** | High |

### FE-2-Provide Personalized Tips

|  |  |
| --- | --- |
| **Identifier** | FR-5.2 |
| **Title** | Provide Personalized Tips |
| **Requirement** | The DeepMind Wellness module shall provide personalized tips and suggestions to users based on their specific mental health concerns. These tips and suggestions should be tailored to each user's individual needs and well-being goals. |
| **Source** | User Perspective |
| **Rationale** | To offer users a personalized experience that caters to their unique mental health concerns and helps them on their well-being journey. |
| **Business Rule** | None |
| **Dependencies** | None |
| **Priority** | High |

### FE-3- Save and Bookmark Resources

|  |  |
| --- | --- |
| **Identifier** | FR-5.3 |
| **Title** | Save and Bookmark Resources |
| **Requirement** | The DeepMind Wellness module shall allow users to save and bookmark mental health resources for future reference. Users should be able to organize and access their saved resources conveniently. |
| **Source** | User Perspective |
| **Rationale** | To enable users to create a personal library of mental health resources and easily access them when needed, fostering continuity in their well-being journey. |
| **Business Rule** | None |
| **Dependencies** | None |
| **Priority** | Medium |

### FE-4- Integrate with Chat-Care Module

|  |  |
| --- | --- |
| **Identifier** | FR-5.4 |
| **Title** | Integrate with Chat-Care Module |
| **Requirement** | The DeepMind Wellness module shall integrate with the Chat-Care Module to provide immediate assistance and support to users. This integration should enable seamless communication between the two modules. |
| **Source** | System Perspective |
| **Rationale** | To ensure that users have access to immediate assistance and support for their mental health concerns, enhancing the overall well-being experience. |
| **Business Rule** | None |
| **Dependencies** | None |
| **Priority** | High |

## Module 6: Emo-Support:

### FE-1- Provide Access to Mental Health Professionals

|  |  |
| --- | --- |
| **Identifier** | FR-6.1 |
| **Title** | Provide Access to Mental Health Professionals |
| **Requirement** | The user shall be able to access mental health professionals, including therapists, counselors, and psychiatrists in their current location. |
| **Source** | User Perspective |
| **Rationale** | To ensure that users can easily find and connect with mental health professionals for support and treatment. |
| **Business Rule** | Users must have location services enabled on their devices for accurate results. |
| **Dependencies** | None |
| **Priority** | High |

### FE-2- Offer Clinical Support and Treatment

|  |  |
| --- | --- |
| **Identifier** | FR-6.2 |
| **Title** | Offer Clinical Support and Treatment |
| **Requirement** | The system shall offer clinical support and treatment through virtual consultations. |
| **Source** | System Perspective |
| **Rationale** | To provide users with convenient access to mental health care, especially in remote or difficult-to-reach locations. |
| **Business Rule** | The virtual consultations must comply with applicable healthcare regulations and standards. |
| **Dependencies** | FR-6.1 |
| **Priority** | High |

### FE-3- Appointment Scheduling

|  |  |
| --- | --- |
| **Identifier** | FR-6.3 |
| **Title** | Appointment Scheduling |
| **Requirement** | Users shall be able to schedule appointments with mental health professionals within the app. |
| **Source** | User Perspective |
| **Rationale** | To facilitate easy and organized access to mental health services for users. |
| **Business Rule** | Users should receive confirmation notifications for scheduled appointments. |
| **Dependencies** | FR-6.1 |
| **Priority** | Medium |

### FE-4- Reviews and Ratings

|  |  |
| --- | --- |
| **Identifier** | FR-6.4 |
| **Title** | Reviews and Ratings |
| **Requirement** | The system shall provide reviews and ratings for mental health professionals. |
| **Source** | System Perspective |
| **Rationale** | To assist users in making informed decisions when choosing a mental health professional. |
| **Business Rule** | Users must provide objective and respectful reviews and ratings. |
| **Dependencies** | FR-6.1 |
| **Priority** | Medium |

### FE-5- Payment Options

|  |  |
| --- | --- |
| **Identifier** | FR-6.5 |
| **Title** | Payment Options |
| **Requirement** | The system shall offer payment options for professional services. |
| **Source** | System Perspective |
| **Rationale** | To enable users to pay for the mental health services they receive through the app. |
| **Business Rule** | The payment process must be secure and compliant with industry standards. |
| **Dependencies** | FR-6.1 |
| **Priority** | High |

## Module 7: Chat Care:

### FE-1- Conversational Agent with NLP Support

|  |  |
| --- | --- |
| **Identifier** | FR-7.1 |
| **Title** | Conversational Agent with NLP Support |
| **Requirement** | The system shall include a conversational agent that utilizes natural language processing (NLP) to provide emotional support and guidance to users. |
| **Source** | System Perspective |
| **Rationale** | To offer users an AI-based chat-bot that can understand and respond to their emotional needs effectively. |
| **Business Rule** | The NLP algorithms used must be periodically updated to improve conversational accuracy. |
| **Dependencies** | None |
| **Priority** | High |

### FE-2- Immediate Assistance Chat-bot

|  |  |
| --- | --- |
| **Identifier** | FR-7.2 |
| **Title** | Immediate Assistance Chat-bot |
| **Requirement** | The system shall integrate a chat-bot that can offer immediate assistance and support to users. |
| **Source** | System Perspective |
| **Rationale** | To provide users with instant access to emotional support when they need it most. |
| **Business Rule** | The chat-bot should be available 24/7 for immediate assistance. |
| **Dependencies** | FR-7.1 |
| **Priority** | High |

### FE-3- Response to Mental Health Queries

|  |  |
| --- | --- |
| **Identifier** | FR-7.3 |
| **Title** | Response to Mental Health Queries |
| **Requirement** | The system shall respond to user queries related to mental health concerns, resources, and tips. |
| **Source** | System Perspective |
| **Rationale** | To educate and assist users in understanding and managing their mental health better. |
| **Business Rule** | Responses to queries must be informative, empathetic, and non-judgmental. |
| **Dependencies** | FR-7.1 |
| **Priority** | High |

### FE-4- Personalized Recommendations

|  |  |
| --- | --- |
| **Identifier** | FR-7.4 |
| **Title** | Personalized Recommendations |
| **Requirement** | The system shall provide personalized recommendations based on the user's input and NLP analysis. |
| **Source** | System Perspective |
| **Rationale** | To offer tailored suggestions that can improve the user's emotional well-being. |
| **Business Rule** | Recommendations must be based on the user's preferences and behavioral patterns. |
| **Dependencies** | FR-7.1 |
| **Priority** | Medium |

### FE-5- Connection to Professionals

|  |  |
| --- | --- |
| **Identifier** | FR-7.5 |
| **Title** | Connection to Professionals |
| **Requirement** | The system shall connect users with mental health professionals or peer support groups when necessary. |
| **Source** | System Perspective |
| **Rationale** | To ensure that users have access to professional help and peer support when their needs go beyond the chat-bot's capabilities. |
| **Business Rule** | The system should prioritize connecting users to professionals in crisis situations. |
| **Dependencies** | FR-7.1 |
| **Priority** | High |

