Design of Enhanced Library Management For Bharathidhasan Institute of Technology

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Abstract- *This paper describe the Design of Enhanced Library Management for the Bharathidhasan Institute of Technology – campus (DELM) which the aims of developing computerized library system to handle and manage the day to day library activities. This application has many features with facility of three modules as Admin, Librarian and Students. We have used the tool Eclipse to develop this application. These modules will have separate login pages to manage and control the user work. Admin have monitored the whole system of library management by use of control the librarian's process. Admin will do the process of add, delete and view the librarian details. Librarian has manages the books and students details. Student login which has their own login id and password which helps to know about their library activities and book details. Over this –entire DELM is being developed the easy way of enhanced technology to help the staff of librarian as well as reduced the human effort.*

Keywords- Windows Application, Eclipse tool, Library Management, DELM, Computerized System.

I. INTRODUCTION

The collection of knowledge in an institution is library. The library usually contains the information physically or in digitized method. Library provides resources like journal, books, and compact disks to support learning of student. There are some more action done by the librarian such as add and delete the books, student detail, borrower details, book due and fine amount detail. The manual library system has to do these process are getting more time consuming issues, because if the librarian has entered the student details as one by one process. To overcome this issue of worthwhile to develop this DELM application. In this we use the computerized system to manage the library access. It have separate the work as three modules as admin, librarian and student. These three user have separate login page and to assign their work as systematic. Student can know the detail of books, issued books, return books and return book Due details via this student login. Librarian has managed the process of add the new members, book details, book Form like a work. Admin have a major role

in the system, he will monitor these whole system and do action of control the librarian.

II. LITECTURE SURVEY

2.1 Android Application for Library Automation

Author: Prasanna Pillai, Sonal Singn, Shreya Thakare.

It 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 the student as in 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 and student side will be an android application.

2.2 Design of Automated Library Management System for States Universities in Nigeria

Author: Akazue Maureen and Ojeme Blessing.

This study design is automated system that will help university libraries to keep correct track of the transaction done via storing information about library users, accurately locating library materials effectively with ease and tracking of all borrowing and returning of books. The statuses of automated library management system in Nigerian state universities were assessed through site visit and interviews survey of the views of academic and non academic staff and student in the universities.

2.3 Implementing BRICKS, a Digital Library Management System

Author: Nicola Aloia, Cesare Concordia, Carlo Maghini.

It 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 an innovative peer to peer architecture and integrating advanced information management techniques, 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 cultural heritage domain.

2.4 Library Access System Smartphone Application Using Android.

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

This paper suggests a method for the library access to go public that is the public can also access the library database. The library access Application helps the patrons to access their required information and queries without computer or the librarians but through their android database through the server .User's access of library will be stored in the database for suggestion during a search for books. Users are privileged to suggest books for the library and they are notified about their suggestion, by the librarian.

2.5 Online Library Management System.

Author: Bhupundra, Shraddha Panwar, Vijay Vaishnav

This paper which focused on the basic operations in a library like adding and deleting the books, Members Details, search books and provide facility to borrow and return books. it is the web based application, through this system user can view the details at any time. This may update new information's as quickly to the user.

III. ECLIPSE IDE

Eclipse is a vast extendable set of tools for software development. Eclipse, Integrated Development Environment (IDE) component for writing Java programs.

Eclipse is a open source project of Eclipse Foundation. Eclipse project at http://www.eclipse.org/eclipse. Eclipse created by OTI and IBM teams responsible for IDE products.

- -IBM Visual Age/Smalltalk (Smalltalk IDE)
- -IBM Visual Age/Java (Java IDE)
- -IBM Visual Age/Micro Edition (Java IDE)

Eclipse was developed by software professionals, it may seem overwhelming to a novice. Effort transitioned into open source project-IBM donated initial Eclipse code base Platform, JDT, and PDE.

Eclipse is a universal platform for integrating development tools. Open, extensible architecture based on plug-ins.

1. Plug-in development environment-PDE.
2. Java development tools-JDT.
3. Eclipse Platform.
4. Standard Java2 Virtual Machine- Java VM.

Eclipse runs on multiple platforms including Windows, Linux and Mac OS. There may be minor difference between Eclipses versions for different platforms and operating system, but the core features work the same way.

