SOUL 2.0 (Software for University Libraries) For Library Automation

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Abstract- Library Automation Systems are becoming integral part of academic libraries. In present information technology era library has changes their housekeeping operation and moved from traditional to modern era. Automation helps to sought out library operations like acquisition control, serial control, and cataloguing and circulation control within few seconds and too at click of one tab. It has also helped in evaluation and up gradation of library staff. Over all administration of libraries has been working smoothly since automation has started.

Present article emphasis on SOUL (Software for University Libraries) for Library Automation. The author has analyzed the Definition of Library Automation, Need for Library Automation, Why Automation, Advantages of Library Automation, An Overview of SOUL Software, Feature of SOUL 2.0, SOUL Modules etc.

Keywords- C Library automation, SOUL 2.0, Library software,

I. INTRODUCTION

Library Automation Systems are becoming integral part of academic libraries. In present information technology era library has changes their housekeeping operation and moved from traditional to modern era. Library automation helps the library to keep running all housekeeping operations with latest development.

Library Automation:-

According to **Encyclopedia of Library and Information Sciences** "Library Automation is the use of automatic and semiautomatic data processing machines to perform such traditional library activities as acquisitions, cataloguing, and circulation. These activities are not necessarily performed in traditional ways, the activities themselves are those traditionally associated with libraries; library automation may thus be distinguished from related fields such as information retrieval fields such as information retrieval, automatic indexing and abstracting and automatic textual analysis" (Kent, 1977).

According to **Webster's Third New International Dictionary of English Languages**, automation is, "the techniques of making an apparatus, a process or system operate automatically". In other words, it is the machinery that mathematically manipulates information storing, selects, presents and records input data or internally generated data. Mechanization of library house-keeping operations predominantly by Computers are known as library automation. (Gove, 1986).

Review of Literature:

Surwade Yogesh and Hitendra Patil (2019) explained that Library automation is techniques to make a system automated for this electric machine are to be used. Automation and networking of libraries are still in their formative stages in India. Their full impact on libraries and library resources will be known in the course of time. **Ashwini**

Kamble and Yogesh Surwade (2019) in their study, The automated systems reduce the energy and time taken in the repetitive process of the library information centers and reflect holdings instantly and from various angles of search which is not possible in the traditional stems due to physical limitations. also discusses that changing ICT environment has tremendous affected on every library activities like operations, resource, services, staff and users. The automated systems are advantageous over the manual ones. **Sonone A.S. (2019)** discuses Development of SOUL software, its Modules and Feature, also explained automations has changed library centers operations, functions in to fast mode with the help of SOUL 2.0 software.

Monalisa Bhanja and Niranjan Barik (2009) discuses about Library Automation, Need of library automation, Requirement for Library Automation etc.

Need for Library Automation:-

- Quality in service.
- Better access.
- Cooperative efforts (Resource Sharing).
- Increase in the collection of libraries.
- Information explosion new techniques.
- Provide wide access to resources within the libraries and elsewhere.
- To share the resource sharing among different libraries (through computer networks nationally and internally).
- Depth of content analysis-selection and manipulation.
- Accuracy and promptness in service.
- Availability of information in machine readable form.
- Elimination of duplication of work.
- Large data can be handled with ease and accuracy.
- Wastage of user / staff time in locating the information.

II. WHY AUTOMATION

In today's world due to ever-changing technology workload has increased tremendously and need to be sought-out within fraction of seconds, even decision taking task has to be completed within stipulated time. Automation helps to sought out library operations like acquisition control, serial control, and cataloguing and circulation control within few seconds and too at click of one tab. It has also helped in evaluation and up gradation of library staff. Over all administration of libraries has been working smoothly since automation has started.

- Large amount of data can be handled easily and sophistically.
- Resource sharing has become feasible.
- Large number of users benefitted because of its user-friendly nature.
- Speedy nature and recovery property.
- Flexibility in availability and storage as well as for downloading.
- Multi-task nature
- Economic.
- Researcher's first choice.
- Geographical barrier overcome.

Advantages of Library Automation:-

- Improve the quality, speed and effectiveness of services.
- Relieve professional staff from clerical work.
- Improve access to remote users.

- Facilitate wider dissemination of information products and services.
- Resource-sharing among other library networks.
- Enable rapid communication with other libraries.
- Improve the management of physical and financial resources.
- It provides users with timely access to library materials
- It eliminates routine tasks or performs them more efficiently
- It reduces the amount of time spent on material acquisition, serials management, budget administration and record keeping.
- It allows patrons to use search strategies that exceed those that can be used with card catalogue