### FE-1- Conversational Agent with NLP Support

|  |  |
| --- | --- |
| **Identifier** | FR-7.6 |
| **Title** | Privacy and Confidentiality |
| **Requirement** | The system shall maintain strict privacy and confidentiality standards, ensuring that user interactions are secure and not disclosed to third parties. |
| **Source** | System Perspective |
| **Rationale** | To establish trust and encourage users to be open about their emotional concerns. |
| **Business Rule** | User data must be encrypted, and access should be restricted to authorized personnel only. |
| **Dependencies** | None |
| **Priority** | High |

### FE-1- Conversational Agent with NLP Support

|  |  |
| --- | --- |
| **Identifier** | FR-7 |
| **Title** | User Feedback Collection |
| **Requirement** | The system shall collect user feedback regarding the quality and effectiveness of the chat-bot's responses. |
| **Source** | System Perspective |
| **Rationale** | To continuously improve the chat-bot's performance and user satisfaction. |
| **Business Rule** | User feedback collection should be unobtrusive and user-friendly. |
| **Dependencies** | FR-7.1 |
| **Priority** | Medium |

### FE-1- Conversational Agent with NLP Support

|  |  |
| --- | --- |
| **Identifier** | FR-7.8 |
| **Title** | Multilingual Support |
| **Requirement** | The system shall offer multilingual support to cater to a diverse user base. |
| **Source** | System Perspective |
| **Rationale** | To make emotional support and guidance accessible to users from different language backgrounds. |
| **Business Rule** | Multilingual support must include common languages spoken by the user base. |
| **Dependencies** | None |
| **Priority** | Medium |

## Module 8: Support Sphere:

### FE-1- Integration with Social Media

|  |  |
| --- | --- |
| **Identifier** | FR-8.1 |
| **Title** | Integration with Social Media |
| **Requirement** | The system shall integrate with social media platforms to provide mental health-related content to users. |
| **Source** | System Perspective |
| **Rationale** | To reach a wider audience and share valuable mental health content on platforms where users spend their time. |
| **Business Rule** | The integration must be compliant with the privacy policies and terms of service of the respective social media platforms. |
| **Dependencies** | None |
| **Priority** | High |

### FE-2- Motivational Content

|  |  |
| --- | --- |
| **Identifier** | FR-8.2 |
| **Title** | Motivational Content |
| **Requirement** | The system shall provide motivational quotes, success stories, and testimonials from other users to inspire and uplift users' spirits. |
| **Source** | System Perspective |
| **Rationale** | To offer users positive and motivating content that can enhance their emotional well-being. |
| **Business Rule** | Motivational content should be regularly updated and reviewed for relevance. |
| **Dependencies** | None |
| **Priority** | Medium |

### FE-3- Sharing Progress on Social Media

|  |  |
| --- | --- |
| **Identifier** | FR-8.3 |
| **Title** | Sharing Progress on Social Media |
| **Requirement** | The system shall allow users to share their progress and achievements related to mental health on social media. |
| **Source** | User Perspective |
| **Rationale** | To encourage users to celebrate their successes and raise awareness about mental health on their social media profiles. |
| **Business Rule** | Users should have the option to customize the content they share and control its visibility. |
| **Dependencies** | None |
| **Priority** | Medium |

### FE-1- Integration with Social Media

|  |  |
| --- | --- |
| **Identifier** | FR-8.4 |
| **Title** | Content Personalization |
| **Requirement** | The system shall personalize mental health-related content based on each user's preferences and progress. |
| **Source** | System Perspective |
| **Rationale** | To ensure that users receive content that is relevant to their specific mental health goals and needs. |
| **Business Rule** | The system should use user feedback and behavior to refine content recommendations. |
| **Dependencies** | None |
| **Priority** | High |

### FE-3- Sharing Progress on Social Media

|  |  |
| --- | --- |
| **Identifier** | FR-8.5 |
| **Title** | User Engagement Metrics |
| **Requirement** | The system shall collect and analyze user engagement metrics, such as content sharing, to assess the impact of mental health-related content. |
| **Source** | System Perspective |
| **Rationale** | To measure the effectiveness of content and improve the quality of the support provided. |
| **Business Rule** | User engagement metrics should be reported periodically to guide content improvement efforts. |
| **Dependencies** | None |
| **Priority** | Medium |

### FE-1- Integration with Social Media

|  |  |
| --- | --- |
| **Identifier** | FR-8.6 |
| **Title** | User Profile Creation |
| **Requirement** | The system shall allow users to create and maintain profiles, including personal information and mental health history. |
| **Source** | User Perspective |
| **Rationale** | To enable users to provide context and information that can help in connecting with relevant content and individuals. |
| **Business Rule** | User profiles must include optional fields to maintain privacy. |
| **Dependencies** | None |
| **Priority** | Medium |

### FE-1- Integration with Social Media

|  |  |
| --- | --- |
| **Identifier** | FR-8.7 |
| **Title** | Content Filtering |
| **Requirement** | The system shall provide content filtering options, allowing users to customize the type of mental health-related content they see in their feeds. |
| **Source** | User Perspective |
| **Rationale** | To ensure that users can tailor their experience to their specific mental health needs and preferences. |
| **Business Rule** | Content filtering settings should be easy to adjust and provide granular control. |
| **Dependencies** | FR-8.4 |
| **Priority** | Medium |

### FE-5- Connecting with Professionals and Users

|  |  |
| --- | --- |
| **Identifier** | FR-8.8 |
| **Title** | Connecting with Professionals and Users |
| **Requirement** | The system shall allow users to connect with mental health professionals and other users through the platform's messaging system. |
| **Source** | User Perspective |
| **Rationale** | To facilitate communication and support between users and mental health professionals or peers. |
| **Business Rule** | Messaging should be secure and encrypted to protect user privacy. |
| **Dependencies** | FR-8.6 |
| **Priority** | High |

### FE-6- Support Group Creation

|  |  |
| --- | --- |
| **Identifier** | FR-8.9 |
| **Title** | Support Group Creation |
| **Requirement** | The system shall allow users to create or join support groups with peers who have similar mental health concerns. |
| **Source** | User Perspective |
| **Rationale** | To foster a sense of community and shared understanding among users with similar mental health challenges. |
| **Business Rule** | Support group administrators should have the ability to moderate content and discussions. |
| **Dependencies** | None |
| **Priority** | Medium |

### FE-7- Safe and Supportive Environment

|  |  |
| --- | --- |
| **Identifier** | FR-8.10 |
| **Title** | Safe and Supportive Environment |
| **Requirement** | The system shall provide a safe and supportive environment for users to share their experiences, coping strategies, and offer mutual support. |
| **Source** | System Perspective |
| **Rationale** | To create a space where users can openly discuss their experiences and receive empathy from others in similar situations. |
| **Business Rule** | Inappropriate or harmful content shall be moderated and removed promptly. |
| **Dependencies** | None |
| **Priority** | High |

### FE-8- Group Communication

|  |  |
| --- | --- |
| **Identifier** | FR-8.11 |
| **Title** | Group Communication |
| **Requirement** | The system shall facilitate group communication and interaction using in-app messaging or video calls. |
| **Source** | System Perspective |
| **Rationale** | To enable users to communicate effectively within support groups for mutual encouragement and understanding. |
| **Business Rule** | The system should support both text-based and video-based communication. |
| **Dependencies** | FR-8.10 |
| **Priority** | High |

