Vibe Coding Sprint — Create a Mobile App Using AI Vibe Coding

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Project: AI Mood Journal – Intelligent Emotion Tracking App

App Idea: AI Mood Journal App

Tech Stack: React Native + OpenAI API + Expo

Deliverables:

- Prototype Link: https://expo.dev/accounts/shivanna/projects/ai-mood-journal/builds/526fce69-df06-4401-acba-ba814f1b3db3
- GitHub Repo: https://github.com/shivannadm/ai-mood-journal
- Demo Video: https://www.loom.com/share/c0bcaf7019d748ea93057c11f71330bf

AI Tools Used: Loom, OpenAI API, Claude, Firebase.

Development: Idea → AI Prompt → Generated Code → Test → Debug with AI → Iterate

Tools: VS Code, Firebase, OpenAI API, Claude, Hugging Face, OBS, Expo Go, Git Hub.

🎯 Goal

To design, develop, and demonstrate a mobile app prototype using AI-powered coding tools (ChatGPT/Claude) that can:

- Analyze user mood through journal entries
- Provide AI-generated insights and suggestions
- Track mood trends over time with visual charts

🧠 Overview

AI Mood Journal is an intelligent mobile application built using **React Native (Expo)**, **Firebase**, and **OpenAI GPT API**.

The app helps users:

- Write daily mood journal entries
- Get AI-powered sentiment analysis (emotion detection, intensity scoring)
- View mood trends and patterns over time

- Receive personalized wellness suggestions

This project demonstrates how AI coding assistants can accelerate development from concept to working prototype.

⚙ Tech Stack

Layer	Technology Used
Frontend	React Native (Expo)
Navigation	React Navigation 6
Backend	Firebase (Firestore + Authentication)
AI Integration	OpenAI GPT-3.5 Turbo API
Data Visualization	React Native Chart Kit
State Management	React Hooks (useState, useEffect)
Storage	AsyncStorage (Auth Persistence)
Tools	Node.js, VS Code, Git, GitHub
Platform	Expo Go (Android)
Version Control	Git & GitHub

🌟 Core Features

- ✍️ **Quick Mood Entry** – Save brief mood notes instantly
- 📝 **Detailed Journal Writing** – Write comprehensive entries with AI analysis
- 🤖 **AI Sentiment Analysis** – Emotion detection, intensity scoring (1-10), personalized insights
- 📊 **Mood Trends Dashboard** – Visual charts showing mood patterns over time
- 🔐 **Secure Authentication** – Firebase email/password authentication
- 💾 **Cloud Storage** – All entries saved to Firebase Firestore
- 📱 **Cross-Platform** – Works on both Android and iOS via Expo Go

🎨 UI/UX Features

- Modern, clean interface with calming color scheme (#4A5FBF blue theme)
- Emoji-based emotion representation

- Interactive charts and statistics
- Responsive design for all screen sizes

🧩 AI Integration

OpenAI GPT-3.5 Integration

The app uses **OpenAI's GPT-3.5 Turbo model** for intelligent mood analysis:

AI Capabilities:

- **Emotion Detection** – Identifies primary emotion (happy, sad, anxious, stressed, etc.)
- **Intensity Scoring** – Rates emotional intensity on a 1-10 scale
- **Empathetic Insights** – Provides compassionate understanding of user's feelings
- **Actionable Suggestions** – Offers personalized wellness tips

AI Tools Used During Development:

- **Claude AI** – For code generation, debugging, and architecture guidance
- **ChatGPT** – For prompt engineering and API integration
- **AI-Assisted Workflow:**
    - Generated React Native component code
    - Debugged Firebase configuration issues
    - Designed UI layouts and styling
    - Optimized API calls and error handling
    - Created documentation efficiently

Development

Screen 1: Welcome/Authentication

- Email/Password login and signup
- Firebase authentication integration
- Persistent auth state with AsyncStorage