III. AN OVERVIEW OF SOUL SOFTWARE

Software for University Libraries (SOUL) is state-of-the-art integrated library management software designed and developed by the INFLIBNET Centre based on requirements of college and university libraries. It is user-friendly software developed to work under client-server environment. The software is compliant to international standards for bibliographic formats, networking and circulation protocols. After a comprehensive study, discussions and deliberations with the senior library professionals of the country, the software was designed to automate all housekeeping operations in a library. The software is suitable not only for the academic libraries, but also for all types and sizes of libraries, even school libraries. The first version of software i.e. SOUL 1.0 was released during CALIBER 2000. The database of the SOUL 1.0 was designed on MS-SQL and was compatible with MS SQL Server 7.0 or higher. The latest version of the software i.e. SOUL 2.0 has been designed for latest versions of MSSQL and MySQL (or any other popular RDBMS). SOUL 2.0 is compliant to international standards such as MARC 21 bibliographic format, Unicode-based Universal Character Sets for multilingual bibliographic records and NCIP 2.0/ SIP2 based protocols for electronic surveillance and control. (www.inflibnet.ac.in)

The Main Feature of SOUL 2.0 –

Major features and functionalities of SOUL 2.0 are as follows:

- UNICODE-based multilingual support for Indian and foreign languages;
- Compliant to International Standards such as MARC21, AACR2, MARCXML;

- Compliant to NCIP 2.0 and SIP2 protocol for RFID and other related applications especially for electronic surveillance and self check-out & check-in;
- Client-server based architecture, user-friendly interface that does not require extensive training;
- Supports multi-platform for bibliographic database such as My SQL, MS-SQL or any other RDBMS;
- Supports cataloguing of electronic resources such as e-journals, ebooks, virtually any type of material;
- Supports requirements of digital library and facilitate link to full-text articles and other digital objects;
- Supports online copy cataloguing from MARC21 bibliographic database;
- Provides default templates for data entry of different type of documents. User can also customize their own data entry templates for different type of documents;
- Provides freedom to users for generating reports of their choice and format along with template and query parameters;
- Supports ground-level practical requirements of the libraries such as stock verification, book bank, vigorous maintenance functions, transaction level enhanced security, etc.;
- Provides facility to send reports through e-mail, allows users to save the reports in various formats such as PDF, Excel, MARCXML, etc.;
- Highly versatile and user-friendly OPAC with simple and advanced search. OPAC users can export their search results into PDF, MS Excel, and MARCXML format; Supports authority files of personal name and corporate body ;
- Supports data exchange through ISO-2709 standard; Update form Software as well as offline update;
- Global Search and replace
- Provides simple budgeting system and single window operation for all major circulation functions;
- Strong region-wise support for maintenance through regional coordinators. Strong online and offline support by e-mail, chat and through dedicated telephone line during office hours; and
- Available at an affordable cost with strong institutional support.

SOUL Modules:

The SOUL 2.0 consists of the following six modules. Each module has been divided into sub modules to its functional requirements.

1. **Acquisition** – The basic purpose of acquisition module is to manage and control the expenditure of funds for materials that meet the collection development criteria of the library. Acquisition is complex process that includes

- Suggestion Management,
- Order processing , cancellation and reminders
- request of document approval,
- Receipt, Payment and budgetary control.
- Account maintenance,
- report generation,

2. **Cataloguing -** Cataloging module is like mirror image of library since it reflects library collection. It frames a basement for acquisition, reference, inter library loan etc. Catalogue module is used for retrospective conversion of library resources. It also facilitates library staff to process of the newly acquired library resources. It allows processing the items received form acquisition module for technical process such as cataloguing and assigning call number. Cataloguing module is specially used for database creating of the library resources. It includes following functions.

- Allows user generated customized reports.
- Supports copy cataloguing in MARC 21 format by using ISO-2709 Standard.
- Supports of full MARC 21 Bibliographic format.
- Multi lingual database by using Unicode character set.
- Facilitated authority database of person name, subject and series name.
- Facilitated generation of spine label barcode and book card.

3. **Circulation** – Circulation being important function of academic library. Sufficient care has been taken in designing this Module starting from membership management, maintenance and status of library items, transaction, ILL, Overdue charges, renewal and reminders, search status and report generation according to the status of items. This module has provision for all possible function handled in a typical academic library. All theses function organized into eight logical sub modules. This module is fully compliant with the NISO Circulation and Interchange Protocol (NCIP) version 2.0 for electronic surveillance and RFID based Transaction of the items.

The major function of Circulation module:

- Membership
- Transaction
- Interlibrary Loan
- Overdue Charges
- Reminder
- Search status
- Maintenance of the items such as binding, lost, replace, missing, withdrawal
- Report Generation.

4. **Serial Control** – Managing serials is the most complicated job for a library. The module keeps track of serials in the library effectively and efficiently. The Serial Control is developed based on the KARDEX system. It includes following functions

- Suggestion
- Master database
- Subscriptions
- Check in of individuals issues of journals.
- Payment, reminder, binding and title history
- Export/ import by using ISO 2709 bibliographic exchange format
- Article indexing of journal / book articles
- Cataloguing of electronic journals and
- Keep track of the history changes of journals.

