

Study Mate using AI-ML

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Abstract: *The advent of modern technologies like Machine Learning (ML) and Artificial Intelligence (AI) has paved the way for innovative solutions across various domains, including education. This project presents a comprehensive web application built using the MERN (MongoDB, Express.js, React.js, Node.js) stack. It aims to simplify academic resource sharing and enhance the learning experience for students, particularly engineering students, by integrating AI-powered chatbots and NLP-enhanced semantic search capabilities. The platform enables secure access to study materials, facilitates peer-to-peer collaboration, and supports document exchange and stationery transactions among students. Email API integration is used for real-time notifications to keep users updated with the latest uploads and interactions on the platform. The project focuses on ensuring security through JWT-based authentication and the use of cloud storage for document management. This abstract encapsulates the project's innovative use of MERN stack technologies alongside AI/ML techniques, showcasing a platform that promotes resource-sharing while ensuring a secure and user-friendly experience.*

Keywords: MERN stack, Machine Learning, Artificial Intelligence, document exchange, semantic search, AI chatbot, email API, JWT authentication, cloud storage