

PeacePulse Journal - Mental Wellness Companion

Core Purpose

A comprehensive mental wellness application designed to support users in managing stress, anxiety, mood, sleep, habits, and overall mental wellbeing through AI-powered guidance and habit tracking.

Application Architecture

Frontend: React + TypeScript + Vite

UI Framework: Shadcn/ui components with Tailwind CSS

State Management: React Context API with localStorage persistence

AI Integration: Google Gemini AI for intelligent wellness support

Key Features & Components

1. AI-Powered ChatBot

Trauma-informed mental health companion (PeacePulse)

Bullet-pointed responses with bold text emphasis using asterisks (text)

Automatic habit suggestions based on user conversations

Mood analysis from chat content

Crisis detection with appropriate support resources

Smart deduplication - prevents adding duplicate habits

2. Habit Tracker

Daily habit management with categories (mindfulness, health, reflection, exercise, learning)

Streak tracking with visual progress indicators

GitHub-style streak bar showing 30-day completion history

Color-coded completion grid (green for completed, blue for today)

Current & best streak display with flame icons

Auto-sync with AI suggestions from chat

3. Mood Tracker

5-point mood scale (excellent, good, okay, poor, awful)

Auto-detection from chat conversations

Mood history with timestamps and notes

Visual mood representation

4. Journal System

Daily journal entries with titles and content

Mood association for entries

CRUD operations (create, read, update, delete)

Date-based organization

5. Sleep Tracker

Bedtime & wake-up time logging

Sleep duration calculation

Sleep quality assessment (excellent, good, fair, poor)

Daily sleep patterns tracking

6. Todo Management

Lightweight task system with categories

Automatic habit conversion - todos become trackable habits

AI-generated suggestions based on user needs

User Experience Features

Smart Notifications

Success alerts when AI adds new habits

Info notifications when suggestions already exist

Auto-dismiss after 5 seconds

Color-coded by notification type

Responsive Design

Mobile-first approach with responsive breakpoints

Modern UI components using Shadcn/ui

Gradient backgrounds and smooth animations

Accessibility features with proper contrast and tooltips

Data Persistence

Local storage for all user data

Offline functionality without requiring internet
Data synchronization across app sessions

Technical Implementation

State Management

entries

AI Integration

protocols

Performance Features

Efficient rendering with React hooks

Optimized state updates using useMemo

Background data processing for AI analysis

Lazy loading and code splitting ready

Unique Selling Points

1. Mental Health Focus

Trauma-informed approach

Professional boundaries (not medical advice)

Crisis support with appropriate resources

2. AI-Powered Wellness

Intelligent habit suggestions based on conversations

Personalized support adapting to user needs

Natural language interaction

3. Comprehensive Tracking

All-in-one wellness platform

Visual progress indicators

Streak motivation system

4. User Privacy

Local data storage (no cloud dependencies)

Offline functionality

Personal wellness data stays on device

Target Users

Mental wellness enthusiasts

People managing stress/anxiety

Habit building individuals

Journal writers

Sleep quality improvers

Anyone seeking mental health support

Current Status

✅ Fully functional with all core features

✅ AI integration working with Gemini

✅ Habit deduplication implemented

✅ Streak tracking with visual elements

✅ Responsive design across devices

✅ Data persistence with localStorage

Your PeacePulse Journal is a comprehensive, AI-powered mental wellness platform that combines the best of habit tracking, mood monitoring, journaling, and intelligent support into a single, beautiful application! 🎉