

01/10/2024 | WEEK-2 |

iii) SRS Document for a Library management system.

## 1. Introduction :-

1.1 Purposes This document gives the requirements for a Library Management System (LMS), aiming to automate library functions like cataloging, issue, return, & material search ensuring a smooth transition.

1.2 Scope The document outlines the design & implementation of a digital LMS, supporting students, librarians & administrative staff.

1.3 Overview The LMS streamlines library operation including catalog browsing, borrowing and returning books, enhancing data accuracy and user experience through efficient & reliable services.

2. General Description :- Users can search, borrow, & return books, while library staff can manage the inventory, track usage patterns & monitor overdue books. System includes authentication for different user roles.

## 3. Functional Requirements :-

\* User authentication: Users must login using their assigned credentials and based on their role they have access.

\* Book Catalog Management: Add, update or remove books.



- \* Book Search eg Filter: Users can search for books based on title, author etc.
- \* Issue/Return System: System updates availability status.

#### 4. Interface Requirements :-

- \* User Interface, includes a search bar, book listing etc.
- \* Database Interface: Backend SQL to store data.
- \* API: Restful APIs provide remote access & integration with other systems.

#### 5. Performance Requirements :-

- \* System should have faster response time.
- \* System should support many users simultaneously.
- \* System should handle real-time updates to book inventory.

#### 6. Design Constraints :-

- \* Use MySQL for Database management.
- \* System to be deployed on a server with a minimum of 16 GB RAM.
- \* Developed using react for front end.

#### 7. Non-Functional Attributes :-

- \* Able to handle unexpected inputs, crashes, or downtimes without losing data.
- \* System should be platform independent.
- \* System must be 99.5% available of the

total time with a maximum derivative of 2 hrs  
per month.

## 8. Preliminary Schedule & Budget

\* Development duration: 6 Months

\* Cost: \$10,000 including everything.