AI Mental Wellbeing Agent Team

A Multi-Agent AI System for Personalized Mental Health Support

Introduction

Mental health issues—like anxiety, depression, burnout, and stress—are growing globally, yet timely and personalized care remains out of reach for many due to long wait times, high costs, social stigma, and limited professionals. There is a need for an intelligent, accessible, and always-available mental health support system that provides early assessment, immediate guidance, and sustainable care. The **AI Mental Wellbeing Agent Team** meets this need using AG2's (AutoGen) multi-agent swarm framework.

Problem Statement

Most people lack tools to assess their mental state or access help before a crisis. Professional support is often delayed or unaffordable. Emotional struggles go unnoticed or untreated, and there's no widely adopted tool offering real-time mental health evaluations, coping strategies, or long-term wellness planning outside clinical settings.

The Need

A solution must enable:

- Early detection of stress and emotional risks
- Immediate, low-barrier support
- Personalized wellness planning
- Affordable and user-friendly access
- Stigma-free, safe interactions

Our Solution

This system uses AG2's `initiate_swarm_chat()` to create a **virtual AI team** that interacts with the user in a coordinated way, offering personalized assessment, recommendations, and follow-ups.

AI Agents:

- **Assessment Agent** 🧠: Evaluates emotional state, symptoms, and life events with empathy.

- **Action Agent** 🎯: Provides real-time strategies (e.g., breathing, self-care, crisis help).
- **Follow-up Agent** 🔄: Creates personalized long-term plans like routines, tracking, and digital support.

User Inputs: Emotional state, sleep patterns, stress levels, recent changes, existing support system, and symptoms.

System Output: Interactive summaries, recommended actions, expandable resources, and long-term strategies.

Key Features

- Multi-agent orchestration using AG2 Swarm
- Customized responses based on real-time user input
- Clean UI using Streamlit
- Integration with OpenAI API
- Emergency guidance included

Impact and Usefulness

The system serves:

- **Individuals** seeking private, instant mental health check-ins
- **Institutions** like colleges or workplaces promoting wellness
- **Researchers** exploring multi-agent AI for social good

While not a clinical tool, it helps users take the *first step* toward understanding and managing their mental health. It lowers access barriers, encourages self-awareness, and offers a safety net before professional care is sought.

Conclusion

The AI Mental Wellbeing Agent Team offers a scalable, AI-driven approach to mental health support. Through intelligent agent collaboration, it delivers actionable insights, early interventions, and long-term planning in a seamless digital experience. In an age where mental health care must be more proactive and inclusive, this project stands as a meaningful contribution to accessible wellbeing solutions.