BUSINESS REQUIREMENT DOCUMENT

Library Management System (LMS) Website – EdTech

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# 1. Introduction

## 1.1 Purpose

This Business Requirements Document (BRD) outlines the functional and non-functional requirements for a Library Management System (LMS). The LMS will automate and streamline various library operations, providing efficient management of books, members, and transactions.

## 1.2 Scope

The LMS will cover the following key areas:

* **Book Management:** Cataloging, circulation, renewals, fines, and reservations.
* **Member Management:** Registration, profile updates, borrowing limits, and overdue notifications.
* **Transaction Management:** Check-ins, check-outs, and reporting.
* **Inventory Management:** Stock tracking, damage assessment, and disposal.
* **Reporting and Analytics:** Generate various reports on library usage, circulation statistics, and financial performance.

## 1.3 Assumptions and Dependencies

* The library has existing records of books, members, and transactions.
* The library has a suitable network infrastructure and hardware to support the LMS.
* The library has a budget allocated for the development, implementation, and maintenance of the LMS.

# 2. Business Goals and Objectives

* **Improve efficiency:** Streamline library operations and reduce manual tasks.
* **Enhance member experience:** Provide easy access to library resources and timely services.
* **Increase library usage:** Attract and retain members through effective marketing and promotions.
* **Optimize resource management:** Ensure efficient utilization of library collections and facilities.
* **Improve decision-making:** Provide data-driven insights for informed management decisions.

# 3. Key Stakeholders

|  |  |  |
| --- | --- | --- |
| **Stakeholder** | **Role** | **Interests** |
| Library Director | Overall library management | Efficient operations, improved member satisfaction, resource optimization |
| Librarians | Daily library operations | Streamlined workflows, accurate data management, time-saving tools |
| Members | Access to library resources | Easy access, timely services, convenient borrowing and return processes |
| Technical Staff | System implementation and maintenance | Reliable and user-friendly technology, data security |
| Board of Directors | Financial performance and strategic direction | Cost-effective solutions, increased library usage, positive public image |

# 4. Functional Requirements

## 4.1 Book Management

* **Cataloging:**
  + Ability to create, edit, and delete book records.
  + Capture metadata such as title, author, ISBN, publication date, subject, and keywords.
  + Support multiple formats (e.g., books, e-books, audiobooks).
  + Barcode generation and scanning for easy identification.
* **Circulation:**
  + Check-in and check-out functionality.
  + Automatic calculation of due dates and overdue fines.
  + Reservation system for popular books.
  + Holds and renewals.
* **Inventory Management:**
  + Stock tracking and reporting.
  + Damage assessment and repair tracking.
  + Disposal procedures.

## 4.2 Member Management

* **Registration:**
  + Online and in-person registration options.
  + Capture member information (name, address, contact details, etc.).
  + Set borrowing limits and privileges based on membership type.
* **Profile Management:**
  + Allow members to update their personal information.
  + Manage membership renewals and expirations.
* **Overdue Notifications:**
  + Send automatic reminders and notifications for overdue materials.

## 4.3 Transaction Management

* **Transaction History:**
  + Record all check-ins, check-outs, and fines.
  + Provide detailed transaction reports.
* **Financial Management:**
  + Track revenue from fines and fees.
  + Generate financial reports.

## 4.4 Reporting and Analytics

* **Customizable Reports:**
  + Generate reports on circulation statistics, member usage, inventory levels, and financial performance.
  + Export reports in various formats (e.g., PDF, CSV).
* **Data Visualization:**
  + Use charts and graphs to visualize data and trends.

# 5. Non-Functional Requirements

## 5.1 Performance

* The LMS should be responsive and handle high transaction volumes efficiently.
* Load testing should be conducted to ensure system performance under peak usage.

## 5.2 Security

* Implement robust security measures to protect sensitive data (e.g., member information, financial records).
* Adhere to industry best practices for data privacy and protection.

## 5.3 Scalability

* The LMS should be scalable to accommodate future growth in the library's collection and membership.

## 5.4 Usability

* The user interface should be intuitive and easy to navigate for both staff and members.
* Provide clear instructions and help documentation.

## 5.5 Accessibility

* Ensure the LMS is accessible to users with disabilities, complying with relevant accessibility standards (e.g., WCAG).

## 5.6 Integration

* If applicable, consider integrating the LMS with other systems (e.g., library catalog, financial management software).

# 6. Constraints and Assumptions

* **Budget:** The LMS development and implementation must adhere to the allocated budget.
* **Timeline:** The LMS should be implemented within a specified timeframe.
* **Technology:** The LMS should be compatible with the library's existing technology infrastructure.

# 7. Cost-Benefit Analysis

## 7.1 Costs

* **Development:** Costs associated with software development, customization, and implementation.
* **Hardware:** Purchase or upgrade of hardware infrastructure to support the LMS.
* **Training:** Costs for training library staff on using the LMS.
* **Maintenance:** Ongoing costs for system maintenance, updates, and technical support.

## 7.2 Benefits

* **Increased efficiency:** Reduced manual tasks, improved workflows, and faster service delivery.
* **Enhanced member satisfaction:** Improved access to library resources, convenient services, and timely notifications.
* **Optimized resource management:** Better tracking of inventory, reduced losses, and improved utilization of resources.
* **Improved decision-making:** Data-driven insights for informed strategic planning and resource allocation.
* **Cost savings:** Potential cost savings from reduced manual labor, improved efficiency, and reduced losses.
* **Increased revenue:** Potential increase in revenue from fines, fees, and membership dues.

## 7.3 Quantifiable Benefits

* **Time savings:** Estimate the amount of time saved by library staff through automated tasks.
* **Cost savings:** Calculate the potential cost savings from reduced manual labor, paper usage, and other expenses.
* **Increased membership:** Estimate the potential increase in membership due to improved services and accessibility.
* **Revenue generation:** Calculate the potential increase in revenue from fines, fees, and membership dues.

## 7.4 Qualitative Benefits

* **Improved member satisfaction:** Measure member satisfaction through surveys and feedback.
* **Enhanced library reputation:** Assess the impact of the LMS on the library's reputation and public image.
* **Strategic advantages:** Evaluate how the LMS contributes to the library's overall goals and objectives.

## 7.5 Return on Investment (ROI)

* Calculate the ROI by comparing the total benefits to the total costs.
* Consider both tangible and intangible benefits when assessing the ROI.

# 8. Success Criteria

* **Increased efficiency:** Reduction in manual tasks and improved operational efficiency.
* **Enhanced member satisfaction:** Positive feedback from members regarding the LMS.
* **Improved decision-making:** Effective use of data and analytics for informed management decisions.
* **Return on investment:** Justified expenditure on the LMS through improved services and increased library usage.