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LIBRARY MANAGEMENT SYSTEM

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ABSTRACT:

The aim of the library management system is to develop a computerized system to carry out all the day to day work of the library. This project has many features that are not commonly available in general library management systems such as user login facility and teacher login facility. It also has an admin login feature through which the admin can monitor the entire system. It also has an online notice board where teachers and students can report workshops or seminars held at our college or nearby colleges and add librarians to the notice board after proper verification by the respective organization organizing the seminar. It also has a facility where students can view the list of books issued after their login in their account and its release date and date of return and request the student librarian to add new books by filling the book request form. After the librarian logs in to his account, the administrator can create various reports such as student report, problem report, teacher report and book report.

KEYWORDS: *Library, Barcode Scanner.*

INTRODUCTION

The main objective of library management system is to organize and manage library activities. A library is a place where all kinds of books are available. This is a web based application and only registered users can access the application. A library management system has been developed to automate the task of entering new book entries and retrieving details of books available in the library. This system contains a list of all books. Using this system the user can issue books to the library members, keep their records and check how many books have been issued and how many books are available in the library. The system provides a separate interface and login for librarians, students and professors. The librarian can make changes to the database. Using the library management system, the user can also maintain a late penalty for library members who return books issued after the due date. Users can find books and renewal books online. In the proposed system, we assume that each member will have an identity card which can be used to issue a book in the library, to pay the fine. They can recommend new books by simply sending a message to the librarian from anywhere in the college. Whenever the library members wish to take the book, both the book details issued by the library authority as well as the student details will be checked and stored in the library database. They can view any book issue and return dates and will have to pay.

People all over the world have been spreading this knowledge in written form since ancient times. First, information is stored by carving words on copper using a sharp tool; Information is stored on paper until the paper is invented and the birds use ink and feathers, which helps a lot in the purpose of archiving. It is very difficult to keep the data stored in books safe and secure; Like you know the paper can be torn or it can be stolen by someone or in the worst case the pages can eat the bug. Since ancient times, libraries have been manually managed by a group of people. These methods are really difficult compared to today's digitized world, nowadays we can find anything with just one click, but we see in the earlier methods that they kept a written record of everything and that record keeps growing as time goes on. If a record is lost, there is no one else to recover it, so the loss is permanent. Digitization of the library helps to keep all the records safe and retrievable which saves paper and makes it easy to store the library records. The project not only helps in keeping library records but also provides access to library management staff and students to check information related to books such as availability of books, release and return dates, penalties for late book return and so on. Information will be available to both librarians and students so it will be a transparent system.

PRESENT SYSTEMS DRAWBACKS:

In our current system, all book transactions are done by hand, so transactions like borrowing a book or returning a book and finding books take more time. Another major disadvantage is that it will take more time to compile a list of borrowed books and a list of available books in the library, which is currently a one-day process to verify all entries. Library Management System is a project aimed at developing computerized systems to maintain all the day to day functioning of the library. The "Library Management System" focuses primarily on basic operations such as adding new members to the library, updating new books and new information, finding books and members, and facilitating the borrowing and return of books. This project has many features that are not commonly available in general library management systems such as user login facility and teacher login facility. The user can create a variety of reports such as lists of registered students, book lists, issue and return reports. The "Library Management System" is designed to help users maintain and manage a library. It is used by the librarian to manage the library using computerized system where he / she can record various transactions like issuing books, returning books, adding new books, adding new students etc. The proposed system is an automated library management system. It also has an admin login feature through which the admin can monitor the entire system. Using this system, students can login to the online system and after logging in to their account, see the list of books issued and its release date and return date. With our software the user can add members, add books, find members, find books, update information, edit information, borrow books and return as soon as possible. Using the Library Management System, students can request librarians to add new books by filling out a book request form. Using this system, librarians can create various reports such as student reports, issue reports, teacher reports and book reports. The system also includes books and student maintenance modules that will track students who use the library and will also describe in detail the books in the library.
Process of Library Management System:

1. User Login:

This feature is used by the user to log in to the system. They must enter a user ID and password before entering the system. The user ID and password will be verified and if there is an invalid ID then the user is not allowed to access the system. Functional Requirements: - User ID is provided at the time of registration. The system should only allow users with a valid ID and password to access the system. The system performs an authorization process that determines the user level access. The user must be able to logout after completing the system usage.

2. New User Registration:

This feature can be used by all users to register a new user to create an account. Functional Requirements: -Must be able to verify system information. The system must be able to delete information if the information is incorrect.

3. New Book Registration:

This feature allows you to add new books to the library. Functional Requirements: Must be able to verify system information. Must be able to enter multiple copies in system table. The system must be able to not allow two books with the same book ID.

4. Book Search:

This feature is found in the book maintenance section. We can find books based on book ID, book name and publication or author's name. Functional Requirements: - The system must be able to search the database based on the selected search type. The system must be able to filter the book based on the keywords entered. The system must be able to display the filtered book in table view.

5. Book Issue and Book Return:

This feature allows us to issue and return books and also view reports of the book issued. Functional Requirements: - Must be able to enter problem information in system database. The system must be able to update many books.

6. Event Addition:

This feature allows the librarian and the student to add information about the various workshops held at nearby colleges and colleges. Functional Requirements: -The system should be able to add detailed information about events. The system should be able to display information on the notice board available on the homepage of the site.

7. Barcode and Barcode Scanner:

Barcode (spelled bar code) is a method of representing data in visual, machine-readable form. Initially, barcodes represent data by changing the width and distance of parallel lines. A barcode reader (or barcode scanner) is an optical scanner that can read a printed barcode, decode the data contained in the barcode, and send the data to a computer.

WORKING:

The main purpose of the library management system is to provide a convenient digital interface between the student and the library. Nowadays almost everything has gone digital and so have libraries. This is nothing more than digitally organizing library entries, which will only allow students to check the status of booking, due dates, book issuance and check new books arriving in the library, all activities can be done by simple login registered user.

CONCLUSION:

This study will provide a computerized version of the library management system that will benefit students as well as library staff. It does the whole process online where students can find books, create staff reports and do book transactions. It also has a student login facility where the student can log in and view the status of the books issued as well as request for the book or give some suggestions. It has a teacher login facility where teachers can add lecture notes and also give necessary instructions to the library and add information of workshops or events taking place in our college or nearby college in the online notice board.

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