ENHANCED LIBRARY MANAGEMENT SYSTEM

A.Thendral Mary[1], S.Ramya[2], Mr.S.Krishna Murthy[3], Dr.A.Valarmathi[4]
[1]Department of Computer Application
[2]Department of Computer Application
[3]Superintendent, Finance Sector
[4]Head of the Department, Department of Computer Application
University College of Engineering, Anna University, BIT-Campus, Trichy-India

Abstract: Enhanced Library management System - ELMS is a project it used to developing a computerized system of maintaining all the daily activities in library. It is a Windows Application; it gives us the complete information about the library. This project has many feature differ from normal library management system like facility of Student login, Librarian login and has the facility of Admin login. An ELM was developed to manage the efficient way of daily book transaction, manage the members and the book records properly. It has developed by use of Eclipse IDE tool. It helps to improve management of the book property in library. This system is mainly used by librarian and the library admin .We can enter the record of new books and retrieve the record detail of those books available in the library. The librarian can issue the books to the student and maintain their records. He can also check how many books are issued and stocks available in library. This project has three module as Student, Librarian and Admin. In manual system normally librarian is able to manage the member maintenance module, book maintenance module and also the most important module in a library which is book transaction module. This Enhanced Library management system also allows user to manage the publisher as well as return book detail these all are managed by the librarian.

Keywords: Windows Application, Eclipse IDE, Computerized System, Library Management, ELMS, Library Modules, Transaction.

I. INTRODUCTION

Library is a place where all kind of books are available; The collection of knowledge in an institution is library. The library usually contains the information physically or digitized method. Library management system consists of list of records about the management of the student detail, book details and its transaction performance. The ELMS project is developing a computerized system in library management. As the modern organizations are computerized, This ELMS helps become essential for human being, commodity and computers in modern organization. An ELMS is an application which refers to library systems are generally small/medium in size. It helps the librarian to manage the library with the computerized system, by use of this system he can record various transaction like issue of books, return of books, adding of new student and

adding of new student and more. Books and student maintenance modules are included in the system which keep track of the student using library and also describe about the books in library. Use of these ELMS there is no loss of book record/ member record, which generally happens when a non-computerized system is used.

This project which contain the three modules as Admin, Librarian and Student. Every module has it own login page in this application .Librarian module describe the content of book and student detail like adding the book, issue book and return book etc , These all are the detail managed by the librarian. Student module which describe about the student act of daily work in library like view book details, borrowing book and Return book. Admin module has control and manages the overall process of library management system. Admin has done the work of manage the librarian activities, he can do the work of add the librarian, view the librarian details and also can delete it. The administrators and others can communicate with the system through this project. It access by librarian and library admin to manage the library by using a computerized system.

II. LITERATURE SURVEY

1. **Title: Library Management System , Authors: Jajoria, Seema**

This project will describe the Library management with provide information about the library. They can enter record of new book and retrieve the details of book available in the library. They can issue the books to the student and maintain their records and can also check how many books are available in the library. It focuses on presenting information and comments in an easy and intelligence manner. This project is designed and developed for receipt and issuance of books in the library. They developed their project by use of Visual Basic tool.

2. **Title: Design of Automated Library Management System for States Universities in Nigeria. Author: Akazue Maureen , Ojmee Blessing.**

This is an automated system that will help university libraries to keep correct track of the transaction done via t strong information about library users, accurately locating

library materials effectively with ease and tracking of all borrowing book and returning of book. The status of automated library management system for states universities in Nigeria were accessed through site visit and interviews survey of the view academic and non academic staff and student in the library.

3. Title: Android application for Library management system.

Author: Prasanna pillai, Sonal Singn and Shreya Thakur.

This is management software for monitoring and controlling the transaction in library. In this they are creating a Virtual Private Network for library that will exist only between college library and student in the same college. In this network circle the server will be in the PC library that is in the Admin PC AND Client will be the students who will be interacting with the server through their mobile phones. The software on the server side will be scripted in PHP student will be an android application.

4. Title: Online Library Management System

Author: Bhubundra, Shradha Panwar, Vijay Vishnav

This online Library management System which focuses on the basic operation in a library likewise adding and deleting the books, Member details, Search book and provide facility of member to borrow and return book. It is a web based application through this system user can view the details at any time this may update new information quickly to users.

5. Title: Library Management System

Library is place where all kind of books are available. This system contains list of all the books and can be accessed by remote user concurrently from anywhere in the campus. This system provides separate interface login for students, librarian, and faculties. Librarian can modify the database. User can search books and renewal books online. They can recommend for new books by just sending messages to the librarian from anywhere in the college. They can view the issue and return dates of any book and due they have to pay. This project it work on web based online service.

6. Title: Implementing BRICKS a Digital Library Management System

Author: Nicola Aloia, Cesare Concordia, Carlo Maghini.

