

Self-Study Learning Platform For IELTS Exam

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Abstract. Nowadays, web-based learning platforms have become an essential part of modern education, offering students the flexibility to learn anytime, anywhere, and at their own pace. However, students still face challenges in finding organized materials, tracking progress, preparing for English proficiency exams, and accessing scholarship details in one centralized place. To address these challenges, this project aims to develop a Self-Study Learning Platform for IELTS exam, a web-based application designed for independent English language learning. The system integrates organized learning materials, IELTS preparation resources, AI-powered tools, practice exercises, scholarship information, and progress tracking. By providing instant feedback and personalized support, it helps students effectively identify weaknesses and improve their English proficiency.

Keywords: AI Writing Checker, AI Speaking Assistant, AI Study Assistant, Courses, Practice, Learning Videos, Scholarships.

INTRODUCTION

The Self-Study Learning Program is a flexible and rewarding educational path created to match individual schedules, goals, and learning speeds. This program provides convenient flexibility, allowing students to learn important skills and build practical knowledge around a busy lifestyle. By taking charge of the learning process, students gain deep knowledge in a chosen field while developing good habits like self-discipline, clear thinking, and independent problem-solving. Throughout this self-paced course, students work through organized online modules, use helpful study materials, and complete quick check-in quizzes to track progress and remember key information.

PROBLEM

Traditional professional development often relies on rigid, scheduled training sessions or generalized workshops, leading to several educational challenges. Individual learners must navigate fixed timetables, fixed learning speeds, and irrelevant curriculum segments, increasing the risk of disengagement, knowledge gaps, and wasted time. Balancing professional duties with mandatory, group-paced training is time-consuming, while keeping up with rapidly evolving industry tools, methodologies, and technical skills becomes increasingly difficult without personalized autonomy. Without a self-directed framework, acquiring targeted competence, filling immediate skills gaps, and applying new knowledge to current workplace roles are highly inefficient and may hinder career advancement. Therefore, a comprehensive self-study learning program is needed to individualize the educational process, maximize active retention, and provide a reliable, flexible human resource development solution for continuous professional growth.

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APPROACH

The Self-Study Learning Program (SSLP) is designed with three user roles: Administrator, Free users, and Premium users. Figure 1 illustrates the system flow for the Administrator, who has full access to manage the system. After logging in, the administrator can:

- View the dashboard
- Manage users and roles
- Manage courses
- Manage learning videos
- Manage practice Q&A
- Manage mock test
- Announce scholarship information
- Accept/Reject financial aids
- Manage subscriptions plan
- Activate payments plan
- View feedbacks
- Manage level tests
- Log out of the system

This integrated system enables administrators to efficiently manage functions and features of the educational platform with improved accuracy, security, and productivity.

