LIBRARY MANAGEMENT SYSTEM

In partial fulfillment of the subject Integrative Programming Technology to be submitted to :

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Project Description

The Library Management System (LMS) is a web-based application designed to assist libraries in efficiently managing their book inventory, tracking members, and assisting the borrowing and returning process. By automating conventional manual practices, the LMS enhances library operations, reducing the need for extensive paperwork and minimizing administrative workload.

The system provides a user-friendly interface made for both library staff (Admins) and students, allowing seamless navigation and quick retrieval of information. Admins can manage book records, issue books, send return notifications, and maintain an updated catalog, while students can browse books, reserve available titles, and track their borrowing history.

This LMS is designed to be used within a specific library location and will ensure that all transactions, book data, and notifications remain accessible only within the system.

Objectives

The Library Management System aims to:
1. Make it easier for libraries to check, organize, and manage their book collections, ensuring that the books remain well-organized and easily accessible for users.
2. Operate a library with efficiency and reduce operational costs as managing a library manually is labor intensive and an immense amount of paperwork is involved.
3. Develop a simple and user-friendly interface for library staff and users to facilitate easy navigation, quick retrieval of information, automatically record the transactions in the database, and the use of the library without any hassle.
4. Overall, it aims to enhance the library services to be more efficient and accessible to improve user satisfaction and create a better environment for learning and research.

Scope and Limitations

Features and Functions

Starting Page
Create Account
- Allows new users (either students or admins) to create an account.
- After filling in the required information (username/email and password), the user selects if they are a Student or Admin.

Login
- Users input their username/email and password.
- After providing credentials, they choose whether they are a Student or an Admin to be directed to the respective platform.

Admin Button

- Directs an admin to the Admin Platform after login.

Student Button
- Directs a student to the Student Platform after login.

Forget Password
- Allows users to reset their password in case they forgot the current one.

Admin Platform

Add Books
- Enables the admin to add new books to the system, updating the book list with relevant details.

Delete Book
- Allows the admin to remove a book from the platform.

Issue Book to Student
- Send a notification to a student reminding them that they haven't returned a borrowed book.

Track Borrowed Book
- View the list of currently borrowed books and their respective due dates.

Book List
- Displays the list of books currently available in the system.

Return Notice
- Send a reminder/notice to students who need to return their borrowed books.

Log-out
- Logs the admin out of the platform when they're done.

Student Platform

Book List
- Displays available books that the student can browse.

Book Information

Displays detailed information about a selected book, including:
- Author
- Availability (whether the book is available or borrowed)
- Summary
- Rating/Review
- Book Reservation Button (for reserving the book if available)

Book Reservation
- Allows students to reserve books they want to borrow.

Search & Filter
- Quickly locate books based on their title, author or genre.

History

Displays:
- Student Information (personal details)
- Borrowed Book History (past and current borrowed books)
- List of Favorite Books

Return Notices

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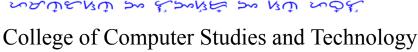*Brgy. San Jose, San Pablo City*

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- Reminding students to return borrowed books.
- Notify students about due date and overdue books.

Limitation

➢ Users will be required to authenticate before accessing the platform, whether it is the admin or student platform.

➢ Book data and notification will only be available within the system.

➢ Students can only view book details and availability but cannot add, edit, or remove books from the system.

➢ In notification, the system will only send reminders but does not allow students to request extensions for the book

➢ The platform only allows borrowing and reserve books from a specific library location.

System Development Phases & Timeline

Phase 1: Planning and Analysis

Gather Project Requirements

On March 25, 2025, the first group meeting was held to discuss project requirements, system enhancements, and UI design. The team acknowledged that system enhancements and the UI theme/design are still in progress, with final decisions expected in the next meeting after consulting with the programmers. Regarding the project timeline, the first week focuses on finalizing the UI theme and design, identifying the target market or audience, and defining the system's purpose.

Project Roadmap & Future Plans

- The library system will include a book preview feature that provides a contextual summary of each book.
- Users will be able to view a book's availability status, author(s), volume, and other relevant details.
- The target audience is yet to be determined potential clients include a specific school/university institute or a general audience.

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The system will have two user roles:
- *Admin Dashboard:* Full system management access.
- *Student Dashboard:* Limited access to book search, borrowing, and availability status.

Identify key stakeholders and define user roles

- *Students* – Primary users who will search for books, check availability, and borrow books.
- *Admins* – Manage books, users, and borrowing records.
- *Developers* – Responsible for system maintenance, updates, and troubleshooting.