Open Source Integrated Library Management Software KOHA: Overview & Features

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Abstract

In this era of transition from information age to knowledge society, the libraries have much greater challenges to face. The whole insight of library has now changed from collection of books to a single window knowledge bank. This paper discusses the definition, overview and features of open source library management software KOHA. Open source library management software is a solution to reducing that cost. The paper describes in brief about the feature of open source library management software KOHA which are useful for developing digital library and institutional repositories.

A properly computerized library will help its user with quick services. Library automation refers to mechanization of library housekeeping operations predominantly by computerization. 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 option 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, Repositories

Introduction

In the present era digitalized databases are being compiled in majority of the library services, which are based on information technology as well as resources available in electronic formats. In order to manage all kinds of resources and information, libraries require high quality integrated software, along with cutting edge retrieval tools. 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 demand.

Koha is the first of its kind, an open-source integrated library software (ILS) used worldwide by all kind of libraries from public, school and special libraries. Its growth and development is guided by a nurturing community of libraries and users across the world, who collaborate together to achieve its technological objectives and goals.

Definitions of Open source software

A. Open source software is software with source code

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that anyone can inspect, modify, and enhance. "Source code" is the part of software that most computer users don't ever see; it's the code computer programmers can manipulate to change how a piece of software—a "program" or "application"—works. Programmers who have access to a computer program's source code can improve that program by adding features to it or fixing parts that don't always work correctly.

B. Open-source software (OSS) is computer software with its source code made available with a license in which the copyright holder provides the rights to study, change and distribute the software to anyone and for any purpose.

C. The OSS community generally agrees that open-source software should meet the following criteria:

- The program must be freely distributed
- Source code must be included with the program
- Anyone must be able to modify the source code
- Modified versions of the source code may be redistributed

As well, an open-source software license must not require the exclusion of, or interfere with, the operation of other software.

History of Koha LMS

Koha is a full featured Integrated Library System (ILS). There is no cost for the license, you have the freedom to modify the product to adapt it to your needs, etc. Developed initially in New Zealand by Katipo Communications with Horowhenua Library Trust in 1999 and the first installation went live in January 2000. From 2000, companies started providing commercial support for Koha. In 2001, Paul Poulain (of Marseille, France) began adding many new features to Koha, most significantly support for multiple languages. In 2005, an Ohio-based company, Metavore, Inc., trading as LibLime, was established to support Koha and added many new features, including support for Zebra sponsored by the Crawford County Federated Library System. In 2011 the Spanish Ministry of Culture maintains KOBLI, a tailored version of Koha based on an earlier report. In 2014 the Ministry of Culture (Turkey) started to use Koha - Devinim version in 1,136 public libraries with more than 15,000,000 items and app. 1,800,000 active users. This is the biggest Koha installation for the moment.

It is currently maintained by a dedicated team of software providers and library technology staff from around the globe. That by adopting it, the customer becomes "joint owner" of the product. In particular, the customer can freely install new versions or not, and can take part in new developments by financing them or by carrying them out them self.

Worldwide Users of Koha LMS

Koha user are increasing day by day including academic, public, school and special libraries, in Africa, Europe Middle East, East Asia, South Asia, Southeast Asia Philippines, North America, Central America, South America, Oceania, along with a committed team of programmers its development is steered by a growing community of libraries collaborating to achieve their technology

Set up Koha for Library Automation: Use following equipment

- Koha latest version for installation
- Any version or flavor of Linux or WINDOWS Server
- A computer for circulation desk
- computers to serve as your OPAC, so patrons can access the catalog
- Barcodes for patrons
- Barcodes for books & other materials
- Barcode Scanners for your circulation point
- A printer with scanner

Design, Implementation and features of koha Software

1. Koha Login Screen:

Figure 1.Koha Login screen

2. Home Page of Koha LMS:

Home page of KOHA 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.

Figure 2.Koha Home page showing all Module

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KOHA Module

- Acquisition
- Cataloguing
- OPAC (Online Public Access Catalogue)
- Serial Control
- Circulation
- Patron Management
- Searching: Basic/Advance
- Report
- Tools

Koha Acquisition Module

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, Fund Control.

Koha Cataloguing Module

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.

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.
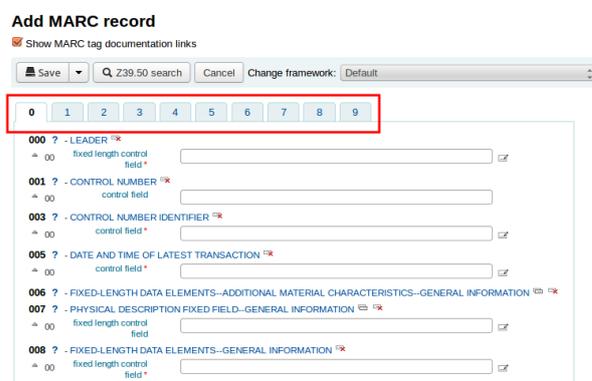- Bibilio basket: members can select the item and can add to the cart.

Figure 3.KOHA Cataloguing Module

Serial Control Module

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 to search the subscriptions through the ISSN, Title, Publisher, Vendor and Subscriber Library of the Serial Title.

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Figure 4.Koha Serial Module-New Subscription

KOHA Circulation Module

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:

1) Check out option on the top of the main staff client

Figure 5.Koha Check out Bar

2) Check out option on the quick search bar on the circulation page

Figure 6.Koha quick search Bar

3)   Check out option on the patron record

Allows the check-out the item required by the patron. It also provides printing receipts, check out messages and warnings.

- **Check in (Returning)**

Checking in items can be performed from various different locations:

1) The check in box on the top of the main staff client

Figure 7.Koha Check in Bar

Figure 8.Koha Quick Search Circulation Bar

2) The check in option on the quick search bar on the Circulation page

Allows to check-in the resource issued to the patron through scanning the barcode or entering the barcode number. It gives options to forgive the overdue charges and allows book drop box mode for check-in the collection.

- **Set Library**

Allows choosing the library in multi library for the circulation.

- **Transfer**

Allows to transfer 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.

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- **Fast Add Cataluging**

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.

Koha Patron Management Module

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.

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

Koha 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.

Figure 9.Koha Search Bar

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.

Figure 10.Koha Advanced Search Bar

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.

Koha 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

Koha 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

Conclusion

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. Koha is integrated software system with all the required models for small to very large libraries. It is found that this automation software will serve as a model for any library. Being an open source, any Library wanted to go for automation for their library housekeeping operations can

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make use of this software. 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.

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