

**A CURRENT AWARENESS SYSTEM FOR THE NATIONAL LIBRARY OF UGANDA**

**BY**

**GROUP 20**

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**A PROJECT REPORT SUBMITTED TO THE DEPARTMENT OF LIBRARY AND  
INFORMATION SCIENCE, IN PARTIAL FULFILLMENT OF THE REQUIREMENTS  
FOR THE AWARD OF A BACHELOR OF LIBRARY AND INFORMATION  
SCIENCES, OF MAKERERE UNIVERSITY.**

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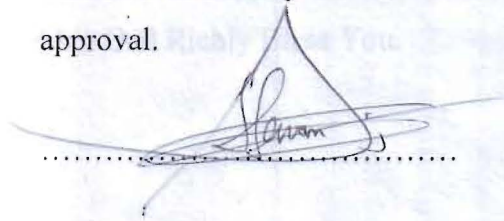
## DECLARATION

We declare that this project “An Electronic Current Awareness System for the National Library of Uganda.” is our original work carried out in partial fulfillment for the award of the degree of Bachelor of Library and Information Science of Makerere University under the guidance and supervision of Mr. Mwanje Aloysius Ssenono. The matter embodied in this report has never been submitted for the award of any degree or diploma to any University or higher Institution of learning to the best of our knowledge.

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## APPROVAL

This is to certify that this project entitled “An Electronic Current Awareness System for the National Library of Uganda.” Agaba Romis Wise, Akiror Esther Pronnah, Nimusiima Martha has been submitted for evaluation in fulfillment for the requirement award of the degree of Bachelor of Library and Information Science of Makerere University under your guidance and approval.



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12/10/2022  
.....

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Date.

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## **DEDICATION**

This work is dedicated to our amazing parents for their effortless support towards the study. For the financial and outstanding encouragement throughout the three years of the course at the University. It is also dedicated to our brothers, sisters and friends at Makerere University for their endless support.

May God Richly Bless You.

## **ACKNOWLEDGEMENTS**

We are grateful to God for life and this far He has brought us. May His name be glorified forever.

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We acknowledge any one who directly or indirectly took part in this research.

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May God Bless You Abundantly.

## **ACRONYMS**

ADMIN	Administrator
ASP	Active Server Pages
CAS	Current Awareness System
CHAR	Character
CSS	Cascading Styling Sheet
HTML	Hyper Text Markup Language
HTTP	Hyper Text Transfer Protocol
ICT	Information Communication Technology
ID	Identification
INT	Integer
NLU	National Library of Uganda
PHP	Hypertext Pre-Processor
SMS	Short Message Service
SQL	Structured Query Language
UML	Unified Modelling Language
VARCHAR	Variable Character

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## **ABSTRACT**

The study aimed at developing an electronic current awareness system for National Library of Uganda. The study was conducted based on four objectives and these were to: Examine the current system used to provide Current Awareness Services at National Library Uganda, Determine the challenges faced by the National Library Uganda in providing Current Awareness Services using the current Awareness System, Establish the requirements necessary to develop a Current Awareness System for National Library Uganda and develop a Current Awareness System for the National Library of Uganda in order to provide timely updates to users about the available information.

The study employed a case study while adopting a qualitative research approach to collect data from the respondents. Interviews, observations and documentation methods were used to collect the data from the respondents. We the researchers purposively selected 1 librarian and 10 library users at National Library of Uganda.

The current awareness system used at the National Library of Uganda is manual, paper based tiresome and is poorly located. The challenges of this system were: Inadequate funds to run the available system, low levels of ICT among library staff and users, language differences in the library, limited professional skill to run the system, lack of awareness among the users about the available current awareness services in the library, affective barriers and unfavorable government policies. The functional requirements that we needed to develop an electronic current awareness system were a system user interface, authenticity of the system, audit tracking, reporting requirement, administrative functions, regulatory function. The non-functional requirements were reliability, data integrity, scalability, usability, system security and maintenance.

The study recommended that an electronic current awareness system should be developed to update users about the new library acquisitions available. Other recommendations were to regularly users on new acquisitions, improvise more ICT services in the library, engage users more to make communication easy in case of need of updates.

## **CHAPTER ONE: INTRODUCTION**

### **1.1 Introduction**

This chapter presents the background, problem statement, Project purpose, Project objectives, project significance, project justification, project scope and definition of key terms.

### **1.2. Background of the study.**

#### **1.2.1. Conceptual background.**

The Current Awareness System in libraries has kept on evolving for a number of years. Libraries have evolved in terms of Current Awareness System right from the manual method of using notice boards, displaying of library materials, library messengers among others to the electronic method of emails, message alerts, websites that is used in most libraries today. Electronic means are used because they are not only stationed to a specific group of people but are timely and can reach people in different areas.

A Current Awareness System is one that is used to update the library users about the library acquisitions as well as library programs and events organized and also send alerts. This has been possible because of the various systems used by different libraries from time to time. CAS ensures that there is timely delivery of notifications to the users about the new acquisitions of the library. (Lebu Adhiambo, Laura 2018). CAS updates people depending on the type of delivery the library chooses to avail her information to her people.