Screen 2: Home Dashboard

- Quick mood entry input
- Recent entries display
- Navigation to detailed features
- Logout functionality

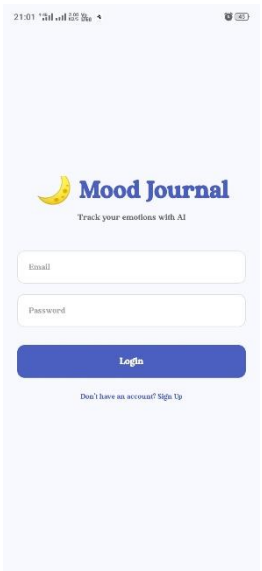
Screen 3: Journal Entry with AI

- Multi-line text input for detailed entries
- Real-time AI analysis with OpenAI API
- Display of emotion, intensity, insight, and suggestion
- Save analyzed data to Firestore

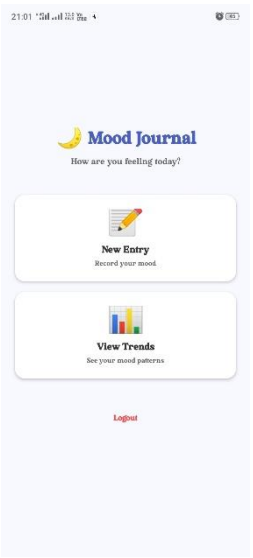
Screen 4: Mood Trends

- Statistical overview (total entries, average intensity)
- Line chart showing intensity over time
- Emotion breakdown with bar charts
- Recent entries list

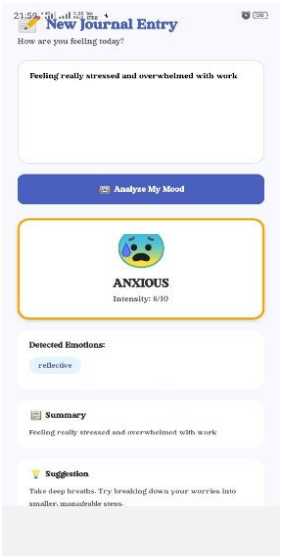
📸 App Screenshots



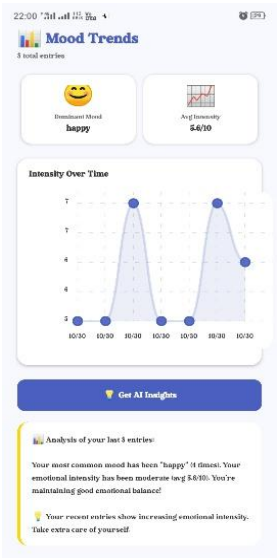
1. Welcome Screen



2. Home Dashboard



3. Journal & AI Insight



4. Trend Dashboard

1.Welcome Screen

Login/Signup interface with mood journal branding

2. Home Dashboard

Quick entry input and recent moods display

3. Journal Entry with AI Analysis

Detailed writing interface with AI-powered mood analysis results

4. Trends Dashboard

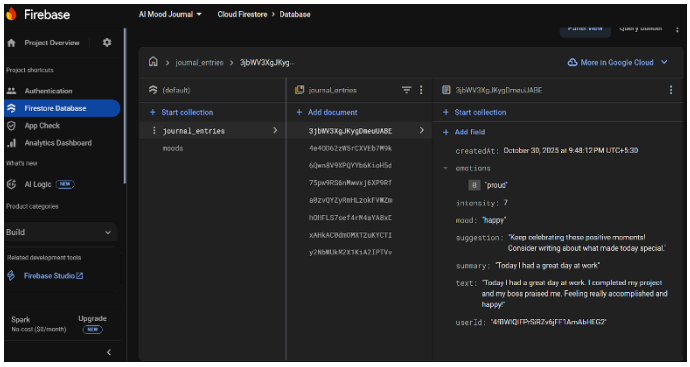
Charts showing mood patterns, emotion breakdown, and statistics

