1. DEVELOPMENT OF AN AI-ENHANCED LEARNING PLATFORM USING RETRIEVAL-AUGMENTED GENERATION (RAG) FOR INTELLIGENT KNOWLEDGE RETRIEVAL AND STUDENT ASSISTANCE

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Education is rapidly changing with the inclusion of Artificial Intelligence (AI). This project introduces an AI-driven classroom platform that makes use of Retrieval-Augmented Generation (RAG) to provide customized, contextually applicable, and dynamic learning. The platform combines state-of-the-art vector storage, generative AI, and user-friendly interfaces to augment conventional classroom interactions. The main features encompass AI-facilitated tutoring, instantaneous query solving, automatic knowledge evaluation, and smart content creation. Through the use of machine learning, natural language processing (NLP), and adaptive learning methods, this platform seeks to close learning gaps, maximize teaching practices, and develop an interactive, scalable learning environment for students and teachers

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