The Current Awareness System makes provision of alerts and updates faster to the library users. The system is operated by the trained librarians and information is delivered on a timely basis as planned by the library administration.

Carrie C. Leatherman & Edward J. Eckel in their study on The use of an Online Current Awareness Services by Natural Science states that Current Awareness Service systems have been around for over 80 years. They further described that the first system was in 1929 for the Chemists and researchers at the Hercules Corporation and was moved to a computer system in the early 1960's.

### **1.2.2 Organizational background.**

The National Library of Uganda was established in 2003. It is located along Buganda road and it also serves as a legal depository in Uganda. It is funded by different entities like donors, and also collections from library charges imposed on the library users. The government of Uganda also provides aid in terms of giving scholarships to train people in the field of library and information science to become librarians.

Mr. Raymond Amanyabyoona, one of the librarians of the National Library of Uganda says that the main use of the National Library is to grow the reading culture among its users, to develop national policies on public libraries. He further estimated that the library serves over 600 users that access the library. The library is used by different categories of people like students, researchers, information analysts among others.

The National Library has a collection of electronic and non-electronic books, most of which are publications from Ugandan authors. Important documents like Gazettes, Bibliographies of different authors are kept at the national library. It also serves as a reservoir of historic documents that talk about the History of Uganda like the first Map of Uganda among others.

The National Library of Uganda also issues ISN (International Serial Number) to books published in the country according to the Act 2003 of Public Libraries.

Unfortunately, some library users are not aware of these services because of the poor Current Awareness System that is used at the National Library of Uganda. This is mainly because for one to get updated they have to access the library notice board, attend organized exhibitions, Display the books outside, which is often used to update users and is done at the library.

The library sends notices of current awareness via the notice board, newsletters, updates are always put there to be accessed by the library users. Some of the work updated is put in the form of fliers, posters, letters among others.

However, this has led to delayed notification of information to library users.

The study intends to develop an electronic current awareness system for the library which is going to always update the users about the information on the acquisitions and events in the library.

### **1.3. Statement of the Problem.**

Despite the use of the library notice board to alert users about the available information, some users were not able to be updated on time. This caused delays in finding out about the new library acquisitions at the National Library of Uganda. It led to low numbers of library users since those who didn't access the notice board never knew what the library held and ended up using other institutions or means to acquire information. This study intended to develop an Electric Current Awareness System for the National Library of Uganda that would enable users to be updated timely on the new library acquisitions available from anywhere. The librarians would also be able to reach out to the users and always have their constant feedback.

### **1.4. Purpose of the study.**

The purpose of this project was to develop a Current Awareness System for National Library Uganda in order to avail timely updates of the available information to the users.

### **1.5 Project objectives**

The objectives of this project will be to:

1. Examine the current system used to provide Current Awareness Services at National Library Uganda.
2. Determine the challenges faced by the National Library Uganda in providing Current Awareness Services using the Current Awareness System.
3. Establish the requirements necessary to develop a Current Awareness System for National Library Uganda.
4. Develop a Current Awareness System for the National Library of Uganda in order to provide timely updates to users about the available information.

## **1.6 Research questions**

The study will be guided by the following research questions:

1. How does the National Library of Uganda currently provide Current Awareness Services to its clients?
2. What challenges are being faced by the National Library Uganda in providing Current Awareness Services using the Current Awareness System.
3. What requirements are required to develop a current awareness system for the National Library of Uganda?
4. How should a CAS be provided to the National Library of Uganda?

## **1.7 Project significance**

The primary beneficiaries of this project were:

The National Library of Uganda would be able to inform the users about new acquisitions in their libraries.

The library staff might be able to send timely messages to their users about the available information in the library.

The researchers might be able to acquire an award of a Bachelor of Library and Information Sciences, of Makerere University.

The Public libraries might use this system to attract attention to their newly acquired materials from the library users.

The special libraries might use the system to circulate information about new acquisitions to the users.

The library users, the project would enable the users to know what acquisitions the library has got. It would also provide timely information to the library users. as well as help researchers know what the library holds in case of any research being carried out.



## **1.8 Project justification**

One of the roles of libraries was to deliver information to the users whenever requested for or inform the users about any newly acquired materials on time. For this to happen, the library had to ensure it had an efficient system that could easily be accessed and used in order to update the users. However, the National Library of Uganda, our case study, had failed to achieve this goal of always informing users on a timely basis. This is because most of the updates were made on the library premises which could not be accessed by everyone. This therefore left some users out of the know of new acquisitions or events that happened at the library. To ensure that this problem was solved, development of an Electronic Current Awareness System would be of use because users would be able to get updates virtually and not necessarily have to go to the library physically. This therefore ensured that users got timely updates about acquired information even when they were not at the premises.

## **1.9 Project scope**

Our focus of the project was to create a current awareness service system that would be used by the students, staff and permitted outside users to be able to always know about the library acquisitions.

