WEB BASED DIGITAL LIBRARY MANAGEMENT SYSTEM

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Abstract- Library System is a fast growing database for information retrieval which aims in developing a computerized system to maintain all the daily work of library. A properly computerized library will help its users with quick and prompt services. Library automation refers to mechanization of library housekeeping operations predominantly by computerization. This work has many features which are generally not available in normal library management systems like facility of user login and a facility of Teachers login. It also has a facility of admin login through which the admin can monitor the whole system. Objectives of this study: To develop and updated database of books and other facilities of the computer application departmental Library. To provide various search options to check the availability of books in the Library to generate the list of books due by a particular member and also the overdue charges. It is an integrated software system with all the required models for small to middle level libraries. It is found that this automation projects will serve as a model for any library. Overall this project is being developed to help the students as well as faculty of library to maintain the library in the best way possible and also reduce the human efforts

Key words- Computerized library, library automation, user login, teacher login, human efforts

I. INTRODUCTION

Library is a fast growing organism. The ancient methods of maintaining it are no longer dynamic and efficient. Library Management Systems (LMS) had a history of evolution back in the mid-1950s. LMS also referred to as Integrated Library Systems (ILS) in later years to reflect the fact that all functions are managed through central database. Also ILS is an enterprise resource planning systems for a library, used to tracks items owned, order made, bills paid etc. Since the advent to the term automation in 1936 [1], large number of definitions are found in library literature. Current commercial and open source LMS and the need for new design principles that take advantage of new software and interoperability paradigms such as services-oriented architecture (SOA) and web services that have arisen from the distributed nature of the web. Changing user behaviors and need to manage both core functions of a traditional LMS, new electronic resources and capability for interoperating with external applications, such as course management systems, personnel directory systems, are integral part of institutions. Initiatives of the OLE (Open Library Environment) Project [2], the eXtensible Catalog Project, [3] the proposals of the Digital Library Foundation [4] (DLF), the National Information Standards Organization’s (NISO) proposals for best practices [4] and OCLCs, a global library cooperative, supports thousands of libraries in making information more accessible and more useful to people around the world. Recent proposal to use cloud computing paradigms to move the traditional LMS to becoming a fully web-based are discussed as pointers to the emerging future of LMS. The drawbacks of current LMS products have summarized in the discussions [5],[6], [7] in the past few years now. Librarians and vendors bodies such as the NISO, DLF and active web forums have discussed these in several live meetings, online forums. In the last two years there have been very proactive
initiatives. Among these, the following initiatives have made significant progress and their findings will undoubtedly have a great impact on the future shape of LMS

II. METHODOLOGY

Library Management System is a computerized system which helps user (librarian) to manage the library daily activity in electronic format. It reduces the risk of paper work such as file lost, file damaged and time consuming. It can help user to manage the transaction or record more effectively and timesaving. The data framework is essential in gathering all information and also the data of all faculty or student. The framework is typically given extremely accommodating that will replace the human as to keep it in record as the stock or different purposes. To outline a supportive framework with a specific end goal to make simplicity to the client, the framework is created by utilizing Xampp Server interfacing with database that is using PHP language as the guideline of the framework. The developed framework is a standalone framework which is on recording and updating the information. It is additionally given report on the other hand printed record to the client in the framework which will report the status of the student and faculty. This new framework uses database idea to store all the data which related with area application forms. This framework mainly focused around database ideas which is more solid and also focused to make a simple checking students book status. By utilizing this framework, staffs can check the book's status quicker in time contrasted with the current framework. Furthermore, each one of the sub-framework has verification and validation permitting approved clients to make or overhaul data in that subsystem. All information altogether evaluated and approved on the server before real record adjustment happens. In addition to a faculty client interface, the framework plans for student client interface, permitting clients to get to data and submit demands online accordingly shortening transforming time. All information is put away safely on servers oversaw by the college executive or the main Librarian. The framework offers a complex logging framework to track all clients get to and guarantee adjustment to information access rules also is relied upon to expand the proficiency of the college’s record administration consequently diminishing the work hours required to get to and convey understudy records to clients.

III. OBJECTIVES

Objectives of this work:-

- Issue of books offline.
- Login page of a student where he/she can find books issued and date of return.
- Searching availability of books using search column.
- A report generation column to get the details of student and faculty book transaction.
- After computerized system is implemented less human force will be required to maintain the library thus reducing the overall cost
- time Librarian is able to search record by using few clicks of mouse and few search keywords thus saving his valuable time
- Teacher have a facility to upload lectures notes in a pdf file having size not more than 10mb

IV. DESIGN AND IMPLEMENTATION

Implementation is the stage in the paper where the theoretical design is turned into a working system. The implementation phase constructs, installs and operates the new system. The most crucial stage in achieving a new successful system is that it will work efficiently and effectively.
a. Working of book transactions

- It consists of 5 tables: DEP_LIB STUDENTS, DEP_LIB PROFESSOR, DEP_LIB BOOKS, DEP_LIB BOOK_TRANSACTION STUDENTS, DEP_LIB BOOK_TRANSACTIONS_PROF
- Students/Professor can transact the books which are available in DEP_LIB BOOKS

Admin database and Student database:
Admin Database maintains the record of student, faculty, book and book transaction. Admin is responsible for book transactions. Student Database contains the record of students. It includes the studentid, student name, student password and student sem. These records are stored in the form of tables. There are four tables in this database stu_id, stu_name, stu_pass, stu_sem.
Tables in student database

Sign in form for student and faculty

When the system starts it firstly shows the login form. In that form only the registered user can sign in. The user who is registered will enter the user name and password to access the system.

Home page:- When the authorised user signin in the database then firstly the home page of that user will open. It will show his student usn,name ,password,semester . It Display’s student book transactions of that particular student , shows bookid ,bookname ,borroweddate returndate .and search option is to search availability of book’s. When the student click on the search button availability of books will appear
When the student/faculty sign in then only his/her information will be shown. The developer uses the sessions in php coding at the backend along with the SQL queries.

V. RESULTS

The combination of all the above web pages results in a web application named Library Management System, which works as online library for a computer application deparmetal Library. Several user friendly interface design being developed. This package shall prove to be a powerful package a computerized version of Library Management System which will benefit the students as well as the Faculty of the library for the automation of the major day today activities of the various section of the Library, which is tiresome and cumbersome. It makes entire process online where student can search books, staff can generate reports and do book transactions. It also has a facility for student login and also faculty login where student and also the faculty can login and can see status of books issued as well request for book or give some suggestions.

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