

Library Management System

1. Intro

Problem Statement -

Traditional library management methods are cumbersome and prone to errors. The library management system will automate processes, improve efficiency and enhance user experience by providing easy access to resources and streamlining operations.

1. Introduction

1.1 Purpose of this Document

The purpose of this document is to outline the requirements and specifications for development of a library management system.

1.2 Scope of this Document

This document defines the overall functionality, interface requirements, performance expectations, design constraints and non-functional attributes.

1.3 Overview

The library management system is designed to automate and streamline various operations within a library including cataloguing, circulation, membership management and reporting. It aims to improve efficiency, enhance user experience,

2. General Description

They will need to cater to the needs of librarians, library staff and library members. It will feature intuitive interfaces, robust search capabilities and comprehensive reporting functions. Key features include

- Book Cataloging
- Member Registration and Management
- Reservation and Renewal
- Reporting and Analytics

3. Functional Requirements

- Book Cataloging and Management
 - Ability to add, edit and delete books from the library catalog
 - Classification and indexing of books based on categories, genres and author
 - Tracking of book details such as title, author, ISBN, publication date and availability status
- Membership Registration and Management
 - Registration of library members with unique identifiers
 - Storage and retrieval of member information
 - Ability to update member details and passwords
- Circulation Management
 - Check-out and Check-in of books by library members
 - Due date management and overdue book tracking

4. Interface Requirements

- The Library Management System will interact with users through

- GUI for library staff
- Web based interface for online catalog search and member services
- Mobile Application for accessing library resources and services on-the-go

5. Performance Requirements

- Response time for catalog search and checkout < 3 sec
- System uptime 99.9%
- Concurrent users: Not specified

6. Design Constraints

- Integration with existing library systems and databases for data migration
- Compatibility with different operating systems and web browsers
- Compliance with library standards and protocols for cataloging and circulation

7. Non-Functional Attributes

- Security - Encryption of sensitive data
- Availability, Reliability and Scalability

8. Preliminary Schedule & Budget

- The development of this is estimated to take 6 months with a budget of \$80,000. This includes analysis, design, development.