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Library Automation Software SOUL and Koha

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INTRODUCTION:

LIBRARY is defined as a place in which books, manuscripts, recordings, films, or reference materials are kept for private or public uses. Typically, a library must be able to handle some housekeeping information such as acquisition, interlibrary loan, cataloguing, circulation, serials management, statistical reports and references. IT is electronic technologies used for collecting storing processing and communicating information. There are two main categories those which process information (such as computer system); and those which disseminate information. IT has a wider connotation for librarians who include in addition technologies like, repro micrographic Technology, technical communication technologies and database creation and use. Computers are used in libraries to increase the efficiency and effectiveness of their operation and services; they have also provided information management for taking effective decisions. Development and use of information and communication technology (ICT) enable the libraries not only to offer their clientele the appropriate information available within their libraries but also gain access to catalogues of other libraries, both local and outstations (Anil Singh, 2003). In this ICT era we can see that the whole library concept has been changed in terms of collection development, organization and its services to the user. Apart from that the users are always in a hurry to get relevant information in their hand at a minimum time. For that reason the concept of library automation has brought up. There are so many software developed the field in management of Library. Which provides a total solution for Library Automation like SOUL, CDS/ISIS, LIBSYS, DSpace, TLSS and etc. which software can use in Library according to needs?

APPLICATION OF IT IN ACADEMIC LIBRARIES:

The application and accessibility of IT facilitates the free flow of information, creative expression and effective management. The major factors and challenges forced the libraries to adopt Information Technology such as Information explosion, Technological development, Provide efficient and effective services, Increased number of users, Increased the expectations of the users, Online Information retrieval, Increase the commercial information providers , and Changes the nature of Information resources (EJournals, CDROMs, and Online Databases etc.) (Davarpanah, 2001). Automation is the process where things are done automatically with the involvement of machines. It reduces the duplication of work and also helps in resource sharing. Library automation is the application of information communication technology to library services. Library automation helps the library to keep running with the latest development. It makes the library flexible and reliable and tries to reduce the work load of the library staff. Automation has the capacity to be accurate and perform in a good speed. Library automation is defined as the management of library that helps in cataloguing, circulation, acquisition, serial control, OPAC and arrangement of other library materials with the help of machinery equipment and internet. Library automation software is divided into two types i.e. commercial software and open source software. SOUL represents commercial software as well as Koha represents open source software.

IMPORTANCE OF IT IN LIBRARIES:

It provides need based browsing and retrospective research services to the users

- It help large number of databases on CD-ROM is inevitable.

- In order to avoid routine and redundant activities, the IT will come to help.
- It encourage networking and resource sharing at local level, IT is very useful.
- It help access to a number of national and International Journals which are being published only machine readable form, one has two switch over to new technology.
- It retrieve and disseminate the Information in user defined format IT is necessary.
- Users access Library catalogues database of other Libraries through Library network using IT components. IT places an important role to improve the cost effectiveness of library operations. The modern technology helps a lot thus the adaptation of IT. Using IT Traditional Libraries save their time, space and manpower providing good library services to the users.

NEEDS ON THE STUDY:

SOUL (software For University Libraries) developed by INFLIBNET. It is Library management software. It is also Library Management software. Koha was build up and developed by Katipo communications Limited in New Zealand. It was created in 1999 by Katipo Communication for Horowhenua Library Trust in New Zealand and the first installation went live in January, 2000. Both are library management software. The SOUL and Koha comparison is the need of present study. Utility, advantages and disadvantages of both software also search by this study.

SOUL:

SOUL (Software for University Libraries) is the software designed and developed by the INFLIBNET an Inter University Centre of University Grants Commission. INFLIBNET is working in the field of library automation, database development, networking, and resource sharing. Software development for library automation is one of its important activities which were initiated in nineties to overcome the monopoly of commercial software vendors. SOUL is installed in 3800 Institutions (up to 30th June 2018) (INFLIBNET, 2018). It works under client-server environment. Looking at the name of the software, one may think that it is meant for university libraries only, but in fact it is flexible enough to be used for automating any type or size of library. Many Academic, Special and Public Libraries from India are using this software for their Library Automation.