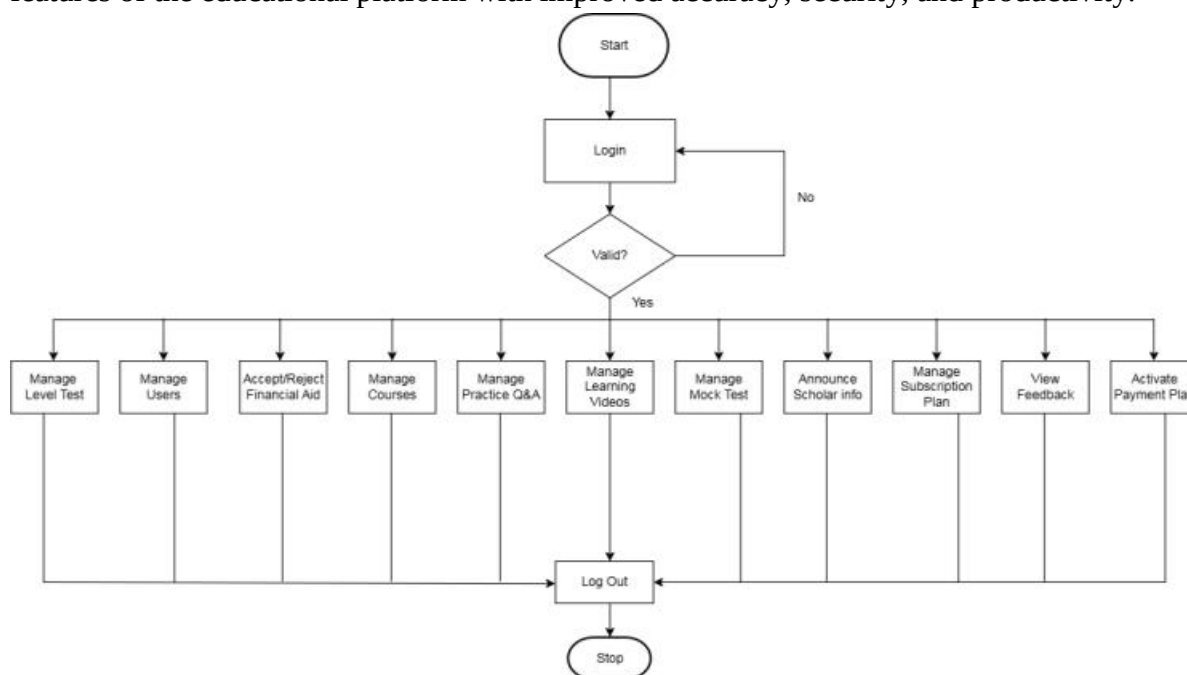


Figure 1. System Flow Diagram for Admin

Figure 2 illustrates the system flow for the users, free users who can access limited features and premium users, who have full access to get to the system(unlimited). The users can:

- Register
- Login
- View AI writing checker

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- View AI speaking assistant
- View AI study assistant
- View courses
- Make practices
- View learning videos
- Send feedback
- Take mock tests
- Upgrade to premium
- View scholarships
- Take free level test
- Log Out

