OPEN SOURCE SOFTWARE USING KOHA: A CASE STUDY OF L R INSTITUTE OF ENGINEERING & TECHNOLOGY

LALIT KUMAR
Assistant Librarian IEC University, Baddi, Distt. Solan
Himachal Pradesh
lalit_thakur2007@yahoo.com,
&

LOKENDER SINGH
Lect. Computer Engg., Govt. Polytechnic Rohru, Distt. Shimla
Himachal Pradesh
lokender007@rediffmail.com
&

DR. PAYARE LAL
University Assistant Librarian, Assistant Coordinator, USOL, P.U.
Panjab University Library,
Chandigarh
Payarelal_1@hotmail.com

ABSTRACT

The study presents the status of automation in L R Institute Of Engineering & Technology Solan District in Himachal Pradesh. A properly computerized library will help its user with quick services. Library automation refers to mechanization of library housekeeping operations predominantly by computerization. Object of this study. To develop and update database of books in the L R Institute Of Engineering & Technology Solan. Implement automated system using koha library integrated open source software to carry out the functions of the circulation section more effectively to provide various search options to know the availability of books in the library and generate the list of books due by the particular member and also overdue charges. Koha is an integrated software system with required models for small to very large libraries. Being an open source any library wanted to go for automation for their library housekeeping operations can make use of this software.

Keywords: Open source software, koha, library Automation, Library management

Introduction

Library is a growing organism. Automation is a technique to make a system automated, i.e. self service. A properly computerized library will help its user with quick and prompt predominantly by computerization. Thus library automation means the application of machines to perform different routines, such as repetitive and clerical job involved in the function and services of the libraries. Before the birth of computer other type of machines were used for automating the library functions. Now the computers have become capable of introducing in operations, processes, techniques and methods of library.
Library automation is concerned with managing controlling and automating library collection, activities and services in an automated library, computers are used in most of the activities, such as acquisition, cataloguing, circulation control and periodical management. Library automation not only does housekeeping activities but it also provides the current and relevant information to the user, according to their demands. Since the advent to the term automation in 1936, plethora’s of definitions are found in library literature. Sometimes the terms mechanization and automation looked overlapped. Automation is the name gives to an automation system of working.

L. R. Institute Of Engineering & Technology library Case study

The term Information Technology is made of two separate terms information and Technology where Information is the power and refers to fact and opinions provided and received during the course of daily life. This paper provides information of application of the Koha integrated library system in LR Institute library as a means to acquire, store, transmit, retrieve and process information for its students and staff. It also describes various challenges faced by library staff in implementing this software. The institute is just four years old, but it has been amazingly successful in attracting a number of students for the course of Engineering. Presently the Institute is running 5 full time courses. The institute is administered by the L R Education Trust. The library is using Koha: Integrated library System for automating its library resources and services. The library holds the details of more than 8200 books and serves 1086 students.

Objectives of the study

1. To develop and updated database of books and other resources of the L R Institute of engineering & Technology.

2. To implement automated system using Koha library integrated open sources software.

3. To carry out the charging and discharging functions of the circulation section and Provide Various search options to know the availability of books in the library.
Methodology

The methodology used for the present study Open source software: Koha, Newgenlib, Evergreen, Mysql replication database dumps using the mysql dump utility on the hardware level, the production system utilizes a two disk raid 1 configuration for data redundancy in the event of signal disk hardware failure. The system partitions use the file system, which provide another point of data redundancy.

Statement of problem

The present study aims to implementation of library Automation for the L R Institute Of engineering & Technology . Implementation of Automation Library management system in the L R Institute Of engineering & Technology using Koha open source software.

Planning for automation using Koha

1. Initial investment and recurring expenditure as the maintenance cost of software.
2. Time required for installation and data entry job.
3. Sufficient training for staff.
4. Testing of automation system by library staff.

Design and Implementation of koha Software

A) KOHA LOGIN SCREEN
Once we have completed the login, we come to the main page.

B) HOME PAGE OF KOHA

Home page of L R Institute of Engineering & Technology so all the modules are available this front page circulation, patrons information, search for all catalogues, Reports, koha administrations link, tools, about koha for all links available for the home page.
C) ADMINISTRATION

The Koha Administration page (Figure 3) shows various system parameters. It allows us to define different parameters for the functioning of Koha library branches, item types, the categories of borrowers, and the charges taken for the different types. System preferences is the most important module of Koha. It deals with administration and maintenance part of Koha. Only Librarian, Administrator or person of similar designation can hold access right to this module.

