

Integrated Library Management System

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Abstract— An integrated library management system (ILMS) is a computer based system that is used for monitoring the daily activities of a library. The ILMS manages borrowing and returning of books and other resources. It helps users for finding resources for teaching, reading and learning. The ILMS system is maintained by the librarian and library admin. The ILMS stores details like name, address, ID number, date of birth of members working in library and users who come to library. The ILMS provides exact information about the number of books that are taken by the users. This system can view reserve books and find out who is having that book. The Integrated Library Management System (ILMS) uses a fingerprint scanning for securing the datas stored in the library database. The fingerprint scanner is also called as Direct Fingerprint Reader (DFR).The ILMS contains several modules. The ILMS minimizes the redundancy of data, secures the data and provides fast transaction to the users.

Keywords— Integrated library management system (ILMS), computer-based system, modules, fingerprint scanner.

I. INTRODUCTION

Library is a place where all kinds of books are available. The collection of knowledge in an institution is a library. It helps to provide information on any books present in the library to the users. It keeps track of books issued, returned and new books added to the library. . The integrated library management system (ILMS) consists of list of records about the management of the user details, book details and its transaction performance. By using this ILMS there is no loss of book record/member record, which generally happens when a non computerized system is used it allows librarian and library users to minimize time. The integrated library management system has four main ideas:

- Insertion to database →user-friendly module.
- Extracting from database→attractive output screen.
- Report generation module→borrowed books and available books.
- Search facility system→search for books and members.

Every user entered into the library must sign in. If the user is not registered, then there is a option for new registration [sign up].The ILMS gives detailed information about the users. It will keep track of various books available in the library. The users can find out the books by searching any one of these:

- Title
- Author name

- Subject
- Publication series
- ISBN/ISNN

Library management system is all about forming, managing the library and library-oriented tasks. It also involves maintaining the database of entering new books and the record of books that have been retrieved or issued, with their particular dates. The key aim of this project is given that it is easy to handle and automated library management system. This project also provides features and interface for maintaining librarian's records, student's history of issue and fines. The owner can easily update, delete and insert data in the database with this project.

II. LITERATURE REVIEW

- Nicola Aloia, Cesare Concordia-Digital library Management system plays an important role in the way of information is produced and used in the internet. The main aim of the project has been to design and develop an open user and service oriented infrastructure to share knowledge and resources.
- Prasanna pillai,sonal singh - This is management Software for monitoring and controlling the trans actions in library. In this they are created a virtual private network for library that exits only between college library and students in same college. In this network the server will be in the PC library that is in the admin PC and client will the students who will be interacting with the server through their

mobile phones. The software in the server side will be scripted in PHP and student will be in android application.

- Bhubundra, Shradha Panwar - The online library management system which focuses on the basic operations in library like add and deleting book, member details search book and provide facility to borrow and return book. it is a web based application through this system user can view the details at any time and updates new information quickly to users.

III. OBJECTIVES OF ILMS

The main objectives of an integrated library management system are:

- To build a system that receives input and generates automatically output in easy and short time.
- To build a monitoring system that is able to monitor and manage all library operations efficiently.
- Give an opportunity to librarians to reduce mistakes that always happen.
- To store properly the library items in order to maintain their security.
- To enter and preserve details of the various issues and keep track on their returns.

IV. FEATURES OF INTEGRATED LIBRARY MANAGEMENT SYSTEM(ILMS)

The main features of ILMS are:

- Keep record of different categories like: Books, Journals, Newspapers, Magazines, etc.
- Classify the books subject wise.
- Easy way to enter new books.
- Keep record of complete information of a book like: Book name, Author name, Publisher's name, Date/ Year of publication, Cost of the book, Book purchasing date/ Bill no.
- Easy way to make a check-out.
- Easy way to make a check-in.
- Automatic fine calculation for late returns.
- Different criteria for searching a book.
- Different kind of reports like; total no. of books, no. of issued books, no. of journals.
- Easy way to know how many books are issued to a particular student.
- Easy way to know the status of a book.
- Event calendar for librarian to remember their dates.
- My Notes section for librarian to write any note.

