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Status of Library Automation: A study in National Library of Veterinary Sciences of the, Indian Veterinary Research Institute (Deemed University), Izatnagar (U.P.)

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ABSTRACT

The present study gives over view of status of library automation at National Library of Veterinary Sciences and exposure to open source library automation software "Koha". The paper focuses on adaptation of new library automation software for bettor library services. Agriculture libraries are spread over every corners of India and sharing of the resources is essential amongst all these libraries in this new era. This library fulfills the need to search and share library catalogue by adopting library automation software with the International Standard in place of commercial software like Libsys. The commercial softwares are not maintaining the International standards like Z39.50 information retrieval service & protocol, MARC21 and UNIMARC etc. for library services. The standard defines how one computer system can co-operate with other systems for the purpose of searching databases and retrieving the records. The Koha-LMS for the library automation is one of the standards software maintains major features and modules for library services. It is one of the most used open source software for library management system.

Keywords: *NLVS (National Library of Veterinary Sciences), IVRI (Indian Veterinary Research Institute), Library Automation, Koha, Koha-LMS, Open source software, Library Management system*

1. Introduction

The modern era is known as information or knowledge explosion era. It is too difficult to manage the over flooded knowledge being generated in this era.

In view of these problems, number of authors has proposed various approaches for classification and management the information. Over the past several years, various tools and software have been developed with the help of technologies to solve this problem. That typically comprises knowledge management systems. The Information and Communication Technologies (ICT) is a tool for managing knowledge/ information in the modern era. The users of the library and library professional both are bound to do the demand of the users suggested by Dr. S.R. Rangnathn as the five laws of library science professional to fulfill the demand and provide the services through implemented these laws in the library. The expectations of the users, it is necessary to implemented latest tools for providing the services quick, accurate and full information for their users

1.1 Brief History Indian Veterinary Research Institute

The Indian Veterinary Research Institute, Izatnagar is one of the premier National Institution in Veterinary and Animal Sciences in the world. Founded in 1889, the institute is the oldest among the institutions governed by Indian Council of Agricultural Research. The Institute with its long heritage and glorious scientific achievements has always enjoyed a certain prestige and tradition of its own. Besides the main campus, three regional stations at Kolkata, palampur and Srinagar and two full-fledged campuses at Mukteswar in Uttarakhand and Bangalore in Karnataka are the other functional units of the Institute dedicated to livestock research and development.

1.2 Brief History National Library of Veterinary Sciences

The Indian Veterinary Research Institute's (Deemed University) library known as National Library of Veterinary Sciences is perhaps the oldest library in this specialized area in South Asia region. The library was started as an integral part of the Imperial Bacteriological Laboratory since its foundation on December 9, 1889 in Pune. The laboratory along with the library was shifted to Mukteswar in 1893. A branch library was built in 1901 at Kurgaina, Bareilly, which was transferred to its present site at Izatnagar. In view of growing need for space, a spacious library building was constructed and library was shifted in this new building in December, 1983. The present library building has around 3210 sq mts. area. At present library houses about 57,832 books, 4,989 theses, 3,987 reports and 1,97,380 bound volumes along with issues of journals and other serial publications in the NLVS. The library remains open from 9.00 a.m. to 10.00 p.m. daily and from 10.00 am to 04.00 p.m. on holidays except National Holidays.

2. What is Open Source Software?

Open source refers to a program or software in which the source code (the form of the program when a programmer writes a program in a particular programming language) is available to the general public for use and/or modification from its original design free of charge. Open source code is typically created as a collaborative effort in which programmers improve upon the code and share the changes within the community. Open source sprouted in the technological community as a response to proprietary software owned by corporations.

2.1What is Koha ?

The Koha is the integrated Library Management System (LMS) Software. The Koha software is a "open source" refers to software that is free and that includes the original source code used to create it so that users can modify it to make it work better for them. Open source software may be free, a developer or distributor may charge for services, including special programming, installation, training, and technical support. The quality, not profit drives open source developers who take personal pride. Simple use it and is not locked any single person or institution.

2.2 Advantages of Koha-LMS Software

- **Low cost:** There is no charge for the software itself. The major cost is local development. If the number of users is large, and they share their efforts, each user's cost is reduced.
- **Ability to tailor to fit local needs:** The availability of the source code means that a user can modify and enhance the software to more closely fit its own needs.
- **No restriction on use:** there are any contractual restrictions on how the software is used.

