Lab-1

Library Management

1. Introduction

1.1 Purpose

The purpose of this SRS document is to outline the requirements for the library management system. The LMS is intended to automate library operations.

1.2 Scope

The LMS will serve as a comprehensive platform for managing physical & digital library resources. The system will be used by library staff & library members.

1.3 Overview

This document covers the functional & non-functional requirement to of the LMS.

2. General Description

The LMS will be a standalone web-based application designed to manage library resource efficiency. The system will consist of several modules: Book management, transaction management, search, etc. It will provide role-based access.

3. Functional Requirement

- User authentication - User must be able to register with unique username & passwords.

- Book Management - Add, update for delete book records.

- Issue, Return & Renewal - Issue books to members & update book status.

- Search & Catalog Management - Advance de search filter & Keyword-based search.

- Fine & Penalty - Automatically calculate fines for overdue books.

4. Interface Requirement

- User-friendly interface for both desktop & mobile borrowers.

- The system should support integration with barcode scanners & receipt printers.

- Integration with backend database like MySQL.

5. Performance Requirements

- The system should support large users.
- Avg. response time for book search operations should not exceed 2 sec.

6. Design Constraints

- The system must be developed using a three-tier architecture.

- Use a standardized coding convention.

7. Non-Functional Attributes.

- Security- Data encryption for sensitive info.
- Availability- The system should have 99.9% uptime.
- Maintainability- Modular code design for easy updates.

8. Preliminary Schedule & Budget

Budget estimate

- Development : $50,000
- Testing : $10,000
- Hardware & Software: $15,000
- Miscellaneous: $5,000

Total estimated budget: $80,000