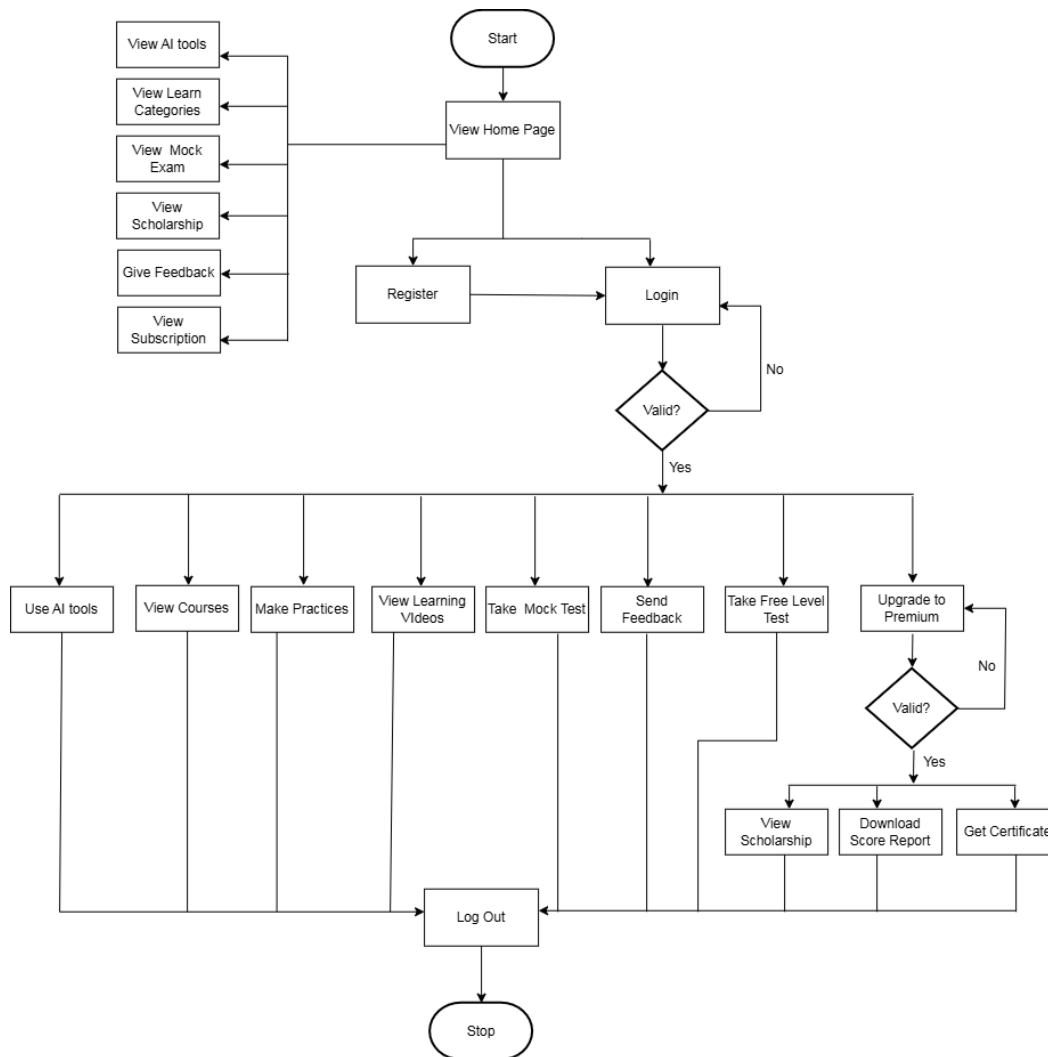


Figure 2. System Flow Diagram for User

Self-Study Learning Program uses HTML, CSS, JavaScript, and Tailwind CSS as the front-end technologies and PHP, Laravel framework with MySQL relational database as the back-end for data processing and storage. In this chapter, the System Flow Diagram, Use Case Diagram, Data Dictionary, and Entity Relationship Diagram (ERD) of the system are included

to present the overall workflow, system functionalities, database structure, and relationships between the entities involved in the Self-Study Learning Program.