### FE-9- Data Privacy and Anonymity

|  |  |
| --- | --- |
| **Identifier** | FR-12 |
| **Title** | Data Privacy and Anonymity |
| **Requirement** | The system shall ensure user data privacy and anonymity while participating in support groups. |
| **Source** | System Perspective |
| **Rationale** | To protect the confidentiality and identity of users engaging in sensitive discussions. |
| **Business Rule** | User identities shall not be disclosed to other group members without explicit consent. |
| **Dependencies** | None |
| **Priority** | High |

### FE-6- Support Group Creation

### 

|  |  |
| --- | --- |
| **Identifier** | FR-13 |
| **Title** | User Profile Customization |
| **Requirement** | The system shall allow users to customize their profiles, including avatars and display names, to maintain anonymity. |
| **Source** | User Perspective |
| **Rationale** | To provide users with control over their level of anonymity and personalization within the community. |
| **Business Rule** | User avatars and display names should comply with community guidelines. |
| **Dependencies** | FR-12 |
| **Priority** | Medium |

### 4.8.14. FE-8- Group Communication

|  |  |
| --- | --- |
| **Identifier** | FR-17 |
| **Title** | User-Generated Mental Health Content |
| **Requirement** | The system shall allow users to create and share mental health-related content, such as personal stories, tips, and resources, with the SupportSphere community. |
| **Source** | User Perspective |
| **Rationale** | To empower users to share their experiences and knowledge, fostering a supportive and collaborative community. |
| **Business Rule** | Content sharing must adhere to community guidelines and not promote harmful behavior. |
| **Dependencies** | None |
| **Priority** | High |

### FE-6- Support Group Creation

|  |  |
| --- | --- |
| **Identifier** | FR-14 |
| **Title** | Group Moderation Tools |
| **Requirement** | The system shall provide group moderators with tools to manage and moderate group discussions. |
| **Source** | System Perspective |
| **Rationale** | To maintain a positive and safe environment within support groups. |
| **Business Rule** | Moderators must have the ability to warn, mute, or remove disruptive users as necessary. |
| **Dependencies** | FR-8.10 |
| **Priority** | Medium |

### FE-10- Social Media Hashtag Following

|  |  |
| --- | --- |
| **Identifier** | FR-15 |
| **Title** | Social Media Hashtag Following |
| **Requirement** | The system shall allow users to follow mental health-related hashtags and topics on social media platforms. |
| **Source** | User Perspective |
| **Rationale** | To enable users to stay updated on relevant mental health discussions and resources within their social media networks. |
| **Business Rule** | Users must have an active social media account linked to their SupportSphere profile. |
| **Dependencies** | None |
| **Priority** | Medium |

### FE-11- Daily Mental Health Challenges

|  |  |
| --- | --- |
| **Identifier** | FR-16 |
| **Title** | Daily Mental Health Challenges |
| **Requirement** | The system shall provide daily mental health-related challenges and activities for users to participate in. |
| **Source** | System Perspective |
| **Rationale** | To encourage users to actively engage in activities that promote mental well-being and self-care. |
| **Business Rule** | Challenges should be varied and considerate of user preferences and emotional states. |
| **Dependencies** | None |
| **Priority** | Medium |

### FE-12- User-Generated Mental Health Content

|  |  |
| --- | --- |
| **Identifier** | FR-17 |
| **Title** | User-Generated Mental Health Resources |
| **Requirement** | The system shall allow users to create and share mental health-related content, such as personal stories, tips, and resources, with the SupportSphere community. |
| **Source** | User Perspective |
| **Rationale** | To empower users to share their experiences and knowledge, fostering a supportive and collaborative community. |
| **Business Rule** | Content sharing must adhere to community guidelines and not promote harmful behavior. |
| **Dependencies** | None |
| **Priority** | High |

### FE-12- User-Generated Mental Health Content

|  |  |
| --- | --- |
| **Identifier** | FR-18 |
| **Title** | Content Analysis |
| **Requirement** | The system shall implement content Analysis to ensure that user-generated mental health content complies with community guidelines and does not promote harm. |
| **Source** | System Perspective |
| **Rationale** | To maintain a safe and supportive environment within SupportSphere and prevent the spread of harmful or misleading content. |
| **Business Rule** | Analysis processes should be efficient and respectful of users' freedom of expression. |
| **Dependencies** | FR-17 |
| **Priority** | High |

### FE-6- Support Group Creation

|  |  |
| --- | --- |
| **Identifier** | FR-19 |
| **Title** | User Engagement Analytics |
| **Requirement** | The system shall collect and analyze user engagement data related to following hashtags, participating in challenges, and sharing content to improve the platform's user experience. |
| **Source** | System Perspective |
| **Rationale** | To continuously enhance SupportSphere by understanding user behaviors and preferences. |
| **Business Rule** | User data for analytics purposes must be anonymized and comply with data privacy regulations. |
| **Dependencies** | FR-15, FR-16, FR-17 |
| **Priority** | Medium |

### FE-13- Access to Mental Health Resources

|  |  |
| --- | --- |
| **Identifier** | FR-20 |
| **Title** | Access to Mental Health Resources |
| **Requirement** | The system shall provide users with access to mental health resources and information through various social media platforms. |
| **Source** | System Perspective |
| **Rationale** | To disseminate helpful information and resources related to mental health to users through popular social media channels. |
| **Business Rule** | Information shared must be accurate and up-to-date, and it should comply with social media platform policies. |
| **Dependencies** | None |
| **Priority** | High |

### FE-14- Event and Campaign Notifications

|  |  |
| --- | --- |
| **Identifier** | FR-21 |
| **Title** | Event and Campaign Notifications |
| **Requirement** | The system shall notify users of upcoming mental health events or campaigns on social media platforms. |
| **Source** | System Perspective |
| **Rationale** | To keep users informed about relevant mental health events and campaigns to encourage their participation and support. |
| **Business Rule** | Notifications should be timely and unobtrusive, allowing users to opt in or out. |
| **Dependencies** | FR-20 |
| **Priority** | Medium |

### FE-15- Reporting Inappropriate Content

|  |  |
| --- | --- |
| **Identifier** | FR-22 |
| **Title** | Reporting Inappropriate Content |
| **Requirement** | The system shall allow users to report inappropriate or harmful content on social media platforms. |
| **Source** | User Perspective |
| **Rationale** | To maintain a safe and supportive online environment and empower users to flag content that violates guidelines. |
| **Business Rule** | Reports should be confidential, and action should be taken promptly based on the severity of the content. |
| **Dependencies** | FR-20 |
| **Priority** | High |

### FE-13- Access to Mental Health Resources

|  |  |
| --- | --- |
| **Identifier** | FR-23 |
| **Title** | Content Moderation |
| **Requirement** | The system shall implement content moderation mechanisms to review and address reported inappropriate or harmful content on social media platforms. |
| **Source** | System Perspective |
| **Rationale** | To ensure that reported content is reviewed and appropriate actions are taken to maintain a safe online community. |
| **Business Rule** | Moderation processes should be transparent, and content should be moderated within a reasonable time frame. |
| **Dependencies** | FR-22 |
| **Priority** | Medium |

### FE-15- Reporting Inappropriate Content

|  |  |
| --- | --- |
| **Identifier** | FR-24 |
| **Title** | User Education on Reporting |
| **Requirement** | The system shall provide guidance and resources to users on how to identify and report inappropriate or harmful content effectively. |
| **Source** | System Perspective |
| **Rationale** | To empower users with the knowledge and tools to contribute to a safe online environment. |
| **Business Rule** | Education materials should be easily accessible and user-friendly. |
| **Dependencies** | FR-20 |
| **Priority** | Low |

