

PRODUCT CENTRIC AGILE DEVELOPMENT

**STUDENT RESULT MANAGEMENT
SYSTEM**

Abinaya S

111721107002

CSD

INTRODUCTION:

This Student Result Management System is a good solution for institutions looking for a secure and efficient way to manage exam results. The system's unique templates and secure database provide administrators with a way to store, evaluate and publish test scores and grades online. Moreover, students also have access to this information online, which makes the process easier and more transparent. It also ensures that the students receive their test results in a fundamental and accurate way. Additionally, the system's flexibility allows administrators to modify and assess marks for the students.

Project purpose:

The Student Result management system is a web based application tool designed to automate the administration of the semester results by tracking students' grades. The system is intended to replace the manual work and optimize the result preparation process, providing an easy to understand explanation of exams for both administration and students.

Project scope:

The scope of the Student Result Management Software project is to design and develop a software application that facilitates the management of exam results for educational institutions such as schools, colleges, universities, and coaching centers.

Glossary and references

Glossary:

- Student Result Management Software - A software application that facilitates the management of exam results for educational institutions by

providing features such as result evaluation, result publishing, student access, result analysis, user management, customization, security, privacy, scalability, and integration.

- Result Evaluation - The process of inputting and assessing the exam scores and grades of students by administrators.
- Result Publishing - The action of making exam results available to students and other stakeholders. This can be done through result sheets or online platforms.
- Student Access - The ability for students to view their exam results online, providing transparency and convenience.
- Result Analysis - The examination of exam results to generate reports and insights for performance assessment and decision-making.
- User Management - The management of user accounts and access levels within the Student Result Management Software. This includes creating and managing accounts for teachers, students, and other staff members.
- Customization - The ability to tailor the Student Result Management Software to suit the specific needs and requirements of educational institutions. This can involve customizing grading schemes, result templates, and system settings.
- Security and Privacy - The focus on protecting data and maintaining privacy within the Student Result Management Software. This includes measures such as user authentication, data encryption, and regular backups.
- Scalability - The ability of the Student Result Management Software to handle a large volume of data and accommodate future growth and changes.
- Integration - The process of connecting the Student Result Management Software with other systems used by the educational institution, such as

student information systems (SIS) or learning management systems (LMS), to streamline data management and enhance functionality.

References:

- <https://github.com/>
- <https://stackoverflow.com/>
- <https://bootstrapmade.com/>
- <https://themewagon.com/theme-categories/admin-dashboard/>
- <https://www.google.com/>
- <https://www.quora.com/>

Overall description :

The Student Result Management Software is a comprehensive, all-in-one solution designed to streamline the process of managing exam results for educational institutions such as schools, colleges, universities, and coaching centers. It is developed using [insert programming language] and offers a range of features to ensure efficient and organized result management. With this software, administrators can easily evaluate and input exam scores and grades for students. The system provides a user-friendly interface where administrators can update and track the progress of result evaluation. It also allows for customization of grading schemes, ensuring flexibility to accommodate various evaluation methods. Once the result evaluation is complete, the software enables administrators to publish the exam results. Results can be published in different formats, including generating result sheets or making them accessible to students online. This enhances transparency and allows students to conveniently access their exam results from anywhere. The software also incorporates result analysis capabilities, providing administrators with valuable insights. Reports and analytics can be generated to assess the performance of students, classes, or specific subjects. This data can aid in decision-making, identifying areas for improvement, and monitoring trends over time. To ensure data security and privacy, the software implements robust measures. User authentication, data encryption, and regular backups safeguard sensitive information. Additionally, the software is designed to be scalable, accommodating large volumes of data and adapting to the evolving needs of educational institutions. Integration with existing systems is a key aspect of the software. It can be seamlessly integrated with student information systems (SIS) or learning management systems (LMS), allowing for efficient data synchronization and improved workflow. The Student

Result Management Software aims to streamline the result management process, save time, and enhance productivity for both administrators and students. Its comprehensive features, flexibility, security, and integration capabilities make it a valuable asset for educational institutions seeking a modern and efficient solution for result management.

User needs

Assumption and dependency

- All necessary hardware and software infrastructure, including servers, databases, and network connections, are in place and functional.
- The educational institution has an established grading system that can be integrated into the Student Result Management Software.
- The educational institution has defined and documented result evaluation processes and procedures.
- The necessary user accounts and access levels will be provided by the educational institution.
- The Student Result Management Software will be implemented and used by trained administrators and staff members.
- Students have access to internet-connected devices to view their results online.
- The educational institution will provide the necessary

Features and requirements

Features:

- User authentication: Provide secure login functionality for administrators, teachers, and students.
- Result evaluation: Allow administrators to input exam scores and grades for students.
- Result publishing: Enable administrators to publish exam results in various formats, such as PDF or online portals.
- Student access: Provide students with a secure online platform to view their exam results.
- Result analysis: Generate reports and analytics to evaluate student performance, identify trends, and generate insights.