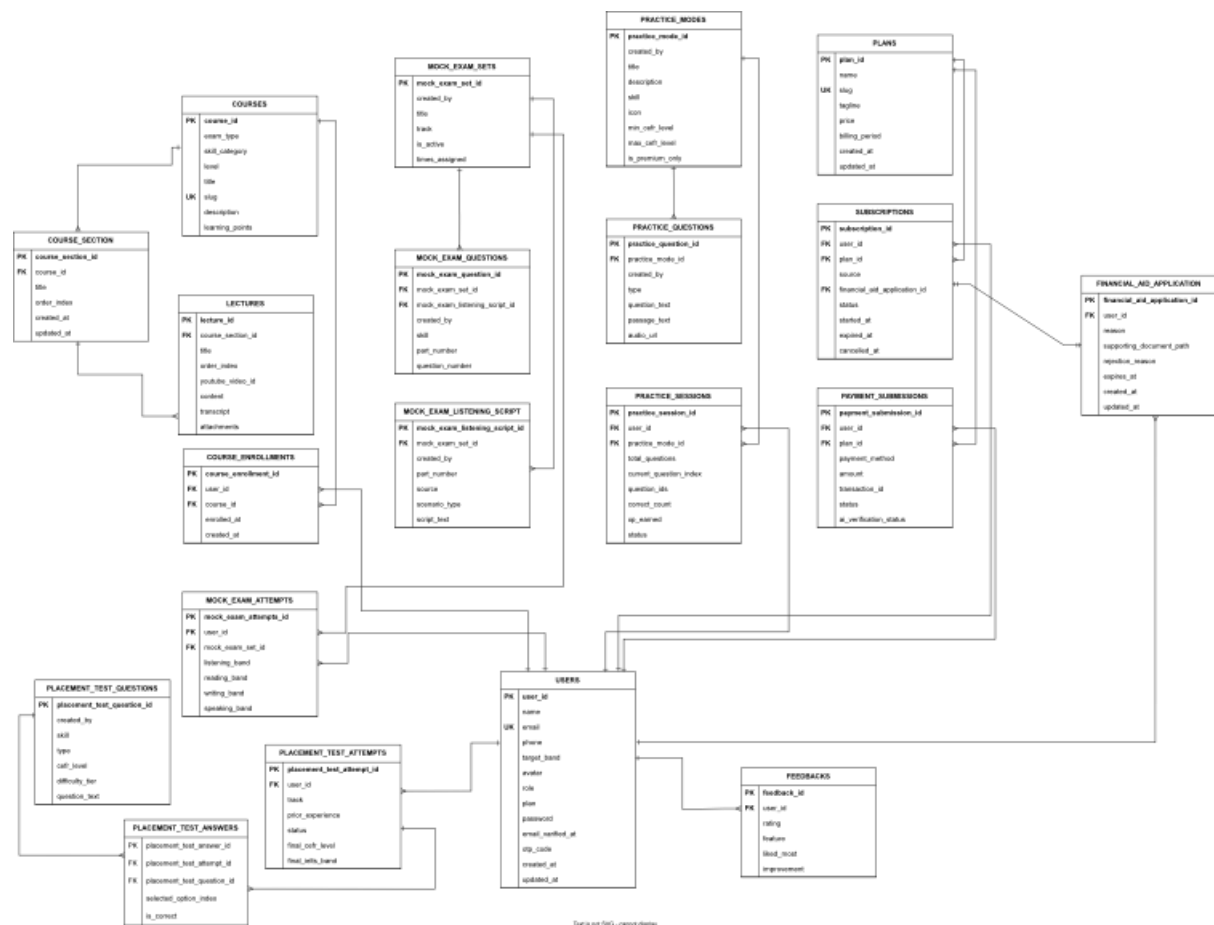


Figure 3. Database Architecture

Figure 3 presents the Entity Relationship Diagram (ERD) of the Self-Study Learning Program (SSLP), illustrating the database structure and relationships among the system entities. The ERD is designed using primary and foreign keys to maintain data integrity and support efficient data management. The database consists of the following main tables:

- Users - stores user account and information
- Courses- manages courses information
- Courses_Enrollments- manages courses_enrollments by students
- Course_Sections - manages courses sections
- Feedbacks - stores feedbacks from users
- Financial_aid_application - records financial-aid applications from students
- Lectures - manages lectures
- Mock_exam_sets - manages sets of mock exams and configurations
- Mock_exam_attempts - stores how many attempts by students
- Mock_exam_questions - manages questions for mock exam
- Mock_exam_listening_script - stores listening script data for mock exams
- Placement_test_questions - manages questions used for user level placement

- Placement_test_answers - records answers for placement test questions
- Placement_test_attempts - tracks student scores and attempts for placement tests
- Practice_modes - manages different practice test rules and categories
- Practice_questions - manages questions for practice
- Practice_sessions - stores tracking state of active practice sessions
- Plans - stores pricing tier details and subscription rules
- Subscriptions - tracks user active sub memberships and links
- Payment_submissions - records user transaction amounts and verification states

These tables are interconnected through well-defined relationships to support students management, attendance, scholarship management, subscriptions, and payments. The database design provides a secure, organized, and centralized data structure for efficient learning management operations.

RESULTS

The Self-Study Learning Program (SSLP) centralizes AI tools and learning functions within a program. Authorized users can securely log in to the system based on their assigned roles (Administrator, Free users, and premium users) to perform their respective functions. The system enables efficient management of student's records, courses, lectures, learning videos, mock exam, payment, scholarships, feedbacks, and subscriptions.

