



(REVIEW ARTICLE)



Educational Resource Management System (ERMS)

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International Journal of Science and Research Archive, 2023, 08(02), 026–029

Publication history: Received on 14 December 2022; revised on 22 February 2023; accepted on 25 February 2023

Article DOI: <https://doi.org/10.30574/ijrsra.2023.8.2.0336>

Abstract

The ERMS aims to curate a management system for universities that provides us with a web application that eases the academic activities for students and faculty. Learning is fun when accessing the resource is easy. A user-friendly UI. The project environment and usage are completely secure at both ends. This is a system for the collection, integration, processing, maintenance, and dissemination of data and information to support decision-making, policy analysis, and formulation, planning, monitoring, and management at all levels of an education system.

There are 3 main Users namely

- Faculty - Who upload class materials, update marks and attendance.
- Students - Who use this for accessing study materials, checkmarks, attendance.
- Admin/Management - Who keeps up with the changes like marks and attendance.

Keywords: Education Management; Educational Resources; Educational Resource Management; Educational Resource Management System

1. Introduction

1.1. Purpose

This document's goal is to give a thorough explanation of the educational resource management system. It will describe the functions and features of the system, its interfaces, what the system will perform, the limitations that must be met for it to function, and how the system will respond to outside stimuli. This document will be submitted to the Administrative head for approval and is meant for both the customer and the system's developers.

1.2. Project Perspective

1.2.1. Overview of the Project

The ERMS seeks to provide a management system for colleges and universities that gives us access to a web application that makes academic activities easier for professors and students. When a material is simple to obtain, learning is enjoyable. a UI that is easy to utilize. The project's usage and environment are both 100 percent secure. In order to support decision-making, policy analysis and formulation, planning, monitoring, and management at all levels of an educational system, this system collects, integrates, processes, maintains, and disseminates data and information.

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There are 3 major users: Faculty (uploads materials for classes, updates attendance and marks), Students (accesses materials for classes, marks attendance), and Admin/Management (keeps track of changes to things like attendance and marks).

1.2.2. Disadvantages of an Offline Process

- Accessibility issues
- There is always a cost associated with maintaining physical records.
- In the event that records are lost
- The need for storage space
- Specific timing is necessary.

1.3. Identification of Project Scope

- Since everything is online, data loss issues are nonexistent.
- Student information is readily available, and online searches are simple.
- An easy-to-use interface
- Data storage is not an issue

Work included

- Risk management is followed by a feasibility study.
- System for Database Management
- A system for managing logins and passwords
- Data security and encryption
- Quick and simple access

1.4. Objectives

Retrieval of data

- To make it easier to preserve records and access them
- To enable data retrieval from anywhere

User friendly

- Using a methodical approach when viewing and manipulating data
- To enable anyone to utilise and comprehend the platform

Quick Updating

- To update the programme in accordance with the needs
- Updating is possible at any moment.

Avoid loss of data

- To enable 24/7 access to the platform's online database, which will house all the data.

1.5. Existing System

In the current system, everything is done by hand. Admission forms must be completed on paper, and all records are kept in paper files. It is really challenging to find any information in this system. Additionally, keeping college fees and accounting records up to date is exceedingly challenging.

The prior system was inefficient, ineffective, and had issues with redundancy and consistency. It was also expensive, difficult to maintain, required more people, and could not manage big records.

1.6. Proposed System

The system in this project is suggested after studying the problems with the current system. By switching to a computerised system of the present era, the difficulties that existed in the old management system are resolved in this

system. The data is kept in the database at the system's backend. The GUI, or graphical user interface, is created. Obtain the user's data in a specific way, and then put it in the database. Crystal reports are used to create reports from the stored data. The proposed system should be more effective since it stores data that is consistent and redundant-free.

By requiring user identification, this system protects data, and in this project, user rights are outlined. In this system, the administrator is the primary user and has complete access to all modules within the proposed system. The other user, who is a college employee and may also be a teacher within the college, has limited access to the system and is responsible for managing the attendance and grades of the students. This software allows for the generation of a variety of reports, including pay stubs for employees, fee reports for students who have paid fees, student information, attendance records, etc.

2. Results

Although demanding, managing college is possible when powerful software like ERMS is used. The Educational Resource Management System (ERMS) developed here outperforms many university management systems in outstanding ways. ERMS was created specifically to make resource handling more dependable and simple. If you are a member of the institution, you can access this software at any time, from any location. Overall, the school management system has a significant positive impact on the lives of administrators, parents, teachers, and students. Better productivity is a result of effective management, which leads to greater development. Having observed its requirements and advantages, we have developed the best-featured school management software. It aids the school in achieving its goals, reducing workload, boosting productivity, eradicating error, and tracking advancement.

3. Discussion

In essence, this development produced the intended results. Users with varying levels of access control check in to this system using their user name and password and carry out various functional operations. This system is mostly used to manage the everyday activities of middle school students. The management of teachers' information, students' information, course information, and student performance management, as well as the accompanying operations of add, delete, change, check, statistics, and so forth, were accomplished by this system based on the designated student files. Finally, after the test, this system met all of the design criteria for the various functions, as well as the anticipated design objective. The system's features not only increased office management efficiency but also reduced administrative expenses and transitioned from manual document management to office automation. However, the system's functionality can be further enhanced by the addition of specific features, such as the ability to add user feedback to documentation, which would enhance its humanistic, thorough, and rational documentation management. Future school management will be easier than ever thanks to the improved school ERP. Schools won't have to fight with mountains of paper documents any more because they will be able to save all of the institution's information in a digital format, making access and management a breeze. It will be simpler to do tasks like data syncing, report production, and report sharing in this paperless environment. The school's ERP will also make sure that digital data can be tracked and retrieved with a single click.

4. Conclusion

As it is clearly showcased, this system makes management of a school's resources easy and makes them available to everyone in the school based on who they are, and what level of authorization they have. This all is username managed which is then overseen by a administrator who makes sure the correct level of access is given to the correct people.

Compliance with ethical standards

Acknowledgments

We would like to acknowledge our college Sreenidhi Institute of Science and Technology, our Head of Department for CSE, Dr. Aruna Varnasi, and our guide, Mrs. Bejjam Vasundara Devi, on guiding us through this project and making it a success.

Disclosure of conflict of interest

We (Nithvika Reddy, N.S.Manogna and Shaga Shivani) have contributed and created the project and the paper equally. It is a team effort and not the work of a single person.

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