

FACULTY: INFORMATION TECHNOLOGY

DEPARTMENT: SOFTWARE ENGINEERING

NETWORK AND COMMUNICATION

SYSTEM INFORMATION

MANAGEMENT

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WellNest App Documentation

A Student Mental Wellness & Peer Support App

Overview

WellNest is a **mental wellness app** designed to help students track their moods, write journal entries, and connect with peer support groups. The app provides a safe and supportive environment for students to reflect on their emotions, access guided meditation, and seek help when needed.

Built using **Flutter**, WellNest is a fully functional mobile application that integrates **offline storage** for journals and mood logs, ensuring users can access their data anytime, anywhere.

Core Features

1. Mood Tracking & Journaling:

- o Users can log their moods and write personal reflections.
- o Moods are visualized using a color-coded system and a calendar view.

2. Anonymous Peer Support Chat:

- o Secure and anonymous chat for students to support each other.
- o Multiple support groups are available for different mental health topics.

3. Guided Meditation & Stress Relief:

- o Relaxation exercises, breathing techniques, and calming music.
- o Includes a 5-minute breathing exercise and a 10-minute guided meditation.

4. Emergency Contact Integration:

- o Quick access to university counselors or emergency helplines.
- o Direct call and text options for immediate assistance.

5. Offline Storage:

o Journals and mood logs are stored locally using **SQLite**.

Project Structure

The app is structured into the following screens:

1. Register Screen:

o Allows users to create an account with full name, email, and password.

o Includes form validation and a smooth UI with wavy shapes.

2. Login Screen:

- o Users can log in using their email and password or sign in with Google.
- o Features a clean design with curved shapes and intuitive navigation.

3. Home Screen:

- The main hub with options to access Discover, Support Groups, Therapists, and Journal.
- o Features a welcoming message and visually appealing cards for each feature.

4. **Discover Screen**:

- o Provides immediate help options and guided meditation resources.
- o Includes a 5-minute breathing exercise, 10-minute guided meditation, and relaxing music.

5. Support Groups Screen:

- o Displays a list of support groups for various mental health topics.
- Users can join a group and participate in anonymous chats.

6. Therapists Screen:

- o Lists available therapists with their specialties.
- Users can contact therapists via call or text.

7. Emotional Journey Screen:

- Visualizes the user's mood history using a calendar and color-coded indicators.
- o Displays recent journal entries for quick access.

8. Mood Tracking Screen:

- o Allows users to select their current mood using an interactive gauge.
- Navigates to the Journal Screen to log their thoughts.

9. **Journal Screen**:

- o Users can write and save journal entries with their selected mood.
- o Entries are stored locally and displayed in the Emotional Journey Screen.

10. Emergency Contacts Screen:

 Provides a list of emergency contacts, including campus security and health services. • Users can directly call the contacts from the app.

Technical Implementation

1. UI/UX Design

- The app features a **clean and modern design** with a soothing color palette (light blue, green, and purple).
- Custom clippers are used to create wavy shapes for a visually appealing layout.
- Google Fonts are integrated for consistent typography.

2. State Management

- **StatefulWidget** is used for screens that require dynamic updates (e.g., mood tracking, journaling).
- GlobalKey is used for form validation in the Register and Login screens.

3. Data Persistence

- **SQLite** is used for offline storage of journal entries and mood logs.
- The DatabaseService class handles all database operations, including inserting and retrieving entries.

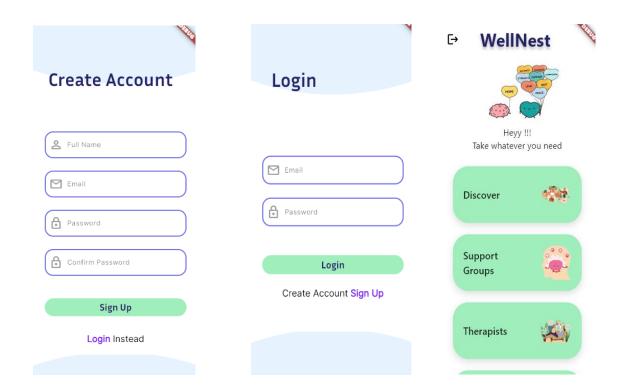
4. Navigation

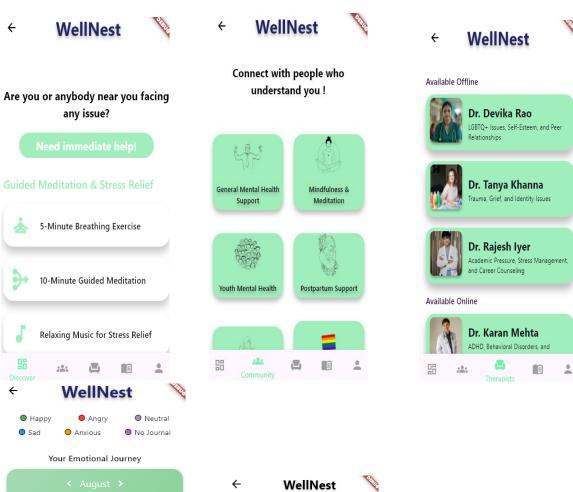
- **Navigator** is used to navigate between screens.
- A Custom Bottom Navigation Bar is implemented for easy access to key features.

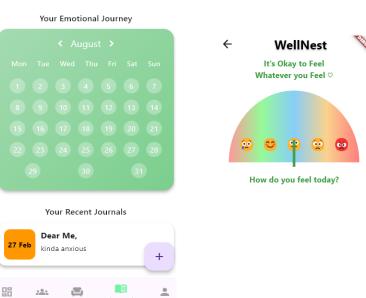
5. Third-Party Libraries

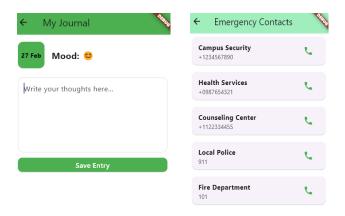
- url_launcher: For making phone calls and opening URLs.
- youtube_player_flutter: For playing guided meditation videos.
- audioplayers: For playing relaxing music and sounds.
- **google_fonts**: For custom typography.

Screenshots









Conclusion

WellNest is a **user-friendly and impactful app** that addresses the mental health needs of students. By combining mood tracking, journaling, peer support, and guided meditation, the app provides a holistic approach to mental wellness.

The project was a great learning experience in **Flutter development**, **UI/UX design**, and **data persistence**. I'm excited to continue improving the app and adding more features in the future!