Library Management System

Team Members :- [CSE-CC (J1 section)]

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Purpose :- Designing a system to provide automation to library.

Technology Used :-

- Frontend – HTML, CSS, Java script
- Backend – PHP, Mysqli, Wamp Server

ABSTRACT

Library Management System is a systematic way of managing the movement of books and maintaining students' data for library. The project is developed in PHP, which mainly focuses on three components – Student, Book issue, and Book return. It consists of several modules for adding new student (admission), student list, adding new book, book list, issuing book, issue list, updating stock, returning book and return list.

This "Library Management System" project provides us with all the necessary information about how library is managed. We can create new book records and retrieve information about books that are currently available in the library. We can also issue books to students and keep track of their progress, as well as check how many books have been distributed and how much stock of books is available in the library. We can also keep a track of the fine for students who return the provided books after the due date with this initiative.

The emphasis has been on presenting information in a simple and understandable manner throughout the project. The project is extremely beneficial to individuals interested in learning more about Library Management Systems.

Functionalities

A “librarymanagement” database has been created.

1. **Login Page**
   This page consists of entering username and password to login into the system. There is a condition to **validate** the correct username and password that has been mentioned in the “user” table. Else if any credential is wrong, a message “* Invalid Username or Password” is printed on the screen.

2. **Dashboard**
   This page mainly consists of displaying the different components of the project in a precised manner. The “**mysqli_num_rows**” method has been used to display the **count** of rows for total number of students, books, books issued and books returned. Also, a dropdown menu has been included for convenience in navigation between the pages.

3. **New Student (admission)**
   This page mainly consists of a form to enter student details into the “student” table. The form consists of different input fields such as **text, number, date, radio and file**. Other than this, **select** tag has been used to create a dropdown list. A submit button has been used to submit the form. An **insert** query is executed to add data into the table and also an **update** query is executed to increment adm_no in “admission_number” table. After submitting the form, an **alert** box appears on top of the screen to ensure the admin that data has been recorded successfully.

4. **Student List**
   This page is designed to display some selected columns of students from the “student” table. The **select** query is executed to show the details. An add student **button** is also included to navigate to the new student page. A **search** bar is added for ease in **searching** for specific data. A **filter** bar has been designed using **select** tag to filter data according to the number of entries given. An eye icon is included to view the complete details of the selected student.

5. **Student Details**
   This page uses **select *** query to display the entire details of a student.

6. **New Book (introducing new book into library)**
   This page mainly consists of a form to enter book details into the “book” table. The form consists of input fields like **text and number**. A submit button has been used to submit the form. An **insert** query is executed to add data into the table and also an **update** query is executed to increment bookcode in

"book_code" table. After submitting the form, an **alert** box appears on top of the screen to ensure the admin that data has been recorded successfully.

7. **Book List**

   This page is designed to display the details of book from the "book" table. The **select** query is executed to show the details. An add book **button** is also included to navigate to the new book page. A **search** bar is added for ease in **searching** for specific data. A **filter** bar has been designed using **select** tag to filter data according to the number of entries given.

8. **Stock Update**

   This page is concerned with updating the number of a specific book into the stock column of "book" table. To perform this, **update** query has been used. After submitting the form, an **alert** box appears on top of the screen to ensure the admin that data has been recorded successfully.

9. **Issue Book**

   This page consists of a form to **insert** book issue log into "issue_book" table. A pinch of AJAX has been utilized for auto-filling of certain input fields upon selection of book name. After submitting the form, an **alert** box appears on top of the screen to ensure the admin that data has been recorded successfully.

10. **Issue List**

    This page is designed to display the book issue log from the "issue" table. The **select** query is executed to show the details. A **search** bar is added for ease in **searching** for specific data. A **filter** bar has been designed using **select** tag to filter data according to the number of entries given.

11. **Return Book**

    This page consists of a form to enter the admission number for displaying details of the assigned student and the list of books issued by him/her (which has not been returned back to library). Clicking on return takes to return_details page for assurance of the details to be checked before submission.

12. **Return Details**

    This page consists of a form in which student details as well as details of the book to be returned is displayed. Fine is calculated according to the expected return date (30 days from issue date). Each day exceeded from the expected return date costs Rs 3 as fine. After submitting the form, an **alert** box appears on top of the screen to ensure the admin that data has been recorded successfully.

13. Return List

This page is designed to display the book return log from the “return” table. The **select** query is executed to show the details. A **search** bar is added for ease in **searching** for specific data. A **filter** bar has been designed using **select** tag to filter data according to the number of entries given.

ER Diagram