

Soul sync : Connect Through Emotions

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ABSTRACT

Soulsync is an innovative social media application designed to facilitate emotional connection and authentic self-expression. The platform allows users to share their emotional states with customizable privacy controls, enabling them to restrict access to their posts to public, selected individuals, or keep them completely private. As an offline-first application, Soulsync ensures user experience continuity regardless of connectivity status. The app features AI-powered emotion analysis, personalized content recommendations, and community support networks..

Key Words:

Keywords— Social media Application, Emotion Sharing, Privacy Controls, Offline-First App.

1.INTRODUCTION

A new social media application, Soulsync, is going to revolutionize the way people connect emotionally online. Unlike traditional social platforms that focus primarily on highlight reels and curated content, Soulsync provides a safe space for authentic emotional expression and connection. The application features a user interface that prioritizes emotional

sharing with customizable privacy controls, allowing users to determine exactly who can see their emotional states and posts..

Soulsync is a cross-platform application that attempts to address the growing digital disconnect and mental health concerns associated with traditional social media. It ensures that users can share their true emotional states without fear of judgment by implementing granular privacy controls that enable sharing with the public, selected individuals, or keeping posts entirely private for self-reflection. This is achieved by ensuring functionalities that include emotion tracking, AI-powered sentiment analysis, community support networks, and personalized content recommendations..

2. BODY OF THE PAPER

2.1 METHODOLOGY

The project follows a comprehensive methodology focused on secure user experience, robust content handling, and intelligent personalization. User authentication is enabled through OTP-based verification (email or phone), with optional biometric login for enhanced security and convenience. Upon sign-up, user profiles are created and local storage is initialized for personalization. Content creation supports rich media posts with customizable visibility settings (public, private, selective users), along with time-based controls for privacy management. Offline functionality is ensured through local data storage using WatermelonDB, with queued actions synchronized once connectivity is restored, and conflicts resolved to maintain consistency. The frontend is built with React Native for mobile,

using TypeScript and shared UI components for maintainability and performance. The backend uses Node.js with Fastify for efficiency, GraphQL APIs for flexible data interaction, PostgreSQL for structured data, and Neo4j to manage the social graph. Social features include likes, comments, follows, bookmarks, and community groups, with a personalized dashboard for user insights. AI modules analyze behavior and engagement to recommend content and connections, continuously improving through user interaction data. Finally, system performance and AI model accuracy are evaluated through key metrics and regular user testing to enhance UX and functionality.

2.2 TECHNOLOGY USED

The system architecture is designed for performance, scalability, and user convenience. The frontend is developed using React Native with Expo, enabling cross-platform mobile support and rapid development. Offline access is managed through WatermelonDB, which caches data locally and syncs it upon reconnection. The backend is written in TypeScript to ensure maintainable and scalable code. A dual-database setup is used—PostgreSQL for structured data and Neo4j for handling user relationships and social graphs. Data communication is streamlined via GraphQL, allowing clients to fetch only the data they need. AI-driven personalization enhances user experience by analyzing behavior to suggest content and connections. Security is further reinforced through biometric authentication,

2.3 RESULTS AND DISCUSSIONS

The implementation of **SoulSync** has led to the creation of an emotionally engaging and user-friendly platform that supports private self-expression and mental well-being. The **onboarding experience** uses empathetic storytelling and calming visuals to ease users into the app, with welcoming phrases like “Share your heart, find your circle,” helping to establish trust from the start (Fig 1 & Fig 2)

The **user interface** is thoughtfully designed with soft colors, rounded elements, and intuitive navigation. Key features such as “Open Walls,” “Time Capsules,” and “Mood Playlist”

provide diverse avenues for interaction, whether users want to create, explore, or reflect (Fig 3 & Fig 4).

For **emotion tracking**, the app offers daily prompts, reflection activities, and guided “Emotion Quests” that encourage users to express their feelings in creative ways—such as associating moods with colors or saving meaningful moments in a time capsule. These gamified features promote emotional literacy and sustained engagement (Fig 5).

