

PROJECT PROPOSAL

EDUCATIONAL PRESENTATION PLATFORM



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Introduction

Unlocking the Power of Technology in Education

Education plays a vital role in student life, and technology is advancing daily, traditional teaching methods often struggle to keep pace with the evolving needs of students and the increasing integration of technology into our daily lives. This proposal outlines the development of an application designed to enhance the teaching and learning experience by incorporating technology into the classroom, creating a more engaging and effective environment.

In today's fast-paced world, where innovation is crucial, traditional teaching methods, while foundational, sometimes fail to meet the dynamic needs of modern students. This project aims to streamline the teaching process, equipping students with the skills and knowledge they need to thrive in the digital age.

Problem Statement

Developing a comprehensive solution to streamline the organization and presentation of educational content, ensuring it is collaborative, up-to-date, and easily accessible, thereby improving the overall teaching and learning experience.

Summary

The proposal aims to develop a user-friendly application for managing live teaching sessions and quizzes, supporting both classroom-based and online teaching. The platform will streamline structured teaching by allowing teachers to associate lesson plans with live sessions, with each lesson plan having its own set of presentation slides. This ensures that the slideshow for a lecture is ready to be presented during the teaching session. Teachers will be able to schedule sessions in advance, and at the scheduled time, they can initiate the live broadcast of

the slideshow. During the session, the teacher can control which slide is visible to the online audience by moving forward, backward, or selecting a specific slide. Students attending the session via the website will see the selected slide in real time.

For assessment, teachers will associate pre-defined quizzes with lesson plans. Students with access to the session will also gain access to the quizzes, which will be available within a specific deadline set by the teacher.

This project focuses on building a management system for live teaching sessions and quizzes, while taking input from other subsystems that manage presentation material. The broader system includes features for the collaborative creation and organization of teaching materials by multiple teachers, structured into lessons. These lessons will include a variety of media formats (text, image, audio, video) and will be presented in customizable lesson plans, ensuring that course content is effectively delivered. Teachers will also be able to apply format templates for cohesive slide presentations, aligning them with the subject's hierarchy.

The ultimate goal is to create a comprehensive platform for managing teaching materials and lesson presentations in educational institutions, enhancing both the learning and teaching experience.

Proposal Purpose

The purpose of this proposal is to create a comprehensive system for managing teaching materials and lesson presentations in educational institutions. As technology evolves, the demand for efficient organization and delivery of educational content increases. This project aims to streamline the creation, storage, access, and presentation of teaching materials and lesson plans. Objective 1 is for the sake of elaboration and better understanding of the overall picture of the project. Objective 2 is concerned with briefly describing the aim of this proposal.

The main objectives are to:

1. Teaching Material Management and Lesson Presentation Management:

- **Easy-to-Use Tool:** Provide teachers, especially those teaching online, with a user-friendly tool for creating teaching materials and presentation slides.
- **Organized Storage:** Facilitate the organization of teaching materials in a common place for easy selection and presentation.
- **Web-Based Slideshow:** Introduce a web-based slideshow feature controlled by the teacher and viewable by students on the course website.
- **Slide Templates:** Offer slide format templates to simplify and expedite slide preparation. The lesson plan will automatically be transformed into presentable as per the presentation template selected by the teacher.

2. Live Session Management and Quiz Plan Management:

- **Lesson Plan Association:** Teachers can link lesson plans to specific teaching sessions, ensuring structured and consistent material coverage.
- **Web-Based Teaching Sessions:** Teachers initiate web-based teaching sessions where students can view the slides presented in real-time, enhancing interactivity.
- **Slide Navigation:** Teachers can navigate through slides easily, providing a seamless teaching experience. Live slide updates ensure students always see the current information as the teacher progresses through the presentation.
- **Student Interaction:** Students can view the current slide presented by the teacher, allowing for synchronized learning experiences.
- **Quiz Association:** Teachers can associate quizzes with lesson plans, reinforcing the material covered.

Problems/Needs

1. Collaboration and Content Management:

- a. Support contributions from multiple teachers to build comprehensive teaching materials.
- b. Organize materials by subject, topic, learning unit, lesson, and teachable components (text, images, audio, video).

2. Efficient Material Search and Formatting:

- a. Reduce the time teachers spend searching for materials and formatting presentations.
- b. Allow teachers to import, extract, or copy data into the system easily and automatically format it under relevant topics, lessons, and teachable.

3. Course and Lesson Management:

- a. Enable teachers to create and manage courses with multiple lesson plans.
- b. Allow selection and arrangement of presentable for lessons and application of format templates.

4. Live Session Integration:

- a. Allow teachers to associate lesson plans with scheduled teaching sessions and conduct web-based sessions.
- b. Support live slide navigation with forward and backward buttons and ensure students see the same slide the teacher is presenting.
- c. Configure sessions for registered students only.

5. Quiz Management:

- a. Enable association of quiz plans with lesson plans for student assessment.

- b. Create a database to manage quiz details such as lesson association, start and end times, and eligible students.
- c. Display quizzes to those who attended the session.

Goals and Objectives

This educational technology application aims to address the identified needs and problems by setting the following specific and measurable goals:

- Goal 1: Organize teachable in a structured database
 - Objective 1.1: A teachable item will be assigned its place in a hierarchy of subject, topic, learning unit, and lesson.
 - Objective 1.2: Provide feature for CRUD (Create, Read, Update, Delete) the detailed data regarding the teachable. This includes link to the user, that must be a teacher, who created the teachable.
 - Objective 1.3: Provide feature to CRUD presentable items like textual descriptions, images, audios, and videos that should be presented to teach the teachable item.
- Goal 2: Provide formatting templates usable by teachers for their presentations
 - Objective 2.1: Create a structured database for storing the data for formats, for example, template name, background, headings (at different levels), slide arrangement (location of text, images etc.) , etc.
 - Objective 2.1: Provide an interface for teachers to search, see samples, and select a template.

- Goal 3: Provide feature to construct a presentation for a lesson
 - Objective 3.1: Allow teacher to organize a presentation under a hierarchy of Course, Subject, Lesson plan.
 - Objective 3.2: Allow teachers to select and update teachable from the database mentioned in Goal 1 for each lesson plan.
 - Objective 3.3: Allow teachers to apply format to the presentation by selecting from the database described in Goal 2

- Goal 4: Enhance Student Engagement and Learning Outcomes
 - Objective 4.1: Monitor student participation on live sessions using their login data and click on link to join the session.
 - Objective 4.2: Bundle the tools of teaching and comprehension assignment to get immediate feedback of retained/learned knowledge.

- Goal 5: Automate the process of associating a set of presentations slides to a teaching session.
 - Objective 5.1: Provide a feature to pre-plan the date and time for a teaching session for a particular group of students.
 - Objective 5.2: Select the set of slides that is to be broadcasted during the planned teaching session.

- Goal 6: Run a web-based slide show
 - Objective 6.1: Provide features to the teacher to select the slide to be presented during the teaching session.
 - Objective 6.2: Enable the registered students to view the selected slide via web-browser.

- Goal 7: Associate a set of quiz questions to the teaching session
 - Objective 7.1: Enable the teacher to provide date and time for start and end of quiz.
 - Objective 7.2: Enable the teacher to link a predefined set of quiz questions to the teaching session.
 - Objective 7.3: Automate the assignment of quiz to the attendees of the teaching session.

