

3. Library Management System

Problem statement :

The current library management system suffers from manual processes & outdated technologies, resulting in inefficiencies in book tracking, resource management, & resource allocation. Implementing a modernized LMS is essential to streamline operations, improve accessibility & enhance user experience for both staff & patrons.

1. Introduction

→ purpose

The purpose is to outline the requirements and specifications for the development of a LMS.

1.2 scope

This document defines the overall functionality, interface requirements, performance expectations, design constraints & non-functional attributes of the library management system.

1.3 overview

The LMS is designed to automate & streamline various operations within a library, including cataloging, membership, and

enhance user experience & improve efficiency
better management of library resources.

2. General Description:

Key features of LMS included

- * Book Cataloging & Management
- * Member Registration & Management
- * Circulation Management
- * Reservation & Renewal
- * Reporting & Analytics

3. Functional Requirements

- * Ability to add, edit & delete books from the library catalog
- * Member Registration & Management
- * Reservation & Renewal
- * Reporting & Analytics

⇒ Performance Requirements

- Response time for catalog search & book checkout 3 seconds
- system uptime: 99.9%
- concurrent user support
- Data processing speed.

- | |
|------------------------|
| Employee |
| • employeeid: string |
| • salary: Double |
| • assignTask(): void |
| • completeTask(): void |
- | |
|----------------------|
| question |
| • numberORQuest: int |
- ⇒ Design constraints
- Integration with existing library system
 - database for data migration
 - compatibility
 - compliance with library standards & protocols for cataloging & circulation.

⇒ Non Function Attributes :

- * security : Encryption of sensitive data, role based access control for staff & member
- * Portability : Accessibility across different devices & platform.
- * Reliability : Minimal downtime
- * scalability : Ability to accommodate growing library collections & user base