The **profile creation** process reflects a minimal-friction philosophy, collecting only essential details with clarity and assurance of security and compliance. The input forms are clean, labeled, and provide real-time feedback, improving the onboarding flow (Fig 6).

Figure 1 : Welcome Screen 1





Figure 2: Welcome Screen 2

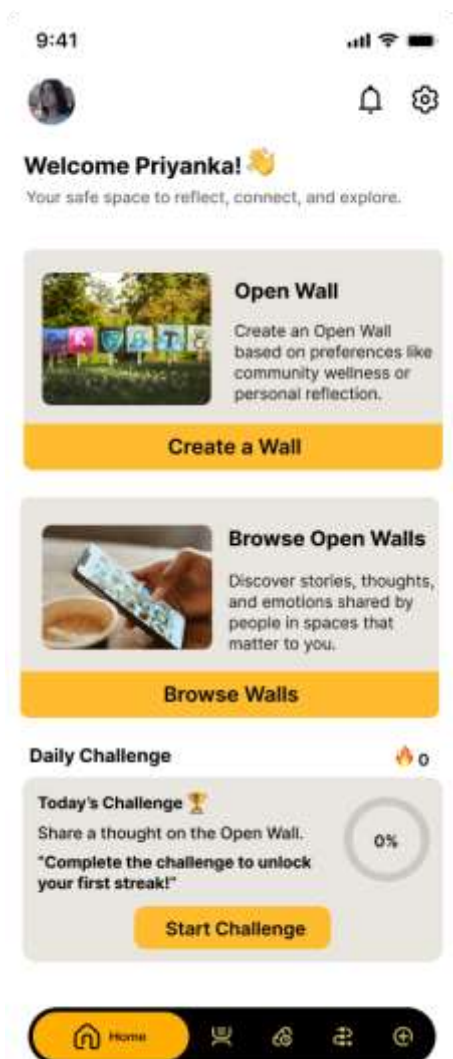