2.3 Koha-LMS Features:

- Supported various platform i.e. Linux, Unix, Windows and MacOS
- A full featured modern integrated Library Management System (LMS).
- Web based. Web-based Interfaces. We can integrate with website
- Z39.50 (protocols) support: - Prepared by the National Information Standards Organization, Z39.50 is an information retrieval service definition and protocol specification for library applications. The standard defines how one computer system can co-operate with other systems for the purpose of searching databases and retrieving records.
- Full MARC21 and UNIMARC support for professional cataloguing.
- Multilingual and multi-user support
- Web based OPAC system (allows the public to search the catalogue in the library and at home).
- It is support major industry-standard database type (text, RDBMS), SQL,MYSQL
- Serial management module.
- Print your barcode.
- Export and import records, ISO2709

2.4 Koha System Architecture

- Koha is based on a client-server architecture.
- Network Server: koha can be installed on a server running Linux, Unix, Mac.The recommended operating system is stable version of Debian Linux, although Koha can run on any modern operating system.

- Client Workstations: Koha requires only a web browser on the workstation (a graphical browser, or even a text browser for the OPAC). Koha thus functions on PCs running Windows,PCs running Linux, Macs, or even UNIX workstations.
- Koha runs over any TCP-IP network.
- Koha accommodates low-bandwidth connections. It is completely usable on ordinary telephone line connections. This is true of the librarian interface than of the public interface (OPAC).

2.5 Koha-LMS Standards

- The developers of the product have taken care to adhere strictly to international standards.
- Industry standards: Z39.50, UNIMARC, ISO2709, MARC21.
- For technical standards: the OPAC is "valid XHTML ", and respects the standards of accessibility.
- Web standards recommended by the World Wide Web Consortium.

2.6 Website for download Koha-LMS Required Software

- Koha version 2.2.9 Free (download from http://www.koha.org/
- Apache web server, 2.0.58 free (download from (http://www.apache.org)
- MySQL. Relational Database Management System (http://www.mysql.com) free
- Perl modules 5.8.(http://www.cpan.org). Free.
- Linux (RHEL 3.0, 4.0, 5.0) or Any flavour of LINUX or WINDOWS Server

2.7 Software for Implementation of Koha-LMS Server

- Server operating system: Linux, OpenBSD, FreeBSD, MacOS X, or any other UNIX.
- Web server: Apache.
- Programming language: Perl.
- Database:MySQL.
- Integrated Library software: Koha 2.2.9

2.8 Software for Koha-LMS Client

- Koha requires a recent Internet browser.
- Mozilla is advised, but not obligatory. (Koha works with Internet Explorer.).
- Certain data validity checks are made on the client machine, JavaScript must be enabled.
- The public interface (OPAC) conforms to XHTML1.0 standards: the utility is thus compatible with alternate browsers. In particular, the OPAC can be used by people needing special assistive technology (Braille browsers, voice synthesis, text-based broswers, etc.).

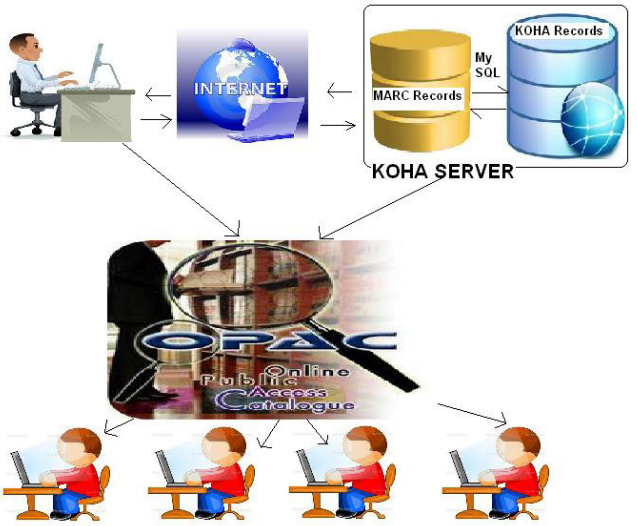

Figure 1: Koha-LMS Server and OPAC (source Internet)

3. National Library of Veterinary Sciences: Library Automation Software Koha-LMS

The library started its automation in the year 1996 with Libsys automation software. The software was updated from time to time. Being commercial software, the library also faced the problem in facilities and services. The databases maintained by the commercial vender the software not fallowed standard pattern they are no in open minded for import and export data format due to the commercial mind set. The migration of data from any commercial software to other is big task. In view of these limitations the library planned to Koha Open Source Software for better services for their users.

