Rural Mindscape
(an emotional support for rural youth)
SRS Document :-
Executive summary:

The "Rural Mindscape" project aims to develop a web application that provides mental health support and counseling services specifically designed for rural youth. The web app will serve as a platform where rural youth can connect with qualified psychiatrists, access mental health resources, and receive personalized guidance and treatment for their mental health concerns.

1. Introduction

The Rural Mindscape project aims to develop a web application that provides mental health support and counseling services specifically tailored for rural youth. The web app will connect rural youth with qualified psychiatrists and psychologists through an online platform, making it easier for them to access mental health services and receive professional help.

1.1 Purpose

The purpose of this document is to outline the requirements for the Rural Mindscape web application. It serves as a guide for the development team to understand the project's objectives, functionalities, and constraints.

1.2 Scope

The scope of the Rural Mindscape web application includes:

- User registration and authentication for both rural youth and mental health professionals.
- An interactive dashboard for rural youth to access mental health resources, schedule appointments, and communicate with psychiatrists and psychologists.
- A search feature to find qualified mental health professionals based on various criteria such as specialization, availability, and location.
- Secure and private communication channels for online counseling sessions, including real-time chat and video calls.
- Personalized treatment plans and progress tracking for each rural youth user.
- Administration features for system administrators to manage user accounts, profiles, and overall system settings.

1.3 Intended Audience

The intended audience for this document includes:

- Development team members responsible for implementing the web application.
- Project stakeholders, including clients, investors, and project managers.
- Quality assurance and testing teams involved in verifying the application's functionality.
- System administrators responsible for managing the deployed application.

2. Functional Requirements

2.1 User Registration and Authentication

- The web application shall allow rural youth users to register for an account with a unique username and password.

- User registration shall require basic personal information such as name, age, gender, and location.
- The application shall support authentication mechanisms to ensure secure access to user accounts.
- Mental health professionals shall register for an account using their qualifications and certifications.

2.2 Dashboard for Rural Youth Users

- Upon login, rural youth users shall be presented with a personalized dashboard.
- The dashboard shall provide access to mental health resources, including articles, videos, and self-help guides.
- Rural youth users shall be able to schedule appointments with available mental health professionals.
- The dashboard shall display upcoming appointments, treatment plans, and progress tracking information.

2.3 Search and Matchmaking

- The web application shall include a search feature to find mental health professionals based on specialization, availability, and location.
- Users shall be able to view detailed profiles of mental health professionals, including their qualifications, experience, and reviews.
- The application shall provide a matchmaking algorithm to suggest suitable mental health professionals based on user preferences and needs.

2.4 Communication and Counseling

- The web application shall offer secure and private communication channels for online counseling sessions.

- Real-time chat functionality shall be available for text-based communication between users and mental health professionals.
- Video call functionality shall be provided for live counseling sessions between users and mental health professionals.
- Users shall have the option to share files, documents, or other relevant information during counseling sessions.

2.5 Personalized Treatment Plans and Progress Tracking

- Mental health professionals shall be able to create personalized treatment plans for rural youth users.
- Treatment plans shall include goals, activities, and recommended resources for the user to follow.
- Users shall be able to track their progress and mark completed activities within the treatment plan.
- Mental health professionals shall have access to the user's progress information for monitoring and adjustments.

2.6 Administration Features

- The web application shall provide administration features for system administrators.
- Administrators shall be able to manage user accounts, including approvals, suspensions, and deletions.
- System administrators shall have access to reporting and analytics features to monitor usage and system performance.
- Application settings, such as notifications, privacy options, and user roles, shall be configurable by administrators.

DATABASE

- **Patient Information:** We need to store information about each patient, such as their name, age, gender, contact details, medical history, and any previous treatments they have undergone.

- **Appointment Management:** The database should handle appointment scheduling, including details like appointment date, time, duration, and the psychiatrist assigned to the session. It should also track the status of each appointment, whether it's scheduled, canceled, or completed.

- **Psychiatrist Details:** We may want to maintain a separate table for psychiatrist details, including their name, qualifications, specialization, contact information, and availability.

- **Assessment Forms:** If we plan to incorporate any assessment forms or questionnaires for patients, we will need to design a schema to store the form structure and the patient's responses.

- **Prescriptions and Medications:** If the psychiatrists will be prescribing medications, we might need a database structure to record prescribed medications, dosage instructions, and any associated notes.

- **Secure User Authentication:** Implement user authentication and authorization to ensure that only authorized individuals can access and modify the database. This will protect sensitive patient information.

- **Data Security and Compliance:** Consider implementing data encryption, regular backups, and compliance with relevant data protection regulations (such as HIPAA in the United States) to safeguard patient data.

- **Scalability and Performance:** Assess the expected scale of the application and plan the database accordingly to handle the anticipated number of users, patient records, and concurrent sessions. Consider indexing and optimizing queries for efficient data retrieval and updates.

3. Non-Functional Requirements

3.1 Security

- The web application shall implement appropriate security measures to protect user data and communication.
- User passwords shall be securely hashed and stored in the database.
- Communication channels for counseling sessions shall be encrypted to ensure privacy and confidentiality.
- User access to sensitive information shall be based on role-based access control.

3.2 Performance

- The web application shall be able to handle concurrent user sessions without significant performance degradation.
- Response times for critical functionalities, such as search and appointment scheduling, should be optimized for a smooth user experience.
- The application shall be scalable to accommodate a growing user base and increased usage.

3.3 Usability

- The web application shall have an intuitive and user-friendly interface to cater to users with varying levels of technical proficiency.
- Clear and concise instructions shall be provided for using different features of the application.
- The application shall be responsive and compatible with popular web browsers and mobile devices.

