

Library Management System

1. Introduction

1.1 Purpose of this document

The purpose of this document is to explain the requirements of library management system. It will describe the features, scope & objectives in a simple manner so that the working of the project is easily understood.

1.2 Scope of this document

This document covers the working of a library management system that will automate the process of issuing, returning & managing books. It will also handle member records, fines and book inventory. Time and cost of development are also considered.

1.3 Overview

It is a software designed to simplify library operations. It will help librarians manage books, keep track of issued/returned books, handle fines, and generate useful reports.

2. general Description

The system will be useful for librarians, students and faculty members. It will automate manual tasks like book issue, return and record keeping.

3. Functional requirements

3.1 Book Management

- > add, update or delete Books from library Dr.
- > track availability of books in real-time.

3.2 member management

- > maintain member records
- > issue library cards & manage memberships

3.3 Issue & Return

- > allow issuing of books to members
- > track due dates & calculate fines for late return

3.4 search & reservation

- > provide search by title, author or subject.
- > allow members to reserve book online.

3.5 Reports

- > generate reports on issued books, fines, & stock

4. Interface Requirements

- 4.1 User Interface
 - > easy-to-use interface for members.
 - > Access through web browsers.

4.2 Integration Interface

- > Barcode scanner integration for quick book
- > Integration with student / faculty ID systems.

5. Performance Requirements

- > System should respond to search queries within 2 seconds.
- > Should handle atleast 500 users at a time.

6. Design constraints

- > compatible with standard PC's, barcode scanners and printers.
- > use of relational database.

7. Non-functional Requirements

- > Security - protect member details & transaction history
- > Reliability - ensure system is available during library

- working hours.

> usability - simple interface so even new users can understand easily

> Data Integrity - keep accurate record of books, issues & fines.

8. Preliminary Schedule & Budget

The development of library management system is estimated to take 5 months within a budget of \$80,000. This includes planning, development, testing & deployment phases.