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# A Web-Based Approach to Teacher Performance Tracking and Feedback

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**A B S T R A C T :**

The Intelligent Teacher Records and Rating Portal is a web-based application developed to enhance the efficiency of managing teacher profiles and evaluating their performance. Unlike traditional record systems, it offers a centralized and secure solution that is easily accessible to educational administrators and other stakeholders. The platform includes features such as profile creation, performance monitoring, a rating and review module, and analytical tools to support informed administrative decisions. By promoting transparency and accountability, the system fosters improved teacher management practices and aligns with current educational policy standards. This paper presents the system's structure, development process, and effectiveness, complemented by a review of related research and practical findings.

**Keywords**: MongoDB, Node.js, Pre-Owned Electronics, Smart Marketplace, Second-Hand Trading, Sustainability, Web-Based Platform

## 1. Introduction

Efficient teacher record management plays a vital role in strengthening educational governance. Traditional approaches, which rely heavily on paper-based systems, often suffer from issues such as data inaccuracy, difficulty in updating records, and the risk of physical damage or loss. With the rise of digital technologies, institutions are now shifting toward more reliable and accessible systems that automate administrative workflows. The Intelligent Teacher Records and Rating Portal emerges as a forward-thinking solution to these persistent challenges. Designed as an all-in-one digital platform, the portal enables institutions to maintain detailed teacher profiles, implement real-time updates, and incorporate a feedback mechanism that empowers stakeholders to participate in performance reviews [1,2,5]. Through its web-enabled framework, the system promotes transparency, streamlines operations, and facilitates evidence-based decisions to drive educational quality and accountability.

## 2.Review of Literature

Numerous studies have addressed the evolution from manual to automated systems for managing teacher records, highlighting both the challenges and opportunities of digital transformation in education. Xiao-Yan (2006) pointed out the limitations of traditional record management within university settings, advocating for centralized digital systems to streamline operations and improve accessibility [1]. Marcial (2019) emphasized the necessity of intuitive and accessible interfaces in mobile-based record systems, particularly from a teacher's perspective [2]. In a related effort, Marcial et al. (2018) implemented an Android-based solution, showcasing the practicality of mobile platforms in managing instructional records [3]. Liu (2025) introduced a scalable, Python-powered system designed to manage academic workloads, illustrating the potential for integration with existing administrative infrastructure [4].

Clemence et al. (2023) explored how digital record systems enhance data protection and retrieval processes in higher education [5]. Balderas et al. (2018) examined how learning management systems can be leveraged for evaluating student performance, underlining the significance of activity logs in academic analytics [6]. Further, Odeniyi and Adeyanju (2020) conducted an assessment of digital record management practices in secondary schools, identifying ease of access and data reliability as essential components [7]. Montalban (2023) proposed a faculty decision support tool that uses data analytics to optimize institutional planning and resource distribution [8]. Together, these studies reinforce the demand for integrated, reliable, and user-oriented record management solutions—principles that have been core to the development of the Intelligent Teacher Records and Rating Portal.

## 3. Methodology

The Intelligent Teacher Records and Rating Portal (ITRRP) is structured using a modular, web-based architecture that emphasizes scalability, data protection, and user accessibility. It includes several key components:

**User Interface**: Built using HTML, CSS, and JavaScript, the front end features a responsive layout that ensures smooth navigation across various devices. Users can browse teacher profiles, provide feedback, and explore data visualizations through this interface.

**Server-Side Functionality**: Powered by PHP, the backend is responsible for managing core operations such as authentication, data validation, and processing user input, including teacher evaluations. It ensures timely updates and secure handling of information.

**Database Management**: A MySQL database supports the system by organizing and storing essential data such as personal information, academic credentials, performance ratings, and activity logs.

**Security Mechanisms**: The platform includes features like user verification, role-specific access, and data encryption to safeguard private information. Backup protocols and regular audits maintain system reliability.

**Reporting and Analytics**: This component equips administrators with insights into performance patterns, usage metrics, and evaluation summaries, helping in resource planning and policy formulation.