## Module 9: Mindful-Goals:

### FE-1- Goal Setting

|  |  |
| --- | --- |
| **Identifier** | FR-9.1 |
| **Title** | Goal Setting |
| **Requirement** | The system shall allow users to set mental health-related goals, including goals for managing stress, anxiety, depression, and other mental health concerns. |
| **Source** | User Perspective |
| **Rationale** | To empower users to take an active role in improving their mental health by setting and monitoring their goals. |
| **Business Rule** | Users should be able to set both short-term and long-term goals. |
| **Dependencies** | None |
| **Priority** | High |

### FE-2- Progress Tracking

|  |  |
| --- | --- |
| **Identifier** | FR-9.2 |
| **Title** | Progress Tracking |
| **Requirement** | The system shall enable users to track their progress towards mental health-related goals by recording and visualizing their achievements and setbacks. |
| **Source** | User Perspective |
| **Rationale** | To motivate and inform users about their progress and help them stay committed to their mental health goals. |
| **Business Rule** | Users must have the option to view historical progress data. |
| **Dependencies** | FR-9.1 |
| **Priority** | Medium |

### FE-3- Personalized Recommendations

|  |  |
| --- | --- |
| **Identifier** | FR-9.3 |
| **Title** | Personalized Recommendations |
| **Requirement** | The system shall offer personalized recommendations on how to achieve mental health-related goals, considering each user's unique circumstances and preferences. |
| **Source** | System Perspective |
| **Rationale** | To provide users with tailored strategies and guidance for achieving their mental health goals effectively. |
| **Business Rule** | Recommendations must be based on user input, progress data, and evidence-based practices. |
| **Dependencies** | FR-9.1, FR-9.2 |
| **Priority** | High |

### FE-4- Reminders and Notifications

|  |  |
| --- | --- |
| **Identifier** | FR-9.4 |
| **Title** | Reminders and Notifications |
| **Requirement** | The system shall allow users to set reminders and receive notifications to stay on track with their mental health-related goals. |
| **Source** | User Perspective |
| **Rationale** | To help users stay consistent and focused on their goal achievement efforts. |
| **Business Rule** | Reminders can be customized to the user's preferred schedule. |
| **Dependencies** | FR-9.1 |
| **Priority** | Medium |

### FE-5- Goal Sharing and Support

|  |  |
| --- | --- |
| **Identifier** | FR-9.5 |
| **Title** | Goal Sharing and Support |
| **Requirement** | The system shall provide the option for users to share their mental health-related goals with trusted individuals, such as friends, family, or healthcare professionals, to receive additional support and encouragement. |
| **Source** | User Perspective |
| **Rationale** | To foster a sense of community and support among users and their trusted networks. |
| **Business Rule** | Sharing goals should be done with user consent and privacy settings. |
| **Dependencies** | FR-9.1 |
| **Priority** | Medium |

### FE-2- Progress Tracking

|  |  |
| --- | --- |
| **Identifier** | FR-9.6 |
| **Title** | Goal Creation and Tracking |
| **Requirement** | The system shall allow users to create and track personal goals related to their mental health and well-being. |
| **Source** | User Perspective |
| **Rationale** | To empower users to set and monitor their progress toward mental health goals. |
| **Business Rule** | Users should be able to set goals, update them, and mark them as completed. |
| **Dependencies** | None |
| **Priority** | High |

### FE-2- Progress Tracking

|  |  |
| --- | --- |
| **Identifier** | FR-9.7 |
| **Title** | Progress Visualization |
| **Requirement** | The system shall provide visual representations of a user's progress towards their mental health goals, such as charts or graphs. |
| **Source** | User Perspective |
| **Rationale** | To help users easily understand and evaluate their progress over time. |
| **Business Rule** | Users can view their progress in daily, weekly, and monthly formats. |
| **Dependencies** | FR-9.6 |
| **Priority** | Medium |

### FE-5- Goal Sharing and Support

|  |  |
| --- | --- |
| **Identifier** | FR-9.9 |
| **Title** | Goal Sharing with Support Network |
| **Requirement** | The system shall allow users to share their goals and progress with mental health professionals, friends, and family for support and encouragement. |
| **Source** | User Perspective |
| **Rationale** | To foster a supportive community and encourage open communication about mental health goals. |
| **Business Rule** | Users must have the option to select specific individuals or groups with whom they want to share their goals. |
| **Dependencies** | FR-9.6 |
| **Priority** | Medium |

### FE-6- Personalized Self-Care Suggestions

|  |  |
| --- | --- |
| **Identifier** | FR-9.10 |
| **Title** | Personalized Self-Care Suggestions |
| **Requirement** | The system shall provide personalized self-care suggestions based on user input and analysis of their mental health goals and progress. |
| **Source** | System Perspective |
| **Rationale** | To offer users tailored recommendations for self-care activities that align with their goals. |
| **Business Rule** | Self-care suggestions should be based on user preferences, progress, and the latest mental health research. |
| **Dependencies** | FR-9.6 |
| **Priority** | High |

### FE-6- Personalized Self-Care Suggestions

|  |  |
| --- | --- |
| **Identifier** | FR-9.11 |
| **Title** | Self-Care Suggestions |
| **Requirement** | The system shall offer suggestions for exercise, nutrition, mindfulness, and relaxation techniques to users. |
| **Source** | System Perspective |
| **Rationale** | To provide users with practical and diverse self-care recommendations for improving their well-being. |
| **Business Rule** | Suggestions should be based on user preferences, goals, and past activity. |
| **Dependencies** | None |
| **Priority** | High |

### FE-8- Self-Care Plan Creation

|  |  |
| --- | --- |
| **Identifier** | FR-9.12 |
| **Title** | Self-Care Plan Creation |
| **Requirement** | The system shall allow users to create and customize their self-care plans. |
| **Source** | User Perspective |
| **Rationale** | To empower users to tailor self-care activities to their specific needs and preferences. |
| **Business Rule** | Customized plans should be easy to create and modify within the app. |
| **Dependencies** | None |
| **Priority** | High |

### FE-4- Reminders and Notifications

|  |  |
| --- | --- |
| **Identifier** | FR-9.13 |
| **Title** | Reminders and Notifications |
| **Requirement** | The system shall provide reminders and notifications to encourage users to engage in self-care activities. |
| **Source** | System Perspective |
| **Rationale** | To help users stay on track with their self-care plans and maintain a consistent routine. |
| **Business Rule** | Reminders should be user-configurable, allowing users to set their preferred timing and frequency. |
| **Dependencies** | FR-9.12 |
| **Priority** | Medium |

### FE-2- Progress Tracking

|  |  |
| --- | --- |
| **Identifier** | FR-9.14 |
| **Title** | Progress Tracking |
| **Requirement** | The system shall enable users to track and monitor their progress in following their self-care plans. |
| **Source** | User Perspective |
| **Rationale** | To help users visualize and understand their journey toward improved well-being. |
| **Business Rule** | Progress data should be presented in an intuitive and user-friendly manner. |
| **Dependencies** | FR-9.12 |
| **Priority** | Medium |