Procedures and Scope of Work

Procedure

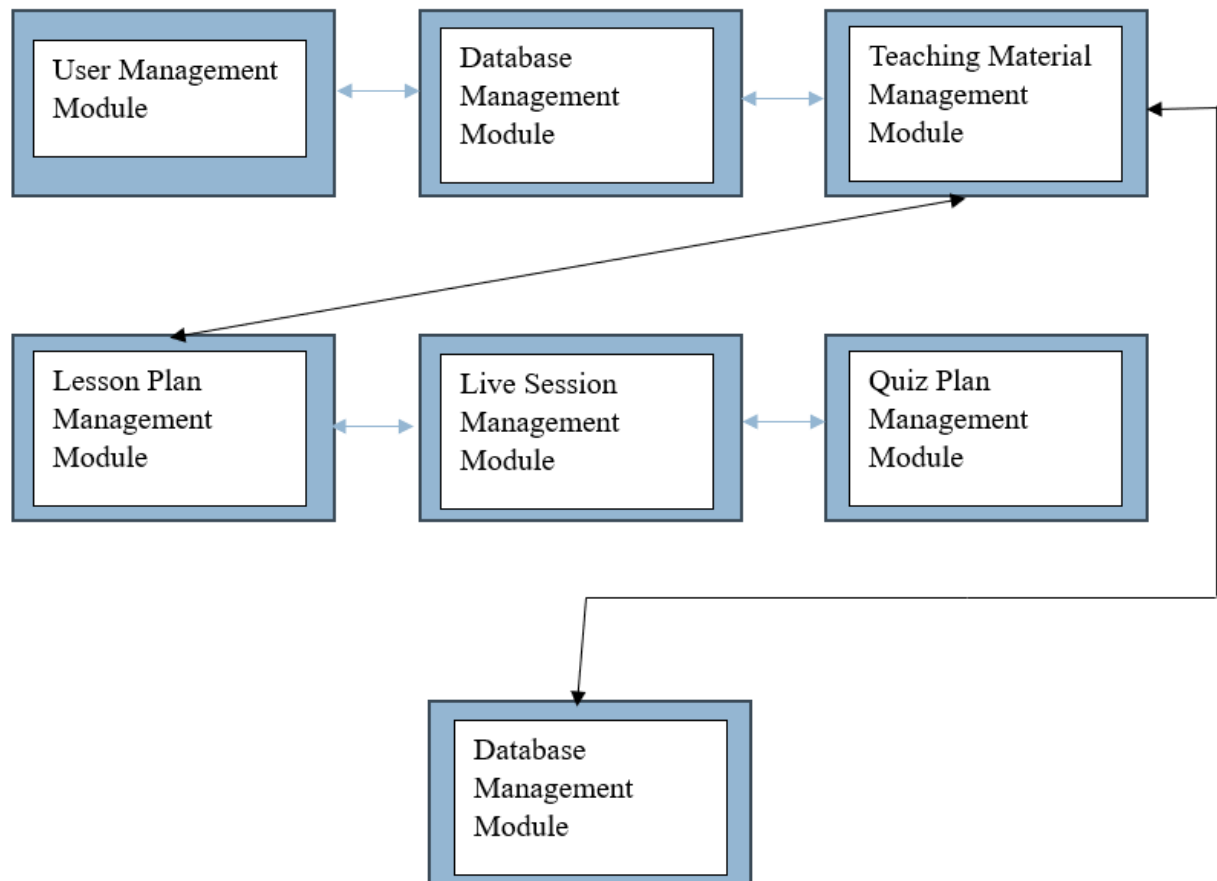


Figure 1. System Overview

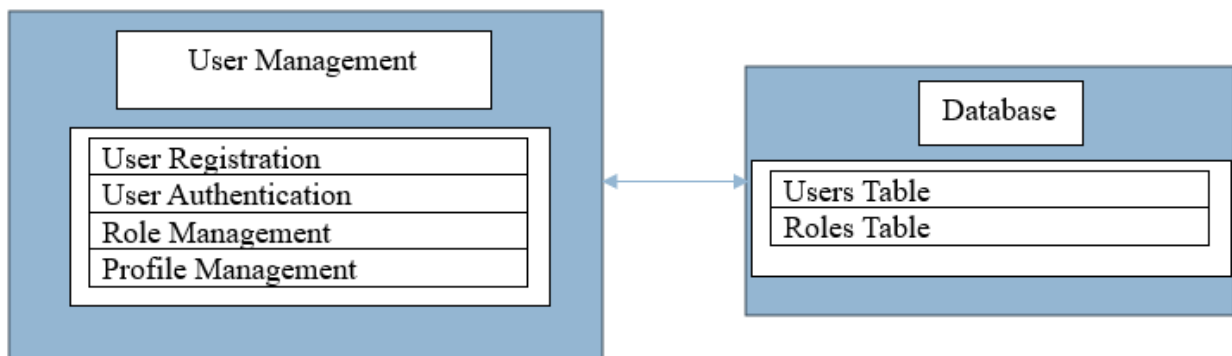
Modules

The modules and functions of the framework were decided to be as follows after a thorough review. The modules that are involved are:

Module 1: User Management Module

This module is responsible for handling all user-related tasks within the platform. Here's what it might handle:

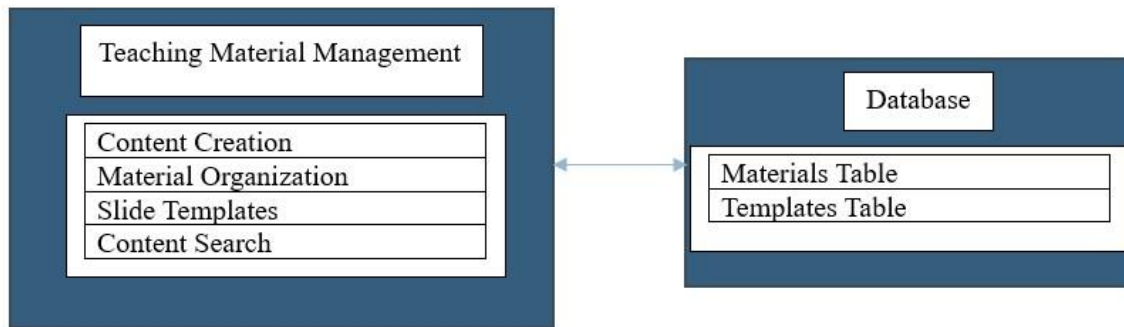
- User registration (teachers and students)
- Login and authentication
- User profile management (including roles and permissions)
- Potentially user search and filtering based on criteria



Module 2: Teacher Material Management Module

This module focuses on organizing and managing teaching materials effectively. It could include features like:

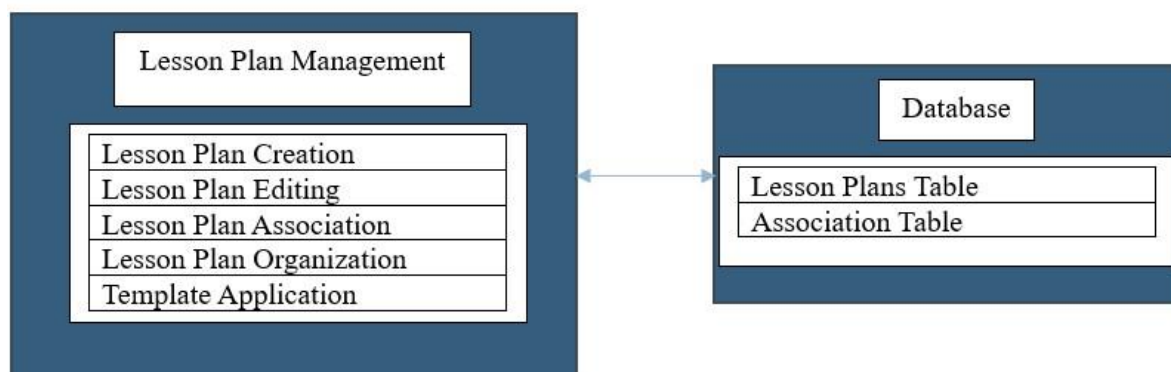
- Enables collaborative creation of diverse teaching materials in multiple formats (text, images, audio, video).
- Structured organization from subjects to teachable.
- Customizable templates for consistent and engaging lesson presentations.
- Efficient search across hierarchical levels with filter options for quick access to relevant materials.



Module 3: Lesson Plan Management

This module deals with creating, managing, and delivering quizzes to students. Potential functionalities include:

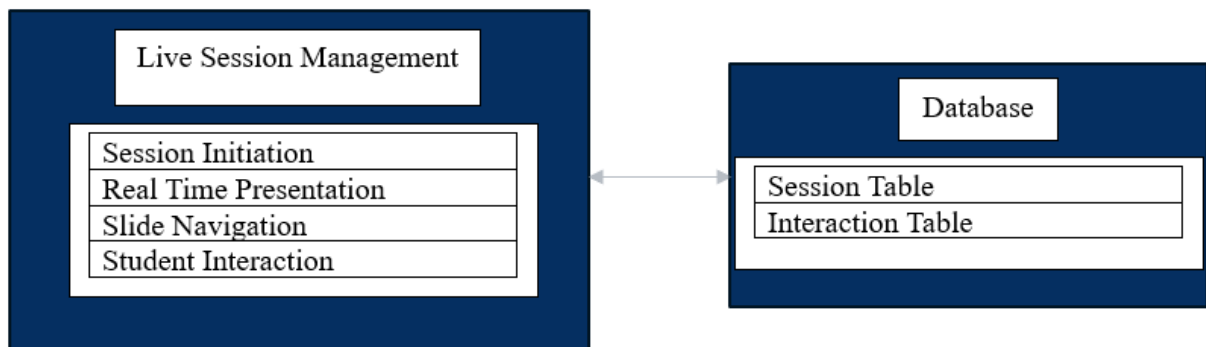
- Creating different types of quizzes (multiple choice, true/false, essay)
- Building question banks with categorization and difficulty levels
- Configuring quiz settings (time limits, scoring methods)
- Assigning quizzes to specific students or classes
- Automated quiz delivery and grading



Module 4: Live Session Management Module

This module focuses on structured lesson management. It could include features like:

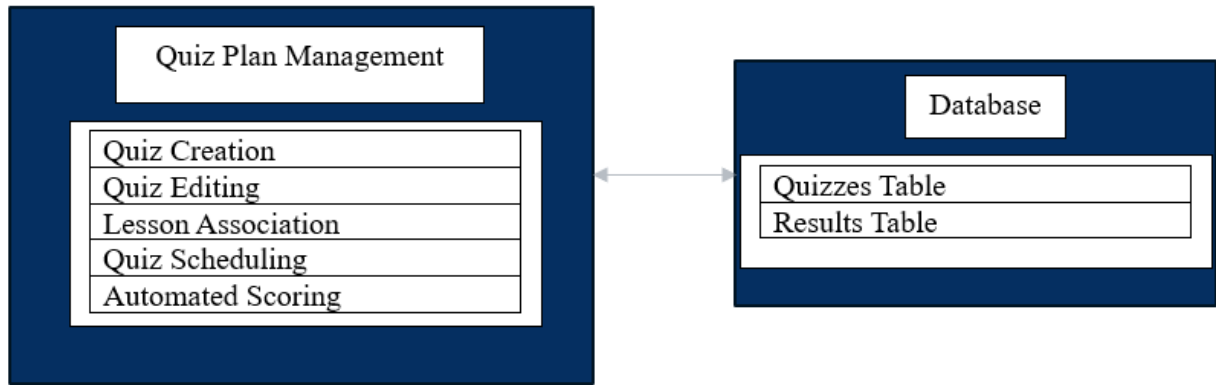
- Allows teachers to create detailed lesson plans with various teachable.
- Enables teachers to modify and update existing lesson plans as needed.
- Organizes lesson plans hierarchically, facilitating easy access and management.
- Allows teachers to apply format templates to lesson plans for consistent presentation.
- While consistency in presentation is beneficial, this feature might be prioritized lower compared to core lesson planning functionalities.



Module 5: Quiz Plan Management

This module deals with creating, managing, and delivering quizzes to students. Potential functionalities include:

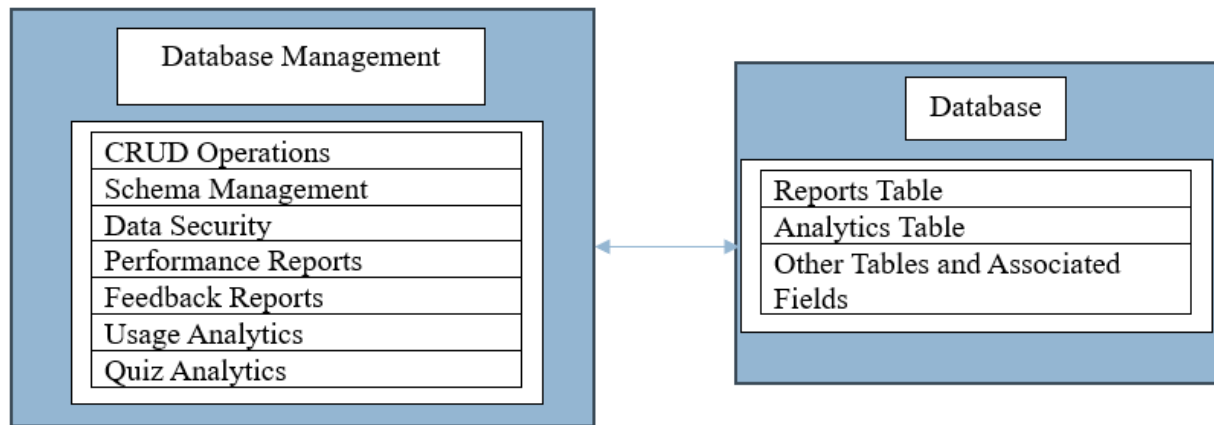
- Creating different types of quizzes (multiple choice, true/false, essay)
- Building question banks with categorization and difficulty levels
- Configuring quiz settings (time limits, scoring methods)
- Assigning quizzes to specific students or classes
- Automated quiz delivery and grading