3.1 View of Koha-LMS Automated Library System in NLVS

The home page of open source software Koha-LMS NLVS, IVRI is shown in figure 2. It is the admin or library staff side for working of various modules according their right to works given by the admin of the Koha Library Management.

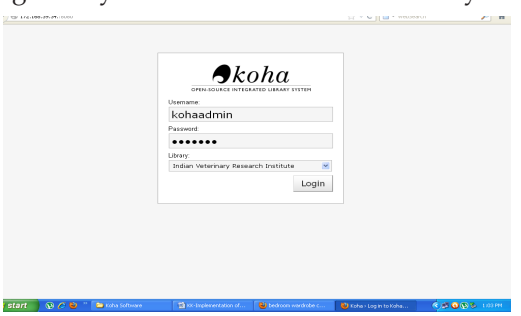

Figure 2: Login page of Koha-LMS for Library Admin & its staffs

3.2 Koha –LMS Administration Module at NLVS

Parameters administration is a very important feature of the intranet module of KOHA-LMS (shown figure 3 & 4). The administrator can change by default parameters using this functionality and provide different working rights to the different staffs according there working area. The administrator create there account with their right in Koha-LMS. It allows us to define different parameters for the functioning of KOHA like the library branches, book funds, currencies, item types, the categories of borrowers, the charges taken for the different types of items etc. "System Preferences" is the most important module of Koha-LMS. It deals with administration and maintenance part of Koha Library System. The Officer-in-Charge or Senior Library Staff or person of similar designation can hold access rights to this module.

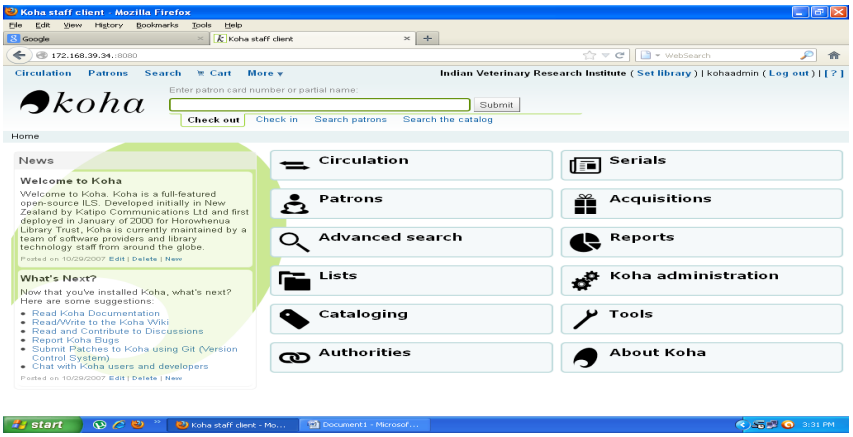

Figure 3: Koha-LMS Administration Module

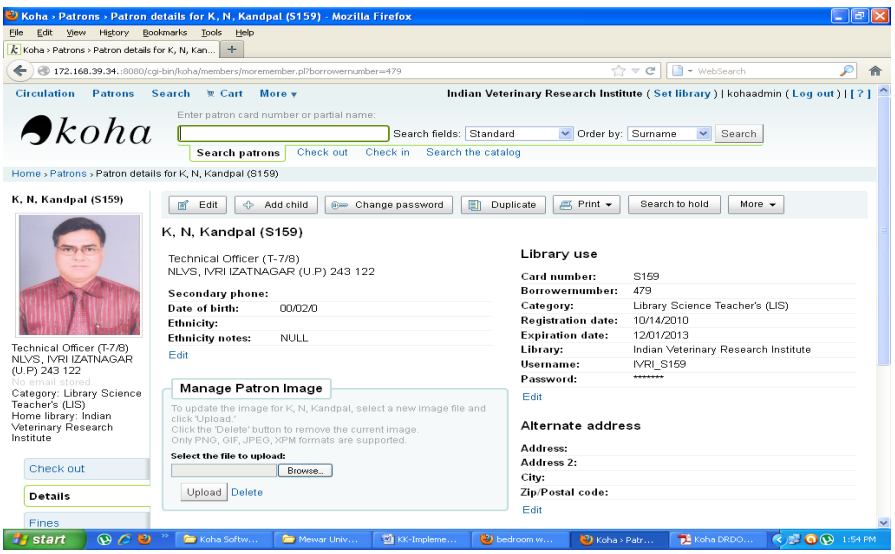

Figure 4: Koha-LMS Patron Details Shown

In complete modern library management system there are different types of modules or features, which are:

Koha-LMS Acquisition Module: Materials, which are purchased for library use. Activities related to obtaining library materials by purchase, exchange, or gift, including pre-order bibliographic searching, ordering and receiving materials, processing invoices, and the maintenance of the necessary records related to acquisitions (shown figure 5).