5. **Online Public Access Catalogue (OPAC)** - The OPAC has simple and advanced facility with the minimum information of the items by using author, title, keyword, subject heading, class number, serial name, accession number or combination of any of two or more information regarding the item. Major function provided in the module are

- simple search
- Boolean Search
- Advanced Boolean Search
- Displaying and downloading of records in MS Excel, PDF or MARCXML.
- Search Report for the items that are in the acquisition Process in Libraries.

6. **Administration**: Administrative Module is the master of all modules, which has provision to administrate all the modules and system settings. This module consists of three major sub modules i.e. User Settings, System Settings and Masters. The User Settings provides for setting privilege to the users

while system settings are used to administer the rule, regulations, security measures and policies to run the system in proper way. Masters are acquisition master, catalogue master, circulation master, serial master, and general master. These masters are used to set the privilege and settings to the sections. Administration module is the heart of SOUL Software. The administration modules provide the following feature.

- Grouping of users based on policy.
- Transaction rights over the systems.
- Transaction level security to users.
- Various configuration settings such as labels email.
- Common master database being used in Administration module

Why SOUL –

1. Inflibnet is nonprofit organization which is dedicated to modernization of academic Libraries in overall India.
2. UNICODE based multilingual support for Indian and foreign languages
3. Available at Nominal Cost Compared to other software.
4. Strong Support system.
5. Free updation and Modification.
6. Free training and hospitality provision for new user.
7. Support RFID based Transaction.
8. Copy Cataloguing Facility.

State wise list of SOUL installation as on 30th Oct 2020.

Sr. No	State	No of Installation
1.	Andhra Pradesh	301
2.	Arunachal Pradesh	1
3.	Assam	91
4.	Bihar	22
5.	Chhattisgarh	49
6.	Daman	4
7.	Goa	3
8.	Gujarat	998
9.	Haryana	136
10.	Himachal Pradesh	73
11.	Jammu & Kashmir	95
12.	Jharkhand	9
13.	Karnataka	31
14.	Kerala	131
15.	Madhya Pradesh	304
16.	Maharashtra	522
17.	Manipur	2
18.	Meghalaya	3
19.	Mizoram	34
20.	Nagaland	6
21.	Nepal	4
22.	New Delhi	43
23.	North Eastern States	338
24.	Orissa	11
25.	Pondichery	5
26.	Punjab	133
27.	Rajasthan	66
28.	Sikkim	4
29.	Tamilnadu	37
30.	Telangana	7
31.	Uttar Pradesh	121
32.	Uttarakhand	22
33.	West bengal	150
	Total Installation:	3756

The above list shows that Gujarat has 998 installations of SOUL, Maharashtra has 522 installations, North Eastern States has 338 Installations, Madhyapradesh has 304 Installations and Andhrapradesh has 301 installations. At present there are 3756 colleges and university libraries has installed the SOUL Software. However Gujarat state is on First rank and Maharashtra State in on Second Rank, North Eastern States is on Third Rank, Madhyapardesh is on fourth and Andhrapradesh is on fifth for Installation of SOUL Software.

Forthcoming SOUL 3.0 – Inflibnet plan to launch SOUL 3.0 software in few days with huge changes and Advance feature of Modules and functions of SOUL 2.0 i.e. Bibliographical Data conversion, Union catalogue creation, Unicode multilingual language, SMS alert Service, email on various transaction, provision for self entry by member, User interface Language, Camera Integrations for user Photo, Versatile webopac, Report generation and Export in Word format, android applications for members etc.

IV. CONCLUSION

Software for University Libraries (SOUL) is state-of-the-art integrated library management software. SOUL Library automation systems have helped libraries to provide easy access to their collections through the use of computerized library catalogues. In this I explained the Overview of SOUL modules & their impact of Library automation also explained basic feature of Library automation.

REFERENCES

[1] Encyclopedia of library and information sciences, Vol. 14., p.338
[2] http://www.ijim.in/wp-content/uploads/2017/09/Vol-2-Issue-V-6-11-paper-2-Mail-Tahir-Ahmed-manuscripts-TS1.pdf accessed on 03/02/2021
[3] https://soul.inflibnet.ac.in/downloads/Soul2.0%20userManual.pdf accessed on 03/02/2021
[4] https://soul.inflibnet.ac.in/ accessed on 03/02/2021
[5] Kent, Allen. (1997).Encyclopedia of Library and Information Science. New York: Marcel Dekkar. 19.
[6] Monalisha Bhanja, Nilaranjan Barik (2009).Library Automation: Problems and Prospects, 10th National Convention of MANLIBNET organized by KIIT University from 22nd – 24th, Jan. 2009.
[7] Saffady, William. (1988). Library Automation: an overview. Library Trends, 37,269-281.
[8] Sonone, A.S.(2019).SOUL (Software for University Libraries): Development , Modules and Feature, National Seminar on Library Automation using SOUL Software organized by Sitabai Arts, Commerce and Science College from 24th to 25th Feb. 2019
[9] Surwade, Yogesh.(2019).Need and Importance of Library Automation, National Seminar on Library Automation using SOUL Software organized by Sitabai Arts, Commerce and Science College from 24th to 25th Feb. 2019.