**User Specifications**

**for**

**Library Management System**

**at PES University**

**Version 1.0 Draft**

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**1. Introduction**

**1.1 Purpose**

This Software Requirements Specification (SRS) document outlines the functional and nonfunctional requirements for the Library Management System(LMS) at PES University, Ring Road Campus. This system should efficiently manage the varied and specialized library services provided by the university, with functions for quick retrieval of its collections spanning across various specializations, in both the digital and print media. Hence, it aims to ensure productive access and control of information resources across all libraries within the university.

**1.2 Project Scope and Product Features**

The Library Management System will serve as a centralized platform to manage library collections, purchases, cataloging( using the AARC-2 Catalog System)\*, and lending across PES University's various libraries. The system will aid key library functions like buying books, subscribing to journals and its renewal, online reservations of books, keeping shelves organized, handling circulation, document delivery services and automating various library tasks. It will provide full management of both physical and digital resources.

**2. Overall Description**

**2.1 Product Perspective**

The Library Management System has the job of overseeing the intricate workings of PES University's five on-campus libraries. It will connect with the university's current systems and infrastructure and back up crucial library tasks such as buying books, organizing them, lending them out, maintaining archives of the various events taking place on campus through audio,video and newspaper clippings, and running the digital library that can be accessed by a system of 40 LAN connected computers\*. The system will offer features custom-made for different libraries' needs making sure everything runs smoothly and that students and faculty alike can get more resources.

**2.2 User Classes and Characteristics**

* **Students:** Primary users who look for, check out, and bring back books, use digital resources, and take advantage of services like booking online, plagiarism and originality tests and reprographic services\*.
* **Faculty Members and Research Scholars:** Users who will have special resources, keep track of research papers, and request for new books to be bought.
* **Library Staff:** Handle buying books, sorting and lending them, managing user accounts, and other services.
* **Administrators:** Oversee how the library runs, controls managerial permissions, and makes reports for all the libraries.

**2.3 Design and Implementation Constraints**

* The system will follow university IT standards and support the integration of existing library systems.
* The Library Management System must have the ability to grow to meet the increasing demands of the library collections and user base.

**2.4 Assumptions and Dependencies**

* The system will use existing student and staff databases for user authentication and will connect with other university systems as needed.
* All PES University libraries will follow the same set of policies and procedures, while allowing for specific services and resources.

**3. System Features**

**3.1 Book Search and Retrieval**

* **Description:** Students, faculty and research scholars can look for books, journals, industry information, academic literature, newspapers, magazines and case studies\* in all the libraries by typing in things like the book's name, its author(s) name, what it's about, or its ISBN number.
* **Priority:** High
* **Functional Requirements:**
  + Users can narrow down their search results to show only certain libraries, related query results, or resources that can be reserved online.
  + The system gives access to both printed books and digital e-books, including case-studies, magazines, and school papers.

**3.2 Book Issue and Return**

* **Description:** Keeps track of book loans and returns as well as other related tracking resources.
* **Priority:** High
* **Functional Requirements:**
  + The system will monitor all borrowed items' status and alert users about due dates and overdue materials.
  + Patrons can extend their loans online if no one else has reserved the same items.
  + The checkout counter will aim to process around 600 transactions each day aiming to cut down on long waiting periods.

**3.3 User Registration and Management**

* **Description:** Handles account creation and management for students, faculty, and researchers.
* **Priority:** Medium
* **Functional Requirements:**
  + The system will register users with their university credentials and give them access based on their roles.
  + Administrators can control permissions, set access levels, and keep an eye on user activity.

**3.4 Fine Calculation and Payment**

* **Description:** Automates fine calculations for overdue books and other resources and allows online payments as well.
* **Priority:** Medium
* **Functional Requirements:**
  + The system will work out fines as per university and library rules and alert users about unpaid fines.
  + The system will include online payment options to make it easy for users.

**3.5 Notification System**

* **Description:** Alerts users about due return dates, overdue items, new books, book availability and other library happenings.
* **Priority:** Low
* **Functional Requirements:**
  + Members can set up their alert settings through email notifications.
  + The system will also notify users about upcoming library programs and events.

**3.6 Multi-Library Management**

* **Description:** Oversees operations in multiple libraries at PES University.
* **Priority:** High
* **Functional Requirements:**
  + The system will bring together buying, listing, and sharing of resources across all libraries.
  + Each library will keep its own collection, with the Central Library at GJBC Block\* serving as the main hub to coordinate.
  + A detailed digital record of the books borrowed and returned at the Lending Library at Panini Block\* is maintained through its circulation counter.
  + Coordination with the various Department Libraries across the campus.
  + Smart listing features like Dewey Decimal Classification (DDC) will be made available in the forms to be filled for retrieving materials like journals and ebooks.

**3.7 Specialized Library Services**

* **Description:** Helps with special services that the Central Library and department libraries provide.
* **Priority:** High
* **Functional Requirements:**
  + **Reference Service:** Users can access reference materials and get help from library staff.\*
  + **Institutional Repository:** Users can access faculty publications and other university papers online.\*
  + **Plagiarism Checking:** The system will work with tools like Urkund to check academic work for plagiarism.\*
  + **Information Desk:** Helps users find resources, search databases, and get digital materials\*.

**3.8 Library Functions Management**

* **Description:** Oversees essential library operations including buying books, organizing them, and lending them out.
* **Priority:** High
* **Functional Requirements:**
  + **Books Acquisition:** The system will handle the whole process of getting new books and retrieving materials from taking suggestions for purchases to ordering from sellers and keeping track of new books as they arrive.\*
  + **Stack Maintenance:** Helps people find books and provides shelf guides.\*
  + **Journals Subscription:** Keeps tabs on 191 print journals, monitors incoming issues, sends reminders when issues don't show up, and takes care of binding completed volumes.\*