

3] SRS for Library Management system

1. Introduction

1.1) Purpose:

The purpose of this document is to define the requirements for a Library Management System.

This system will help libraries manage book inventories, member records, lending and returns efficiently.

1.2) Scope:

~~1.2) Scope:~~ The system will support library staff in managing book collections, tracking member activity and issuing books. It will also allow members to search for books and view their borrowing history.

~~1.3) Overview:~~

The Library Management system will consist of modules for book cataloging, member management, fines calculation, etc.

2. General Description:

2.1) Product Perspective:

The system will integrate with current

library hardware and software systems, allowing staff to manage both physical and digital collections in one platform.

2.2) User characteristics:

Users include library staff (librarians, managers) and members (for searching books, viewing account details). The interface will be simple and user friendly.

2.3) System Constraints: The

The system must be operational during library hours and support multiple concurrent ~~host~~ ^{users}.

3. Functional Requirements

- Catalog management for books (add, update).
- Member registration and management.
- Book issuance and return tracking.
- Late fee collection.
- Search functionality for books by title, author and genre.
- Report generation for inventory and member activity.

4. Interface Requirements

- Graphical User Interface (GUI)
- Web based portal
- Barcode scanner integration for book issuance/return

5. Performance Requirements

- Must handle 200 concurrent users
- Search query results should be returned in less than 2 seconds.

6. Design Constraints

- Must support integration with existing library barcode scanning systems.
- Modular design to allow easy future updates for digital collection management.

7. Non-Functional Attributes

- Security: Protect member personal details and borrowing history with encryption.
- Scalability: Must scale for use in multiple branches.
- Reliability: must be reliable during library hours.

8. Preliminary Schedule and Budget

Overall time required - 5 months

Overall cost required - ₹ 60,000.