The system as shown in Fig. 1 is capable of integrating with institutional tools such as HR and payroll software, allowing for seamless workflow automation. Designed for growth, the architecture can accommodate a rising number of users and data entries, making it suitable for institutions of varying sizes.
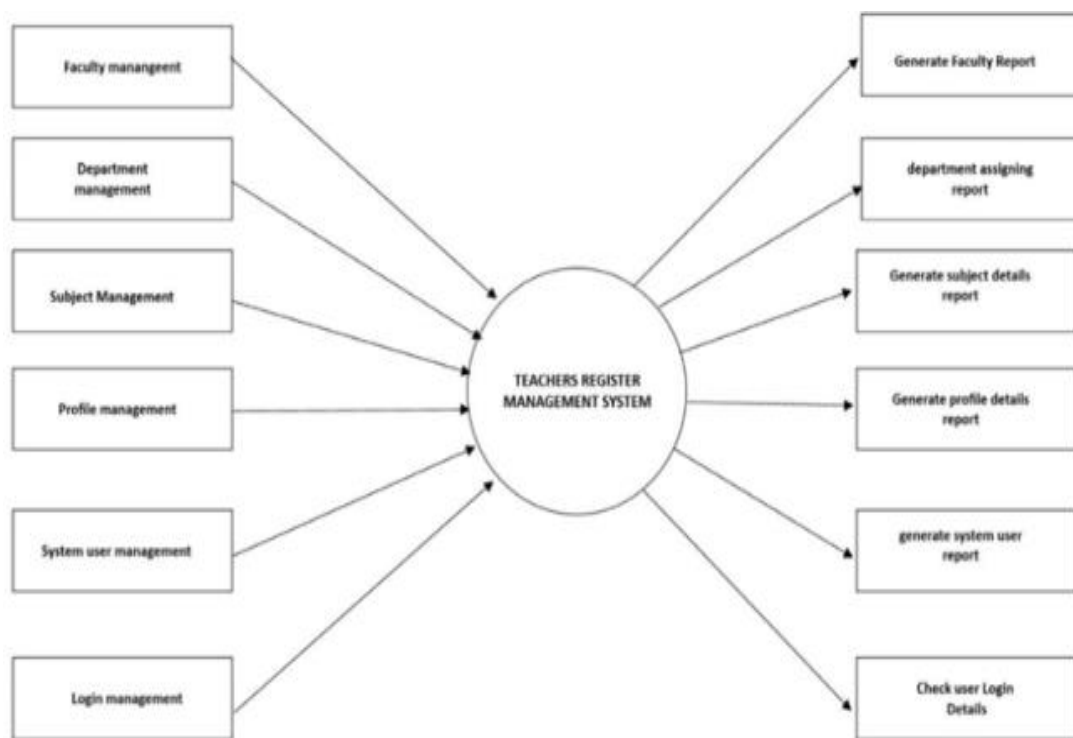