### **1.9.1 Content Scope.**

The project was limited to studying the provision of Current Awareness Services to the users of the National Library of Uganda.

### **1.9.2 Geographical Scope.**

This Project was conducted from The National Library of Uganda located along Buganda Road Kampala City.

### **1.9.3 Time Scope.**

The project will take a period of three months right from July to September 2022.

## **CHAPTER TWO: LITERATURE REVIEW.**

### **2.1 Introduction**

This chapter reviews related literature on current awareness systems according to objectives in order to establish a research gap.

### **2.2 Objective one: to examine the current system used to provide current awareness services at national library of Uganda.**

The National Library of Uganda offers the following library services, reference services, current Awareness services, ICT of Information Computer Services. However different organizations use different current awareness services to provide services to the users.

A current awareness system is a way of letting users know about materials that have been newly received in the resource center. It can also refer to a system that alerts leaders and researchers of recently published literature in the fields and specific topics. Owen (2012), these include;

Information brokers are used by some libraries to provide current awareness services to the people. Carole A. Lane (2002) describes an information broker as people who provide information at a fee and charge for their services. With this, the user asks for a material and if not available an information broker looks for it in different bookstores or libraries. Once found the broker informs the user about the material acquired. Cambridge dictionary explains an information broker as a person whose business is buying and selling particular information for clients: Information brokers may refer to themselves as being database marketers or consumer data analysts' firms. It enables both the library staff and users in eCommerce transactions by providing efficient, precise, and enhanced comprehensive searches on the web and information repository. The information broker often works for companies that do not have their own in-house librarian or research team, and may also work for self-employed individuals who are in need of skilled research help. Information brokers typically have formal training in research and database skills and may also have additional training or education in one or more subject matters. They are also proficient in seeking out and evaluating information sources. They help bring the information closer to the users.

E-newsletters are used to inform companies and those associated with them about any updates, Nigel Jackson, Katie Angliss (2017) describe e-newsletters as a means of promoting their event expertise to events. Bruce McDuffee explains that E-newsletters let librarians communicate directly with the users in a personalized way by serving valuable content and relevant promotions straight to their inboxes. Libraries also provide important information of interest published in national and international newspapers to the preferred organizations. For this to happen, selected newspapers are scanned on a daily basis and news items of importance are selected, cut and pasted on plain paper or card. These contain important news and updates to make your audience aware of your brand or products and other significant information. This is usually used in media libraries and libraries of government departments.

Social media campaigns in libraries. Al Awadhi & Al-Daihani (2018) suggests this is done using the different library social media platforms like Instagram, twitter. Through this the users are always informed about the upcoming events in the library. This may encourage the user to make requests on the information that they may need or require in order to carry out the research activities that they need through online replies and interactions with the library patrons.

Current awareness bulletins in some cases are opted for by some libraries. Loyita Worley (2016) explains bulletins as a way to raise awareness of news and current issues. These contain details of new materials, book reviews, announcements about meetings and conferences, and news of resource center activities. Current awareness bulletins are particularly useful for larger resource centers, or for resource centers whose users are widely dispersed. They help users to keep up with a range of new developments. They also help to generate specific enquiries, which resource center staff can deal with more efficiently than general enquiries. The practicalities of producing a current awareness bulletin are similar to those of producing a newsletter.

Circulating materials means passing materials to individuals to pass in turn to others on a circulation list. Guy A. Marco (2011) explains a borrower may recall or reserve any book in circulation by filling a recall slip at the desk in which this slip will be converted into a punched card which then can enter the data processing system which will generate the necessary notification form to retrieve and notify the borrower when the information material is returned. There is a disadvantage to this service, in that materials can take a long time to reach the last person on the list. It is often more useful to circulate a content page than the actual item.

Displaying newly arrived materials is one of the methods used by libraries as well. Paul John, P. Balasubramanian (2019) explains that If recommendations are made for the purchase of new materials the staff provide feedback on whether it is ordered and when it is received. They help users to notice new materials, and make the resource center look lively and attractive. Noticeboards can be very useful for displaying the contents pages of newly received periodical issues, or copies of the covers of new books, reports and audiovisual materials. Displays are useful for attracting the attention of non-regular resource center users, and visitors to the organization.

Table of content services, this is a kind of document representation as well as a kind of finding device to the document it represents, table of contents are very common in books and some other kinds of documents but not in all kinds (Birger Hjørland, 2022). automatically they send alerts to users when acquired. Cornwell University Library explains that table of Contents alerts allow you to be automatically notified when the new issue of a journal is published. It also provides access in one place to the most recent in order to access the required information. Content pages of the latest primary research journals are duplicated, arranged journal wise and disseminated to the users on a regular basis.

### **2.3 Objective two: to determine the challenges faced by the national library Uganda in providing current awareness services using the current awareness system.**

The society today is characterized by an increasing need for specialized institutions in various fields of activity for the performance of their day-to-day functions. These institutions require speedy access to acquired published information.