### FE-2- Progress Tracking

|  |  |
| --- | --- |
| **Identifier** | FR-9.15 |
| **Title** | Feedback and Reporting |
| **Requirement** | The system shall allow users to provide feedback and report any issues related to self-care suggestions or the app's functionality. |
| **Source** | User Perspective |
| **Rationale** | To gather user input for continuous improvement and issue resolution. |
| **Business Rule** | Feedback submissions should be easy and user-friendly. Reported issues must be addressed promptly. |
| **Dependencies** | None |
| **Priority** | Medium |

# Non-Functional Requirements

## Reliability:

*REL-1: The system shall have a mean time between failures (MTBF) of at least 10,000 hours. A failure is defined as a system outage or malfunction that disrupts user access or functionality.*

*REL-2: In the event of system failure, user data shall be automatically backed up at least once every 24 hours. The system shall be capable of data recovery and restoration to the latest backup state..*

*REL-3: The system shall include mechanisms for error detection and correction. In the case of detected errors, the system shall provide an error message and automatically log the incident for further analysis.*

## Usability:

*USE-1: The user interface of the system shall be designed to be intuitive, allowing users to learn basic functionality within 15 minutes of interaction.*

*USE-2: The system shall provide clear error messages and instructions for users in the event of data input errors, and it should support error recovery and re-entry of data.*

*USE-3: The system shall be designed to support accessibility standards, ensuring that users with disabilities can access and use the application effectively.*

## Performance:

*PER-1: The system shall ensure that 95% of webpages generated by the application load completely within 4 seconds when requested by the user, over a standard 20 Mbps or faster Internet connection.*

*PER-2: The system shall handle a concurrent user load of up to 10,000 users without experiencing a significant decrease in performance.*

*PER-2: The system's server response time shall not exceed 500 milliseconds for any API request.*

## Security:

*SEC-1: The system shall implement industry-standard encryption for all data transmissions, ensuring the confidentiality and integrity of user data.*

*SEC-2: User data shall be securely stored, following industry best practices for data security. Access to this data shall be restricted to authorized personnel only*

*SEC-3: The system shall provide role-based access control, allowing administrators to manage user roles and permissions effectively.*

*SEC-4: The system shall have mechanisms in place to detect and respond to security incidents, including intrusion attempts and data breaches. These incidents shall be logged, and relevant parties notified.*

*SEC-5: The system shall support password policies, including minimum length, complexity, and expiration requirements, without specifying the details of these policies in the requirements document.*

# External Interface Requirements

## User Interfaces Requirements:

*UIR-1: The user interface of the NeuroSentry App shall adhere to established Graphical User Interface (GUI) standards to ensure consistency and a user-friendly experience. This includes considerations for layout, interaction patterns, and visual design.*

*UIR-2: The app shall feature standard navigation controls consistently across all screens. These controls will include essential elements such as a search bar, profile menu, and notification center, ensuring users can easily access key functions and information throughout their interaction with the application.*

*UIR-3: The NeuroSentry App will prioritize accessibility by providing features that enhance usability for all users. This includes support for keyboard navigation to assist individuals who rely on keyboard input for navigation. Moreover, the app will be designed to be compatible with screen readers, enabling users with visual impairments to access and interact with the application effectively.*

*UIR-4: To accommodate visually impaired users, the app's design will incorporate features such as alt text for images and other relevant accommodations. Alt text for images is essential to describe visual content to users who rely on screen readers, ensuring a comprehensive and inclusive user experience.*

## Software Interfaces:

*SI-2: The app will integrate with SQLite or a similar database management system (DBMS) for local storage and management of user data, content, and application information. Additionally, it will employ RESTful APIs to facilitate communication with external services for features like user authentication, data synchronization, and real-time updates, ensuring efficient interactions between the app and external applications or services.*

*SI-3: For user authentication and security, the app will interface with OAuth and other security libraries to ensure secure login and data protection. OAuth (or similar libraries) will allow for integration with third-party authentication providers such as Google or Apple for user convenience.*

*SI-4: To deliver push notifications, the app will interface with Firebase Cloud Messaging (FCM) for Android and Apple's Push Notification Service (APNs) for iOS, enabling real-time alerts, updates, and reminders for users.*

*SI-5: For geolocation-based features, the app will interface with the device's geolocation services to access GPS coordinates and location-specific data. This integration will ensure the app can provide content and services tailored to the user's location.*

*SI-6: The app may interface with external social media platforms such as Facebook, Twitter, or Instagram for social media sharing, allowing users to share their experiences and content on their social profiles.*

*SI-7: For in-app purchases and payment processing, the app will interface with Google Play Billing for Android and Apple's In-App Purchase system for iOS to enable seamless and secure transactions for premium features and content.*

*SI-8: To gather user behavior and performance data, the app may interface with analytics services such as Google Analytics or Firebase Analytics. These services will help in understanding user interactions, app usage, and performance metrics.*

*SI-9: The app may interface with IBM and Google Cloud services for cloud-based data storage, redundancy, and scalability, ensuring that user data and content are securely stored and accessible from multiple locations.*

*SI-10: To ensure data privacy and compliance with data protection regulations such as GDPR, the app will interface with libraries and services for encryption and secure data handling, offering users a high level of privacy and protection for their information.*

## Hardware Interfaces:

*HI-1:* ***Touchscreen Interface****: The app will be designed to interact with the mobile device's touchscreen interface to enable users to navigate, input data, and interact with various features by touch gestures*.

*HI-2:* ***Microphone****: The app will access the device's built-in microphone to capture voice data for emotional analysis or voice-based interactions.*

*HI-3:* ***Camera****: The app will utilize the device's camera for facial expression analysis, allowing users to perform facial assessments for emotional state recognition.*

*HI-4:* ***Speakers****: The app will use the device's built-in speakers to play audio, such as guided meditations, and provide voice feedback to users.*

*HI-5:* ***GPS*** *(****Global Positioning System):*** *The NeuroSentry will access the device's GPS interface to provide location-specific content or services.*

## Communications Interfaces:

*CI-1:* ***HTTP/HTTPS APIs****: The app will communicate with remote servers via HTTP/HTTPS to fetch and send data securely. This includes accessing assessment data, content recommendations, and user profiles.*

*CI-2:* ***Push Notifications****: The app will employ push notification services, such as Firebase Cloud Messaging (FCM) for Android and Apple Push Notification Service (APNs) for iOS, to send real-time alerts, reminders, and updates to users.*

*CI-3:* ***Real-Time Chat****: The App will use WebSocket or similar protocols to enable real-time communication between users.*

*CI-4:* ***Database Integration****: The app will integrate with cloud-based databases like Google Firebase or IBM Cloud Databases. This includes storing and retrieving user data, content, and assessment results.*

*CI-5:* ***Authentication APIs****: To provide secure user authentication and authorization, the app will use authentication APIs such, as Firebase Authentication or OAuth 2.0 services.*

*CI-6:* ***Payment Gateways****: The app facilitates payments for services rendered by mental health professionals, it will communicate with third-party payment gateways to process transactions securely.*

***CI-7: Social Media Integration****: The app integrates with social media platforms for sharing content or authentication, it will use the respective social media APIs (e.g., Facebook Login, Google Sign-In).*

***CI-8: Data Analytics and Reporting:*** *For generating analytics reports and tracking user engagement, the app will communicate with data analytics platforms such as Google Analytics or custom analytics services.*

*CI-9:* ***User Feedback and Support****: The app have include a feature to collect user feedback or provide customer support. It will interface with support ticket systems or feedback collection services for this purpose.*