**Fig. 1 System Architecture for the Proposed System**

## Result and Discussion

The developed system's interface and functionalities are demonstrated through a series of representative figures. Figure 2 presents the teacher login interface, which serves as the secure access point for registered users. Once logged in, teachers are directed to a dashboard where a list of available teachers is displayed, as illustrated in Figure 3.
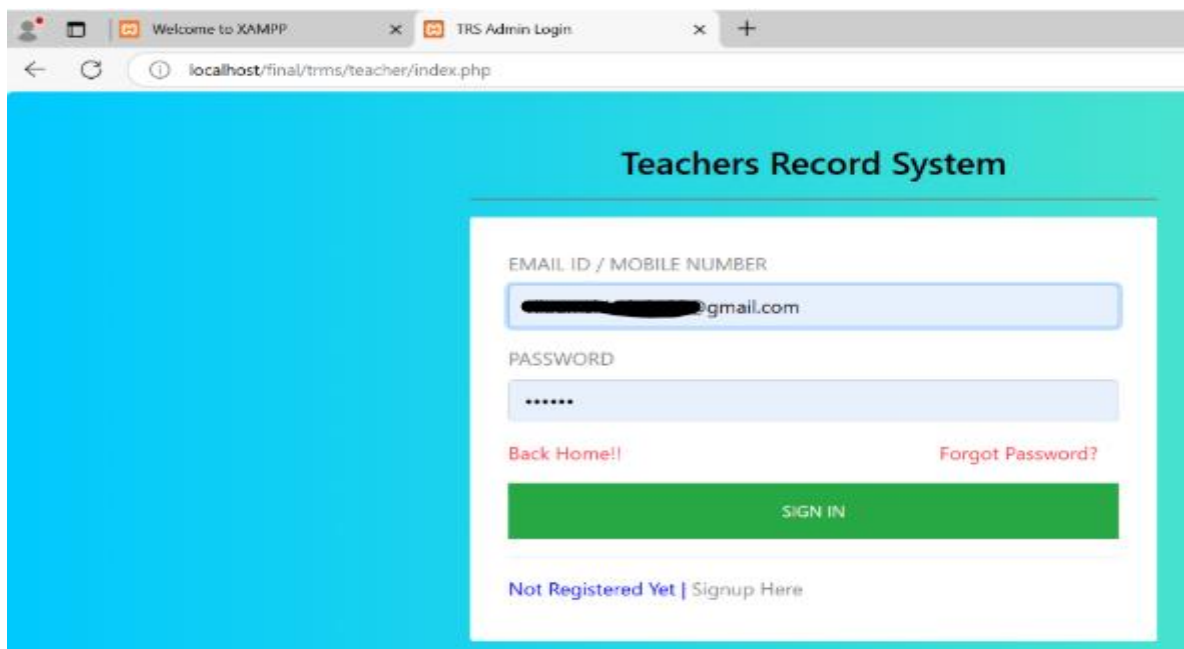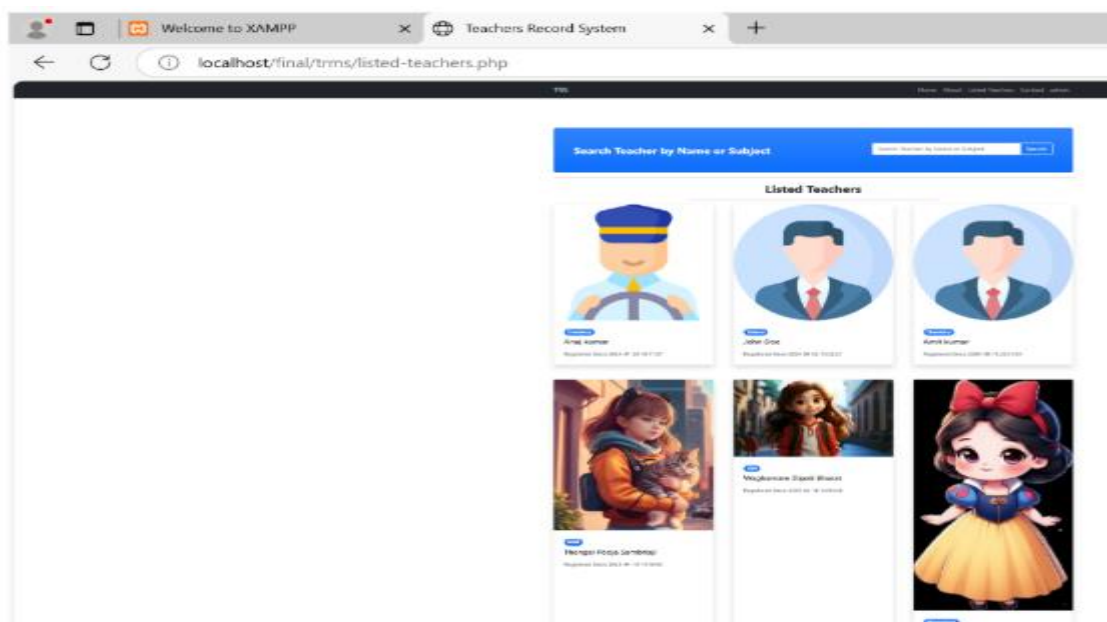


**Fig. 2 Teacher's login Page**



**Fig. 3 Listed Teachers**

Selecting a teacher from the list provides detailed information about their qualifications, experience, and other relevant attributes, as shown in Figure 4. Furthermore, the system allows administrators or authorized users to update performance records or feedback, with Figure 5 highlighting the update functionality used for managing report entries. These results reflect the system's usability, ease of navigation, and its capability to support real-time data management in an educational context.

**Fig. 4 Details of the Teacher**



**Fig. 5 Update the reports**

## 5. Conclusion

The Intelligent Teacher Records and Rating Portal introduces a modern solution for managing educational staff information and evaluations. By consolidating teacher data and integrating a user-based feedback mechanism, the system overcomes many of the challenges associated with conventional record systems. With its structured design, emphasis on security, and built-in data analysis tools, the portal offers a flexible and effective platform for schools and academic institutions. Initial testing highlights its ability to simplify administrative tasks, enhance staff accountability, and aid in strategic planning through informed insights. Potential future developments include mobile compatibility and the incorporation of AI-based analytics to further refine teacher evaluation processes. As a whole, this portal represents a forward-thinking approach to educational management that meets the changing demands of institutions and their communities.

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