

SRS for Library Management System.

1. Introduction

1.1 Purpose: The purpose of this document is to define the requirements for LMS. It ensures proper handling of books, members, borrowing / returning, fines & catalog search.

1.2 Scope: The system will automate library operations including book issue, return, catalog search, fine calculation & membership management.

1.3 Overview: LMS will replace manual record keeping with a digital system, enabling librarians & students to access records efficiently.

2. General Description: The system supports librarians, staff & members offering catalog browsing, issue / return tracking, overdue management & report generation.

3. Functional Requirements

- Book Management: Add, update & delete books. Maintain availability status.
- Member Management: Maintain member records, registration & borrowing limits.
- Issue / Return System: Track borrowing / returning with due dates.

- Fine Calculation: Automatically calculate overdue
- Search & Catalog: Search by title, author, ISBN
- Reports: Generate reports on issued books, overdue items & member activity.

4. Interface Requirements:

- UI: Simple web-based & mobile interface
- Integration: Barcode / RFID support for book issue / return.

5. Performance Requirements: Response time ≤ 2 seconds. Handle upto 500 concurrent users. Ensure real-time inventory update.

6. Design Constraints: Relational DB, web based architecture with Java / Python Backend.

7. Non-Functional Requirements:

- Security: Role based access (admin, student)
- Reliability: 99% uptime.
- Scalability: Expandable for large university libraries.
- Portability: Accessible via web & mobile.

8. Preliminary Schedule & Budget:

- Development duration: 4 months, estimated budget: \$ 50,000.