Libraries face a number of challenges during their provision of current awareness services to their users some of which are.

The inadequate funds to run the available system. This makes implementation and maintenance of the systems slow. For the proper running of a system, funds should be available in order to fund different activities that run the system like training of staff, maintenance, pay for electricity, internet subscription among others. Libraries sometimes lack funds because of the no donors, unfavorable government policy. Bolanle Clifford Ishola in his article “Funding Problems in Nigerian Universities explains that funds are inadequate because of the high prices that are always placed on marketing the current awareness services that cannot be catered for by the

available funds. He further explains that fast growing population affects the funding since different budgets are always made for the libraries and yet the population to use the resources is larger and the funds cannot cater for everyone to access the services. Additionally, because of the limited funds available, there is a failure to purchase the required materials, there is a lag in the provision of the current awareness services.

Low levels of ICT skills among the library staff and users also affects the delivery of Current Awareness System Services. This is because some users and staff do not know how to operate the software that runs the systems hence leaving them out and making delivery of services difficult. For users and staff to be well equipped, training should be offered which however is sometimes expensive for the libraries. Hassan and Uddin (2012) in their study in-line with the use of information technology in library service emphasized that there are poor ICT levels because of the lack of technical support and training that is offered to the staff and library users.

Furthermore, Omeluzor in his article "Assessing the adoption and use of integrated library systems for library service delivery in academic libraries" elaborates that there are low skills of ICT because of inadequate funds from the Nigerian Government that is given to the libraries because of the low prices of crude oil on the national and international market this therefore has affected the funding of trainings of the staff. The low levels of ICT therefore hinder the effectiveness of the current awareness service to the people.

The language differences in the libraries affect the provision of current awareness services to the users. Libraries are used by different races and tribes of people. Some libraries like community libraries might have services in languages that suit their natives and those in the nearby environment but not favor those from far destinations hence leaving them out. Sometimes interpreters have to be used which is costly. Wales, Skinner & Hayman (2017) in their study on language and culture advise that a universal language which is English should be used to communicate and deliver current awareness service systems.

Limited professional skills to run the Current Awareness System. For a system to run effectively, there should be someone (s) who operate, update and maintain the system. However, some libraries are composed of people with limited or no skills in system management affecting the provision of the Current Awareness Service. Some of the skills can be in computers because of the shortage of computers (Akpojotor 2016). To reduce on all this, there should be more training that is offered to the librarians in order to acquire more skills. In house training and provision of

more computers can be offered to the different libraries to ensure timely updates of information to the users.

Lack of awareness by users about the available Current Awareness Services in the library. This is because some users never take time to find out how they can be updated about the available information in the library therefore are left not aware of how they can get to know about the new information. (Mugwisi, Jiyane & Fombad 2018) explain that librarians can train the users about the services that can be offered in the library. There are always barriers in seeking information. This is because of Information explosion or an overload of information. However, CAS is still needed through all its imperfections (Barr, 2016). However, time commitment and management has also contributed to low level of awareness and follow through among users (Diaron, 2017). The bulletin boards must have strategic locations to contribute to the services usefulness (Guzman et al., 2015). Amidst this situation, they still continued using CAS and found another strategy to make it more user-friendly to the users.

Affective barriers are also a challenge faced by the Library in provision of Current Awareness Services. This is because some users are not willing to ask librarians for help for fear of being looked at as stupid or dump at the end of the day. The librarians should therefore be more approachable to make users feel comfortable while addressing them about updates (Selby, 2019). Unfavorable government policy towards libraries is a hindrance to Current Awareness Services. This is because low funds are allocated to the libraries. This makes the maintenance of the Current Awareness Systems expensive hence being left or abandoned by those who manage the systems. (Siegel & Wright, 2015). (Nancy Bolt & Suzan Burge 2008) in their report in-line with the “Guidelines for Libraries in the Government department” explain that initially the government bodies are meant to allocate resources including the money and space to be used. This is to be used to deliver the changes that are to always be used in the library.

## **2.4 Objective three: to establish the requirements necessary to develop a current awareness system for national library Uganda.**

Requirements analysis is the identification of the most necessary requirements which will enable the current awareness service system for national library of Uganda

Requirement analysis will be done in order to categorize the user requirements into functional and non-functional requirements (Maiti & Mitropoulos (2015). In this stage the researchers will use ‘Measurable goals’ as a tool for analysis. With Measurable goals, best practices take the composed list of requirements merely as clues and repeatedly ask "why?" until the actual system purposes are discovered. Stakeholders and developers can then devise tests to measure what level of each goal has been achieved thus far and from this the functional, non-functional and user requirements will be derived as below.

### **2.4.1. User requirements**

They are requirements set by the end user (Skouby,2022). These requirements express how a facility, equipment or process should perform in terms of the product to be manufactured, required throughput, and conditions in which product should be made. These requirements include hardware and software.

#### **2.4.1.1. Hardware requirements**

Hardware requirements are the tangible parts of a computer (Cham,2021). When developing the current awareness system for the National Library of Uganda, we are going to use the following hardware requirements. These requirements will support the system in terms of input, processing, output and communication. They will also give commands to the software.