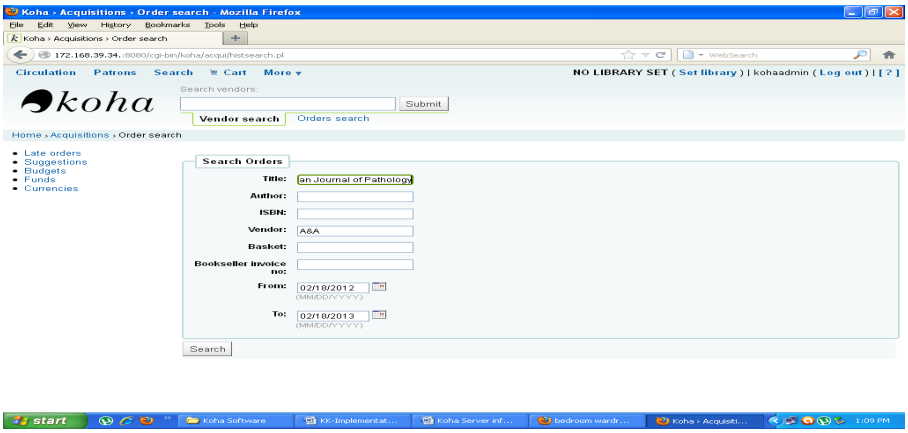

Figure 5: Koha-LMS Acquisition Module

Koha-LMS Cataloguing Module: Enter a record about library publication like books, CD, DVD and other publications etc in database in MARC 21 format and editing of record or information of library materials. Find duplicate checking from that option. That means can compare between two books wheatear they are same or not. In an electronic index or database, keywords can be combined together using the Boolean operators AND, OR, and NOT. Import or export report is the library materials (shown figure 6).

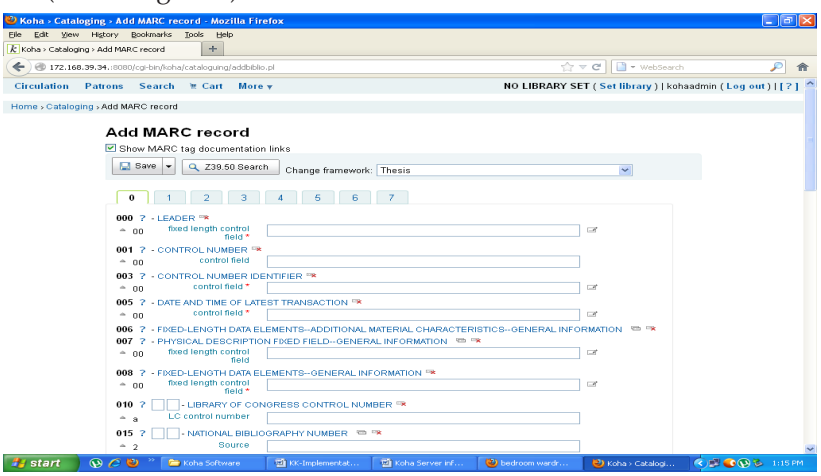

Figure 6: Koha-LMS Cataloguing Module

Koha-LMS Online Public Access Catalogue (OPAC): A Koha-LMS OPAC (Online Public Access Catalog) is the electronic card catalogue system, or computer you connect to when we look up library resources, such as books and others publications by keyword, title, author etc. In case of advanced search exact search means by author name or by name of book (shown figure 7, 8 & 9). The user can access through internet.

