LIBRARY AUTOMATION OF GURU NANAK KHALSA COLLEGE, KARNAL, WITH THE HELP OF OPEN SOURCE ILMS SOFTWARE - KOHA

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Abstract : The present study elaborates the status of Library Automation in Guru Nanak Khalsa College, Karnal with the help of Open Source ILMS Software – KOHA, a full featured Integrated Library Management System (ILMS). Koha is developed initially in New Zealand by Katipo Communications with Horowhenua Library Trust. It is currently maintained by a dedicated team of software providers and library technology staff from around the globe.

This paper focuses the automation process using KOHA for the library automation. Working with this user-friendly software is really simple. A detailed description of the software's Acquisition, Catalogue, Circulation, OPAC, Serial Control, and Administration modules is provided.

Keywords: - Library Automation, Open Source ILMS -KOHA, GNKC (Guru Nanak Khalsa College)

1.0 Introduction

"Library Automation" refers to the employment of computer-based systems for housekeeping tasks. Acquisition, circulation, classification, cataloguing, stocktaking, and so on. The majority of university and college libraries now use library automation, which began in a few special libraries in the late 1970s. Due to a number of issues, it has not yet gained traction in Indian college libraries.

Automation liberates individuals from monotonous and routine tasks, while simultaneously facilitating the delivery of services with enhanced efficiency, hence reducing time and augmenting production. Automation also enables the production of various reports to enhance decision-making in the efficient management of the library. Numerous current awareness services, such as current updates and contents of books and magazines, can also be offered to users.

2.0. Guru Nanak Khalsa College, Karnal: A profile

Guru Nanak Khalsa College Karnal was founded in 1969 to honour the renowned philosopher and social reformer Guru Nanak Dev Ji's birth quincentennial. It is associated with Kurukshetra University. In addition to post-graduate courses like M.Com., M.A. (Punjabi), M.Sc. (Computer Science), M.Sc. (Geography), M. Sc. (Mathematics), and PGDCA, the college provides a variety of graduation courses, including Bachelor of Arts, B.Com., B.Com. Vocational, BCA, B.Sc. (Non-Medical and Computer Science), and Bachelor of Tourism Management.

2.1 The GNKC Library:

College has a well equipped library with an elaborate collection of books, journals, project reports, Audio-Visual materials, E-Journals and other resources.

The College Library is automated with using barcode technology to issue and return books. Keeping in view the latest trends in information technology, Open Source ILMS Software –KOHA is used which provides total solutions for library automation. The software comprises Acquisition, Catalogue, Circulation, OPAC, Serial Control, and Administration modules.

The library has rich collection of books of Indian and International publications and has excellent collections of reference books like Encyclopedia, dictionaries, yearbooks, Manuals. The library play a mediator role between the library users and open e-resources which can be accessed online from any corner of the world. Along with this library has subscribed online journals

2.2 Automation of GNKC Library: In one word we can say when we use computer & information technology in library operation such as in Acquisition, Cataloguing, Circulation, Serial Control, etc. that is library automation or an automated library in which all the functions getting done by the help of computer & information technology.

Guru Nanak Khalsa College is one of the best institute in the area which have computerized Libraries in all departments. Computerization started since 2020 and built complete database of over 32217 books, Current and Back Volumes of journals and reports. The Online Public Access Catalogues (OPAC) is used to come out searches of library documents from search elements like Author, Title, Keywords, Subjects, Accession No., Call No., Boolean Operators and which enables users to provide good reference service to clientele. The use of OPACs by the users shows that it is most efficient tool for the library.

3.0 Objectives of the study
- To develop and updated database of books of the College Library, Guru Nanak Khalsa College, Karnal.
- To Implement automated system using Koha library integrated open source software more effectively
- To carry out the issuing and returning functions of the circulation section more effectively

4.0 Methodology
The present study conducted on managing KOHA open source library management system in the College Library, Guru Nanak Khalsa College, Karnal. The study is based on the working experience in Koha. Various modules in Koha were discussed in this paper

5.0 The Procedure
A certain procedure is to be followed while installing Koha. Following softwares were installed on server:

- **Koha version**: 24.05.05.000 OS version was installed
- **Operating System** : Linux lib 5.15.0-139-generic #149~20.04.1-Ubuntu SMP Wed   Apr   16 08:29:56 UTC 2025 x86_64
- **Perl interpreter**: /usr/bin/perl
- **Perl version**: 5.030000
- **MySQL version**: 8.0.42-0ubuntu0.20.04.1
- **Apache version**: Server version: Apache/2.4.41 (Ubuntu)
- **Zebra version**: Zebra 2.1.4 (C) 1994-2017, Index Data Zebra is free software,   covered by the GNU General Public License, and you are welcome to change it   and/or distribute copies of it under certain conditions.

