Student Result Management System

SRS Documentation

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1. Introduction:

This document aims at defining overall software requirements for **STUDENT RESULT MANAGEMENT SYSTEM** .Efforts have been made to define the requirements exhaustively and accurately. The final product will be having only features/functionalities mentioned in this document and assumptions for any additional functionality/feature should not be made by any of the parties involved in developing/testing/implementing /using this product

1.1 Purpose:

This specification document describes the capabilities that will be provided by the software application **STUDENT RESULT MANAGEMENT SYSTEM** .It also states the various constraints by which the system will abide. The intended audience for this document are the development team, testing team and end users of the product.

1.2 Scope:

The application will manage the information about various students enrolled in this course in different years, the subjects offered during different semesters of the course, the marks obtained by the various students in various subjects in different semesters. The application will greatly simplify and speed up the result preparation and management process.

1.3 Definitions, Acronyms, and Abbreviations:

- SRS-Software Requirement Specification
- DFD- Data Flow Diagram
- DB-Database
- OS- Operating System

1.4 Reference:

https://www.freeprojectz.com/premium-synopsis/synopsis-result-management-system

1.5 Overview:

Student's information is stored in mysql, the authority is given to the administrator; he gives the permission to the instructor to enter the department data and student information. The security is providing by giving password to administartor.

2. Overall Description

2.1 Product Perspective:

The application will be windows based, self-contained and independent software product.

2.2 Product Functions:

1) Information about the various Users.
2) Information about subjects offered in various semesters.
3) Marks obtained by Students in different semesters.
4) Generation of Reports.

2.3 User Characteristics:

This subsection of the SRS should describe those general characteristics of the eventual users of the product that will affect the specific requirements.

2.4 Constraints:

Users at university will have to implement a security policy to safeguard the marks related information being modified by unauthorized users (by means of gaining access to the backend database)

2.5 Assumptions and Dependencies:

- The number of subjects to be taken by the student in each semester does not change.
- The subject types do not change.
- The number of semesters does not change.
- The users have sufficient knowledge of computers.
- The users know the English language, as the user interface will be provided in English.

3. External Interface Requirements:

3.1 User Interfaces:

The following screens will be provided:

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 student for 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 allow the user to add/modify/delete information about the marks obtained in the selected subject by different students. It includes Student enrollment no, student name, internal marks, external marks, total marks.

3.2 Hardware Interfaces

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

3.3 Software Interfaces

On the client side the required software product is Internet Explorer supporting HTML, CSS and any operating system that can run the browsers.
The project will use following software:

1)
2) DB Server: SQL SERVER
3) OS: Window 8/10

3.4 Communication Interfaces:

The default communication protocol for data transmission between server and the client is Transmission Control Protocol/ Internet Protocol (TCP/IP). At the upper level HyperText Transfer Protocol (HTTP, default port=80) will be used for communication between the web server and client

4. System Features:

The programming technologies/languages used in the implementation of this project are as follows: Cascading Style Sheet (CSS), Javascript, Hypertext Markup Language (HTML), Hypertext Preprocessor (PHP), MySQL (Structured Query Language) Database Management Systems and Windows or Linux, Apache-MySQL-PHP (WAMP/LAMP) server.
The system contains following features:

- Student Dashboard
- Student Classes
- Create Subjects
- Manage Subjects
- Student CRUD
- Add Result
- Manage Result
- Can Input Grades for Result
- Can Download Result in PDF with the Roll Number
- Login/Logout

Modules:

Administrator Module:

The functionalities of Administrator are
1.The Administrator should Login into the system with a unique his/her username and password.
2.If the username and password is valid then he can gain access to the system.
3.Admin views staff Personal details.
4.Admin updates staff Personal details.
5.Admin views student Personal details.
6.Admin updates student Personal details.
7.Admin views his/her own Personal details.
8.Admin updates his/her Personal details.
9.Admin views attendance of students.
10.Admin updates attendance of students
11.Admin views Results of students.
12.Admin updates Results of student

The Administrator can do the following actions
1.Views personal details
2.updates schedules
3.views reports

Student Module:

The functionalities of Student are
1. The Student should login into the system with a unique her/his username and password.
2. If the user name and password are valid then he can gain access to the system.
3. Student views his/her own Personal details.
4. Student updates his/her Personal details.
5. Student views attendance of students.
6. Student views Results.
7. Student views Schedules

Objective Of Result Management System:

The main objective of the Result Management System is to manage the details of Result,Progress,Student,Course,Exam. It manages all the information about Result, Activity, Exam,

Result. The project is totally built at the administrative end and thus only the administrator is guaranteed access. The purpose of the project is to build an application program to reduce the manual work for managing the Result, Progress, Activity, Student. It tracks all the details about the Student,Course,Exam.

General Description:

This section of the SRS should describe the general factors that affect 'the product and its requirements. It should be made clear that this section does not state specific requirements; it only makes those requirements easier to understand.

Specific Requirements:

This section contains the software requirements to a level of detail sufficient to enable designers to design the system and testers to test that system.

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) Administer will be able to modify /add/delete information
about different students that are enrolled for the course in different years .

5. Other Nonfunctional Requirements

5.1 Performance Requirements

The following list provides a brief summary of the performance requirements for the software:

5.1.1 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

5.1.2 Capacity

- Student portal must work 24 hours.

5.1.3 Hardware Constraints

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

5.1.4 Backup

- There should be an easy back-up feature for the entire data, to prevent losing any data.

5.2 Software System Attributes

5.2.1 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.

5.2.2 Quality

- The primary objective is to produce quality software. As the quality of a piece of software is difficult to measure quantitatively, the following guidelines will be used when judging the quality of the software:
    - Consistency – All code will be consistent with respect to the style. (This is implied when adhering to the standard).

  Test cases – All functionality will be thoroughly tested

5.2.3 Data migration

- There should be an easy way to migrate data from the current system to a new system.
- The system should be able to interface with Microsoft Excel – read from Excel and write to Excel.

Standard file formats such as CSV or XML should also be supported for both import and export.

5.3 DB Requirement

- The following information will be placed in DB:
- Subject info: Subject Name, Code, Semester
- Student Info: Student Enrolment Number, Student name, enrollment year.
- Marks info:
  Student Enrolment , Semester, internal marks in each subject, external marks in each subject
- User Account Info: UserName, User Id, password, role.