- User management: Allow administrators to create and manage user accounts, set access levels, and assign roles.
- Customization: Provide flexibility to customize grading schemes and result templates based on institution-specific requirements.
- Security and privacy: Implement measures to ensure data

Requirements

- Programming language: Choose a programming language suitable for developing the Student Result Management Software, such as Java, Python, or PHP.
- Web-based application: Develop a web-based application to provide accessibility across devices and platforms.
- Database management system: Select a reliable database management system (e.g., MySQL, PostgreSQL) to store and manage student and result data.
- User interface design: Create a user-friendly interface for administrators, teachers, and students to interact with the software.
- Data validation: Implement validation checks to ensure accurate and consistent data entry and prevent errors.
- Data backup and recovery: Implement regular backups and a disaster recovery plan to prevent data loss and ensure system availability.
- Privacy and security measures: Implement encryption, secure authentication methods, and role-based access control to protect sensitive student data.
- System integration: Establish integration with existing systems, such as SIS or LMS, for seamless data exchange.
- Performance optimization: Implement techniques to optimize the software's performance, ensuring fast and efficient result processing and analysis.
- Documentation and support: Provide comprehensive documentation and support resources for administrators and users to assist in the software's usage.
- These features and requirements serve as a general guideline for developing a Student Result Management Software and can be

further customized based on the specific needs and context of your educational institution.

Functional requirements

Depending upon the user role he/she will be able to access only the specific modules of the system.

- 1) Login facility for enabling only authorized access to the system
- 2) User (with role Data Entry operator) will be able to modify /add/delete information about different students that are enrolled for the course in different years

Non functional requirements

1 .Safety Requirements

The database may get crashed at any certain time due to virus or operating system failure. Therefore, it is required to take the database backup

2. Security Requirements

We are going to develop a secured database for the university .Depending upon the category of user the access rights are decided. It means if the user is an administrator then he can be able to modify the data, delete, append etc. All other users other than staff only have the rights to retrieve the information about the database.

3. Hardware Constraints

The system requires a database in order to store persistent data. The database should Software Requirements Specification have backup capabilities

External interface requirements

- 1) Login screen:

This will be the first screen that will be displayed. It allows user to access different screens based upon the user role. Various fields available on this screen will be

User id: alphanumeric of length up to 10char.

Password: alphanumeric of length up to 10char

Role: Will have the following

Values: Administrator, Data entry Operator , student , teacher

- 2) Subject info Parameter Screen:

This screen will be accessible only to the Administrator. It will allow the user to enter the semester number for which the user wants to access the subject information.

3) Student info Parameter Screen:

This screen will be accessible only to the Administrator. It will allow the user to enter the Batch Year for which the user wants to access the student information.

4) Student Information Screen: This screen will be accessible only to the Administrator. It will allow the user to modify the information about new/existing students for a particular batch year. Various fields available on these screen are:

Student Enrollment No: of the format B.E/YYYY where YYYY represents the batch year

Student Name: only alphabetic letters and length up to 40 chars.

Batch Year: of the format YYYY

5) Marks Entry Parameter Screen: This screen will be accessible only to the Teacher. It will allow the user to enter the Batch Year, the semester number and the subject for which the user wants to access the marks information.

6) Marks entry screen: Screen: This screen will be accessible only to the Teacher. It will Software Requirements Specification