![Koha Administration module](image)

Figure 3: Koha Administration module

D) ADDING BIBLIOGRAPHY TO KOHA

Create bibliography record of a document, once goes to the catalogue search page and find link to add new bibliography page. If we click on the link we reach the following page.

![Marc Bibliography Framework module](image)

Figure 4: Marc Bibliography Framework module
E) CATALOGUING MODULE

The cataloguing module is the most important. For cataloging, Koha maintains full marc record, follow the Dewey Decimal Classification and incorporate AACR2 rule, security and data protection are accomplished at the system, terminal and user code level. To ease the data entry work one marc record is divided into 0 to 9. We can click on the respective number of fill into the specific marc tags.

![Figure 5: Cataloguing Module](image)

F) ADDING NEW PATRONS

When we click on the add patrons in the above search result, then the following form will appears which prompts us to fill in the member particular, the koha system automatically allots one card number to the patrons. Once the detail are filled in then it prompts us to confirm the record. This information is shown only when the user sees his/her membership information in the OPAC.

G) BORROWER CATEGORIES

It can be defined by clicking on the same link in the parameters window.
1. We can edit and delete the details of a particular borrower type in the following window and we can even add new categories.

![Figure 6: Selected patron type add module](image)

The second link on the main page allows us to search for an existing member or add new patrons discussed below.

![Figure 7: Patron card number enter full detail module](image)

These are mainly administrative jobs and at access should be given very carefully. Mostly librarian or administrator is given access to this module.
The Administrative information about the user can be seen by the librarian like the fine and charges attributed to a particular user, the items currently under issue. The window show in the below figure is a very useful feature of koha patrons administration module. It gives comprehensive and detailed information about the user.

On the same screen options are given to modify patrons detail like deleting the member from the patrons list, modifying details, change password and modifying user flag, which is nothing but dealing with user permission.
H) CIRCULATION MODULE

Circulation module here we can assign even the students themselves can renew the issued the documents on their name. Its main looks like following figure:

Figure 10: Deleting from the Patron module

Process of circulation, we have to enter either the borrower card number or the partial last name of the borrower, as show in the above picture. After entering the above information, it shows the patron information with his/her category and one hyperlink is also available to look into more detail of the
patron, if required. If we want issue any book, then the barcode of the book should be entered and the date of issue needs to be selected.

**Figure 12: Enter Patron card number Module**

Once a valid barcode number is entered and issue button is passed, the following window appears that gives information about the issued item.

**Figure 13 Book Issue module**
Another important aspect of circulation is returning the borrowed items. The return option is there in the circulation window. When click it taken us to the above window. We give the barcode of the item to be return. It show the details of the borrowed item and the borrower as well, when the number is given and enter key is pressed.

Figure 14: Book Issue (Checkout) of patron module

Figure 15: Book return (Check In) module
So enter the barcode book number (Acc. No.) full detail information (Check in item) the following window is appear

![Figure 16: Book Check In result](image)

I) ACCOUNT AND REPORTS SECTION

![Figure 17: koha Report module](image)
J) **OPAC MODULES**

Figure 18 shows the details of advanced search. Here, we can search by keywords, subject, title, author and even the barcode of the document. Below information searching for the author and get all information in books.
Figure 19 shows the OPAC particular title module. Here, we can the see title, author subject and copy available in which department is to be display also.

VIII. CONCLUSION

Library automation by open source system are vital but with a very few application. Compared to the thousands of libraries that acquire automation systems from commercial vendor each year, the handful the use open source system cannot yet be noted as a trend. Koha has been attracting interest from many libraries throughout the world but in India only a handful of libraries using Koha to the best of our knowledge. Koha open source software system for the automation of major day-to-day activities of the L R institute of Engineering & Technology, which is tiresome and cumbersome. After the investigation, the researcher has found that Koha software is more suitable for the library automation. This project had the basic objective of designing a bibliographic database for the L R institute of Engineering & Technology with which the automation of circulation routines is carried out. From this point of view it may be concluded that Koha is a useful package for the creation of a database and for information retrieval. On the other hand the ever-rising needs and expectations of library professionals have given a through challenge automation software vendors. Approximately all ILS software offers the same module for all type of libraries, ignoring the aspect of library collection, user and services, but open source ILS software comes with core functional modules, such as online catalogue, circulation, cataloguing with choice of limiting parameters format.

The open source model of ILS software like Koha s can provide an attractive alternative for libraries, if only its ideals can be realized and things could change very quickly. To evaluate commercial and Koha open source ILS software for their own merits in features, proven reliability, support and vision.

IX. REFERENCES


