MoodMingle: Enhancing User Engagement on Kuku FM through Generative AI-Powered Mood-Based Listening

Objective

MoodMingle is a generative AI-powered feature designed for Kuku FM to recommend audio content based on a user's emotional state. Unlike traditional recommendation systems that rely on historical behaviour, MoodMingle taps into real-time emotions, making the listening experience more personal, empathetic, and engaging.

Benefits to Kuku FM Users

- Emotion-based content recommendations tailored to how users *feel*

- Improved content discovery aligned with real-time moods

- Encouragement of emotional well-being through curated audio

- Increased app stickiness and daily session time

Generative AI Tools, Techniques & Data Sources

Tools & Techniques:

- Natural Language Processing (NLP) using models like BERT or RoBERTa for detecting mood from user inputs

- Clustering Algorithms such as KMeans or DBSCAN for categorizing emotional patterns

- Collaborative Filtering for personalized recommendations based on similar users

- Generative AI to dynamically generate summaries or personalized intros for content

Data Sources:

- Text/voice inputs from users

- App usage logs (e.g., session duration, skip rate, play count)

- User feedback (likes, shares, skips)

- Mood preference history and interaction trends

AI Integration

Creation:

- Mood-based onboarding for new users
- Daily check-ins to capture emotional state

Ongoing Operation:

- Continuous mood inference through interaction analysis
- Live content feed updates based on mood transitions

Continuous Analysis:

- Real-time feedback loop using user behaviour and ratings
- Adaptive learning models to refine mood detection accuracy over time
- Batch and streaming analytics to discover broader user mood trends

Implementation Plan

Phase 1: MVP Launch

- Deploy mood detection via text (e.g., "I feel stressed")
- Curate mood-based audio playlists from existing content library
- Embed mood selection UI into the Explore/Home tab

Phase 2: User Engagement

- Push notifications based on time-of-day/mood predictions
- Mood streaks and personalized emotional listening reports
- Daily "MoodTune" recommendation based on recent activity

Phase 3: Feedback & Optimization

- A/B testing for UI placement and prompt formats
- Reward systems for consistent mood tracking
- Periodic user surveys for emotional accuracy validation

Key Challenges & Solutions

| Challenge	Solution
Inaccurate mood detection	Multi-source signal fusion (text + behaviour + feedback)
User privacy and sensitivity	On-device processing and anonymization of emotional data
Cold start for new users	Predefined mood clusters + trending content pairing
Overfitting personalization	Blend mood-based and general popular content

Metrics and KPIs

- **Session Length**: Increase in average listening time per session

- **App Open Rate**: Growth in daily active users (DAU)

- **Engagement Rate**: Interaction with mood-based recommendations

- **Retention**: Users returning within 7/14/30 days

- **MoodMatch Score** (custom metric): User engagement after a mood-based recommendation

- **User Feedback**: Ratings and qualitative feedback on mood relevance

Conclusion

MoodMingle has the potential to transform Kuku FM into an emotionally intelligent audio platform. By leveraging generative AI and real-time mood inference, it not only enriches the user experience but also fosters deeper emotional engagement — leading to higher retention, satisfaction, and usage metrics.

PROTOTYPE/MOCKUP OF THE PROPOSED SOLUTION:
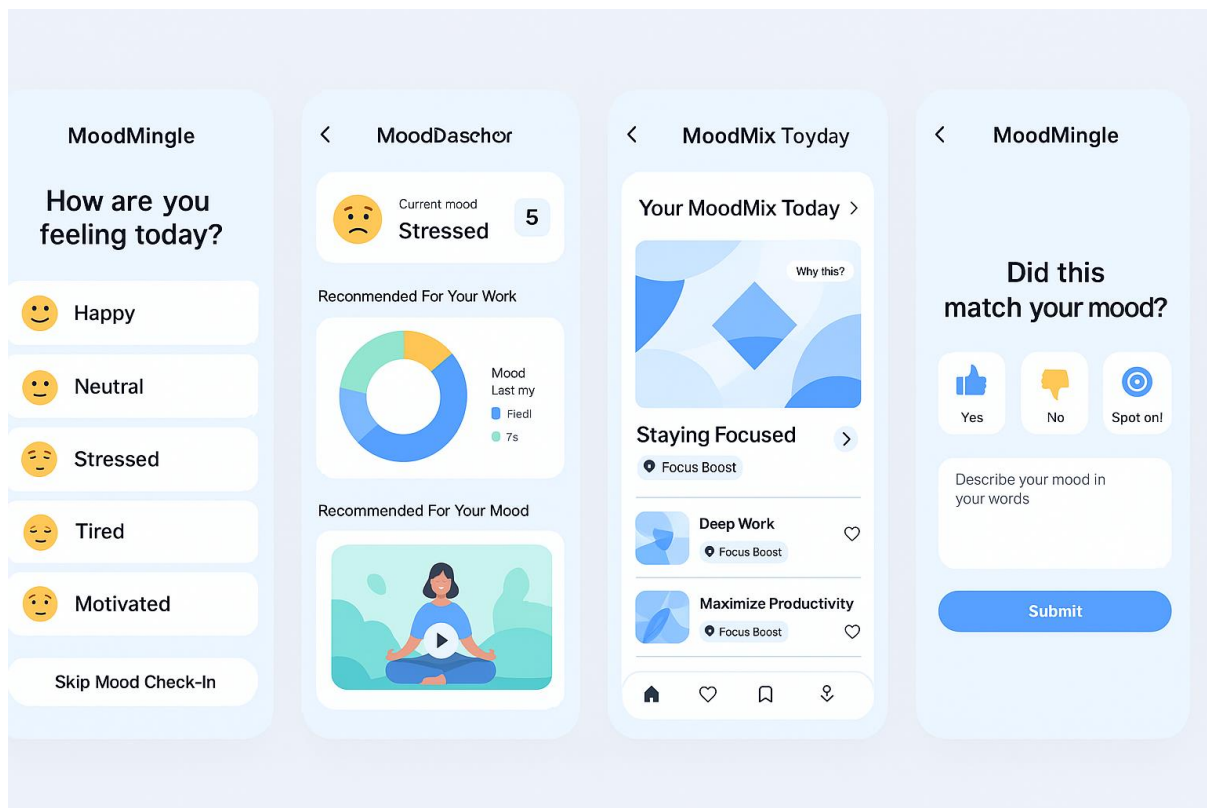
Link for detailed proposal - [GitHub Repository](#)

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