

## Software Requirement Specification

### 3. Library Management System

#### 3 Library Management System (LMS)

##### 1. Introduction

1.1 Purpose: To automate the library operations such as book borrowing, returns and inventory tracking.

1.2 Scope: Streamline book lending and return processes while maintaining inventory.

1.3 Overview: manage book inventory, and user data to

Streamline in Services.

## 2. General Description

- Users: Librarians, members
- Benefits: Easier management of books and improved user experience.

## 3. Functional Requirements

- Barcode Scanning for book check-in/check-out
- Web-based Catalog Search for users
- Book check-in/check-out
- Membership management
- Late fee calculation

## 4. Interface Requirements

- Barcode Scanning for book check-in/check-out
- Web-based Catalog Search for users

## 5. Performance Requirements

- Immediate book availability updates (within 1 second)

## 6. Design Constraints

- Supports multiple libraries or branches

## 7. Non Functional Requirements

- Security: Protect user data and library records
- Reliability: System must be accessible during library hours
- Scalability: Capable of handling multiple library branches

## 8. Budget Estimate

- Time: 5 months
- Cost: \$60,000 - \$80,000

## Class Diagram:

