

Title : Enrollment of Tuition Center Application

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Abstract

This project aims to address operational challenges faced by tuition centers such as **inefficient manual scheduling, fragmented communication, rigid service processes** and **error-prone payment processes**. EazeTuition achieves optimized academic planning workflows, enhanced communication clarity and improved overall administrative efficiency by introducing **automated and AI-assisted solutions** across subject management, class scheduling, other services, payment processing and chat modules.

To resolve these problems, the system introduced **structured class creation, automated generation of class details, rule-based scheduling** and **AI-driven timetable evaluation**, ensuring balanced learning schedules while minimizing manual scheduling errors. **Class and service management** is enhanced through **flexible creation, bulk import, controlled activation** and **integrated fee processing**. The payment module delivers **transparent fee calculations, multi-channel payment support** and **automated receipt generation** eliminating manual accounting entirely. The chat module significantly boosts center-parent communication efficiency by providing a secure, **centralized messaging channel** with tracking capabilities.

The choice of tools is based on the need for scalability, **fast development** and **compatibility across web and mobile platforms** which are selected using Python (Flask), MySQL, React Native, JavaScript and Stripe. **Python** provided **reliable backend logic** for complex scheduling and financial rules, **MySQL** supported **structured relational data** for academic and payment records and **React Native** enabled a **unified mobile application** for tutors, parents and students.

Development has been selected to use the **incremental model** which enables modules to be **built, tested and optimized in phases**. This is because of the **project team's limited size** and **tight timeline**. This approach was adopted to deliver core functionality early while progressively integrating complex features such as payment processing and AI evaluation. This iterative methodology also ensures continuous feedback, effectively mitigating the risk of system-level failures.

Overall, the system has successfully achieved its goal of providing an automated, intelligent and centralized management platform for tuition centers. The project has also delivered significant innovations through an AI-driven scheduling system, multi-level conflict detection, automated financial processing and secure structured communication. Both the technical decisions and methodological choices were based on sound rationale.