3.1 Existing System:

There are several concepts made for library management. As well this process made our project easier. In traditional system of library management is the manual process which we known about already. It creates a time consuming issues, money issues and data loss problem. It may move on to the next level of computerized system as well the automated library system.
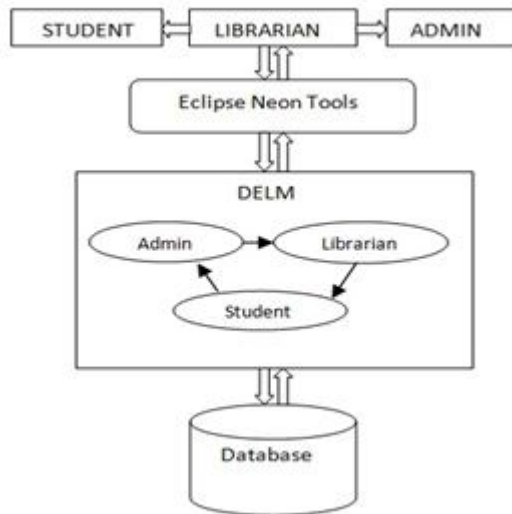
The computerized system helps to transfer the manual activities into systematic process in library. The Automated management system can generate the book info as possible.

The Digitalized library system can emerge in the field of library innovations but there is a lack of network issue may contain the struggle of users and not be convenient to the users.

Drawbacks:

1. Difficult to tracking a book.
2. Prescribed information is not available in database because there is no centralized database can be created.
3. There is no proper maintenance in information about issues/return of the books.
4. Lagged in fast move on report generation.

IV. ARCHITECTURE OF DELM APPLICATION

This architecture describes the design of work for the DELM application. In this we have initiate the users as student, librarian and the admin. They have interact with this library management by use of the login module, these three modules have extract the add, view and delete operation of librarian and student. These three modules have to do this operation such a data transaction by use of DELM database. The Sql connector has help to connect the DELM database and the Design of Enhance Library Management.

4.1 Proposed Work:

To tolerate this existing issues the Enhanced Technology of Library Application is to provide the feasible solution to the user.

1. It helps to reduce the workload of employee.
2. It provides the service of data security.
3. Fast access in library activities
4. All detail will be available on one click.
5. The Major facility of this system is to provide fast transaction of information and reduced the data losses.
6. It may give a more storage capacity, search facility.

Here, all the manual difficulties in library management system have been resolved by this application.

4.2 Modules:

These projects have three major module components:

1. Admin.
2. Librarian.
3. Student.

Every module will have a separate login page.

Admin:
        Add Librarian.
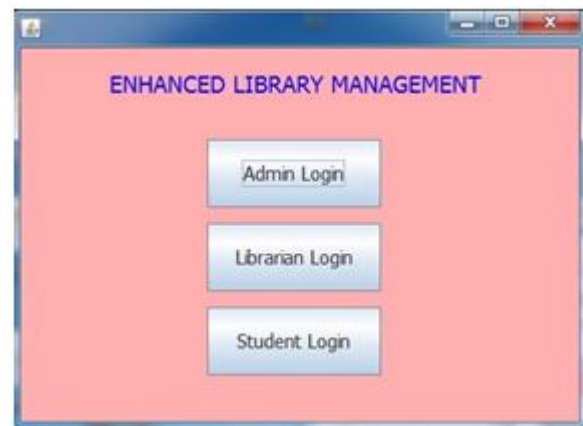   View librarian.
        Delete Librarian.

Librarian:

This module which done the process of add student details, book details, book due details and to handle the stock management of books and data collections.

Student:

Student module has entered into this application through login action. They can   be view the book details, issue details, borrow detail and return detail in library.
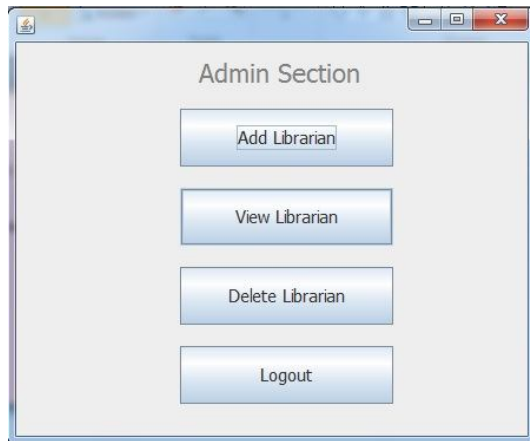
V. RESULT AND DISCUSSION

The DELM application have given this result page which contain these three modules as Admin Login, Library Login, and the student Login. Each Login module has the separate work module options by click.

This result page will extract the Admin Login while enter the name and password next to click login button. The name and password should be correct else were not permit to enter the next section.

This may describe the Admin Login extraction. This page will extend the four type of action process by admin with librarian. First three modules are add, view and delete the librarian process next of the final logout which helps to come back to the home screen.

VI. CONCLUSION

In this paper we have presented a Design of Enhanced Library management Application, prepared for window based application using Eclipse tool with the help of java code and Sql database. The main aim of this application is to keep track of transaction in library, Fast access in searching book and materials, valid users and book information and generate report. It helps the users to easily access their library account in order to check the availability of books and return date of books in library.

VII. ACKNOWLEDGMENT

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