

Software Requirement Specification for “Student Result Management System”

1. Introduction

This document aims at defining the overall software requirements for Student Result Management System. The final product will be having only features or functionality mentioned in this document.

1.1 Purpose

1.2 Scope

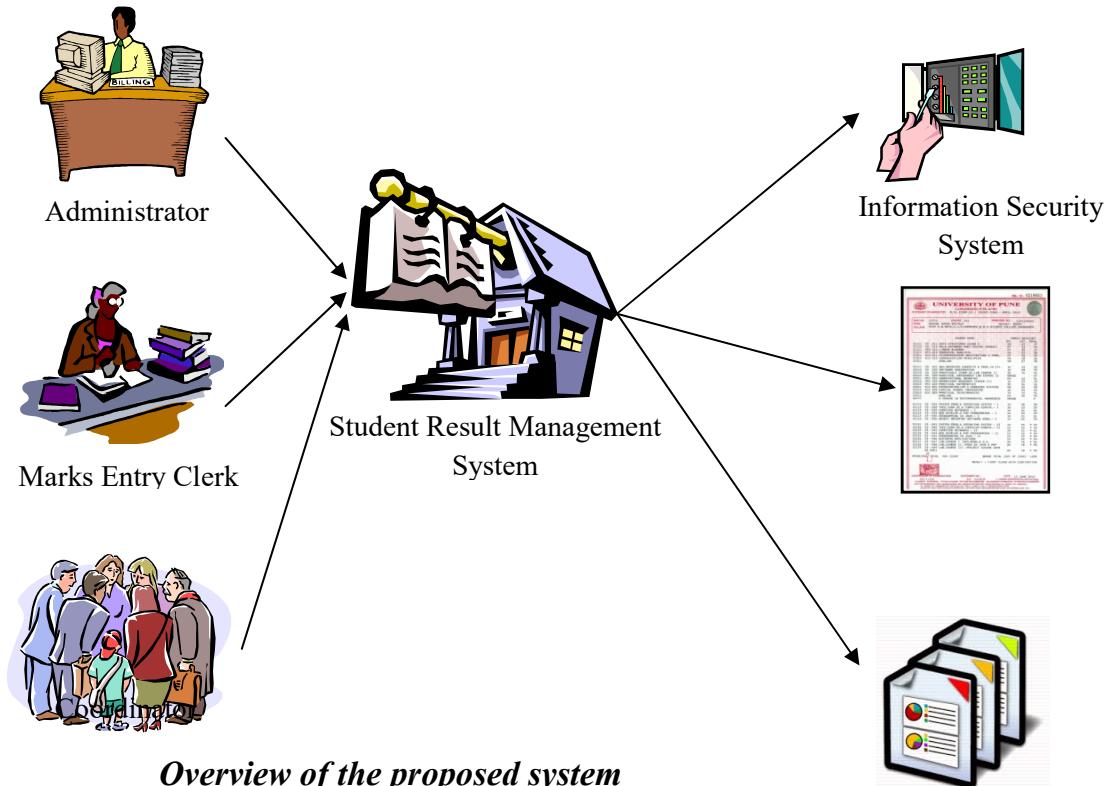
1.3 Definitions, Acronyms and Abbreviations

1.4 References

2. General / Overall Description

2.1 Product Perspective

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



2.2 Product Functionality

A summary of the major functions that the software will perform:

- 1) A login facility for enabling only authorized access to the system.
- 2) User will be able to add/modify/delete information about different students data enrolled for the course in different year.
- 3) User will be able to add/modify/delete information about different subjects that are offered in particular semester. The semester wise list of subjects along with their credit points and type will be displayed.
- 4) User will be able to add/modify/delete information about elective subjects opted by different students in different semester.
- 5) User will be able to add/modify/delete information regarding marks obtained by different students in different semester.
- 6) User will also be able to print mark sheets of students
- 7) User will be able to generate printable reports.
- 8) User will be able to reset the system leading to deletion of all existing information from the backend database.
- 9) User will be able to create/modify/delete new/existing user accounts.

2.3 User Characteristics

The different users of the system are Administrator, Marks Entry Clerk, and Coordinator.

