# Software Requirements Specification (SRS)

## Library Management System

### 1. Introduction

The purpose of this document is to define the Software Requirements Specification (SRS) for the Library Management System (LMS). The LMS aims to automate library operations including user authentication, book catalog management, borrowing/returning transactions, and reporting. This system addresses the inefficiencies of manual systems by providing secure, user-friendly, and scalable software.

### 2. General Description

The LMS provides functionalities such as book search, user registration, book issue/return, and fine calculation. The primary users are library administrators and members (students or faculty). The system supports multiple user roles and access levels.

### 3. Functional Requirements

FR1: The system shall allow users to register and login securely.

FR2: The system shall allow users to search for books by title, author, or ISBN.

FR3: The system shall allow librarians to add, update, or remove book records.

FR4: The system shall handle book borrowing, returns, and fine calculations.

FR5: The system shall generate reports on overdue items and user activity.

### 4. User Interface Requirements

The LMS shall provide a web-based interface accessible via modern browsers. It should include intuitive navigation, search fields, and administrative dashboards.

### 5. Performance Requirements

PR1: The system shall return search results within 3 seconds for 95% of queries.

PR2: The system shall support at least 100 concurrent users without degradation.

### 6. Non-Functional Attributes

NFR1: The system shall ensure data security using SSL encryption and role-based access control.

NFR2: The system shall have 99.9% uptime during working hours.

NFR3: The interface shall be user-friendly and responsive on mobile devices.

## 7. Schedule and Budget

Estimated development time: 4 months
Estimated budget: $50,000

## 8. Appendices

A. Glossary:
- LMS: Library Management System
- SSL: Secure Sockets Layer

B. References:
- IEEE 830-1998 Standard
- Ian Sommerville, Software Engineering