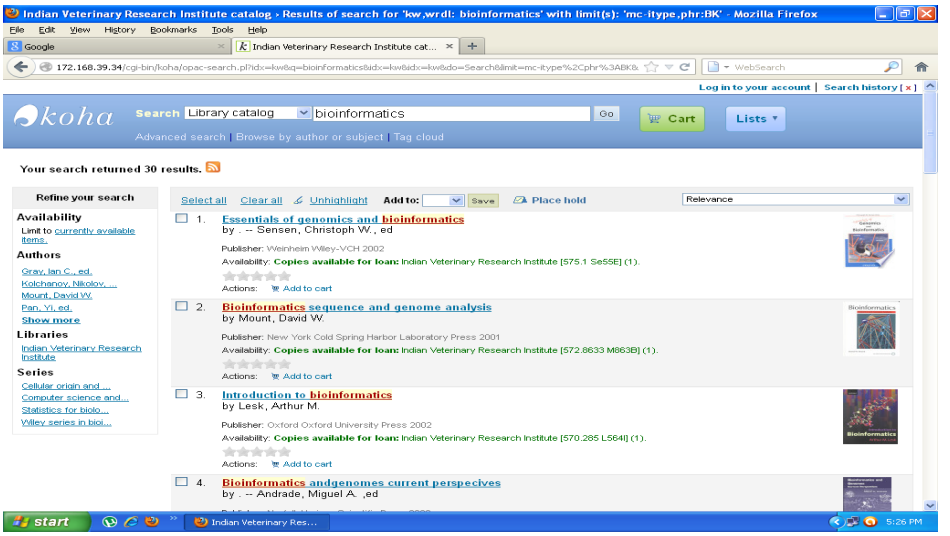

Figure 7 : Koha-LMS Online Public Access Catalog

Figure 8: Koha_LMS Online Public Access Catalog

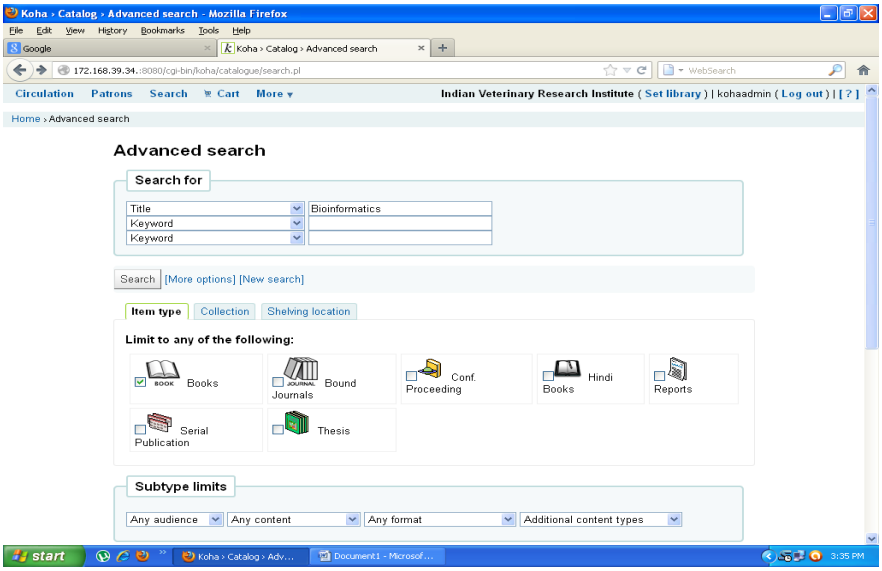

Figure 9: Koha-LMS Advanced Search

Koha-LMS Circulation Module: For set the patron record about all the patron and materials of a library. Setting parameters like issue and return. The library publication, which is not returned in due date such publication considered for fine and overdue notice. The reservations of books or hold and recalls by the module and other relegated activity by the circulation (shown figure 10, 11 & 12).