2.4 Design and Implementation Constraints

- 1) Since the DBMS used in MS Access 2000, which is not a very powerful DBMS. It will not be able to store a very huge number of records.
- 2) Due to very limited features of DBMS being used, database auditing will not be provided

2.5 Assumption and Dependencies

- 1) The number of subjects to be taken by the students in each semester does not change.
- 2) The subject types do not change
- 3) The number of semester in MCA program does not change.

3. Specific Requirements

3.1 External Interface Requirements

3.1.1 User Interfaces

Login Screen: various fields available on this screen will be

- 1) User id
- 2) Password
- 3) Role: Admin/Clerk/Coordinator

Subject Information Parameter Screen: This screen will be accessible only to the user with admin role. The various fields available on this screen will be

- 1) Subject Code
- 2) Subject Name
- 3) Category / Type
- 4) Credits

Student Information Screen: various fields available on this screen will be

- 1) Student Enrollment Number
- 2) Student Name
- 3) Batch Year

Student Subject Choice Screen: It will allow user to add/modify/delete student choices for elective subjects of the semester and batch year selected in student subject choice screen. The screen will display list of available choices for elective I & elective II for the selected semester. The screen will also display the list of students enrolled during the selected batch year and currently studying in the selected semester.

Marks Entry Screen: various fields available on this screen will be

- 1) Student Enrollment Number
- 2) Student Name
- 3) Subject Name
- 4) Internal Marks
- 5) External Marks
- 6) Total Marks

Mark Sheet Screen: It will allow user to enter the enrollment number and the semester number of the student for whom the user want to view/print the mark sheet.

Student List Report Screen: It will allow the user to enter the batch year for which the user wants to view/print the student list report.

Rank wise List Report Screen: It will allow the user to enter the batch year and the semester number for which the user wants to view/print the Rank wise list report.

Student Subject Choices List Report Screen: It will allow the user to enter the batch year and the semester number for which the user wants to view/print the Student's choices list report.

3.1.2 Hardware Interfaces

- 1) Support for printer i.e. appropriate drivers are installed
- 2) Screen resolution of at least 800*600 required for proper and complete viewing of screens.

3.1.3 Software Interfaces

Any window based operating system
MS Access 2000 as the DBMS
Crystal Report 8
Visual Basic 6

3.1.4 Communication Interfaces

None

3.2 Functional Requirements

1) Subject Information Management

The system will maintain information about various subjects being offered during different semesters of the course. The following information would be maintained for each subject. Subject code, Subject Name, Subject Type (Core / Elective / Lab1 / Lab2 / Mini Project) Semester, Credits.

2) Student Information Management

System will maintain information about various students enrolled in the MCA course in different years. The following information would be maintained for each student:

Student Enrollment No., Student Name, Year of Enrollment. The system will allow creation/modification/deletion of new/existing students and also have the ability to list all the students enrolled in a particular year.

3) Student's Subject Choice Information Management

The system will maintain information about choice of different Elective subjects opted by various students of different enrollment years in different semesters. The following information would be maintained:

Student enrollment no, Semester, Student's choices for a particular semester.

4) Marks Information Management

The system will maintain information about marks obtained by various students of different enrollment years in different semesters. The following information would be maintained:

Student enrollment no, semester, subject code, internal marks, external marks, total marks and credits.

The system will also have creation/modification/deletion of marks information.

5) Mark sheet Generation

The system will generate mark-sheet for every student in different semesters.

6) Report Generation

1) Student List Reports

For each year a report will be generated containing the list of students enrolled in that batch year.

2) Student Subject Choice List Report

For each batch year a report will be generated containing the list of students and their choices for Elective subject in the selected semester.

3) Semester-wise mark lists

4) Rank-wise List Report

7) User Account Management

The system will maintain information about various users who will be able to access the system. The following information would be maintained.

User Name, User ID, Password and Role.

3.3 Use Cases

The various use cases will be

- 1) Add/Update/Delete Student Information**
- 2) Add/Update/Delete Subject Information**
- 3) Add/Update/Delete Student Subject's choice Information**
- 4) Generate Mark Sheet**
- 5) Create/Delete User accounts**

3.4 Classes / Objects :

The various classes will be

- 1) Student**
- 2) Subject**
- 3) User**

4. Non-Functional Requirements

- 1) Security**
- 2) Maintainability**
- 3) Portability**

5. Other Requirements

None

6. Change Management Process

Customer has to visit personally in the organization if any changes needed in project scope and requirements.