6.0 Data Entry in Koha:
Data was transferred from previous software LIBSYS4 to KOHA. Some data of books, students and faculty during transfer were damaged or not found. The same was recovered with the help of computer professionals of university. Left out data which could not be recovered was entered with the help of data entry operators.
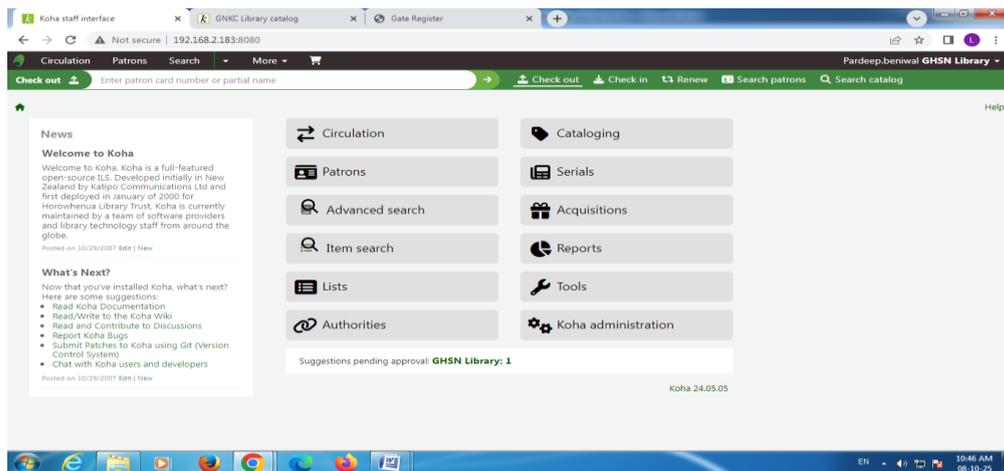
About 32217 books were automated and bar-coded with barcode printer and also with the help of Koha.

Status of Book Entry and Barcoding

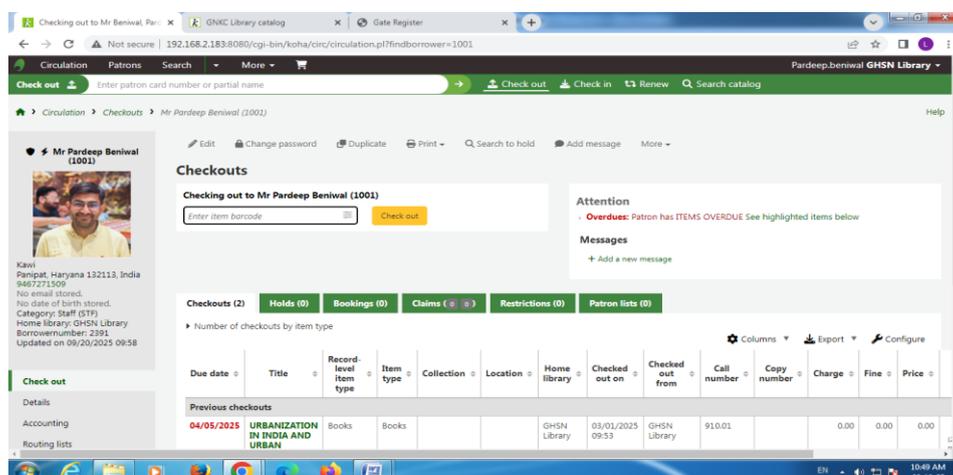| Total No. of books	32217
Total books entered in KOHA	32217
Total books bar coded	32217

It is very easy, fast and convenient for staff to issue and return books with the help of bar code scanners.

6.1. Home Page of Koha: The home page of college library, all section are available in this front page such as circulation, cataloging, patrons, serials, reports, Tools etc. A link http://192.168.2.183:8080/ was built with the help of computer professionals for Librarian as admin and library staff as clients and username and password given to each library staff.
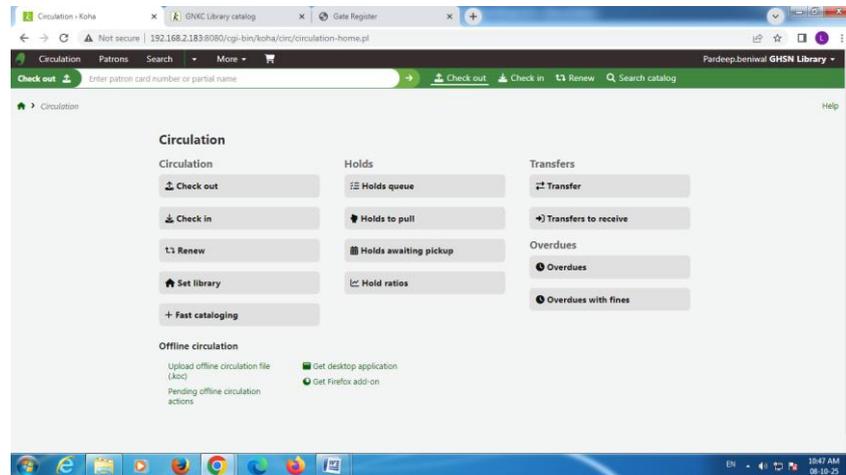

6.2. Patron Module: When we click on the patrons, in the above search result, then the following form will appears which prompts us to fill in the member particular, the koha system automatically allots one card number to the patrons. Once the detail are filled in then it prompts us to conform the record.

The Patrons of Koha stores the information about the patrons. It allows to add 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.

6.3. Circulation Module

circulation module using for issue-returned of documents in the library.

6.4. OPAC for users: Library website

A link (http://192.168.2.183/) was built and users have approach to following facilities:

1. About library
2. Library Notices
3. New Arrivals
4. News & Events
5. OPAC
6. link to online Databases
7. Log in using username and password to access respective accounts.
8. List and links of Journals/ Magazines & Newspapers subscribed. Etc.

7.0 Conclusion

The GNKC Library is a fully automated and digital library combined with ultra modern facilities. Automation of library activities helps in managing the library's resources in a better way at the same time saving time, money and manpower. For example, Upon entering bibliographic details such as author, title, edition, publisher, price, and ISBN number during the ordering process, this information can then be utilised for accessioning, cataloguing (OPAC), and circulation. Accuracy and speed are two other crucial aspects of automation. One can only image the time saved while creating bibliographies and conducting literature searches.

The client-server architecture used in KOHA's design gives it additional strength in terms of storage capacity, multiple access to a single database, different security levels, backup, and storage capabilities, among other things. This software was created following a thorough analysis of the various library-related tasks used in university and college libraries. Working with this user-friendly software is really simple.

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