3.4 Reliability

- The web application shall have a high level of reliability, ensuring minimal downtime and uninterrupted access for users.
- Regular backups of user data shall be performed to prevent data loss in case of system failures.
- Error handling and reporting mechanisms shall be implemented to address any unexpected issues and provide meaningful error messages to users.

APPENDIX

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                        |    Web App        |
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                +-----------------------------+
                |            User             |
                +-----------------------------+
                | - UserID                    |
                | - Name                      |
                | - Age                       |
                | - Gender                    |
                | - Contact Information       |
                +-----------------------------+
                        |              ||
                +-----------------------------+
                |                     |
                |                     |
      +-----------------+   +------------------------+
      |    Patient      |   |     Psychiatrist       |
      +-----------------+   +------------------------+
      | - PatientID     |   | - PsychiatristID       |
      | - Name          |   | - Name                 |
      | - Age           |   | - Age                  |
      | - Gender        |   | - Gender               |
      | - Address       |   | - Contact Information  |
      +-----------------+   +------------------------+
                |                    |
                |                    |
       +--------------------+  +----------------------+
       |    Appointment     |  |      Diagnosis       |
       +--------------------+  +----------------------+
       | - AppointmentID    |  | - DiagnosisID        |
       | - PatientID        |  | - PatientID          |
       | - PsychiatristID   |  | - PsychiatristID     |
       | - Date             |  | - Date               |
       | - Time             |  | - Symptoms           |
       +--------------------+  | - Diagnosis          |
                               +----------------------+
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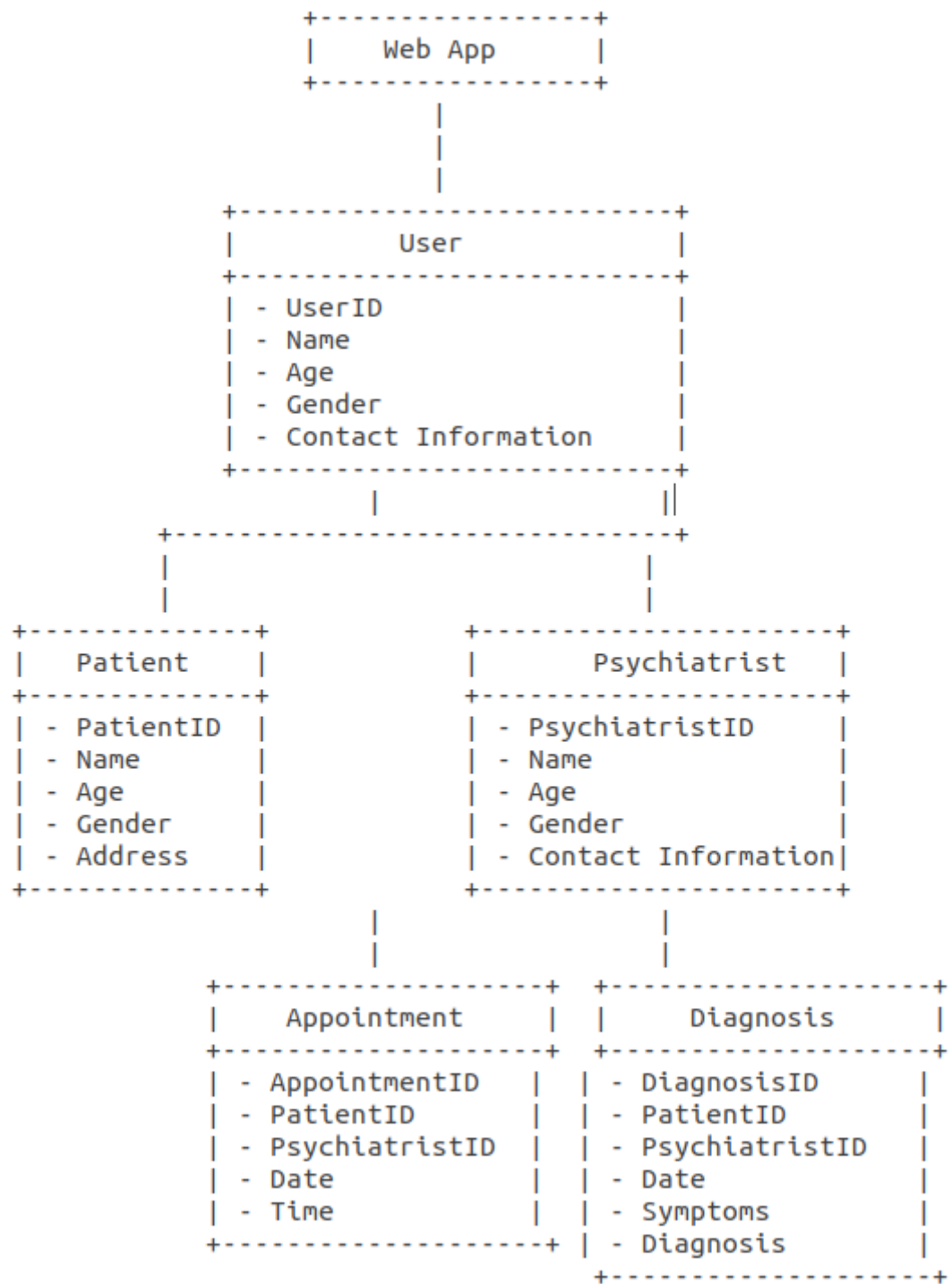
A simple ERD of Rural Mindscape