

Requirements

The University Library Management and Automation System is designed to manage the library processes and allow the users – whether they're students, faculty members, or librarians – to perform tasks such as searching for books, borrowing and lending books, receiving and sending automated reminders, and tracking inventories. This system will operate through the use of a website which should allow users to create accounts and access the database of books according to their role. To fulfill these requirements the development of this system will make use of the following tools.

Database

The University Library Management and Automation System requires the use of multiple databases, specifically to implement the catalog of books in the library, the list of registered user accounts, and the record of late fees and book transactions. Our team will be using MySQL as the database management system.

Backend / Server Side

In order to interface with the MySQL databases we will be using PHP. PHP is a server side scripting language well suited for web development. PHP also supports integration with HTML which will also be used for this system. The server side logic will be the central connection point between the user's input and the relevant databases.

Frontend / Client Side

HTML is the standard markup language for creating the structure of a website, and as such we will be using HTML for the frontend of the system. HTML will be used to create the user interface including the process for accessing user accounts, browsing the book catalog, and managing late fees.

Web Hosting & Version Control

The ULMA System will use cPanel to host the server and website. cPanel provides tools to manage website and server tasks and resources. It also provides a graphical interface for MySQL databases and file management. To handle version control management we will be using GitHub. The project's repository will hold all the information produced in the software development process.