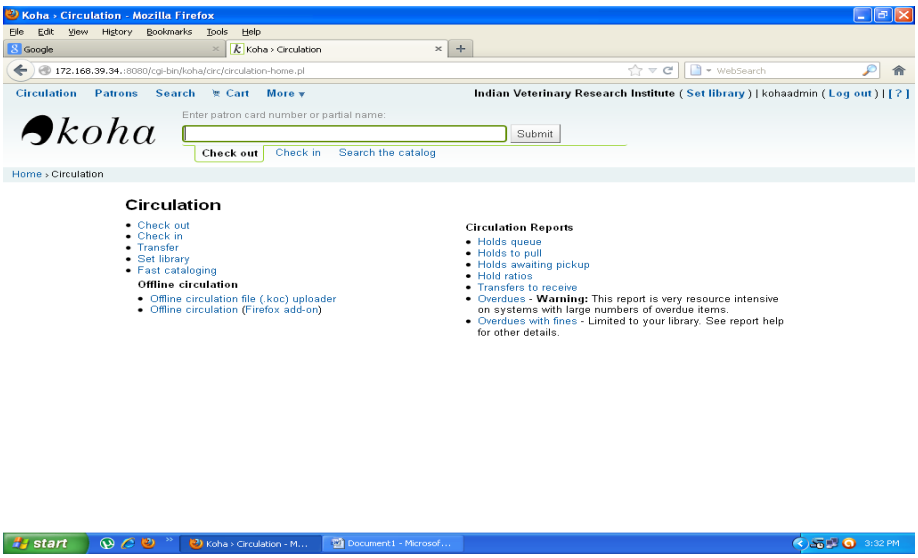

Figure 10: Koha-LMS Circulation Module

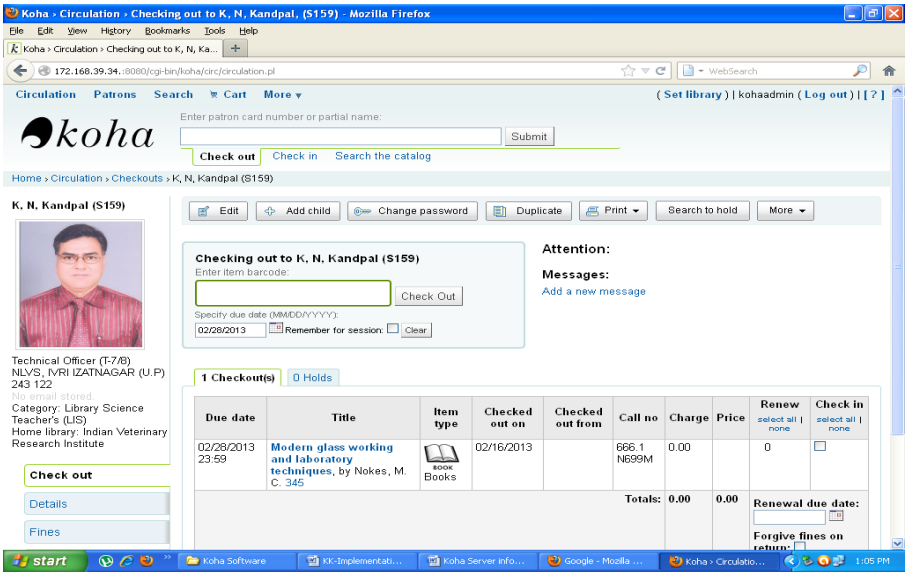

Figure 11: Koha-LMS Check out Detail of Patron

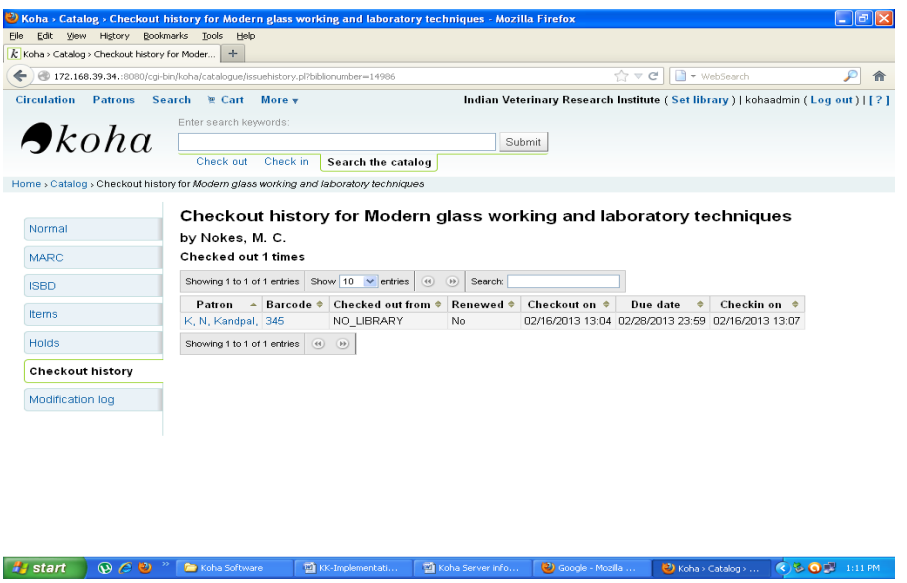

Figure 12: Koha_LMS Checkout history of book

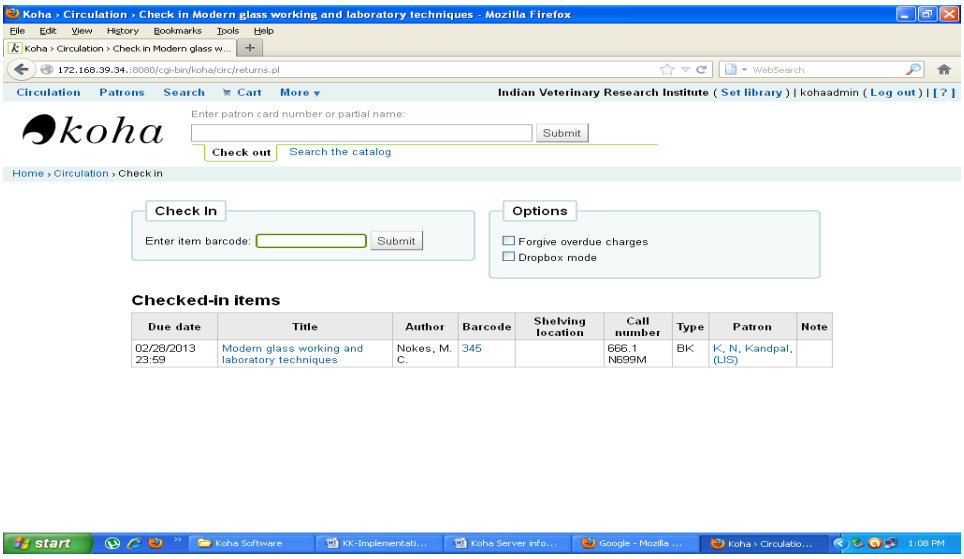

Figure 13: Koha-LMS Checked-in Dtail of Patron

Koha-LMS Serial control: Serials include journals, periodicals, magazines, almanacs, annual reports, numbered monographs, and other materials. This term