LLM IMPLEMENTATION REPORT

Objective

This study explored the use of a free/open-source Large Language Model (LLM) to generate natural language explanations for mental health conditions and provide coping strategies.

Implementation Approach

- **Model Used**: Google FLAN-T5 (Base)
- **Methodology**:
    - Structured prompt engineering for detailed and well-organized responses.
    - Focused on key aspects such as symptoms, causes, effects, coping strategies, and seeking help.
    - Used optimized generation parameters for coherence and depth.

Key Findings

- **Informative and Structured Output**: The LLM produced well-organized explanations covering all relevant aspects of mental health conditions.
- **Detailed Coping Strategies**: Provided actionable self-care techniques, therapy options, and lifestyle recommendations.
- **Balanced Generation**: Fine-tuned parameters ensured logical and relevant responses while minimizing repetition.
- **Limitations**: Some redundancy in generated text; lacks personalized adaptation without further fine-tuning.

Future Directions

- Fine-tuning FLAN-T5 on domain-specific mental health datasets.
- Enhancing personalization through interactive questioning.