Ex No: 1   **Develop Requirement Specification for Student Management System**

Aim: To develop a software requirement specification for student management system.

Procedure:

A software requirement specification is a document that describes the nature of a project, software or application to be developed. It also includes the yield and cost of the software.

Structure of a SRS document

1) Introduction
   - This contains the general information about the SRS document
     1) Purpose of the document
     2) Scope of the document
     3) Overview of the document
2) General description
   - Functions of product that includes objective of user, user characteristics, features and benefits are described.
3) Functional Requirements
   - It represents a list of functions that will be executed in the system, i.e. a description of the service that the software must offer
4) External Interface Requirements
   - Describes how s/w interfaces with other system, hardware or users.
   - Four Types
     1) User interface
     2) Software interface
     3) Hardware interface
     4) Communication interface
5) System Requirements
   - It describes the conditions necessary for the product to run.
6) Non-Functional Requirements
   - It defines how the system has to function, security, usability and quality.
7) Preliminary schedule and Budget
   - This describes the overall time duration and overall cost required for development of the project
8) Appendices
   - This contains the additional information such as definition of specific terms, acronyms and abbreviations are given.

SRS Document for Student Management System

1. Introduction

(i) Purpose:

The purpose of this document is to retrieve and analyze the ideas that define the product and requirements that the user needs. The data in the database can be saved for a long time and can be used for different purposes in the future. In management systems, there is a minor chance of losing the data.

(ii) Scope:

Student Management System product usage makes work done at the faster way the software is applicable to view and pay the fee details provided by the administrator of the organization and student can edit his personal details which can be viewed by the administrator.

(iii) Overview:

The Student Management System is capable of managing each and every data regarding student, payments, progress etc. This helps us to manage the data in an extremely efficient manner.

2. General Description

The Student Management System software is designed in such a way that the user can easily interact with the GUI. The admin, students and instructors are the users who use the project. The admin inserts the details of the students and the fee details that the students have paid. Students can view their details, check the fee and pay fees.

This project is based on the educational institute system where this application gives maximum services in a single software product that is used by instructors and system administration. This project is based on a web application that is sharing information on different departments in a college.

3. Functional Requirements

The functional requirements of this system are:

- Register new students.
- Register a new instructor.
- Update student and instructor details.
- Record the course details and subject information.
- Students can view and pay the fees.
- Generate various reports for all transactions in the system.

4. External Interface Requirements

User Interfaces:

User Interfaces were designed to be supported on mobile browsers , tablets and desktopbrowsers.

Hardware Interfaces

No Hardware interfaces were required for this application.

Software Interfaces

We use Apache and MySQL PHP Scripting language for writing the code for the project. AJAX,HTML, CSS, JS for creating the web pages, using GUI for login screens and interacting with thedatabase. MySQL server 8.1 is used for creating the local and global database (server). Microsoft Visual Studio 2008 IDE for writing the programs. Operating system: Windows XP or higher version.

Communications Interfaces

No Communication interfaces required.

5. System Requirements

Software requirements:

- Apache 2
- Microsoft Visual Studio 2008
- MySQL Server 8.1

NOTE : Operating System: Windows or Linux (Android).

Hardware Requirements

Processor: Intel Pentium 4 or
moreRam: 1 GB or more

6. Non-Functional Requirements

In this system, the authentication of the user is an important factor. User authentication will be done by login by username and password and classified by user type. Users will get access to the system as permissions are classified for that type of user.

The system has a consistent interface so that the system is easy to use and in the interfaceof our system buttons and forms are used to enter data related to a specific module.

7. Preliminary Schedule And Budget

Time Duration: 90days
Budget: 25000 INR

8. Appendix

AJAX - Asynchronous JavaScript and XML
PHP - PHP: Hypertext Preprocessor

MySQL - My Structured Query Language
GUI - Graphical User Interface
IDE - Integrated Development Environment

Result:
      Thus a requirement specification for **Student Management System** is written.