

LIBRARY MANAGEMENT SYSTEM

Create a library management system for book borrowing, returns, and inventory. Features include catalog management, member records, online book requests, loan tracking, and fine enforcement. Implement reporting tools for popular books and inventory status. Ensure user authentication and data security with a user-friendly interface.

1. Introduction

1.1 Purpose: The document outlines the requirements & specifications of a library management system. It acts as a guide to the developers & outlines functionalities, objectives & constraints.

1.2 Scope of the document: The document of a comprehensive library management system including catalog, circulation, patron management & reporting functionalities.

1.3 Overview: The system is designed to streamline operations such as book acquisition, cataloging, circulation etc.

2. General Description

- Will cater to the needs of librarians & patrons.
- Some features are:
 - Cataloging: Allows librarians to catalog books & media including metadata.
 - Circulation: Facilitate borrowing & returning of library materials.

• Patron Management: Maintain patron records such as registration & borrowing history.

• Reporting: Generating regular periodic reports.

5. Functional Requirements:

User interface: UI & how info is presented to the users.

Library user Acct Management System:

- Display acct info, user ID, name, positioning, privilege, user a GUI which allows librarians to change the info.

- Book Borrowing System: Check out books, show book borrowing info.

- Book records: List of available books: ISBN, title

6. Interface Requirements:

User: Interface intuitive interface for librarians & patrons.

Book detail view: Display of book info, options for summaries, reviews.

User profile: User friendly interfaces for sig. login, access to history.

Notifications: System for alerts on overdue books, recommendations.

5. Performance Requirements.

Response time: Check in & Check out in less than 5 sec.

Search function in less than 9 seconds.

6. Design Constraints.

- Each user has an ID used for book issuing, fine payment etc.
- Compatibility w/ multiple platforms & databases
- Scalability to accommodate growth, adherence to security standards, accessibility for all users.

7. Non-functional Requirements

- Minimal latency, reliability to operate w/o crashes or errors, user friendly interfaces

8. Preliminary Budget

- Cost for development, infrastructure, maintenance, training, integration, security.