# Mockups

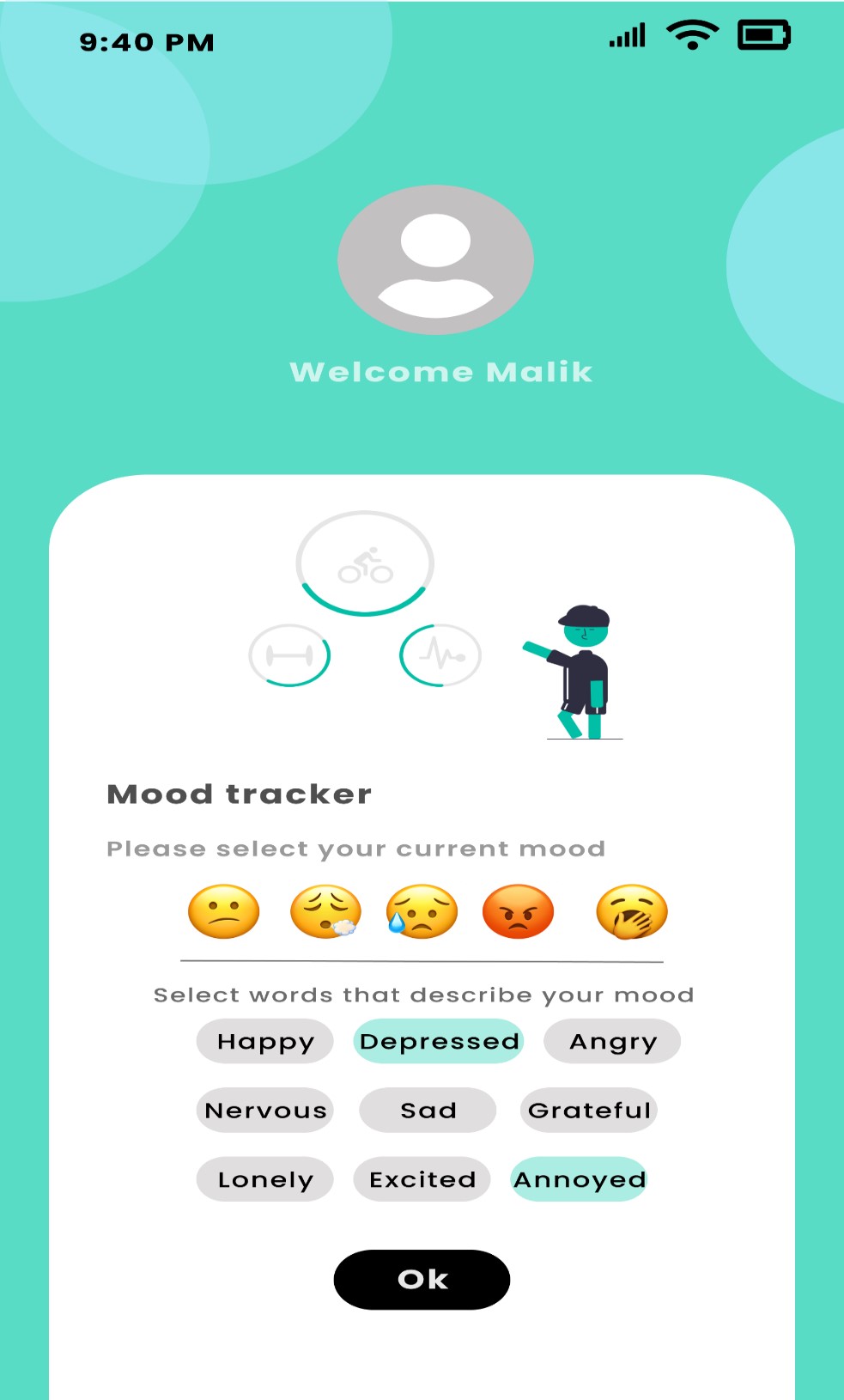


Figure Mood-Tracking

**Description:** This screen will allow users to track their mood. Users can input their mood using Emoji’s and Expressive words, and the app will create a visual representation of their mental health trends over time.



Figure My Check-in

**Description:** This screen will display the results of the mental health check that users completed at the beginning of the app. Users will be able to see their mental health status and progress.

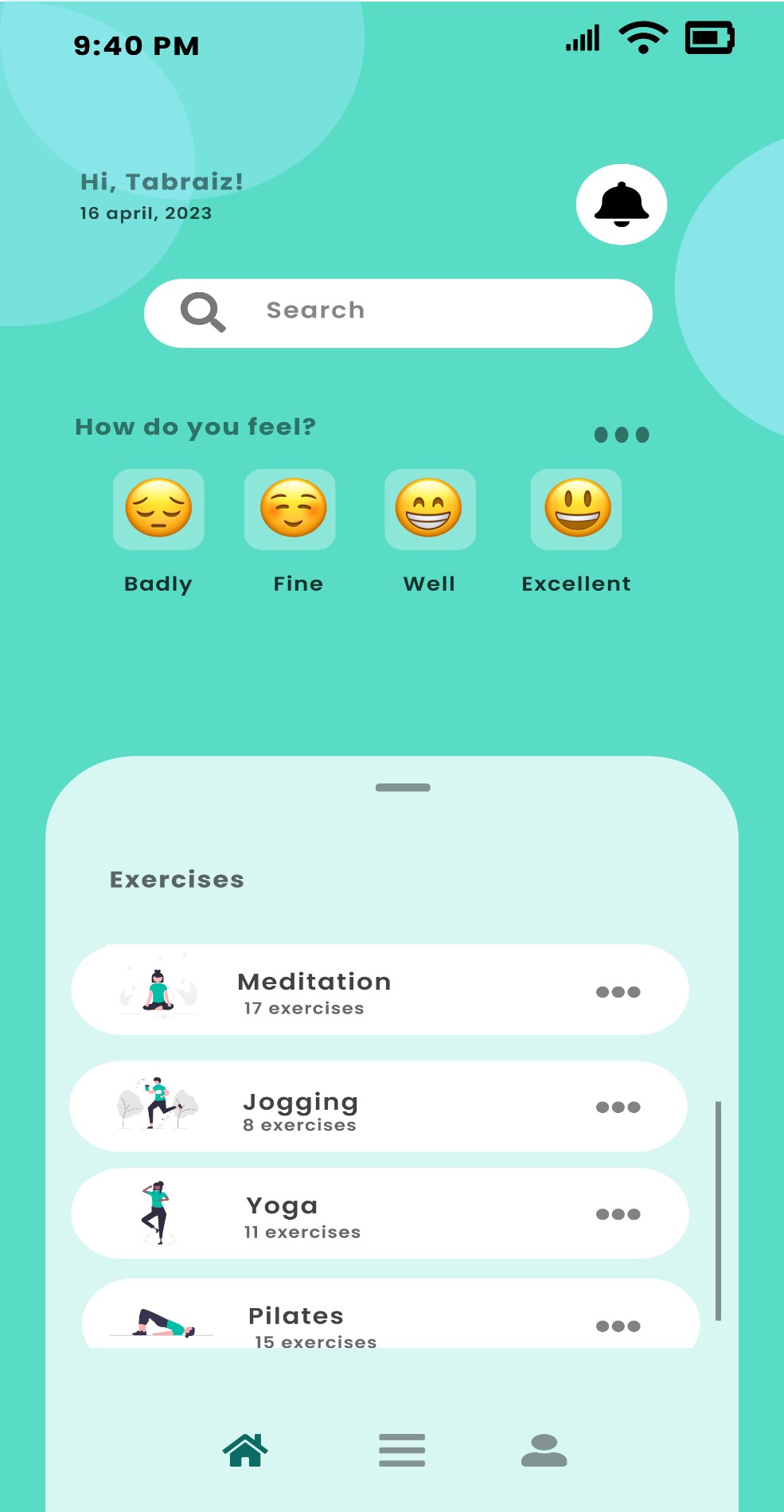


Figure Exercises

**Description**: This screen will feature a range of exercises and activities that users can do to improve their mental health. The exercises will be categorized by type, such as mindfulness, meditation, or breathing techniques.