Figure 3: Logged in user screen

Figure 4: Guest user screen

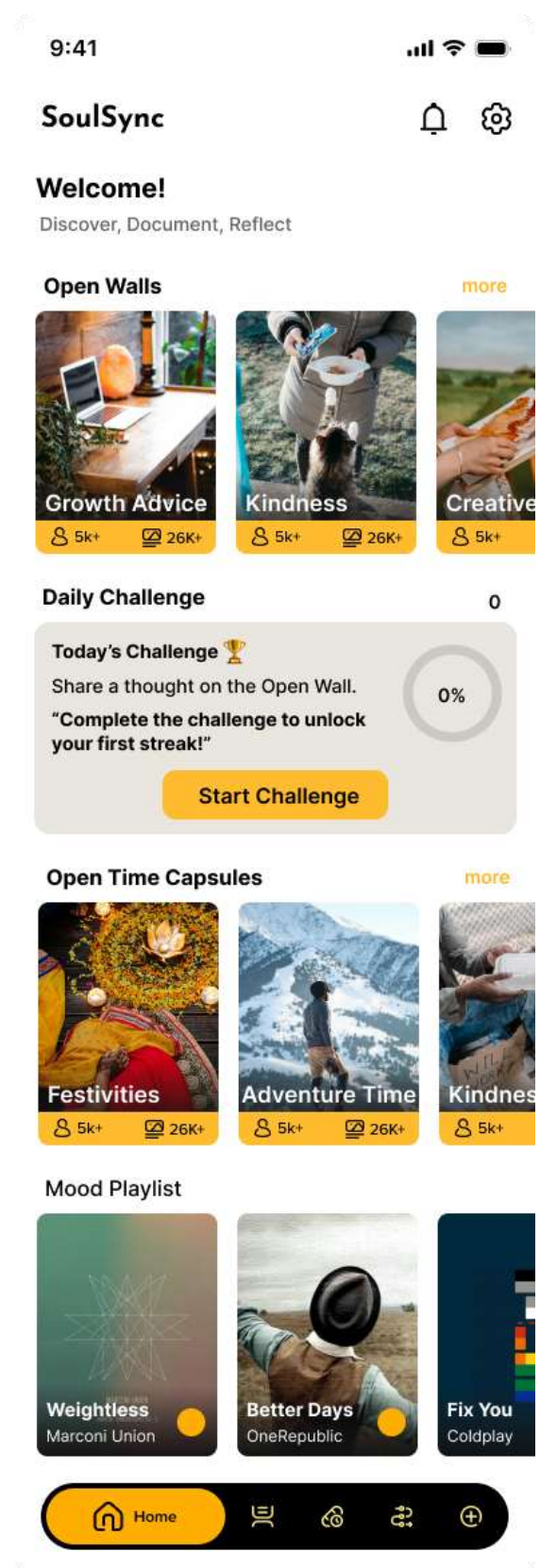
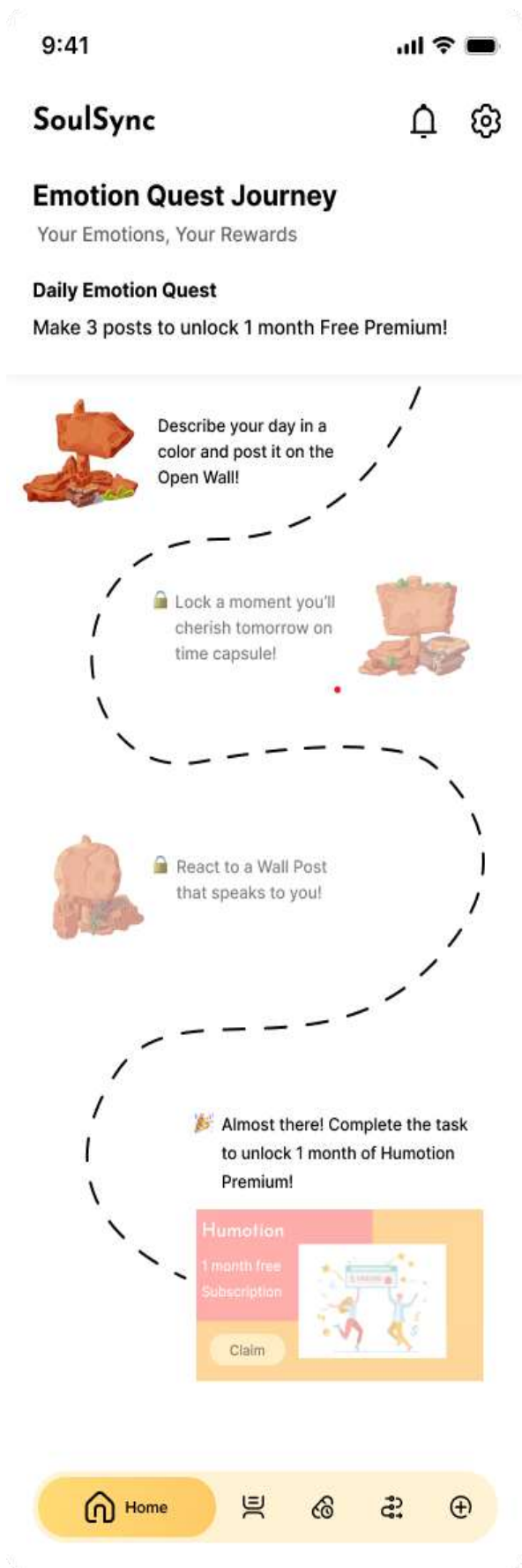


Figure 5: Emotion Journey



← Create Profile



First Name *

Last Name *

@ Handle *

Email *

Mobile
+91 9 8 8 6 6 7 7 3 6 3 ✓

Date of birth

By clicking 'Continue,' you confirm that you are 18 years of age or older.