📊 Project Statistics

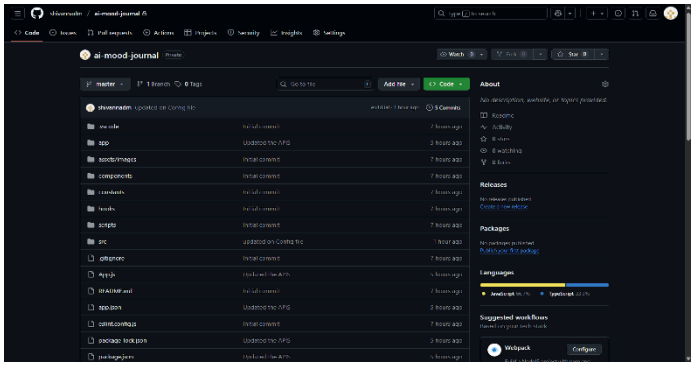
Metric	Value
Total Development Time	2-3 days
Lines of Code	~1,500
Screens Created	4
API Integrations	2 (Firebase + OpenAI)
npm Packages Used	12
AI Prompts Used	~50+

👷 Development Screenshots

Firebase Database



Git Hub Repository

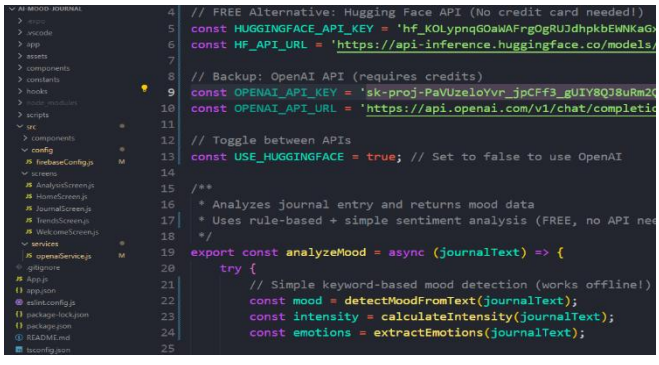


Power Shell Run

```
Web Bundled 7061ms node_modules\expo\AppEntry.js (554 modules)
 LOG  [web] Logs will appear in the browser console
λ Bundled 72ms node_modules\expo-router\node\render.js (1 module)
Web Bundled 800ms node_modules\expo\AppEntry.js (1 module)
Android Bundled 671ms node_modules\expo\AppEntry.js (1 module)
 WARN  [2025-10-30T16:28:51.566Z]  @firebase/auth: Auth (12.4.0):
You are initializing Firebase Auth for React Native without providing
AsyncStorage. Auth state will default to memory persistence and will not
persist between sessions. In order to persist auth state, install the package
"@react-native-async-storage/async-storage" and provide it to
initializeAuth:

import { initializeAuth, getReactNativePersistence } from 'firebase/auth';
import ReactNativeAsyncStorage from '@react-native-async-storage/async-storage';
const auth = initializeAuth(app, {
  persistence: getReactNativePersistence(ReactNativeAsyncStorage)
});
 LOG  ✅ Firebase initialized successfully
 LOG  🚀 App.js mounted
 LOG  👤 Auth state changed: No user
 LOG  👤 Auth state changed: User logged in
```

VS Code File Structure




```
});
 LOG  ✅ Firebase initialized successfully
 LOG  🚀 App.js mounted
 LOG  👤 Auth state changed: No user
 LOG  👤 Auth state changed: User logged in
 LOG  🤖 Using AI analysis...
 LOG  ✅ AI Response: [[{"label": "sadness", "score": 0.9526150226593018}, {"label": "disgust", "score": 0.0252018
7944173813}, {"label": "neutral", "score": 0.0096931969746947 29}, {"label": "fear", "score": 0.006039340980350971}
, {"label": "anger", "score": 0.0035452197771519423}]]
```