SHRI RAMSWAROOP MEMORIAL COLLEGE OF ENGINEERING AND MANAGEMENT

PROJECT PRE-SYNOPSIS

Area of Work: Full Stack, Health care

Project Title: SnoRelax – Mental Health Support Application

Working Model: Software Based, fullstack application based on react

Introduction:

SnoRelax is a full-stack mobile application designed to provide accessible mental health support through a user-friendly digital platform. It integrates an AI-powered chatbot for empathetic conversations, mood tracking for personalized insights, guided exercises for relaxation, and therapistlinked features for prescriptions and recommendations. The system ensures user anonymity with secure authentication and prioritizes data privacy. SnoRelax aims to enhance mental well-being, offer coping strategies, and facilitate connections to professional help, making mental health resources available anytime, anywhere.

Objectives:

- To enable secure user authentication via OTP-based login and anonymous ID creation.

- To provide an AI chatbot for real-time mental health support and coping strategies.

- To track and analyse user mood patterns with visual reports.

- To offer guided breathing and meditation exercises tailored to user preferences.

- To display therapist prescriptions and personalized recommendations for connected users.

Technologies used:

- **Frontend**: Mobile app interface for dashboard, chatbot, reports, and exercises (e.g., React Native, Flutter).

- **Backend**: Server managing user data, AI processing, and therapist integration (e.g., Node.js, Python Flask).

- **Database**: Secure storage for anonymized user profiles, mood logs, and chat history (e.g., MongoDB, Firebase).

- **AI/NLP Module**: Processes user inputs for empathetic responses and recommendations (e.g., pre-trained NLP model).

- **APIs**: Handles OTP verification, data fetching, and external therapist system integration.

Flow Chart
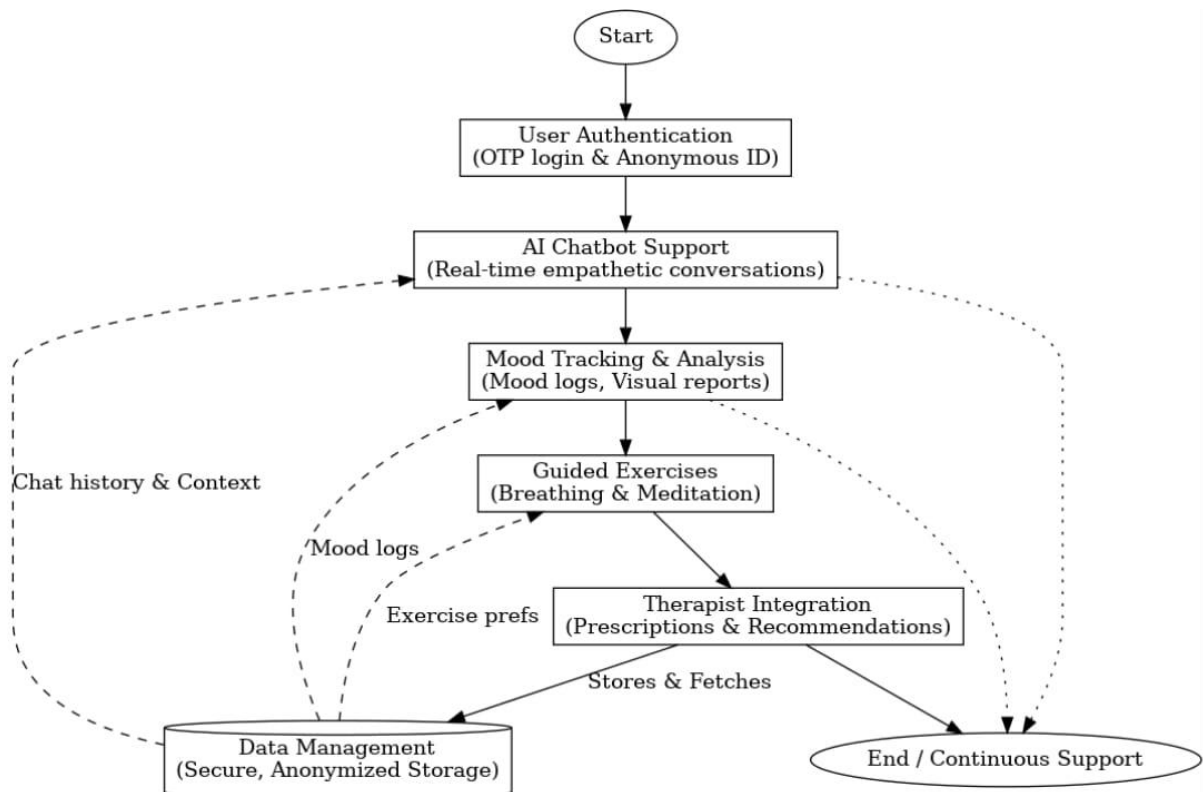
Source of the Idea:

Existing solutions are often siloed, lack anonymization by default, and do not integrate therapist feedback loops. SnoRelax proposes a modular, privacy-forward architecture that aligns user self-help with optional professional touchpoints.

Internet research on mental health applications and user demand for accessible wellness tools

Name of the Team Members:

- Shivam Kumar Dubey (2201221540045)

- Suryakant Mishra   (2201221540054)

References

1. World Health Organization (WHO). (2022). "World Mental Health Report." WHO Press.
2. National Mental Health Survey. (2016). "Mental Health in India." NIMHANS.
3. Fitzpatrick, K. K., et al. (2017). "Delivering Cognitive Behavior Therapy to Young Adults With Symptoms of Depression and Anxiety Using a Fully Automated Conversational Agent (Woebot): A Randomized Controlled Trial." JMIR Mental Health.
4. Inkster, B., et al. (2018). "An Empathy-Driven, Conversational Artificial Intelligence Agent (Wysa) for Digital Mental Well-Being: Real-World Data Evaluation Mixed-Methods Study." JMIR mHealth and uHealth.