Continue

Figure 6: Create User Profile Screen

3. CONCLUSION

Soulsync is an innovative social media application designed to foster authentic emotional connection in the digital age, utilizing state-of-the-art technologies: AI-powered emotion analysis, sophisticated privacy controls, and offline-first architecture. Among the extensive features it boasts, users can share their emotional states with customized privacy settings, engage with content through comments, likes, shares, and bookmarks, access personalized content recommendations, participate in supportive communities, track emotional patterns

over time, and maintain control over their digital emotional expression—all while maintaining functionality regardless of connectivity status

The focus of Soulsync is on emotional well-being and authentic connection, developed by addressing the challenges of emotional disconnection and privacy concerns on traditional social platforms. The robust social interaction features create a supportive ecosystem where users can meaningfully engage with others' emotional experiences while respecting privacy boundaries. Developed through a human-centered design process on a modern and scalable tech stack, the application ensures performance, security, and seamless user experience even during offline periods.

ACKNOWLEDGEMENT

This work, *SoulSync* focuses on developing a secure, AI-enhanced mobile system that enables users to express, track, and reflect on their emotional well-being. The platform integrates features such as mood journaling, time capsules, and personalized recommendations, supported by offline-first capabilities and a privacy-first design. Through intuitive onboarding, user-friendly interfaces, and AI-driven insights, SoulSync aims to foster emotional awareness and meaningful self-expression.

We sincerely thank the Department of Information Science and Engineering, SDMCET, Dharwad for their invaluable support and guidance throughout this project.

REFERENCES

- [1] Smith, M. J., Axelton, C., & Martin, D., "Social media and emotional well-being: A systematic review," *Digital Health*, vol. 9, pp. 1-18, April 2023
- [2] Tafreshi, S., Bui, L., Zhang, A., & Karahalios, K., "Emotional disclosure on social media and beyond: Strategies for technology design," *Proceedings of the 2022 CHI Conference on Human Factors in Computing Systems*, pp. 1-14, May 2022.
- [3] DeVito, M. A., Birnholtz, J., & Hancock, J. T., "Platform-specific affordances and algorithmic sensitivity in social media: how content creators manage emotional disclosure

across platforms," *Information, Communication & Society*, vol. 26, no. 15, pp. 2452-2470, February 2023.

- [4] Holmberg, C., Berg, C., Dahlgren, J., Lissner, L., & Chaplin, J. E., "Digital media use and mental wellbeing in youth with obesity," *European Journal of Public Health*, vol. 31, no. 2, pp. 38-41, September 2021
- [5] Nayak, V., Kumar, S., & Rathore, B. P. S., "Offline-first apps for higher user engagement: A study of implementation patterns and user satisfaction," *International Journal of Mobile Human Computer Interaction*, vol. 14, no. 1, pp. 1-18, January 2022.
- [6] Liu, J., Huang, Q., & Soh, C., "Understanding the relationship between emotional sharing and well-being on social media: A configurational approach," *Information & Management*, vol. 59, no. 4, pp. 103641, June 2022.
- [7] Szanto, B., Janosov, M., & Lizardo, O., "Neo4j and NetworkX for social network analysis: A comparative performance evaluation," *Social Networks*, vol. 72, pp. 65-78, January 2023.
- [8] Zheng, L., Zhu, Y., Li, J., Yu, X., & Wang, J., "WatermelonDB in practice: Performance evaluation and optimization for offline-first mobile applications," *Mobile Information Systems*, vol. 2021, Article ID 6687089, pp. 1-12, October 2021.
- [9] Han, P., & Wang, P., "Personalization vs. privacy paradox: Understanding users' conflicting preferences in social media," *Computers in Human Behavior*, vol. 132, pp. 107239, July 2022.
- [10] Mishra, A., & Rai, L. P., "GraphQL vs. REST API: A comparative analysis for modern web and mobile applications," *Journal of Systems and Software*, vol. 197, pp. 111589, March 2022.