BRICKS – Digital Library Management System play a central role in the way of information is produced and used in the internet. This paper describes the main features of BRICKS, an open source DL management system based on innovative peer to peer architecture and integrating advanced information management technique/system, ranging from model-agnostic content and metadata management to distributed query processing. The aim of the BRICKS Project has been to design and develop an open user and service oriented infrastructure to share knowledge and resource in the culture heritage domain.

7. Title: Library Access System Smart Phone Application Using Android.

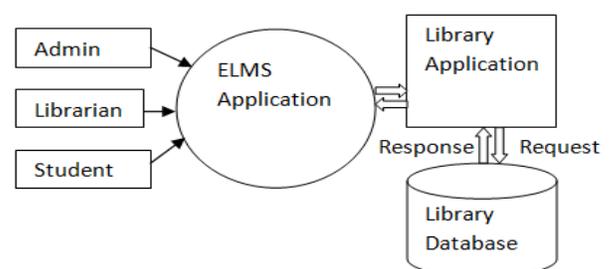**Author: R.Dinesh, S.R.Arun Pravin, M.Aravindhan, D.Rajeswari.**

This project describe a method for library access to go public can also access the library database. This library access application helps the patrons to access their required information and queries without computer or librarian but through the android database through the server. Users access of library will be stored in the database for suggestion during a search for a book.

III. EXISTING SYSTEM

In traditional library management system is a manual process ,by this system we face the several problem while accessing the library transaction process example of time consuming issues, data loss and the money issue problem. There are several concepts made for library management system. There is a difficult to add a new features in library system. Existing system does not have any facility to the book request and suggestion. It does not have the facility to generate student report as well as book issue report. Digital library management system is the emerge in the field of Library innovation but there is the problem arise in a lack of network issue may contain the struggle of users.

- The traditional library system required more time for processing.
- Data loss problem can arise.
- There is lack in maintenance of information in issue books/return book
- To face difficulty while tracking the book.

IV. ARCHITECTURE OF ELMS APPLICATION

The ELMS architecture will discuss the design of the Enhanced Library management System. The users are administrator, Librarian and the Student who has entered into the library system by use of their own login page and access the library information with the help of ELMS application. ELMS helps the user to access library as easy manner, when the user

has entered in the application and request for information it will fetch from the library database and provide to the user which they required.

Proposed Work:

To overcome the problem of existing system issues an Enhanced Library Management System is to provide the feasible solution the user. This project focuses on to develop a windows application for library management system which can be exploited for library process. This ELMS application provide an easy user interface and which allows viewing their due date and available books in the library.

Through this ELMS system the librarian, student and the admin are connected together with this system, they can access the library database. They can be easily process the library transaction, it helps to reduce the workload of employee. The major facilities of the system are to provide fast transaction of information and reduced the data loss and also provide the service of data security. Thus, the system application can helps to resolve the problem of existing system issues.

V. MODULE DESCRIPTION

The Enhanced Library Management system project has the three major Module descriptions thus are,
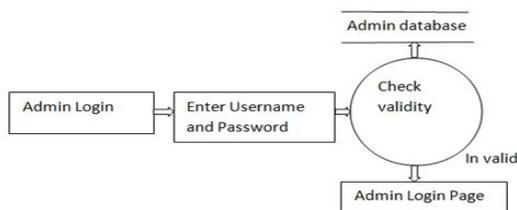
Admin Module

Librarian Module

Student Module

These modules own login page constrains to handle and manage the library process, Every module which has the separate work process in library maintenance.
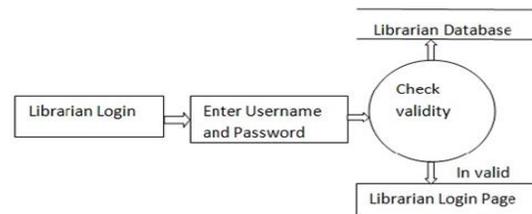
Admin Module:

Admin Module which describes the process of work handles by admin in library which help of this ELMS system. Admin which has it own login page which enter the unique username and the password, it helps to maintain the library information as secure. The admin have to control and manage the library management system.

Admin module, which define the process of to maintain and control the whole system through control of librarian, he can handle the librarian details.
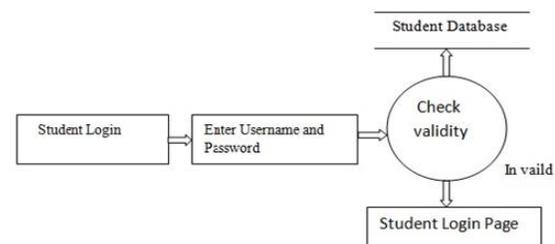
Librarian Module:

Librarian modules which define the process of maintain the records of library information. This can denote the details of books. Librarian have his or her own page in application by entering the login page. The librarian can be entered in the management system and make the library transaction make as easy way. He can maintain a book transaction by the process of adding the book, view the issued book, Return book details.
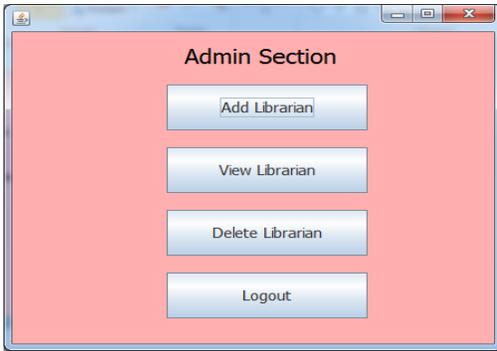

Student Modules:

Student login has enrolled the activity of Student access in library by this ELMS application. When the librarian have registered the student ,they can get their own username and the password, by use of this they can entered and view the library information use of the login page. They can view the details of available book, return date and due amount from library.
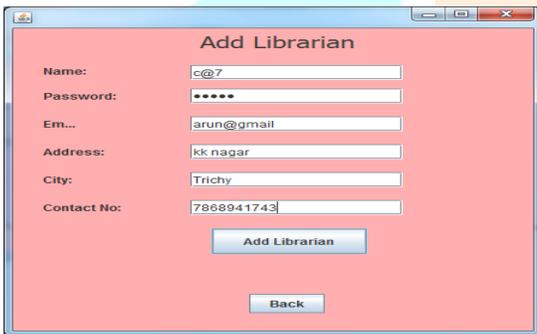

VI. RESULT AND DISCUSSION

Result1:

After login section admin has entered the admin section which he go to maintain the process of librarian activities. Here he can define the librarian details like an add librarian, view the librarian and also delete the member who would be unauthorized in the system.
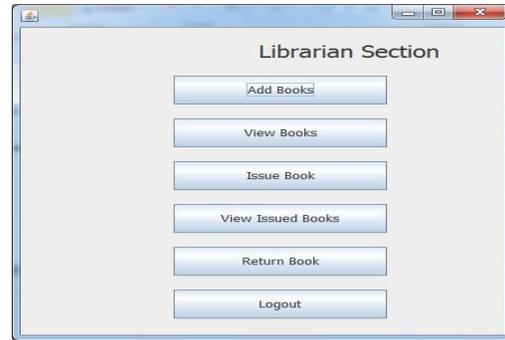
Result2: Add librarian detail

Admin have add /register the librarian which use of these mandatory field as the librarian name, password, Email and the address details. It helps to make a username password generation for login purpose.

Result3: View the librarian detail

Admin can view the existing librarian and member details by entering the id of librarian /members.

Result4: Librarian Section:

Library Section which handle the entire book details like an description of add new books and view it. Detail of issue book and return book should access in secure manner.

VII. CONCLUSION

In this paper we have presented our project detail of library application which named as Enhanced Library management system. It is the windows application development; we use the Eclipse Neon IDE tool and the MySql Database to develop this project. The Main aim of our project is to make people easily access their library account in order to check the availability of book in library as well as to know the borrowing and return detail from the library. It helps to overcome the issue of time consuming, reduce data loss and fast access of library.

VIII. ACKNOWLEDGMENT

We are extremely grateful and remind indebted to our guide **Dr.A.Valarmathi (Head of the Department)** for being source of inspiration and for her constant support of this project. We would like to express the thankful for her constant constructive criticism and valuable suggestion, which benefit as a lot while developing the project on "**ENHANCED LIBRARY MANAGEMENT SYSTEM"**.

We also express thank to our colleagues who has help to complete our project successfully.

REFERENCES

1.Prasanna Pillai, Sonal Singn, Shreya Thakare "Android Application for Library Automation".

2.Akazue Maureen and Ojeme Blessing " Design of Automated Library Management System for States Universities in Nigeria " .

3.R.Dinesh, S.R.Arun Pravin, M.Aravindhan, D.Rajeshwari. "Implementing BRICKS, a Digital Library Management System ".

4.R.Dinesh, S.R.Arun Pravin, M.Aravindhan, D.Rajeshwari. "Library Access System Smartphone Application Using Android ".

5.Bhupundra, Shraddha Panwar, Vijay Vaishnav. " Online Library Management System ".

6.Tao Zhang, XiNiu and Marlen Promann." Assesing the user Experience of E-Books in Acadamic Libraries ".

7.Marci D. Brandenburg, Sigrid Anderson Cordnell , Justin Joque , Mark P,MacEachern ,and Jean Song. "

Interdisciplinary Collabration:Librarian Invovement in Grant Projects ".

8.Jannette L.Finch and Angela R.Flenner." Using Data Visualization to Examin an Acadamicc Library Collection ".

9.L.J.Haravu, " Emerging Initiatives in Library Management Systems ".

10.Ningning kong,Michael Fosmire and Benjamin Dewayne Branch. " Developing Library GIS Services for Humanities and Social Science:An Action Research Approach ".