

LAB -02

1. Generate the SRS document for

a) Library Management System:

1. Introduction

1.1 Purpose of this document:

This document outlines the requirements for developing a Library Management System. The purpose is to provide a system that simplifies library operations, enhances user experience, and improves overall efficiency.

1.2 Scope of this document:

This document covers the design, development and implementation of an LMS. It will track book inventory, manage user memberships, and allow for borrowing and returning of books, and ensure to minimize manual labor and reduce human error.

1.3 Overview:

The LMS will allow librarians to manage book collections, handle user data, and track borrowing activities. It will include modules for search, reservation, issuing and returning of books, along with fee calculations.

2. General Description

The LMS is designed for library staff and patrons. Users can search for books, reserve or borrow them, and check their account details. Librarians can manage inventory and track borrowing history. The system aims to improve efficiency and reduce errors.

3. Functional Requirements:

- User authentication for members and staff
- Book catalog management
- Issue and return tracking with fine calculation
- Search and reservation functionality

4. Interface Requirements:

- Web-based interface for users & staff
- Integration with external DBs to update catalog
- Overdue email notifications

5. Performance Requirements:

- Response time should be minimal
- System should handle concurrent users
- (UI should be responsive)

6. Design Constraints:

- SQL should be used for data storage
- Compatibility with server should be ensured
- DB storage for IM records

7. Non-functional Requirements:

- High reliability & uptime
- Scalable to handle user base & inventory
- Secure user authentication & data encryption

8. Preliminary Schedule & Budget:

8.1 Preliminary Schedule:

- Set to take approx 4 months

8.2 Preliminary Budget:

- Development: \$8k
- Deployment: \$2k
- Testing: \$3k
- Miscellaneous: \$2k
- Total budget: \$15k