KOHA:

KOHA is the first open-source Integrated Library System (ILS) developed under GNU license. Initially started at Horowhenua Library Trust (HLT), a New Zealand consortium, now it is used worldwide; its development is driven by growing community of libraries.

INTRODUCTION OF SOUL:

The abbreviation of Software of University Libraries is SOUL. The SOUL is state-of-the-art library automation software designed and developed by the INFLIBNET. It is user friendly software developed to work under client-server environment. Although looking at the name of the software, one may think that it is meant for University libraries only, but in fact it is flexible enough to be used for automating any type or size of library in India. While designing this software, the international standards, bibliographic formats, networking protocols, and typical functions of all types and sizes of libraries, particularly at university level, have been taken into account. The functions have been grouped into six categories, looking into the functional divisions of Indian University libraries. At present SOUL uses RDBMS on Windows N.T. operating system as back end to store and retrieve the data. However, keeping in view the trends in IT towards Linux operating system, efforts are under way also to provide SOUL to work on Linux platform. The

inputs received from expert team consisting of practicing librarians and the feed backs received from users of our earlier software, ILMS, have given a strong base for designing this software. SOUL is near total solution offered by INFLIBNET to Indian libraries. It puts library staff at ease in exploring all the functions to their advantages with the help of professionally prepared manual.

MODULES:

The SOUL has been divided into following six broad modules as shown in the Figure- 1

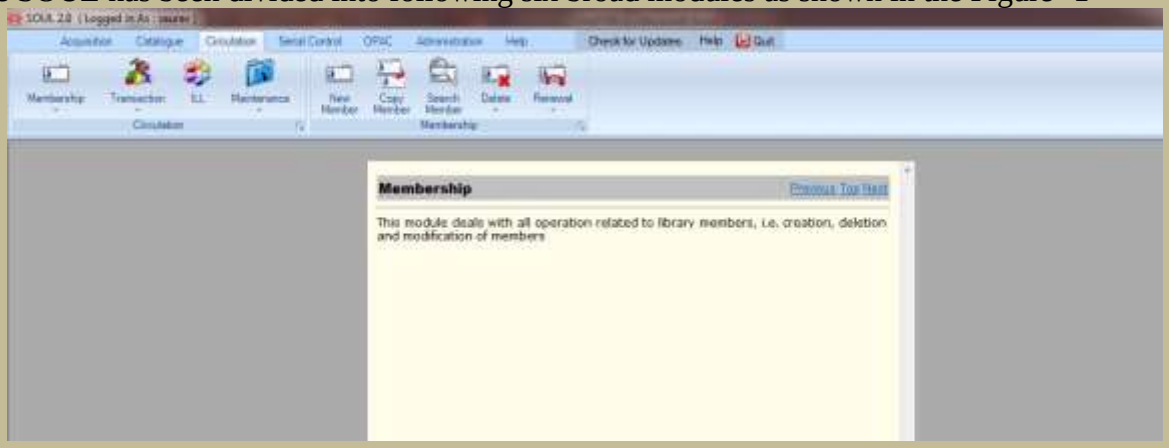

Figure- 1

These modules have further been divided into sub-modules looking at the nature of functions handled by various functional divisions in University libraries. Brief descriptions of the same have been given in the following pages.

ACQUISITION MODULE:

This particular module provides facilities to handle work relating to acquisition of reading materials of all types except serials, starting from suggestion / recommendation by faculty till accessioning, invoice processing. Acquisition module comprises following six broad sub-modules as given below-

CATALOGUING MODULE:

Catalogue module function begins with selecting the items that have already been accessioned in the previous module and furnishing rest of the information as per AACRII rules. Providing user services such as recent addition services, CAS, creation and updating of authority files etc. are other major functions supported by SOUL. A comprehensive worksheet covering almost every field facilitates data entry of all types of books, conference proceedings, theses etc. Facility to create database in the regional languages, using respective scripts is also provided. This module allows the library staff to conduct comprehensive searches for existing items before cataloguing new items and has provision of import and export of records and retrospective conversion. Functionally this module has been organized into following sub modules as given below.

CIRCULATION MODULE:

Circulation being vital front-end function of any library, sufficient care has been taken in designing this module to achieve transactions within minimum possible time. This module has provision for all possible function handled in a typical academic library, i.e. membership, issues, returns, ILL, reminders, over dues, reservations, recall etc. All these functions have been organized into following eight logical sub-modules.