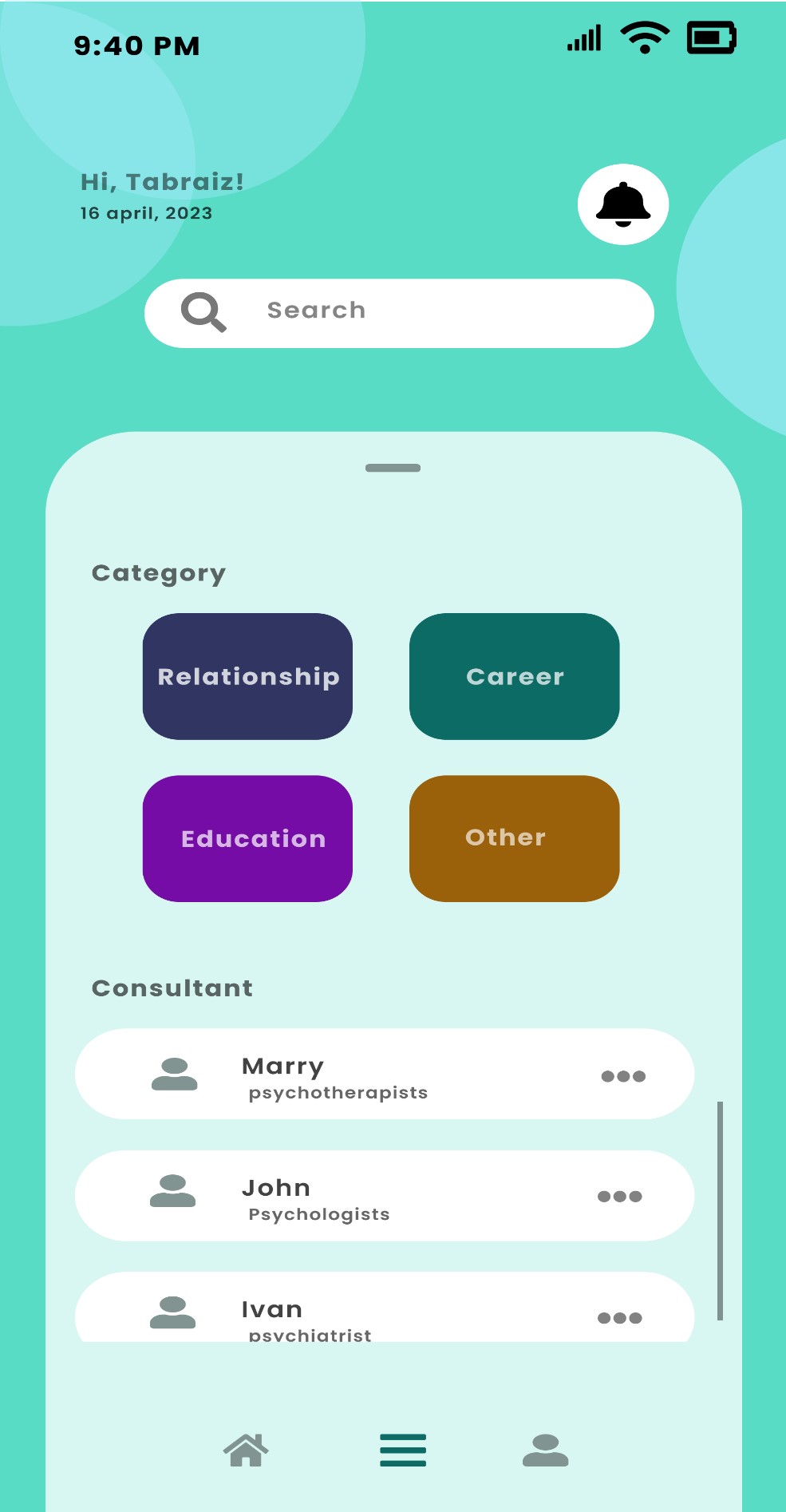


Figure Resource Categories

**Description**: This screen will allow users to browse different categories such as Education, Relation, Career, etc. related to mental health. This will also show the list of different professionals and consultants.



Figure -Consultant Chat

**Description**: This screen will allow users to connect with mental health consultants through a chat feature. Users will be able to ask questions and get advice from qualified professionals.