Module 6: Database Management Module

This module acts as the platform's central storage for all educational data and also focuses on providing insights into platform usage and student performance. It should offer features like:

- Designing and managing the database structure (as mentioned earlier)
- CRUD operations for various data types (courses, lessons, quiz results)
- Ensuring data security and integrity
- Potentially functionalities for data backup and recovery
- Generating reports on student activity (course progress, quiz scores)
- Visualizing student performance data (charts, graphs)
- Identifying areas where students might need additional support
- Providing teachers with tools to track overall class performance



This project aims to create a convenient educational platform for teachers and students. The system will focus on core functionalities that address their primary needs.

Teachers will be able to effectively manage course material, lesson plans, online sessions, and quizzes - all within a centralized system. This streamlines their workflow and ensures students have easy access to all learning resources in one place.

To achieve this, we'll develop a robust database that utilizes CRUD operations (Create, Read, Update, Delete). This will allow teachers to:

- Create tables and fields to organize subjects, topics, lessons, and quizzes.
- Perform CRUD operations on topics within each subject, giving them complete control over their course content.

This database structure will be the foundation for housing and managing all the educational resources within the platform.

Timeline

Provide detailed information on the expected timeline for the project. Break the project into phases and provide a schedule for each phase.

Description of Work		Start and End Dates
Phase One	Requirement Analysis/Documentation	
Phase Two	Visual Representation (UML Diagrams)	
Phase Three	Implementation	

You should also use a Gantt chart for more detailed project timetable:

ACTIVITY	IMPLEMENTATION TIME		
1. Design and implement training program for project management	Month 1	Month 2	Month 3
	XXXXXXXX		
1.1. Conduct needs assessment		XXXXXXX	
1.2. Design training modules			XXXXXXX
1.3. Conduct training			XXXXXXX
2. Improve procedure for project management	XXXXXXXX	XXXXXXX	XXXXXXX
2.1. Conduct management audit of current procedures		XXXXXXX	

Conclusion

The proposal addresses a bigger project of two sub systems. The main project is “Educational Presentation Platform” and its division in two modules i.e. “Teaching material and Lesson Plan Management” and “Live Session and Quiz Plan Management” This application has the potential to bridge the gap between traditional methods and the evolving needs of modern education. By incorporating live session management and quiz plan management, the platform will enhance the teaching and learning experience, ensuring a more interactive and engaging environment for both teachers and students.

Client Letter



LearnApp.Online

Eulerstraße 50, 40477 Düsseldorf, Germany. Email: admin@learnapp.online Tel: +49 211 16387839

Date: 18.09.2024

Ref: CL/IIUI/24-03

To,
The Head,
Department of Computer Science,
International Islamic University,
Islamabad.

Subject: **Research oriented project to be developed as FYP**

Dear Sir/Madam,

LearnApp.Online is a platform for research and development of experimental educational systems. It is my pleasure to assign the project of web based educational presentations system under the title "Educational Presentation Platform" to the following students of your department:

- 1- Iqra Shaheen
- 2- Sabeen Zahra
- 3- Noor Ul Ain Hameed

The project proposals for the two modules of the system have been written by the students with my consultation.

Kind regards

Dr. Muhammad Zaheer Aziz
Head of Research and Development