

Library Management System

1. Introduction

1.1 Purpose of this doc

Define specifications and req for development of LMS.

1.2 Scope: Describes the overall objective of LMS, highlighting the value it provides to both users and library administrators.

1.3 Overview: Designed to streamline the library operations, allowing library staff to manage book inventories, track member activities and handle borrowing/returning processes.

2. General Description

The LMS aims to digitize traditional library processes, providing benefits such as efficient resource management, quick access to book inventories and ease of record maintenance.

3. Functional Requirements

User management: Register, update, and deactivate members.

Book management: Add, remove or update book records.

Lending System: Track ~~book~~ borrowing, return and due dates.

Search Functionality: Catalog search by title, author or subject.

DATE / /
PAGE
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Reporting: Generate library activity reports.

4.4 Interface Requirements

- Web based UI for users and management.
- Database integration for information storage.
- Email notifications for users.

5.4 Performance Requirements

- Response time: ≤ 2 seconds
- User support: upto 500 simultaneous users.
- ~~Error rate~~ Error rate $\leq 1\%$

6.4 Design constraints

- Web based solution for major browsers.
- use MySQL for database.
- Restricted access for admin features.

7.4 Non functional attributes

- Security: HTTPS and data encryption
- Scalability: Adapts to growth.
- Reliability: 99.9% uptime
- Usability: Intuitive interface

8.4 Preliminary schedule and budget

- Development time: 6 months
- Budget: ~~Rs 500000~~ Rs 500000.