SERIALS CONTROL:

Serial control module of soul provides streamline access to the users from Title entry to schedule generation and receiving order. It offers easy creation and maintenance of Article indexing database and therby help in providing the services according to the user's need.

The Serials Control module has following seven sub modules.

Titles (Serials), Suggestions, Subscription, Payment, Check-in, Commercial Binding, and In-House Binding.

All the serial titles (mainly those which are subscribed to by the Library), in all the formats (like print, electronic, CD-ROMs, online etc) are entered into the database in MARC21 format.

ONLINE PUBLIC ACCESS CATALOGUE MODULE (OPAC):

One of the major attractions of SOUL is that it has a powerful Online Public Access Catalogue as given in figure 6 with a choice of search options and variety of display formats. OPAC is a dynamic information desk that allows library staff to post library calendar, library rules and regulations, announcements, or any other information of user interest. SOUL increases the functionality of library's OPAC terminals by allowing the users to access the internal as well as external resources. This enables the users to access various databases developed at INFLIBNET. Library can keep entire collection available at users' fingertips. This powerful, yet easy-to-use and user friendly searching tool allows user to quickly find the materials in the library. Some of the major features of OPAC are

- SOUL includes Boolean operation when more than one search option is to be used.
- Search results can be sorted according to the preference of search item.
- User has option to select variety of display formats.
- Display of records according to AACR-II format.
- Easy and quick searches with options.
- Status of each book starting from acquisition module is reflected.
- Search key fields, such as, author, title, keywords, class number, accession number, etc.
- Accessible through the GUI based web browsers like Netscape Communicator, Internet Explorer etc.
- User can see the status of currently borrowed items by entering his/her borrower number.
- Search results can be saved and printed.
- Selection of databases can be made according to the choice of users.

ADMINISTRATION MODULE:

The library staff to use various modules. Assigning login and password to use each module of the system is done by the system administrator. The security function, backups, recovery of data and other utility functions are some of the features added under this module. Users have been categorized into three levels looking into nature of functions handled by the staff at different levels. This software is intended to be provided to all the university libraries, which have been covered under INFLIBNET for which a separate agreement will have to be signed by each library. An extensive training in SOUL will be provided to the library staff on-site upon its installation by the INFLIBNET staff. For others who are interested in using this software, particularly public funded organizations, separate modalities are being worked out including pricing, support, training etc. In due course different versions to work on different platforms suiting the needs of other libraries will be brought out. We hope that, with the release of first version of SOUL, the university library automation will get a much needed boost.

KOHA MODULES:

The Koha has been divided into following broad modules as shown in the Figure- 2

Figure- 2

ACQUISITION:

The Koha Acquisitions module manages the library orders placed with vendors and manages the purchase budgets. One can add items to catalog through acquisitions, track vendors and spending against budgets. The Acquisition Module has the functions like setup the budgets/ funding, set the vendors – addition and deletion. One can manage the contracts and suggestions. It has the common functions of placing the orders, creating a basket, receiving the orders, invoicing, claims and late orders. The module also allows making acquisition searches.

The following requirements are under the acquisition: Selection of Items, Duplicate Checking, Selection of Vendor, Ordering, Claiming, and Fund Control.

CATALOGUING:

The cataloguing module of Koha allows adding new bibliographic records to Koha. These records can be added to Koha through data entry or copy cataloguing. New record creates a blank template for entering the tags and it requires choosing the framework which defines the base of the record. It also allows adding a new record through Z39.50 to import the record by clicking the caret. 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.

- MARC Management: The cataloguing module provides several frameworks which help in cataloguing for books, monographs, e-resources, serials, periodicals, etc.
- Export and Import data: Report on which materials are imported from other library or exported to another one.
- Duplicate records: A library staff can find duplicate checking from this option. That means, one can compare two books whether they are same or not.

SERIAL CONTROL:

The serials module assists in managing serial subscriptions for journals, magazines, and newspapers.

