Mini Project Report on

Student Result Management System

Submitted in partial fulfillment of the requirement for the award of the degree of

BACHELOR OF TECHNOLOGY

IN

COMPUTER SCIENCE & ENGINEERING

Submitted by:

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CANDIDATE'S DECLARATION

I hereby certify that the work which is being presented in the project report entitled **" Student Result Management System"** in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Computer Science and Engineering of the Graphic Era (Deemed to be University), Dehradun shall be carried out by the under the mentorship of **Ms. Tanusha Mittal, Assistant Professor**, Department of Computer Science and Engineering, Graphic Era (Deemed to be University), Dehradun.

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Chapter 1

Introduction

The Student Result Management System (SRMS) is a comprehensive software solution designed to efficiently manage and organize student results within an educational institution.

Introduction 1.1

It automates the result generation process, reduces manual errors, and provides administrators, teachers, and students with a streamlined platform to access and analyze academic performance data.Student Result Management System that can efficiently manage and store student records and their corresponding results.

The system should be able to handle a large number of students and provide a user-friendly interface for administrators and students to access and manage the data.The student accessing their results through the college site is more convenient and the faculty can easily analyze the pass and failure of a particular subject.

The system is divided into three modules- Student, Faculty and Administrator. The student using his roll number can view his results and the faculty using the joining year and the subject name and view the analysis of pass and failure count in the selected subject . The administrator uploads the results file to the database by converting the file to sql format(.sql) from the PDF format(.pdf).

The admin is provided with the privileges to modify the student results by updating the results during the changes in supplementary or revaluation examination. The update of any current score is to be done by the administrator.

The main objective of this system is to provide the student with a convenient and simpler way to check their results and for evaluating the total aggregate and the percentage for the semester results available.

The scope of this project is addressed to solve the issues of long waiting and calculation of grades and percentages in different semesters. Providing the results in institutional websites provides an easier access to the results to the student. The graphs for overall performance in every subject makes the analysis task simpler.

Tools and Technology Used:

The programming languages and tools that have been used to implement the model are:

Visual Studio Code: It is a streamlined code editor with various forms of support for debugging, task running and version controlling.

- ***Front End:***

HTML: Hypertext Markup Language (HTML) is the standard markup language for creating web pages and web applications. With Cascading Style Sheets (CSS) and JavaScript, it forms a triad of cornerstone technologies for the World Wide Web. [4] Web browsers receive HTML documents from a web server or from local storage and render them into multimedia web pages.

CSS : Cascading Style Sheets (CSS) is a style sheet language used for describing the presentation of a document written in a markup language. Although most often used to set the visual style of web pages and user interfaces written in HTML and XHTML, the language can be applied to any XML document, including plain XML, SVG and XUL, and is applicable to rendering in speech, or on other media.

JavaScript: JavaScript often abbreviated as JS, is a high level, interpreted programming language. It is a language which is also characterized as dynamic, weakly typed, prototype-based and multi paradigm. Alongside HTML and CSS, JavaScript is one of the three core technologies of World Wide Web content engineering. It is used to make dynamic web pages interactive and provide online programs, including video games.

- ***Backend:***

PHP: PHP is a server side scripting language that is embedded in HTML. It is used to manage dynamic content, databases, session tracking and even build entire ecommerce sites.PHP performs system functions, i.e. from files on a system it can create, open, read, write, and close them.

MySQL: MySQL is an open source relational database management system (RDBMS) based on Structured Query Language (SQL). MySQL is a popular choice of database for use in web applications.

Chapter 2

Literature Survey

Technologies such as HTML, CSS, JavaScript, PHP, and SQL. It is a paperless "Student result management system" proposed by Hemn and Wu Fei (2014) in China that provides students with result information. According to him, the student result Management system can be used to create, read and update the details of a student and also generate reports about his/her skills. These systems save time of retrieval and prevent data loss. This research is focused on creating an automated students result management system using oracle's database, forms and reports. This is a computerized examination results management system for tertiary student's examination records.

In India, Geeta, and Totad created a web-based "Student Result Management System" that could send emails to students to confirm their mailbox when they registered. They accomplished this by utilizing a task that aids in automating current manual procedures and may be remotely monitored and managed on a server-based network, according to its definition.

"A Provisional study of Student Result Management Systems" by Patel and Shah (2019): This study provides a comparative analysis of various SRMSs available in the

market. It evaluates their features, usability, scalability, and security. The research identifies key factors to consider when selecting an SRMS, helping educational institutions make informed decisions based on their specific requirements.