The hardware requirements will be integrated by bringing together all the components like keyboard, mouse, desktop, processor and others in order to create a single system.

#### **2.4.1.2 Software requirement.**

These are requirements used to develop the current awareness service system for the National Library of Uganda. They will provide instructions that run the system (Horkoff,2021). The

requirements will be used for some of the most complex activities of the system in problem solving. The software will be integrated by bringing together all the software types and sub systems so that we create a unified system.

### **2.4.3. Functional requirements**

These are requirements that define what a system must do and it enables a system to provide its functions and these aid in decision making, delivery of services and others.

Lawrence 2012 explains functional requirements as requirements that specify the functions a system or software system can perform. Functional requirements specify what a system should do to meet the desired requirements of the users. (Laplanate, 2013). Some of the functional requirements are authorization levels, authentication, audit tracking, reporting requirements, historical data (information about the library and the library accusations), administrative functions, legal and regulatory requirements.

Functional requirements are integrated through identifying the interfaces in the system that is to say while entering and viewing data,

### **2.4.3. Non-functional requirements**

Non-functional requirements are constraints that define how a system is going to perform (STM Journals 2021). They involve the processing rate of the system, data integrity, usability, scalability and the results the system must convey.

These are constraints that must be adhered to during the system development for example operational costs, performance, reliability and others (Vetter & Mittal, 2015). The current awareness services system we develop will have non-functional requirements because they help verify the behavior of the system in terms of performance, security, maintenance and usability. The security of the system will be accessed through giving authorized users passwords to get to the system. This is to avoid unauthorized access and manipulation of information.

Non-functional requirements are integrated through testing the system over the network and this is to help find out whether the system can be worked quickly or slowly on the network.(Ganesh,2018) They are also integrated through checking how the system works,



checking whether the passwords are working, finding whether the system is compatible with local specifics, and defining the speed of the software in terms of corresponding to commands.

#### **2.4.4. Requirement analysis.**

Requirement analysis is the process of determining user expectations for a new modified product. The electronic current awareness service system is the new modified system that we are to develop for National Library of Uganda, while analyzing the requirements we are to determine specific features expectations, solve the conflict which is delay in excess of information materials.

While doing requirement analysis, we shall use measurable features of the requirements which are relevance, quantifiable, detailed and others (Amalia,2022). Requirement analysis will enable us to identify the nature of the system requirements, it will help in collecting and restructuring information for developing the system.

### **2.5 Objective four: to develop a current awareness system for the national library of Uganda in order to provide timely updates to users about the available information.**

#### **2.5.1 System development**

System development is the process of defining, designing, testing and implementing a new software application or a program.

The Essential Practices For Information Technology article 2007, explains that for an organization to carry out system development its management must clearly define and implement standards according to the system development life cycle.

System development life cycle involves planning, analysis, design, development, testing, implementation and maintenance. system development mainly deals with creation of databases and development of software.

There are seven primary stages of the modern system development life cycle.

### **2.5.1.1. Planning stage**

This stage involves defining the problem of any existing system and also determining the scope and layout of the new system. Developing an effective outline plan for the upcoming new system helps to find out the problems before they affect development and help to budget before a plan is made

The analysis stage includes gathering all the requirements needed for a new system and determining the first ideas for the model. Developers may define any model system requirements, evaluate alternatives to existing models, perform research to determine the needs of end-users.

Furthermore, developers usually create a software requirement specification. This includes all the specifications for software, hardware, and network requirements for the system they plan to build. This prevents them from spending beyond budget when working with other development teams.

### **2.5.1.2. Designing Stage**

The design stage is the main developer stage. Developers first make an outline for the details of the application, specific aspects, such as its user interfaces, System interfaces, Network and network requirements, Databases. They'll typically turn the System Requirement Specification document they created into a more logical structure that can later be implemented in a programming language. Operation, training, and maintenance plans are then drawn up so that developers know what they need to do throughout every stage of the cycle. Once complete, development managers prepare a design document to be referenced throughout the next phases of the Software Development Life Cycle.

### **2.5.1.3. Development Stage**

The development stage where developers write code and design the website according to the earlier design documents and outlined specifications. Product program code is built according to the design document specifications. The planning and analysis stage clearly define the development stage. Guidelines made by the organization are followed by the developers and utilize different tools such as interpreters. Programming languages can include codes from HTML. Developers choose the right programming codes to use based on the project specifications and requirements.

#### **2.5.1.4. Testing Stage.**

System is then tested to make sure that there aren't any bugs and that the end-user experience will be positively effective. Developers take note of their software and check for any bugs or defects that need to be tracked, fixed, and later retested. The software overall ends up meeting the quality standards that were previously defined in the System Requirement Specification document. Depending on the skill of the developers of the software, and the requirements for the end-user, testing can either be a short phase or take a long.