The system is developed using Laravel, Tailwind CSS and MySQL providing a secure, reliable, and user-friendly web application. Its responsive interface allows users to access the system from different devices while ensuring accurate data management and efficient learning functions. Overall, the system improves productivity, minimizes human errors, and provides centralized information to support effective self-study learning platform.

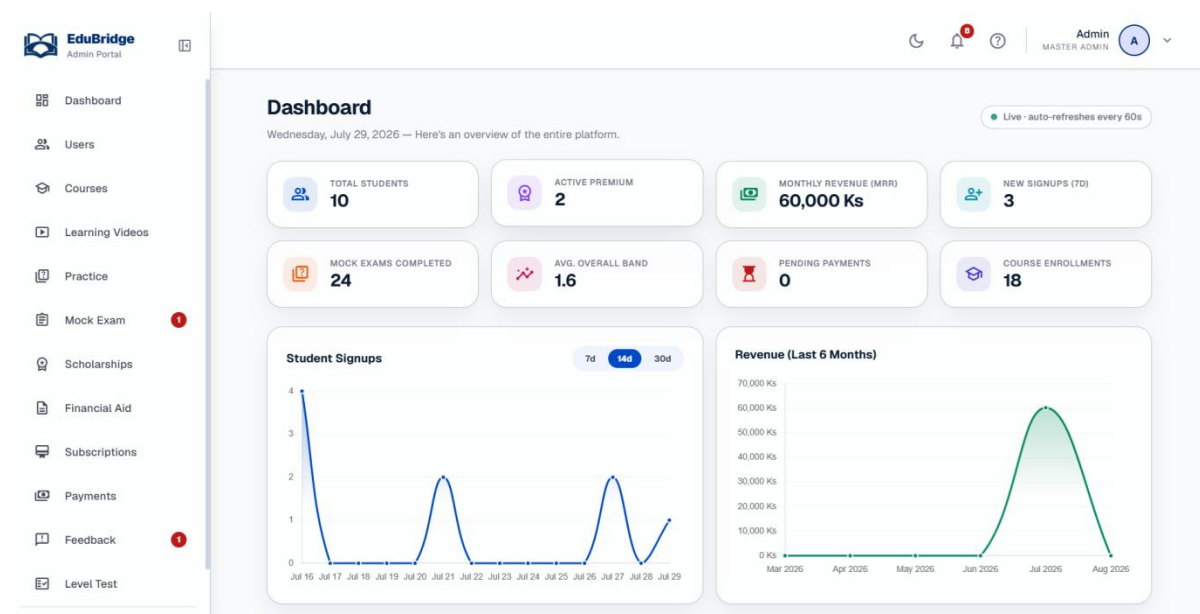


Figure 4. Dashboard interface for monitoring student performance and academic outcomes.

In the future, the Self-Study Learning Program can be enhanced into a more advanced and user-friendly platform. It can include mobile application support so users can access the system easily from smartphones anytime and anywhere. Additional features such as online payment integration, multi-language support, and automated notification systems (SMS or email alerts) can also be added. Furthermore, advanced technologies like AI-based product recommendations and real-time study tracking can be implemented to improve user experience. With these improvements, the Smart Self-Study Portal system can become a fully digital and efficient educational marketplace in the future.

CONCLUSION

The Self-Study Learning Program successfully provides a comprehensive platform for students preparing for English proficiency exams such as IELTS. By integrating AI-powered features, including the AI Writing Checker, AI Speaking Assistant, and AI Study Assistant, the system delivers personalized learning experiences while reducing the need for manual guidance. It offers structured courses, practice exercises, mock examinations, and scholarship opportunities within a secure environment for Administrators, Free Users, and Premium Users. With automated feedback, progress tracking, and interactive learning resources, EduBridge, the platform, enhances learning efficiency, accessibility, and student engagement. Overall, the project demonstrates how AI-driven educational technology can support independent learning, improve language proficiency, and make high-quality exam preparation more accessible and effective.

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