

Group 3

Synapse : Where AI Meets Education

The “Synapse” project seeks to revolutionize the educational experience with an innovative AI-powered web platform designed to convert text images—such as pages from textbooks or handwritten notes—into editable and searchable digital content. By leveraging cutting-edge Optical Character Recognition (OCR) and Natural Language Processing (NLP) technologies, this platform aims to significantly enhance the process of note-taking and learning. The integration of these advanced technologies promises to make educational materials more accessible and interactive, providing users with a powerful tool to streamline their study and teaching practices.

One of the core features of this project is its OCR-powered text extraction capability, which allows users to convert various text images into editable digital notes. This feature supports a range of fonts, languages, and even handwritten content, making it highly versatile. In addition to text extraction, the platform includes an AI-powered chatbot that enables users to interact with their notes in a conversational manner. This chatbot can answer questions, generate summaries, and assist with note organization, further enhancing the learning experience. Another significant aspect of this project is its multilingual support. The platform’s translation capabilities are designed to cater to international students and diverse linguistic backgrounds, ensuring that educational content is accessible to users regardless of their primary language. Additionally, features like speech-to-text and text-to-speech functionalities support interactive learning and accessibility, making the platform adaptable to various learning needs.

By addressing the critical need for efficient and accessible educational tools, “Synapse” aims to bridge educational gaps and promote inclusive learning. Its user-friendly, scalable, and secure design makes it a valuable resource for students, educators, and institutions worldwide. The platform is set to foster a more effective and engaging learning environment, leveraging AI technologies to create a more dynamic and inclusive educational experience.

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