V. FINGERPRINT SCANNER

The fingerprint scanner is also called as direct fingerprint reader (DFR). The fingerprint scanner is a biometric device that uses a automated methods of recognizing a person based

on unique physical characteristics of a persons fingerprint. Fingerprint scanner is the process of electronically obtaining and storing human fingerprints. A fingerprint is a biometric process because it involves the automated capture, analysis and comparison of specific characteristics of a human body. A complete set of finger scans for a person can be easily copied, distributed and transmitted over computer networks. Computers can analyze a finger scan and compare it with thousands of other finger scans. This greatly speeds up the process. A fingerprint scanner is a security system. The fingerprint cannot be removed or changed. Every fingerprint is different from any other in the world. Because the fingerprints are much used for identification.



Figure .1

VI. FUNCTIONAL REQUIREMENTS OF ILMS

The functional requirements of an integrated library management system ((ILMS) are:

- Admin login
- User login
- Add books
- Search operation
- Issue books
- Return books
- Fine charge

A. Admin Login

The has to authenticate a user, that is to know whether user can get access to the system. At the time of login, the user will be required to scan their fingerprint.

If for any user these fields don't match, then the user will not be allowed to use the system. The user id is stored at the time of registration.

This library management system must only allow a user with valid id and password to become the beneficiary. After this authorization takes place, to know what all are the levels a particular user can access to.

Also after finishing the work user must log out of the system to prevent the transaction from any invader.



Figure .2

B. User Login

This is performed when the user is new to the system and wants to become a part that wants to create a new account. For this system must verify the entire user’s information. And also the information must be removed if found illegal or unrelated.

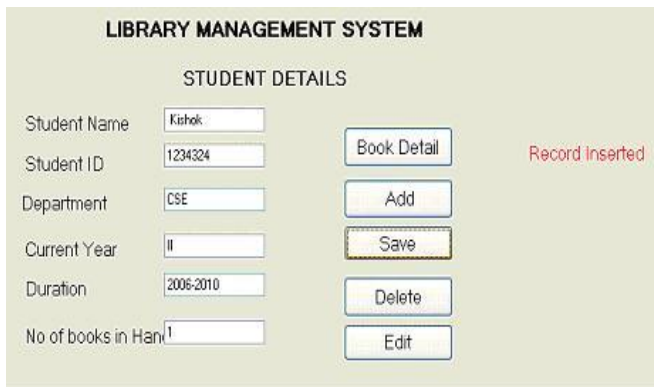


Figure .3

C. Adding New Books In Library

This feature is used to add new books to the library by the authority of the librarian. The system must enter and maintain the number of copies of each individual book. The system must also allocate unique id to individual books carefully.

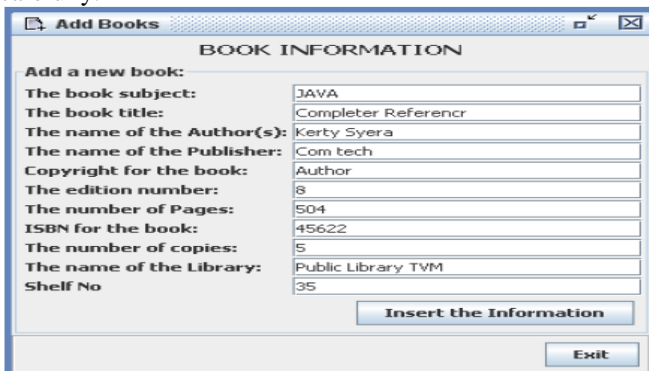


Figure. 5

D. Search Operation

This system provides the facility of searching books based on their unique identity, the name of the book, name of the author. There must be some filters available to search with keywords. The search option must be provided to the users for searching a particular book.