#### **2.5.1.5 Role of System Analyst**

The system analyst oversees the entire system. They are aware of the system and all and help guide the project by giving appropriate directions.(Eleanor,2002).The system analyst should be: An expert in any technical skills required for the project, good communicator to help command his or her team to success, he/she should be a good planner so that development tasks can be carried out on time at each phase of the development cycle.

These are some of the responsibilities of systems analysts: Gather facts and information, make command decisions about which bugs to prioritize or what features to cut, suggest alternative solutions, draw specifications that can be easily understood by both users and programmers, implement logical systems while keeping modularity for later integration, be able to evaluate and modify the resulting system as is required by project goals, help to plan out the requirements and goals of the project by defining and understanding user requirements.

#### **2.5.2 Factors**

For a system to function properly it must be supported by various factors which enable it to function, solve problems and provide services to the end users. Libraries of the current digital era have undergone massive facelift (Madge & Robu 2019). To achieve the goal of providing excellent services and assisting users with their educational and research needs, the Current Awareness librarian answers Current Awareness questions, both to users in the library and remotely through telephone, e-mail and online services.

Hence the Current Awareness service has basic objectives which include, provision of individual assistance and instruction to online users, assisting users with locating the best sources of information in online searching, help in referring process of forwarding the enquiries or provide the user with live links to authoritative websites and also educating users research techniques in

order to help them to become information literate (Maharana & Panda, 2011). There are various requirements necessary for designing of the Current Awareness System as described below;

### **2.5.2.1. Software selection**

It is important to focus on the price of the software and the whole cost of operating the Current Awareness service. Software that allows librarians to handle multiple patrons at the same time because the current awareness service system we will develop is an interactive dynamic system which is to create awareness to the library users on the new acquisitions in the library. The software that we will use is a dream weaver for proper selection of the codes and it also gives corrections when coding.

The criteria we are to follow when selecting this software is discuss below:

**2.5.2.1.1. Nature of software:** The software should be dynamic, provide proper instructions, solve problems that is to say notify users on the new accusations in the library.

**2.5.2.1.2. Cost:** The software should be affordable, the cost of maintenance in terms of operations should be considered too.

**2.5.2.1.3. Reliability:** The reliability of the software will be considered and we shall have these questions asked before we select the software for example, Is the technology mature, or has the technology been proven to meet the needs of similar clients? What major changes/upgrades are planned? How long has the product been in existence, and how many versions of the software have been released?

**2.5.2.1.4. Usability:** Are help features/documentation offered to the users through the software? • What degree of training is required for end users (how intuitive is the software)?

**2.5.2.1.5 Vendor:** When selecting the software, a vendor should be put into consideration and we shall have these questions in mind when selecting the vendor. Who else is using the technology (how large is the user community - especially important with open source)? How stable is the vendor? Length of time in business? Company size/revenue? Number of customers (local and national), including rec

### **2.5.2.2. Number of Staff Needed**

One of the primary things to consider when starting a Current Awareness is staffing (Abraham et al. 2017). How many hours can you afford to offer on the new service? It is best to create an entirely separate schedule for the Current Awareness service. The number of staff required to run

a Current Awareness service depends on the number of hours needed to cover, calls coming in, and number of calls a Current Awareness staff can handle simultaneously all day.

### **2.5.2.3. Policies and procedures**

Policies are a set of rules or guidelines for your organization and employees to follow in or to achieve compliance. Policies answer questions about what employees do and why they do it. A procedure is the instructions on how a policy is followed

The policies and procedures are developed to address the major issues identified; the issues include defining the nature of service, quality of service and privacy.

For the National Library of Uganda, the policies and procedures will guide users on how to use the system and inquire for help in case of any mistakes. These policies and procedures will be set by the developers to ensure quick service delivery to the users.

### **2.5.2.4. Hours of operations**

The initial goal is to offer Current Awareness service at all hours that the library is open, hours of commitment by library for example 9:am-5:pm Mon-Friday and few hours each Saturday, certain nights and the service does not operate on public holidays (Katz 2013). Johnson, Reid & Newton (2011) indicate that the use of new communication and information technologies provide the library with another means of reinforcing the image of its contemporary relevance while using e-mail or web page to support its Current Awareness service offers several practical advantages.

**2.5.2.5. Users Orientation.** The users at the National library of Uganda will be oriented about the use of the current awareness services system that we will develop for them. They will be oriented on how to use it in order to receive alerts on the new library acquisitions Yu & Sangiorgi (2018) explains that User orientation is central to effective promotion of the new service, developing users' ability to make effective use of it. Assessment of the needs of the primary group of users for whom the service is provided users are likely to be unfamiliar with the new methodology and will require a thorough introduction to it as much as any specific subject needs. According to Damson & Mak (2018) Staff issues are also key in establishing and maintaining a positive attitude among the staff regarding e-Current Awareness. Introducing an e-Current Awareness service represents a major initiative for any library; policy statements should emphasize the confidence of the library's executive management in the professional expertise and commitment of their staff (Nnadozie, Aniebo & Chukwueke, 2017). There is need to know what

type of Current Awareness service was available at each service point, how questions were dealt with, who would answer them and whether the remote electronic Current Awareness service was provided online directly to the end user or must be mediated through staff at other service points (Abraham et al. 2017).

