

**Assignment**

Course Code: CSE414

Course Title: Web Engineering

Assignment Topic: School Management System

**Submitted to**

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**School Management System**

**Abstract**

The School Management System is an online platform(Web/App) created to make the administrative, academic, and communication process in the educational institutions automated and optimized. This system will cater to different stakeholders such as administrators, teachers, students and parents through a central interface student records, attendance, timetables, examinations, grading and communication. The data will be collected among school administrators, faculty, students, and parents via interviews to make sure that the platform meets their needs. Recommendations and necessary actions that will result out of the gathered insights will lead to a substantive Software Requirements Specification (SRS) report to be formulated, which will entail the establishment of functional & non-functional requirements. Among the unique characteristics will be the role-based access, as well as parent-teacher communication, fee management, and role tracking of the school academic progress, real-time notifications, and the digital report card. The focus will be on security, data integrity, ease of using and the ability to scale it to fit the different size schools. The system is meant to minimize manual work, increase the efficiency of the administration and create a more welcoming and efficient educational ecosystem by automating the basic processes and setting the information flow to a new higher standard. The SRS results will be the blueprint of the construction of a solution that is well rounded and flexible in its school management.

**Introduction**

**1. Introduction**

* Overview of the project:

The School Management System (SMS) is a highly extensive web/app-based software that automates and improves efficiency of the school operations, as well as communication. It targets centralizing the academic and administrative functions into a single digital platform. The system will offer modules of attendance, time-table, grading, fees, staff records, library details, transportation, communication and reporting. The system will be imagined keeping flexibility and scalability in mind, so that it will be able to support the needs of educational institutions of sizes as small and local schools to as large as government schools.

* Purpose and significance

This project will aim at reducing conventional paper usage and introduce digital forms of school administration by designing an all-inclusive, easy to use, and effective platform. In so doing, the system intends to:

* Reduce the overlap in data entry and possible manual errors.
* Increase the communication between parents, schools and students.
* Easy access to non-academic details like transport and hostel.
* Make academic records and performance indicators available in real-time.
* Automatize the process of charge, generating reporting, and scheduling of events.
* Intended users and stakeholders

The School Management System supports a broader audience consisting of diverse users and stakeholders without references to particular needs and functions:

**School Administrators:** Will monitor general system processes, control users, set configuration, and also produce institutional reports.

**Teachers and Staff:** Administer class registers, attendance, grades, assignments and communicating with students and parents.

**Students:** Get access to personal academic records, schedules, assignments and announcements.

**Parents/Guardians:** Keep track of their child in the academic performance, attendance and interact with school personnel.

2. Data Collection Process (Emphasized Section)

* Methods used (Surveys, Interviews, Observations, Online Forms, etc.)
* Target audience (Who you collected data from and why)
* Key findings (Summarized insights from users)

3. System Requirements

* Functional Requirements (How collected data shaped the features)
* Non-Functional Requirements (Performance, usability, security considerations based on user needs)

4. Use Case Analysis

* Real-world scenarios based on collected data
* Flow diagrams to show user interactions

5. Data Utilization in Design

* How the collected data influenced UI/UX decisions
* Database structure (if applicable)
* System architecture considerations

6. Challenges & Limitations

* Any difficulties in collecting data
* Potential biases and their impact

7. Conclusion & Future Considerations

* Summary of findings
* How this data-driven approach benefits the project

**Development Site**

**Appendix**