- Adding New Subscription: Subscriptions can be added by inputting data for the bibliographic record by clicking 'New Subscription'. It requires filling two forms, the first is of Subscription Details and other is Serials Planning with the subscription dates details.
- Claims: Koha allows sending email messages to serial vendors if the issues are not delivered with the due date of receiving.
- Check Expiration: When adding serials one can enter a subscription length, using the check expiration tool subscriptions details can be seen about the subscription expire. It allows to view the subscription which are about to expire further or renew it in one click.
- Manage Frequencies: Allows setting the frequencies of the issues.
- Mange numbering Patterns: Allows setting the volume number and issue number pattern or format to be displayed.
- Search Subscriptions: Allows searching the subscriptions through the ISSN, Title, Publisher, Vendor and Subscriber Library of the Serial Title.

CIRCULATION:

Circulation functions can be accessed in several different ways. On the main page of the staff client there are some quick links in the center of the page to check items out, in or transfer them. For a complete listing of Circulation functions, you can visit the Circulation page which is linked from the top left of every page or from the center of the main page. Before circulating your collection you will want to set your Global System Preferences, Basic Parameters and Patrons & Circulation Rules.

- ✓ Check out (Issuing)

To begin the checkout process, you must enter the patron barcode or part of their name. The checkout option appears in three main places.

- ✓ Check in (Returning) Checking in items can be performed from various different locations.
- ✓ Set Library Allows choosing the library in multi library for the circulation.
- ✓ Transfer Allows transferring the collection to the branch library by entering the barcode. This option is for the multi-library system where it allows transferring items from one library to another by using this Transfer tool.
- ✓ Fast Add Cataloging Sometimes circulation librarians need to quickly add a record to the system for an item they are about to check out. This is called 'Fast Add.' To allow circulation librarians access to the Fast Add Cataloging tool, simply make sure they have the fast cataloging permissions. There are two ways to add titles via fast add. If you know that you're about to check out an item that isn't in you catalog you can go to the Circulation module and click 'Fast cataloging.

PATRON MANAGEMENT:

The Patrons of Koha stores the information about the patrons. It allows adding the patrons of the library and search/browse screen for patrons. The search can be made by any part of their name of the patron or their card number. It also provides patron search with more filters including the ability to limit to a specific category and/or library. Searching the patron's card number provides the details like financial standing of the patron, charges due, patron's reservations, and outstanding loans against the patron.

The module requires the following to create a patron:

- Add Patron Category
- Add Patron Attribute
- Add a Staff Patron

- Add a new patron
- Add a Statistical Patron
- Editing Patrons
- Patron Permission
- Patron Search
- Patron Information

SEARCHING MODULE:

Basic Searching-

The search box that library staff and library patrons will see most often is the persistent search box at the top of the page. Koha interprets the searches as keyword searches.

To start a search, you enter a word or multiple words in the search box. When a single word is entered, a keyword search is performed. You can check this out by typing one word into the form and note the number of results located.

Advanced Searching- When you can't find the most appropriate material with a general search, you can move to the Advanced Search page by clicking on the Search option on the persistent toolbar.

The Advanced Search page offers many ways to limit the results of your search. You can search using the Boolean operators AND, OR, and NOT; limit by item type; limit by year and language; limit by subtypes audience, content, format, or additional content types; by location and by availability.

REPORT MODULE:

Reports in Koha are a way to gather data. Reports are used to generate statistics, member lists, shelving lists, or any list of data in your database. Koha's data is stored in a MySQL database which means that librarians can generate nearly any report they would like by either using the Guided Reports Wizard or writing their own SQL query. Reports Custom Reports, Circulation Reports, Reports Dictionary, Statistics Reports

TOOLS MODULE:

In the Tools module, how to use all the different tools offered in Koha. For example, how to create patron lists, membership cards, setting up your organization's calendar, browsing through system logs or how to create news for the OPAC, among many others. You will also learn how to import and export data to and from Koha, batch edit items and manage letters sent to patrons. Koha provides three catagories of tools relating to Patrons and Circulation; Catalog tools and additional tools. These tools are alterative for the Koha Reports.

- Patrons and Circulation tools includes
- Catalog tools includes
- Additional tools includes

OPAC (ONLINE PUBLIC ACCESS CATALOGUE) MODULE:

An OPAC (Online Public Access Catalog) is the electronic card cataloging system to look up Library resources, such as books, reports, cds or others.