### **2.5.3 Website**

A website is a collection of linked web pages that share a unique domain name usually containing hyperlinks to each other and made available online by an individual, organizations and others(Kim-Phuong,2021).

We are to develop a dynamic website which is to notify all the library users about the new acquisitions. This system is a notification like system for it will create awareness to the users on all the new accusations in the library.

#### **2.5.3.1. Components of the website**

##### **2.5.3.1.1.Layout**

This refers to the hierarchy and display of the website. This is where we will decide which page is going to be the home and which ones will be connecting to it directly through the hyperlinks.(Yext,2022) The layout involves the headers, colors to be used and where to place the various objectives of the website. The layout is practically the map of the website we are going to develop for National Library of Uganda.

##### **2.5.3.1.2. Content.**

The website we will develop will have information about the library and to start with the library name, library location(map), the library acquisition and notifying messages to the users about the new acquisitions in the library. The content will be informed of text, videos, images and some downloaded files. The text format for these files will be pdf for the downloaded files. We shall also provide rules to users on the importance and of the website.

##### **2.5.3.1.3. Design**

This is considered most crucial when developing a website and we will put this into serious consideration that is to identify where to perfectly place the navigation bar for the users to clearly see all parts of the website , the font to be used when designing the website for National Library Of Uganda. We are going to use the dynamic design type which will enable users to interact with

materials and codes to develop these types of web pages that require something more versatile such as JavaScript, PHP or ASP.

#### **2.5.3.1.4. Contact channels.**

For the users of National Library of Uganda to approach the librarians for any help they will need the contacts that is to say emails, phone contacts and these will help in quick message contact through SMS, WhatsApp. This is to help in quick communication among the users and the librarians. This will lead to an excellent provision of customer service and are accomplishing that goal through a variety of contact channels. The website will function automatically by sending users support a notification in the form of a message about the new library acquisitions.

#### **2.5.3.2. Functions of the website**

To inform library users about the new acquisitions through alerts also called notifications.

To inform the visitors of the library about current events or specialized knowledge like the articles, books, and other acquisitions in the library plus the other library services.

#### **2.5.4 System modeling**

System Modeling is a process-oriented representation that emphasizes the flow of information between modules. A module is a software component that involves one or more routines. These routines make up a program. (Gill,2019).

System modeling involves the use of graphical notations in order to define a system which is now almost always based on notations in the Unified Modeling Language (UML).

##### **2.5.4.1. Functions of System Modeling**

Helps an analyst to understand the functions of the system and the models that will be used by the users in the end.

Helps reduce costs and only work according to the budget.

Helps in error detection at an early stage.

#### **2.5.5. System design**

System Design is the process of defining the architecture, interfaces and data for the system that satisfies specific requirements. Priya Pedamkar in her article “What is system Design” explains that system design helps to alter the system so that processes and practices are changed in order to create or develop a suitable system that favors the users.

### **2.5.5.1. Advantages of System Design.**

It reduces the cost of designing this especially if the design chosen is in line with the budget that has been laid out.

It eliminates inconsistencies during the development.

### **2.5.5.2. Types of System Design**

Our project will be designed using **Physical Design and Logical Design** type of system design.

#### **2.5.5.2.1. Logical design**

Logical design deals with conceptual and abstract design. It deals with the representation of the data flow, inputs and outputs of the system. Here the analyst specifies the user needs at every level of detail that later determines the in and out flow of data in the system. They also deal with the types of information that are needed. This design involves arranging data into a series of logical relationships called entities and attributes. An entity is a representation of data in the real-world object. An attribute is a single piece of data in the tuple of data in the tuple to which it belongs. (James et.al 2005) in his publication “Systems Analysis, Design and Management Information System” explains that logical design concerns specifications of major features of the system that meet specific objectives. He further explains that it is sometimes referred to as the blueprint of the new system. Some of the requirements needed for this design are the outputs (displays), Inputs (forms), Procedures, Storage, Control

#### **2.5.5.2.2 Physical design.**

This system produces a working system by defining the design specification that specifies what exactly the system does. It follows the logical stage and creates the program specifications, physical file or database definition. It deals with the actual input and output of information. (James et.al 2005) in his publication “Systems Analysis, Design and Management Information System” It further deals with how information is entered into the system, verified, processed and displayed as output. It explains what exactly the system does. It mainly deals with user interface design, process design and data design.



**It consists of the following stages.**

1. Specifying the input/output media, designing the database, and specifying backup procedures.
2. Planning the system implementation.
3. Specifying the software and hardware to use.
4. Updating costs, benefits, conversion dates, and system constraints.

**Advantages of using Physical Design.**

1. Ensures data intelligence by avoiding unnecessary data redundancies

**Challenges of using Physical Design.**

1. There is a lot of congestion.
2. Interconnect delay between the modules.
3. Manufacturing technology is sometimes difficult to interpret for the system analysts.