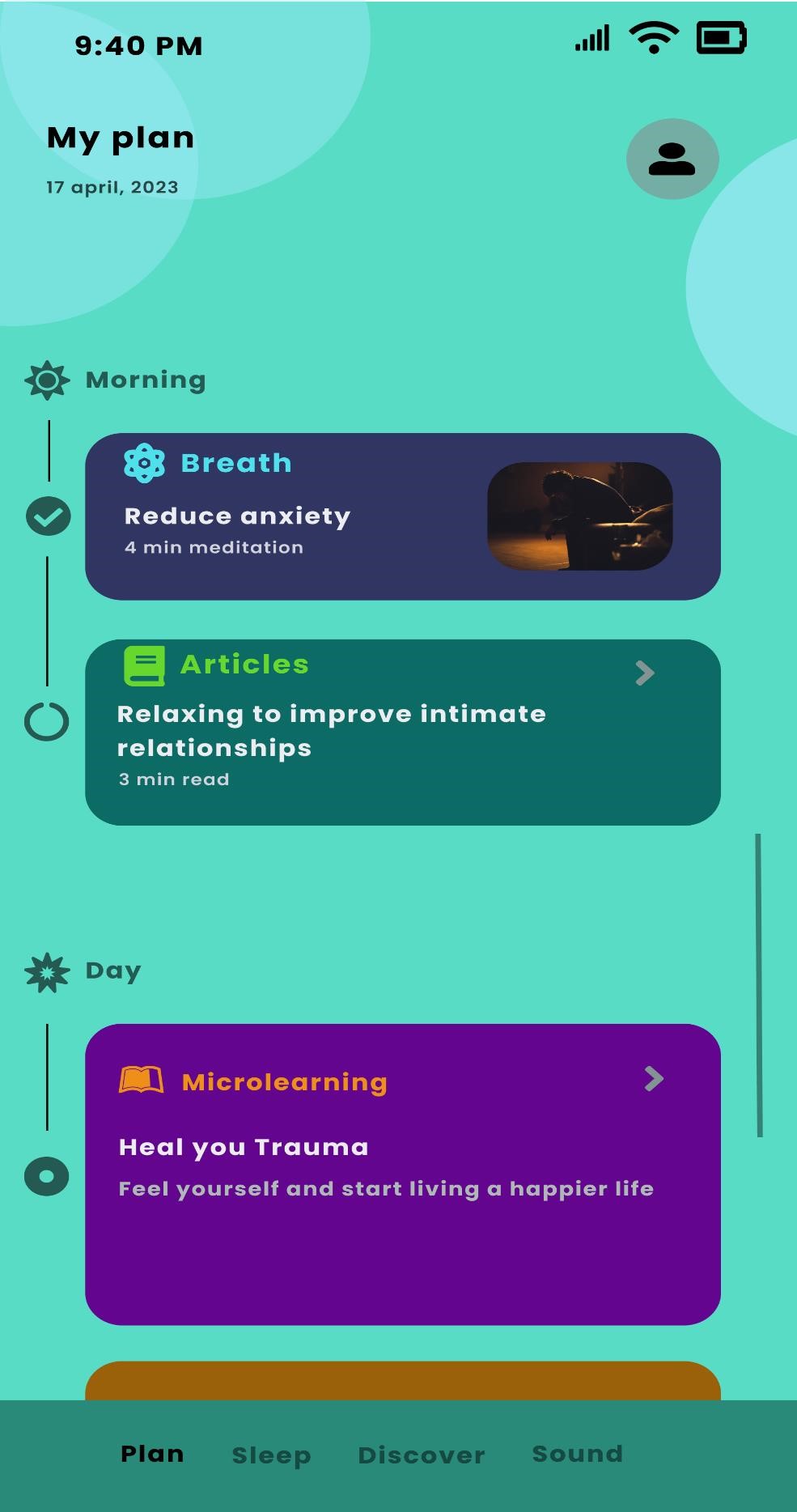


Figure -My Plan

**Description**: This screen will allow users to create a customized mental health plan based on their needs and preferences. Users can select from a range of activities and exercises, and the app will create a personalized plan for them.

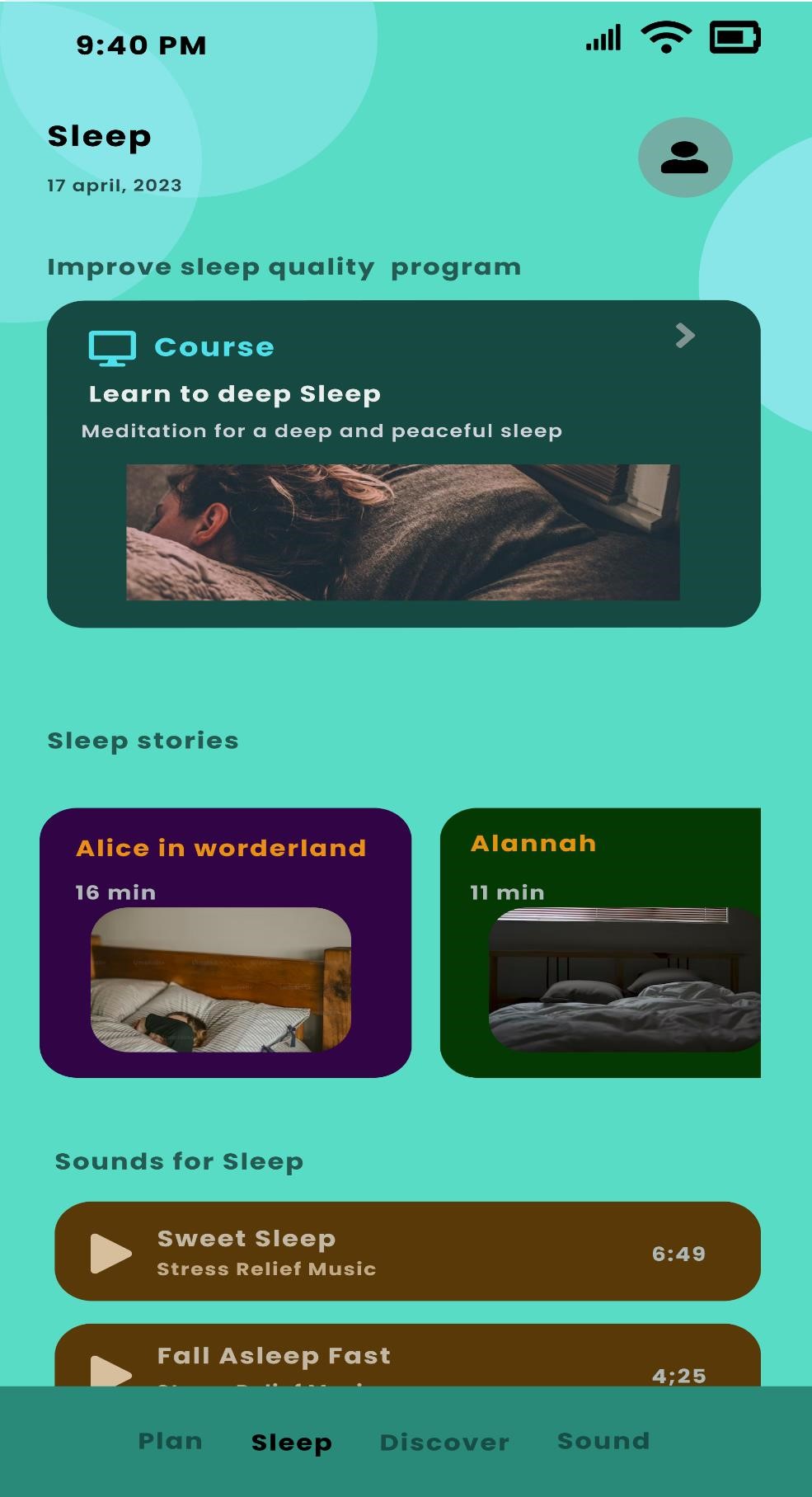


Figure -My Sleep

**Description**: This screen will allow users to track their sleep patterns and habits. The app will provide sleep stories and meditating sound for improving their sleep quality.

# References

**Book:**

1. Smith, J. Mental Health and Well-being: Strategies for Coping and Thriving. New York: Routledge, 2018, pp. 45-67.
2. Clark, D. A., & Beck, A. T. (2011). Cognitive therapy of anxiety disorders: science and practice. Guilford Press.

**Article in a Journal:**

1. Johnson, L. "The Role of Digital Mental Health Apps in Modern Healthcare." Journal of Health Informatics, vol. 12, no. 2, pp. 123-135, June 2020.
2. Karyotaki, E., Kleiboer, A., Smit, F., Turner, D. T., Pastor, A. M., Andersson, G., ... & Cuijpers, P. (2019). Predictors of treatment dropout in self-guided web-based interventions for depression: an ‘individual patient data’meta-analysis. Psychological Medicine, 49(5), 881-893. **Articles from Conference Proceedings:**
3. Lee, K. and Kim, H. "Natural Language Processing Techniques for Mental Health Assessment." Proceedings of the 2019 IEEE International Conference on Healthcare Informatics, 2019, pp. 245-249.
4. Maia, C. R., Costa, J. P., & Nogueira, F. M. (2019, November). A cognitive-behavioral therapy chatbot for depression: design iteration and feasibility. In Proceedings of the 31st Australian Conference on Human-Computer-Interaction (pp. 1-6).

**World Wide Web:**

1. National Institute of Mental Health. "Mental Health Information." Internet: https://www.nimh.nih.gov/health/index.shtml, updated May 2022 [accessed April 15, 2023].
2. National Institute of Mental Health. (2021). Anxiety Disorders. Retrieved from https://www.nimh.nih.gov/health/topics/anxiety-disorders/index.shtml