- Koha facilitates the users with the Online Public Access Catalog which can be viewed 24X7 anytime anywhere.
- It allows the OPAC users to search with the fields like Keyword, Subject, Title, Class, Barcode, author, publisher, ISBN, Series etc.

- OPAC refines the searches made on Availability of the Resource, Authors, Libraries, Item Types, Location, Series, Topics and others.
- Allows the OPAC users who are logged in as members to reserve library items for future issue.
- Bibilio basket: members can select the item and can add to the cart.

Comparative Study of Soul and KOHA

Sr.No	Characteristics	SOUL	Koha	Remark
1	Modules	6 Module available in SOUL software. Acquisition Cataloguing Circulation Serial Control OPAC Administration	9 Module Available in Koha software. Acquisition Cataloguing Circulation Serial Control Patron Management Searching: Basic/Advance Report Tools	KOHA Provides more Module than Soul.
2	Check Duplication	It has provided check duplicate facility Accession no. records.	It has provided check duplicate facility by accession no. and title in total documents.	SOUL and KOHA both are able to check duplication.
3	Import/ export of records in standard	It has Provides export and import facility to ISO2709 Format	Koha provide for mapping the fields to recognise the fields by standard marc format.	Both software provide Import/ export of records
4	Internet Connectivity	SOUL is providing Internet Connectivity using LAN and WAN.	KOHA is providing Internet Connectivity using LAN and WAN.	Both are provided Internet connectivity.
5	E-Mail Connectivity	It doesn't provide email connectivity to its users.	It provides email connectivity to its users.	KOHA provide e-mail connectivity so it is more user friendly than SOUL.
6	Types of search	Different type of search available in OPAC of SOUL. Like Normal search, Boolean search and Free text search.	The Advanced ***Search*** page offers many ways to limit the results of your ***search***. You can ***search*** using the Boolean operators AND, OR, and NOT	SOUL and KOHA both does not have any difference.

CONCLUSION:

Library automation is one of the major applications of IT implies the change from manual system to the application of computers and other modern equipment to library operation and services. Most of the academic institution libraries as well as public libraries are using library management software for automation. In this present era Libraries have computerization and digitalization. But digitalization is the more important than computerization. I have compared SOUL and Koha

Library software. This analyzation has fulfilled the aim and objective of the study of the researcher. It also finds out that being an open source integrated library system Koha is more users' friendly software than SOUL. The Koha is one of the best web enabled open source software for library automation. The analysis of Journals through Koha Serial module, Koha has built on open source era and it is easy to install and apply for use.

REFERENCES:

1. Anuradha KT, Sivakaminathan R, Kumar PA. Open-source tools for en-hancing full-text searching of OPACs: Use of Koha, Greenstone and Fedora 2011; 45(2): 231-239.

2. Davarpanah (m r). Level of information technology application in Iranian university libraries. Library Review, 50(9) 2001, p.444-450.

3. Free and open source software. http://en.wikipedia.org/wiki/Free_and_source_software

4. Koha. http://koha-community.org. Accessed on: September 2021.

5. Koha Development Team & Katipo Communications. About Koha. http://www.koha.org/about-koha/index.html.

6. Koneru, I. (2005). Integrated library system: Selection and design. DESIDOC Bulletin of Information Technology, 25 (5 & 6), 3-9.

7. Poulter. A Open source in Libraries an Introduction and Overview: Emerald group publishing Limited, 0024- 2535, library review 2010; 59(9): 655-661.

8. Ravichandra Rao, I. K., & Sainul, A. P. (1999). Features of library automation software: A comparative study. Library Science with a Slant to Documentation and Information Studies, 36 (4), 211-228.

9. Sangeeta Najan, and at el (2012), "Comparative Study of Library Automation Software", in "International Journal of Library Automation, Networking and Consortia", Volume 1, Number 1 (2012), pp. 1-15.

10. Singh, A. (2003). Library automation and networking software in India: An overview. Information Development, 19, 51-56.

11. SOUL Software for University Library. http://www.inflibnet.ac.in/soul/introduction.htm.

12. Syed Fayyaz M. (2013), Comparative Study of Library Automation Software (Special Reference of SLIM21 and SOUL), Online International Interdisciplinary Research Journal, Vol III(I), 168-1182. ISSN2249-9598.