

MINDMATE: MULTIMODAL AI-ENHANCED EDUCATIONAL ASSISTANT WITH REALTIME Q&A AND DYNAMIC LEARNING SUPPORT

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The AI-Enhanced Educational Assistant leverages advanced deep learning and natural language processing to create an interactive system capable of answering questions across various media formats, including PDFs, videos, audio files, images, and text documents. By utilizing the Gemini 1.5 Pro model for real-time inference, alongside technologies such as Spacy, T5, BERT, LSTM, and GenAI, the system summarizes key information and provides concise, contextually relevant answers. The tool includes a GPT-3.5 Pro-powered Q&A chatbot, which maintains session history to offer personalized, continuous support throughout the learning journey. The assistant also provides session highlights, suggested resources, and enables dynamic interaction, addressing the need for smarter, multimodal educational tools. Streamlit is used to build a user-friendly interface, allowing seamless interaction with the system. This project aims to enhance the learning experience by integrating multiple media types, offering real-time responses, and providing context-aware support, making education more efficient, personalized, and accessible. Continuous improvements will be made based on user feedback to ensure its relevance and effectiveness.

