

II Library Management System.

Problem Statement: The library management system aims to modernize and optimize library operation by automating tasks such as book cataloging, member management, circulation and inventory control. It addresses the need for efficient resource utilization, improved access to information, and streamlined administrative processes in libraries.

1. Introduction:

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

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

1.3 Overview: The system is designed to streamline operations such as books 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.

3. Functional Requirements.

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

Library user Act Management System

- Display act info, user ID, name, positioning privilege, users 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

4. Interface Requirements.

user interface: intuitive interface for librarians & patrons

Book detail view: Display of book info, options & 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 secs
 - Search function in less than 4 seconds
6. Design constraints
 - Each user has an ID used for book issuing, time 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 interface
8. Preliminary Budget
 - costs for development, infrastructure, maintenance, training, integration, security