**Software Requirements Specification (SRS) for Library Management System**

**1. Introduction**

**1.1 Purpose**

The purpose of this document is to outline the requirements for the development of a Library Management System (LMS). This system aims to efficiently manage library resources, facilitate user interactions, and automate administrative tasks within the library.

**1.2 Intended Audience**

This document is intended for developers, testers, project managers, and stakeholders involved in the design, development, and implementation of the Library Management System.

**1.3 Intended Use**

The Library Management System is designed to be used by librarians, faculty, and students to perform various library-related tasks, such as book check-in and check-out, user management, and generating reports.

**1.4 Scope**

The Library Management System will include features for user authentication, faculty and student management, and book management. It will also provide a user-friendly interface for interacting with the system.

**1.5 Definitions and Acronyms**

LMS: Library Management System

Faculty: Academic staff or instructors

Student: Individuals enrolled in academic programs

**2. Overall Description**

**2.1 User Needs**

**2.1.1 Login**

Users, including librarians, faculty, and students, should be able to securely log into the system using unique credentials.

**2.1.2 Logout**

Users should be able to log out of the system to ensure security and privacy.

**2.1.3 Add New Faculty**

Librarians should have the capability to add new faculty members to the system, including relevant details such as name, department, and contact information.

**2.1.4 Add New Student**

Librarians should be able to add new students to the system, capturing information such as name, student ID, and program details.

**2.2 Assumptions and Dependencies**

It is assumed that users have basic computer literacy. The system depends on a reliable internet connection for real-time functionality.

**3. System Features and Requirements**

**3.1 Functional Requirements**

**3.1.1 User Authentication**

The system shall provide secure login functionality for librarians, faculty, and students.

Passwords shall be securely stored using encryption techniques.

**3.1.2 User Management**

Librarians shall be able to add new faculty and students to the system.

Librarians shall be able to update faculty and student information.

**3.1.3 Book Management**

The system shall support the addition, removal, and updating of book records.

Each book record shall include information such as title, author, ISBN, and availability status.

**3.2 External Interface Requirements**

**3.2.1 User Interfaces**

The system shall provide a user-friendly interface accessible through common web browsers.

Interfaces for adding new faculty, adding new students, and managing books shall be intuitive.

**3.2.2 Hardware Interfaces**

The system shall be compatible with standard computer hardware and require an internet connection for optimal functionality.

**3.3 System Features**

The system shall generate reports on book availability, overdue books, and user activity.

Librarians shall receive notifications for overdue books and other relevant events.

**3.4 Nonfunctional Requirements**

**3.4.1 Performance Requirements**

The system shall handle concurrent logins and database transactions efficiently.

Response times for user interactions shall be within acceptable limits.

**3.4.2 Security Requirements**

User authentication and data transmission shall be secured using encryption.

Access to sensitive functionalities shall be restricted based on user roles.

**3.4.3 Usability Requirements**

The user interface shall be intuitive and user-friendly.

Help documentation shall be provided for users.

**3.4.4 Reliability Requirements**

The system shall be available 24/7, with scheduled maintenance communicated in advance.

Data integrity shall be maintained, and backups shall be performed regularly.

**4. Sign-off**

This document is to be reviewed and signed off by the stakeholders to confirm their agreement with the specified requirements.

Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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