E. Issue Books

This is for issuing books and maintaining the issue status in the database appropriate. The system must be performing with storing the issue data into the database. The update number of books feature must be working fine. Before issuing any book, the system must firstly check for its availability, if it is available in store or not. Along with issuing the books, the return dates must be mutual with the students and must be entered into the database.

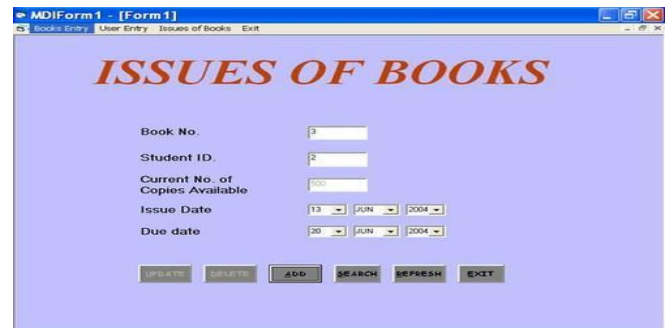


Figure .5

F. Return Books

The users must return the books to the library admin on time. If any user fails to return the book within the due date, then the fine amount will be charged. Every user must return the book within the due date.

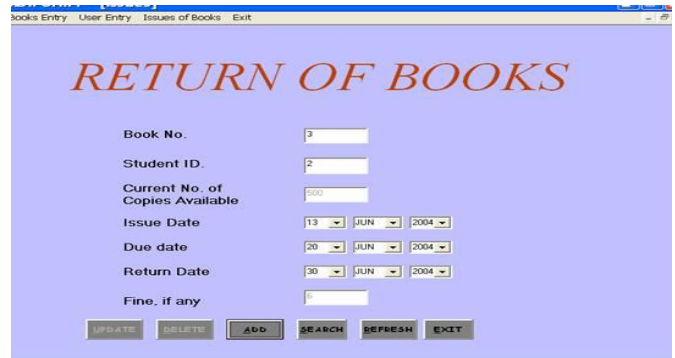


Figure .6

G. Fine Charges

In case of failure in return book on or before the last date, the student will be charged fine, based on the per day rate multiplied by the number of days. The system must update this status within a short duration. Also once the fine has been paid, the status must be updated again within a short duration.

VII. CONCLUSION

In this paper, integrated library management system (ILMS) secures the data of the users. The users can easily access their library account in order to check the availability of books, borrow the books, and return the details of the books in the library. The main aim of this project is providing an easy to handle and automated library management system. This project also provides features and interface for maintaining librarian's records, student's history of issue and fines. The integrated library management system (ILMS) overcomes the issues of time consuming, allows fast transaction, reduces loss of data and secures data in an efficient and safe manner.

REFERENCES

- [1] A.ThendralMary, S.Ramya, Mr.S.Krishnamurthy, Dr.A.Valarmathi "Enhanced Library Management System" (ISSN:2320-2882),IJCRT,Vol 5, Issue 4, October 2017.
- [2] Alwi Mohd Yunus, Irwan Kamaruddin Abdul Kadir, Ahmad Nazri Mansor, Mohd Razilan Abdul Kadir "Library Management System (LMS): Impact On Library Environments"(ISBN:978-0-9860419-7-6).
- [3] Mohammed.I.Younis "SLMS: A Smart Library Management System Based On RFID Technology" (ISSN 235637069)Vol 4 ,No.4,2010.
- [4] Akansha Verma, Niharika Garg "RFID Library Implementation" (ISSN:2320-088x),Ijcsmc,Vol 3, Issue 4 ,April 2014.
- [5] Chetan.J, Jadhav, Shivani S.Jadhav, Vijay M.Sancheti, Prof.Shailesh, S Hajare "Smart Library Management System Using RFID Technology" (E-ISSN:2395-0056,P-ISSN:2395-0072)IRJET,Vol4 ,Issue5 ,May 2017.
- [6] L.J.Haravu "Emerging Initiatives In Libarary Management Sysytem", ICAL 2009.