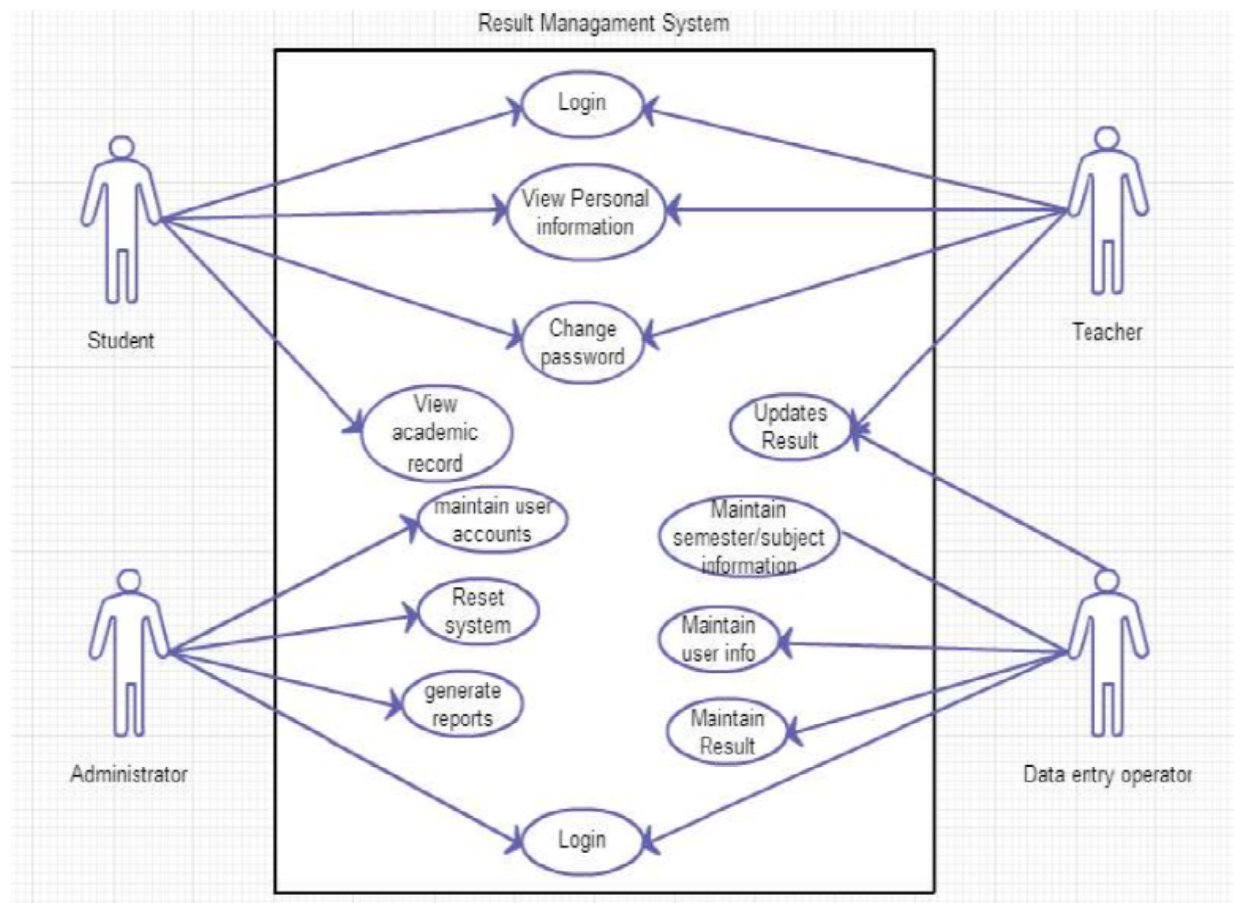
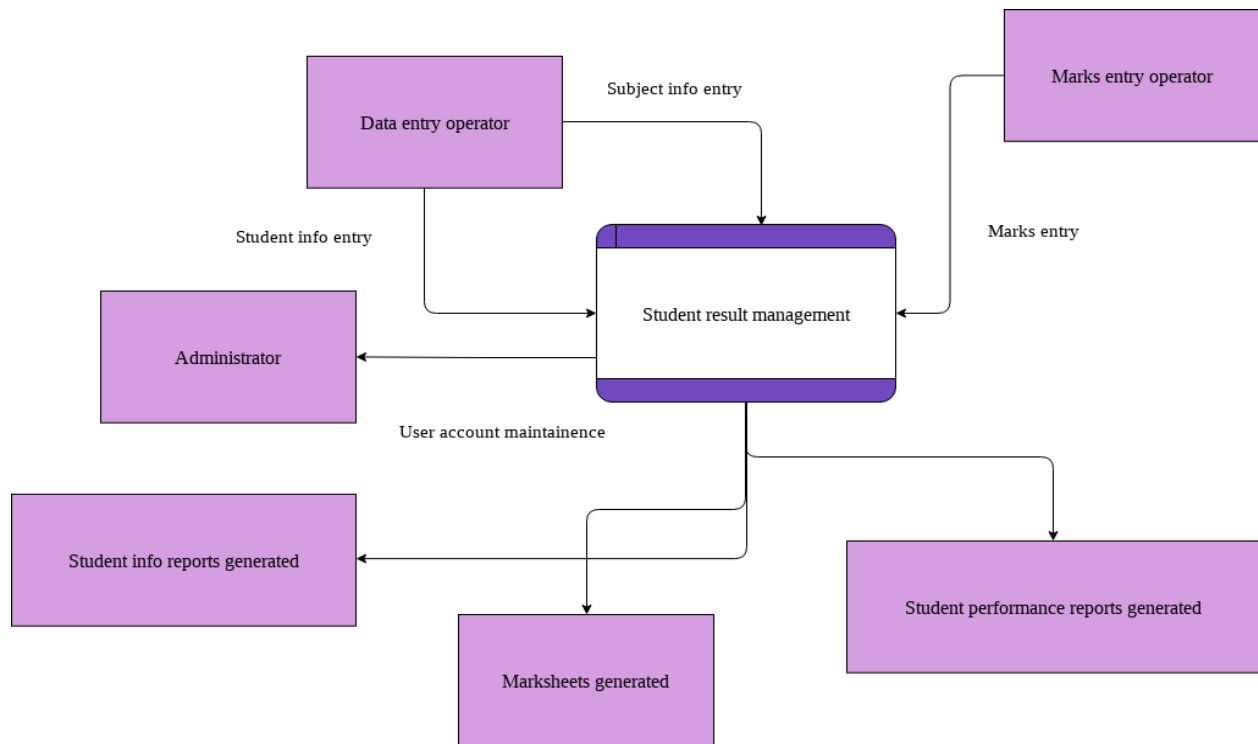
Hardware Interfaces

