

# **Stanford Library**

## **STAKEHOLDERS**

<b>ACTOR</b>	<b>What he can do on the Software Created</b>
Reader/Student	Should be able to login Should be able to access Dashboard Should be able to search a book Should be able to borrow reading material Should be able to pay the fine Should be able to re issue Should be able to provide feedback Should be able to logout Should be able to create and maintain reader profile
Library staff	Access to issue books Set Notification /Announcement Dashboard Fine tracker Information about the inventory
Management	Able to fetch Reports

## **PROBLEM DEFINITION AND SOLUTION**

- A lot of time is wasted managing the manual library.
- The number of employees needed to manage the library is high.
- Fine calculation is a tedious and time-consuming affair.
- No reports could be generated on books issued due to the manual system.
- It is difficult to manage 4 million books present in the library.
- Students could deposit the books only in the library timings.

## **Advantages of LMS**

- Reduce overheads and increase productivity of library staff
- Cost reduction
- Up-to-date records of all books, research papers, magazines, and other materials available in the library
- Improve student engagement in the library
- It will generate dynamic reports for better decision-making

## **EXISTING SYSTEM**

- Currently the Library operations are manual , time consuming , complex and requires a lot of manpower , time is wasted .

## **PROPOSED SYSTEM**

- The Proposed system will be an automated LMS which will have following capabilities:
- User Friendly interfaces via preferred access points (kiosk, desktop workstation or mobile ) Search Facility
- Report Generation
- Time Saving
- Access to free e-journals and e-books through the software
- Notification.

## **SCOPE using Use Case Diagram (UML)**

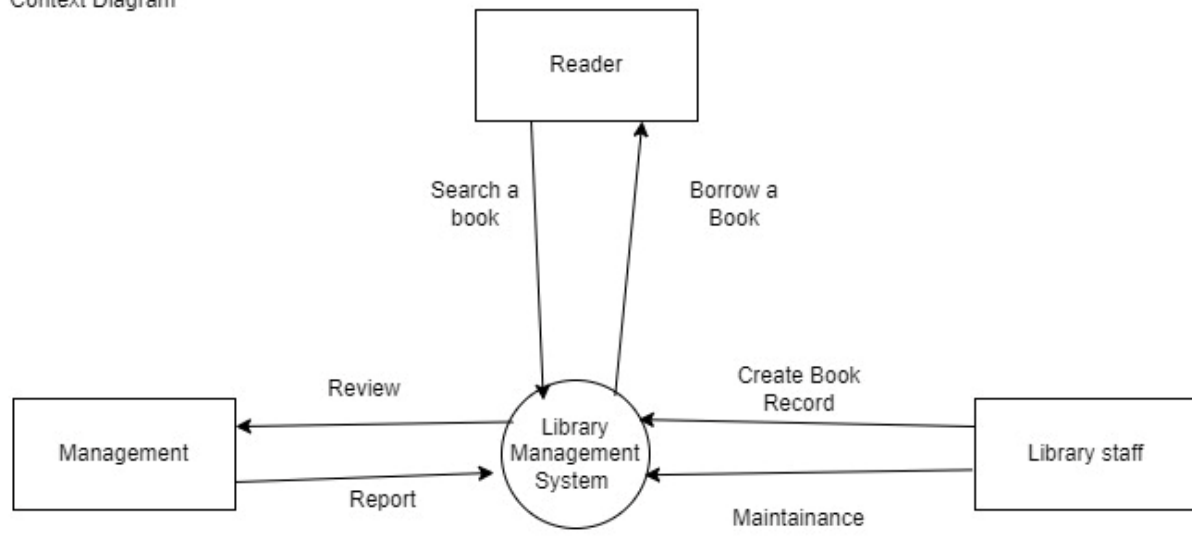
# Library Management System



## **SCOPE using Context Diagram**

Depict the scope using Context diagram.

Context Diagram



## **DATA FLOW DIAGRAM**

Create a data flow diagram.

### **IN SCOPE**

- Login:
- Create Record
- Modify Record
- Delete Record
- Calculation of Fine
- Reissue of Books
- Review
- Report
- Search Book

### **OUT OF SCOPE**

The books will not be issued to other campus with Stanford universities.

### **Wireframes:**

Create sample wireframes for the system. Capture what screen will be show to the library employees to create records for each book and at what stage in the system.

The image shows a web browser window titled 'LMS'. The address bar contains 'https://lms.com' and a search icon. The main content area is titled 'Book Information' and contains a form with the following fields: Book Subject/Genre, Book Title, Author, Publisher, Edition Number, Shelf Number, ISBN, and RFID. Each field has a corresponding text input box. Below the form is a 'SAVE' button. The browser window has a standard toolbar with back, forward, close, and home icons.

Book Information	
Book Subject/Genre	<input type="text"/>
Book Title	<input type="text"/>
Author	<input type="text"/>
Publisher	<input type="text"/>
Edition Number	<input type="text"/>
Shelf Number	<input type="text"/>
ISBN	<input type="text"/>
RFID	<input type="text"/>

## **FUNCTIONAL REQUIREMENTS**

Please write atleast one line explanation for each of the features below

- Login:
- Create Record
- Modify Record
- Delete Record
- Calculation of Fine
- Reissue of Books
- Review
- Report
- Search Book

## **NON-FUNCTIONAL REQUIREMENTS**

Write all the nonfunctional requirements for the system.

- **System Requirement:** LMS can be used on any Windows and MacOS run computers
- Users will need an active internet connection.
- It will be RFID ready (NCIP 2.0 HTTP server available)
- Auto scheduled tasks like emails and database maintenance
- Data should be stored in cloud
- Highly secure, scalable, and reliable

**Usability:** The screens should be self-explanatory and very user friendly.

**Environments** We are going to be creating and maintaining the program in Java. We chose Java because it will not change much over time and if we make it well, there will be very little maintenance to be done on the code.