③ Library Management System - SRS Document

1. Introduction

1.1 Purpose

To digitize & streamline library operations such as book issue, return, cataloging, membership management & the collection.

1.2 Scope

It will handle book cataloging, user registration, borrowing/return transactions, fine calculations & report generation. The system will be deployed in schools, colleges & public libraries.

1.3 Overview

The system provides database to store book & user details. Secure login & role-based access will be implemented.

2. General Description

The system eliminates paper based records & introduces an automated, user-friendly interface. It integrates with barcode/RFID systems for fast book tracking.

3. Functional Requirements

3.1 User Management
3.2 Book Management
3.3 Issue/Return
3.4 Fine Calculation
3.5 Reports.

4. Interface Requirements
4.1 UI : Web-based / Mobile
4.2 Hardware Interface : Barcode / RFID scanners
4.3 Software Interface : Database, authentication system.

5. Performance Requirements
5.1 System should handle at least 500 concurrent users w/o delay.
5.2 Book search must return results in less than 2 seconds.

6. Design Requirements
6.1 Modular Architecture
6.2 Role based Access
6.3 Database with ACID properties to ensure consistency.

7. Non-functional Attributes
7.1 Security
7.2 Reliability
7.3 Usability
7.4 Scalability

8. Preliminary Budget & Schedule.

Phase	Duration	Estimated Cost
Requirement Analysis	1.5 weeks	$2,000
System Design	2 weeks	$3,000
Development	5 weeks	$6,000
Testing	2 weeks	$9,000
Deployment	1.5 weeks	$1,000
Total	12 weeks	$16,000