is sometimes used interchangeably with "periodical." All the activity like fund control, ordering, receipting, claiming and binding etc cover on the module (shown figure 14).

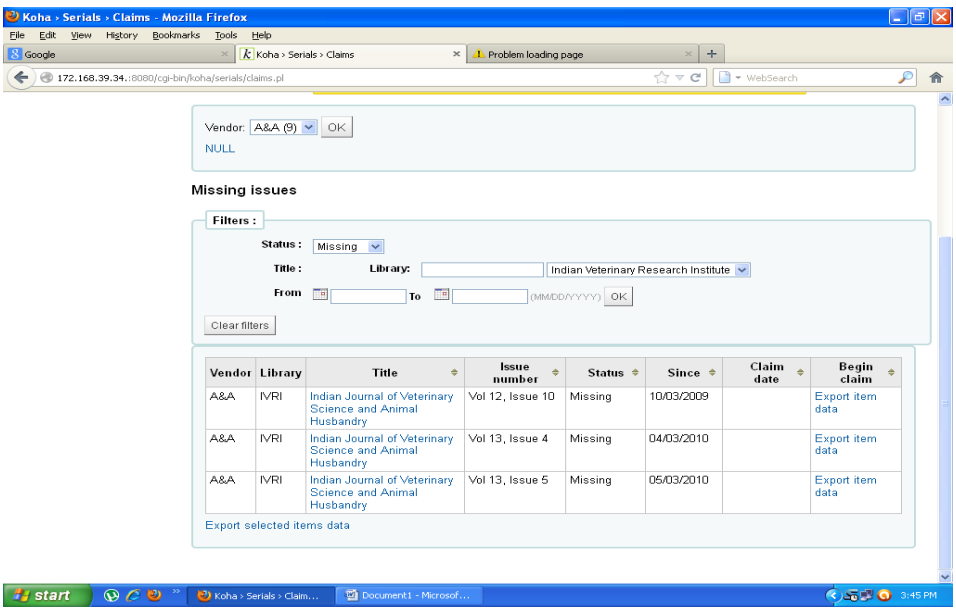

Figure 14: Koha-LMS Serial Control

Koha-LMS Management Module: Information about the total library operation. If a staff needs any information he/she can know the information through this option. The different type of statistical analysis etc covers on the module (shown figure 15).

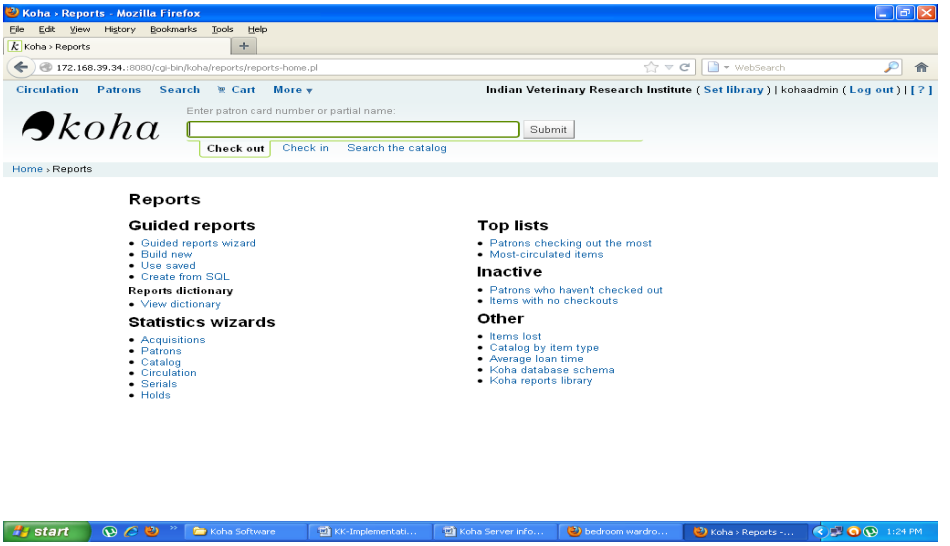

Figure 15: Koha-LMS Management Module

Koha-LMS System maintenance facilities: In software there is common interface for all user but some interface is different based on user. A library promises to all users that they keep their password, information secure (shown figure 16).

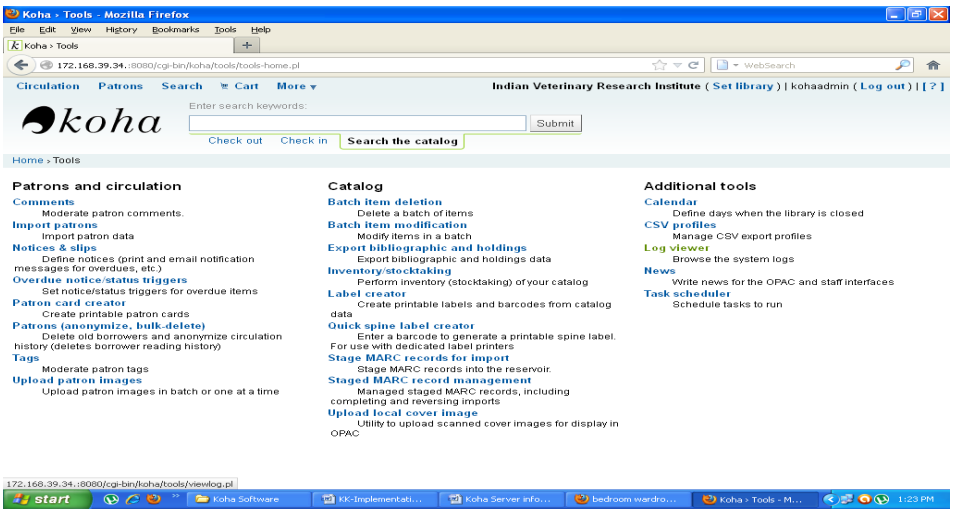

Figure 16: Koha-LMS System Maintenance Module

4. Conclusion

The Indian Veterinary Research Institute, library 'National Library of Veterinary Sciences' is fully automated library. Automation of library activities helps to managing the library's services and resources in better way at the same time saving of time, money, manpower. Provide accurate information without delay of time to the users of the library. Automation of library activities and easily accessibility to resources of a library collection sprite over the web is the main reason of the change of library automation software Libsys to Koha-LMS to the National Library of Veterinary Sciences at IVRI. Koha-LMS is the open source software with international standard library automation software. The Koha-LMS software is supported to the MARC 21 format. Koha-LMS is an integrated software system with all the required models for small to very large libraries. As Koha-LMS software is capable to accommodate a large collection of a library, to integrate the basic library operations, to provide quick response, having the menu driven faculties and easy to use, it is a fair option for libraries to adopt web based services to the National Library of Veterinary Sciences (NLVS) for automation of library servicers. Quick information access and retrieval, online search for e-resources, OPAC search, charging and discharging of resources among etc. can be done with ease in Koha-LMS. Koha-LMS has received wide acceptance by the user community. The Koha-LMS is UNIMARC, ISO2709, MARC21, Z39.50 (protocols) supported. The user community of Koha has become proactive to improve the software to be more and more adaptable, user friendly, easy bug fixing and training the trainers. In view of the features of Koha-LMS the NLVS have taken initiation to shift from commercially software (Libsys) to Open Source Software Koha-LMS.

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