mentra

BOUNTY CHALLENGE

CHALLENGE OVERVIEW

Challenge Title: AI-Orchestrated Group Therapy Matching & Coordination

Overview: Mentra is a digital mental wellness platform that combines AI-powered support with access to professional therapy to help people manage stress, anxiety, and overall emotional well-being in a flexible and accessible way. Individual therapy is expensive and inaccessible to many, while group therapy offers affordability and peer support it faces critical challenges. Manually matching users with compatible concerns is time-intensive, coordinating schedules across multiple participants is complex, and the administrative burden prevents therapists from focusing on actual care. This challenge focuses on designing an automated, intelligent system that understands therapeutic needs through conversation, matches users with peers facing similar challenges, and handles coordination logistics seamlessly until handoff to a licensed human therapist.

Field / Domain: Digital Mental Wellness, Artificial Intelligence (AI) & Machine Learning, Mental Health Technology, Conversational AI Systems Healthcare Coordination & Automation.

Prizes:

- 1st Place: AED 500 Amazon Gift Card, Certificate, Feature on Mentra, Internship opportunity.

- 2nd Place: AED 300 Amazon Gift Card, Certificate, 1-month mentorship.

- 3rd Place: AED 200 Amazon Gift Card, Certificate.

WHAT YOU ARE REQUIRED TO DO

Participants must design and develop a solution that demonstrates end-to-end AI orchestration across three core phases:

Phase 1: Discovery & Insight Extraction
- Create a conversational chatbot that engages users naturally about their mental health concerns, challenges, and goals.
- Extract meaningful insights from conversations across multiple users.
- Identify patterns, themes, and commonalities for group formation.

Phase 2: Intelligent Group Formation & Coordination
- Automatically categorize users into focus groups based on similar therapeutic needs (e.g., anxiety management, grief support, postpartum depression, workplace stress, relationship issues).
- Autonomously schedule therapy sessions by finding optimal time slots across group members.
- Handle payment collection and confirmation from participants.

Phase 3: Therapist Handoff
- Generate comprehensive briefing materials for licensed therapists, including group profiles, key themes, and individual participant summaries.
- Create structured handoff documentation that enables therapists to begin sessions efficiently.

SOLUTION REQUIREMENTS

What the system should have?

- Functional chatbot interface for user conversations (text-based minimum).

- AI-driven insight extraction and user categorization logic.

- Automated group formation algorithm demonstrating at least 2–3 focus group types.

- Scheduling coordination system (prototype acceptable).

- Payment flow integration (mock or sandbox acceptable).

- Therapist handoff dashboard or document generation.

Technology Requirements

- Preferred Stack: Backend (PHP/Laravel), Frontend (Flutter), AI/ML (Python)

- Alternative tech stacks are welcome - use what you know best

- May use mock/synthetic data for demonstration purposes

- Should demonstrate scalability thinking even if not fully implemented

SOLUTION REQUIREMENTS

Data & Privacy

- Must address data privacy and consent considerations.

- Implement safeguards for sensitive mental health information.

- All projects must be open source under MIT, Apache 2.0, or GPL license.

Use of AI

AI is central to this challenge and is expected to be used for:

- Conversational analysis

- Insight extraction

- User categorization and matching

- Scheduling and coordination automation

PSYCHOLOGICAL IMPACT

Clinical Value & Group Cohesion

- Appropriateness of group categorization for therapeutic contexts to ensure high group cohesion.

- Reducing the "getting to know you" operational friction, allowing therapists to focus immediately on care.

- Responsible handling of sensitive mental health topics to build trust before the first session.

User Experience & Trust

- Natural and empathetic chatbot interaction design that reduces anxiety during the intake process.

- Clear communication of group formation logic to manage user expectations.

- Seamless journey from first interaction to confirmed session, reducing cognitive load for users in distress.

JUDGING CRITERIA

Submissions will be evaluated across the following categories:

- **AI Intelligence & Automation:** Quality of conversational AI, insight extraction, and matching logic.

- **User Experience & Trust:** Natural interaction, transparency, and seamless journey.

- **Clinical Value & Safety:** Appropriateness of categorization and usefulness of therapist handoff materials.

- **Technical Execution:** Architecture, code quality, and scalability.

- **Business Impact:** Potential to reduce therapist administrative burden and scalability.

MODE OF SUBMISSION:

Teams must submit:

- **Working Demo:** Deployed application or video walkthrough (max 8 mins) showing chatbot, matching, scheduling, and handoff.

- **Presentation Deck:** PDF (max 12 slides) covering the AI approach, workflow, privacy, and architecture.

- **Code Repository:** Public GitHub repo with setup instructions and architecture diagram.

- **Demo Dataset:** Sample anonymized conversation data or synthetic data.

- **Therapist Handoff Sample:** Example of generated therapist briefing materials.