According to Walia and Gill the goals of developing a web-based framework for results processing are to reduce the time required to access students' records and to create a more secure platform. This has shown to be a more successful method of university management over time.

“Web based student result management system” was proposed by Mohammad Gulam Lorgat.This research aims at creating a web-based student result management system that reduces time, effort and improves security. The research results in the development of a multi-user system, based on web technology with architectural pattern and developed using Java programming language with Apache Tomcat Server and MySQL Database Management System support.

Chapter 3

Methodology :

The thrust of this paper is the development of the Student Result Management System(SRMS) tailored to organize and manage students' results and transcript in the various departments in the University.

The tools that are used for developing Student Result Management System are:-

HTML: It is used to provide an interface to the user.

CSS: It is used to enhance the website styling and makes it attractive.

JavaScript: It is used to make the web page dynamic.

PHP:It is used to establish connections to databases.

MySQL:To add, access, and process data stored in a computer database.

There are two modules in Student Result Management System:

- Student
- Admin

The system can be developed using web technologies HTML, CSS, PhP and using the database MySQL.

The front end can consist of user registration with the respective university registered number and the password by the user. The student can view his results in the tabular format with the respective aggregate and percentage of that semester.

The data based on the roll number of the student all the data can be retrieved back to the table and displayed as results. The PHP can also be used for visualization of data.

We use fusion charts for dynamic visualization Primarily the data can be collected from the college administration. This data includes the university registered number of every student currently collected and is then classified and tabulated in a useful and understandable manner.

HTML is used for structuring the web page and its content. It is used to develop different pages like user registration, login page and the page for providing results. CSS is used for styling the web page.

PHP is used for connecting to the database and performing operations on it through queries.

In the Student Result management system the backend process can consist of server side operations, database interactions establishing database connection, user authentication, data retrieval, result generation, data validation, security checking.

Chapter 4

Result and Discussion

The result and conclusion of a student result management system can vary depending on the specific implementation and objectives of the system. However, here are some common outcomes and conclusions that can be drawn from using such a system:

Efficient Result Processing: A student result management system streamlines the process of result generation, calculation, and dissemination. It reduces the manual effort required by automating various tasks, such as data entry, calculation of grades, and generation of reports. As a result, the system helps in saving time and reducing errors in result processing.

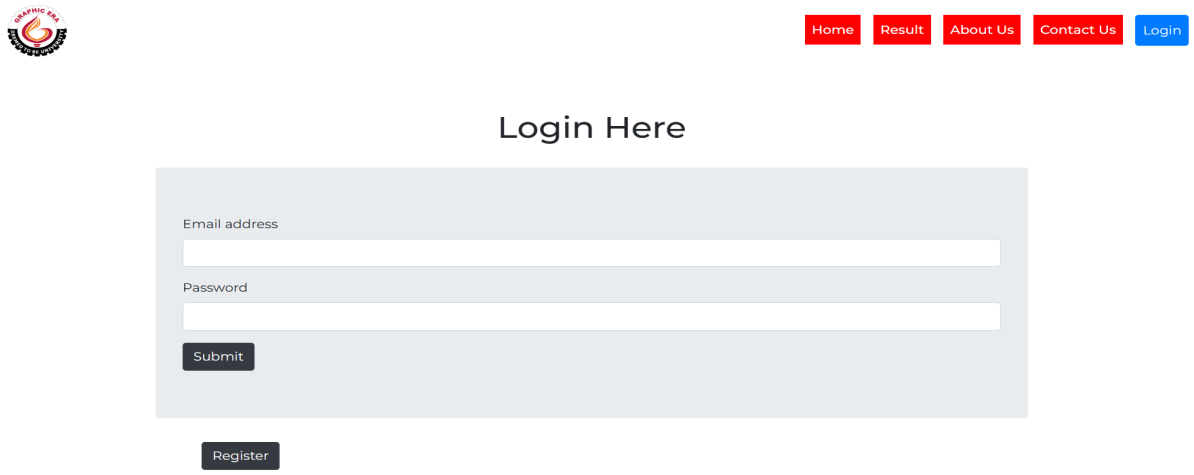
Improved Data Accuracy: With a student result management system, data entry is typically done electronically, minimizing the chances of human error and data inconsistencies. The system enforces validation checks and ensures that the entered data is accurate and consistent. This leads to reliable and error-free results.