- 1) Intel p4 processor with minimum 2GHz speed.
- 2) RAM: Minimum 1GB
- 3) Hard Disk: min 20GB

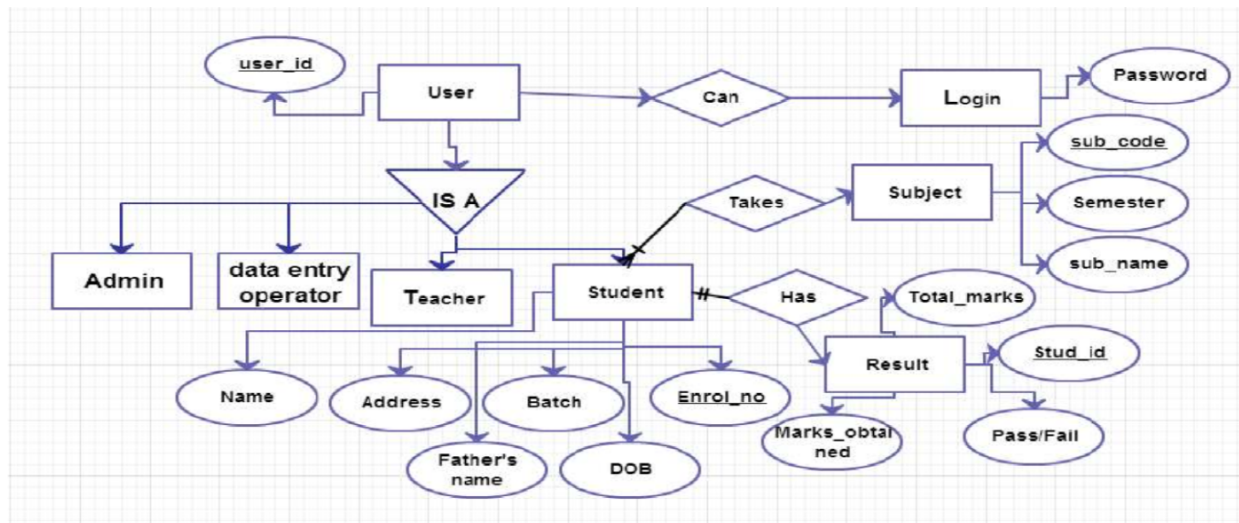
Software Interfaces

- 1) Turbo C++
- 2) DB Server: SQL SERVER 2008
- 3) OS: Window Vista/XP/7/8/10

Flow charts:



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Conclusion:

Student Result management system (SRMS) lead to a better organization structure since the Result management of the students is well structured and also lead to better as well as efficient utilization of resources. The system is designed to achieve maximum user satisfaction. The goal of this system is to make it easier for teachers and students to keep up with the times. This will definitely make the institute authorities more comfortable as they do not have to think of keeping the results of their students on a conventional paper. Student Result management system (SRMS) can be utilized by training foundations to keep up the records of understudies without any problem. Accomplishing this goal is troublesome utilizing a manual framework as the data is dissipated, can be repetitive and gathering significant data might be very tedious. Every one of these issues are understood utilizing this venture.