Maham Azam

mENTAL WELLNESS COMPANION

Abstract

The Mental Wellness Companion is a web application designed to help users improve their mental health and well-being. It provides tools for tracking moods, journaling thoughts, practicing meditation, and getting support through a Chatbot.

* **Objectives**

1. **User Dashboard**
   * Shows a summary of recent journal entries and mood trends
   * Provides quick access to all features
   * Displays self-care suggestions and quick actions
2. **Journal** 
   * Allows users to write and save personal thoughts
   * Shows past journal entries with dates
   * Provides simple emotion analysis of entries using NLP
   * Offers AI-powered reflections on journal content
3. **Mood Tracker**

* Lets users record their daily mood on a scale of 1-10
* Shows mood history with emoji indicators
* Creates charts to visualize mood patterns over time
* Provides insights about mood trends

1. **Meditation Tools**
   * Offers breathing exercises (4-7-8 Breathing, Box Breathing, Deep Breathing)
   * Includes a meditation timer with adjustable duration
   * Provides visual guidance for breathing techniques
   * Shows progress during meditation sessions
2. **Wellness Chatbot**

* Offers supportive conversations about mental health using NLP Responds to user messages with helpful suggestions
* Provides crisis resources when needed
* Suggests conversation topics through quick-select buttons

**Technology Used**

* Frontend: HTML, CSS, JavaScript
* Backend: Python with Flask framework
* Database: SQLite for storing user data
* Authentication: Flask-Login for user accounts
* NLP: Natural Language Processing for sentiment analysis and Ruled based chatbot responses
* Charts: Chart.js for data visualization dynamically

**Features:**

The project has a working version with all core features implemented:

* + User registration and login system
  + Dashboard with mood and journal summaries
  + Journal entry creation and viewing with NLP-based sentiment analysis
  + Mood tracking with visualization
  + Meditation tools with breathing exercises
  + NLP-powered chatbot for support

**Future Enhancement**

* + Implementing more advanced NLP for better sentiment analysis
  + Creating data export functionality
  + Adding journal search capabilities
  + Developing custom breathing patterns
  + Implementing reminder features
  + Enhancing the Chatbot with more advanced NLP models