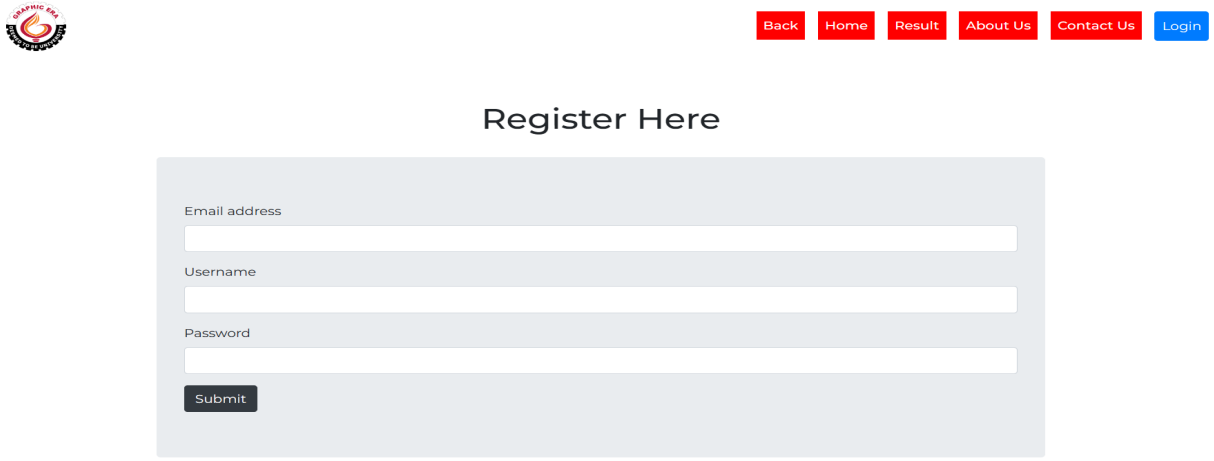
Timely Result Publication: By automating result generation and processing, the system enables faster turnaround times for result publication. Students, parents, and educators can access the results online or through designated portals, eliminating the need for manual distribution. This allows for prompt feedback and enables timely interventions or discussions based on the results.

Enhanced Transparency: A student result management system promotes transparency in the evaluation process. It provides stakeholders, such as students, parents, and teachers, with a comprehensive view of the grading criteria, assessment methods, and individual student performance. This transparency fosters trust in the evaluation process and enables effective communication regarding student progress.

Data-Driven Insights: The student result management system collects and stores data on student performance over time. By analyzing this data, educators and administrators can gain insights into trends, patterns, and areas of improvement. They can identify strengths and weaknesses at an individual student or class level, enabling targeted interventions and personalized learning approaches.

Efficient Report Generation: The system allows for customized report generation, including report cards, progress reports, and transcripts. These reports can be easily generated and printed or shared digitally, saving time and effort for teachers and administrators. Additionally, the system can provide historical data, enabling the tracking of student progress across multiple academic periods.





Chapter 5

Conclusion and Future Work

The Student Result Management System is an internet-based programme. It's feasible that it'll be published as desktop software. This service will be extremely beneficial to students when they need to obtain results and course information after their teacher has posted them. Faculty members may also find it useful to post students' grades to the dashboard. They are unable to communicate, but they will soon be able to do so. It has its own database "rms.db" which is produced using SQLite, therefore it doesn't require any additional software.

Future Work:

- Advanced Data Analytics: Enhance the data analytics capabilities of the system to provide more in-depth insights into student performance. Implement predictive analytics models to identify early warning signs of academic struggles and provide proactive

interventions. Utilize data visualization techniques to present data in a more user-friendly and actionable format.

- Integration with Learning Management Systems (LMS): Integrate the result management system with existing LMS platforms to establish a seamless flow of data between the two systems. This integration would allow for a comprehensive view of student performance, combining assessment results with learning activities and materials. It enables educators to better understand the relationship between teaching practices and student outcomes.

- Personalized Learning Recommendations: Leverage the data collected by the result management system to generate personalized learning recommendations for individual students. Utilize machine learning algorithms and educational data mining techniques to identify specific areas of improvement and suggest targeted resources or learning activities.

- Parent and Student Portals: Develop dedicated portals for parents and students to access and track academic progress. These portals can provide real-time updates on grades, attendance, and assessment results. Additionally, include features such as goal setting, progress tracking, and communication tools to foster stronger collaboration between parents, students, and teachers.

- Integration with External Systems: Establish connections with external systems, such as university admission portals or job recruitment platforms, to streamline the sharing of student result data. This integration would simplify the process of submitting academic records and qualifications for higher education or employment purposes.

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