## **2.5. System implementation**

Systems implementation is the process of defining how the information system should be built i.e. physical system design ensuring that the information system is operational and used, ensuring that the information system meets quality standard. (Snoderly, 2022)

The proposed Current Awareness Service System will be a web site-based system that will have a front-end interface. (Shamrat et al. 2020). The interface will be partly designed using PHP and will be web accessible by the help of a server i.e. the internet with the help of HTTP. The tool will be implemented in the National Library of Uganda. The tool will have to first be tested before fully implementing it for use by the library users.

Functional components of the system will be identified during the development process. Based on the functional requirements of the system, test cases are designed that will be used with predetermined fixtures used as a dummy website against which tests of the functional units will be carried. The tests help identify parts of the system that will not be functioning as intended.

The system will be tried out on the Windows operating system to test the compatibility of the system and the problems encountered while installing it. If the system works properly on the windows, mobile and tablet platforms. System users i.e. the students and staff will acknowledge that the system runs well on windows platform or not.

## **2.6. System maintenance**

System maintenance is a term that encompasses various forms of computer maintenance needed to keep a system running. (Lisa Richards 2022). System maintenance is an ongoing activity, which covers a wide variety of activities, including removing the program and design errors, updating software and test data and updating user support.(Dinesh Thakur 2022).There are four types of maintenance which are to be considered when maintaining the system which include corrective, adaptive, perfective, and preventive. Corrective maintenance is concerned with fixing errors that are observed when the software is in use. Adaptive maintenance is concerned with the change in the software that takes place to make the software adaptable to a new environment such as to run the software on a new operating system. Perfective maintenance is concerned with the change in the software that occurs while adding new functionalities in the software system. Preventive maintenance involves implementing changes to prevent the occurrence of errors. (Anurag 2020).

### **2.6.1. How systems are maintained**

1. Maintenance of the system is scheduled on a regular basis and replacement of the displayed materials with newly arrived sources in the library.
2. Provisions for the replacements have to be done depending on the newly arrived materials in the library.
3. A proper inventory check has to be done to record the details of materials in circulation depending on the system.

## **2.7. Research gap**

Although the library has a notice board, there is still a need for timely updates about library acquisitions to the users without having to access the library physically. This will mainly help users that are far from the library. Our study will develop an Electronic current awareness system that enables timely updates to users about the available materials in the library.

## **CHAPTER THREE METHODOLOGY**

### **3.1 Introduction**

This chapter presents the research designs, area of study, population, sampling, data collection methods, data collection instruments, data analysis and presentation, data quality control, research procedures, ethical issues, limitations of the study,

### **3.2 Area of study**

The area of study for this Project is THE NATIONAL LIBRARY OF UGANDA located along Buganda Road.

#### **3.2.1 Conceptual area**

Conceptually, the study will be limited to the study of Current Awareness Services especially electronic Current Awareness System.

#### **3.2.2 Geographical area**

The study will be carried out from the National Library of Uganda located along Buganda Road in Kampala City.

### **3.3 Research design**

A research design is a framework of research methods and techniques chosen by a researcher to collect data. It can also be referred to the overall strategy a researcher undertakes in planning and executing the data collection, analysis and interpretation of findings. A research design is an overall strategy for collections and analysis of data in a manner that aims to combine relevance with the research purpose (Kothari, 2013).

The research will be a conducted on a qualitative approach. This involves the use of non-numerical samples.:

Qualitative research is the approach that relies on data obtained by the researcher from first-hand observation, interviews, questionnaires, focus groups, participant-observation, recordings made

in natural settings, documents, case studies, and artifacts. The data are generally non numerical in nature.

(Brandon Gaille 2018) in his blog Small Business and Marketing Advice suggests that qualitative research is suitable for any study because it saves money, because of the small sample sizes that are used, it encourages creativity because it involves a lot of observation.

Case study design is one that is used to develop an in depth, multi-faceted understanding of a complex issue in real life. It is used in different disciplines and fields of study. (Shona MCombes 2022) in his publication What is a Case Study, describes that a case study is a detailed study of a specific study such as a person, group, place, event and organization.

(Louham & Boyd 2021 ) in their study “Case Study Design : Example, steps advantages and disadvantages” explain the importance of case study describe that case study helps to ease the explanation of results to a non-specialist audience hence making it easy for them to understand, it also helps in the flexibility to collect data using various means. It further enables a researcher to see the relationship between the relationship, context and people during the research.

### **3.4 Population**

This refers to the entire group of items, objects, individuals that a researcher wants to draw conclusions about. The population of the project will be the library users, staff, researchers.

#### **3.4.1 Target population**

The target population of the study will be the library users and staff of the National Library of Uganda.

### **3.5 Sampling**

Sampling refers to the procedure that a researcher uses to collect things or people for a specific study. It can also be the process of selecting a number a number of individuals or objects from a population that a selected group contains elements representative of the characteristics found in the entire group. (Phrasisombath 2013)

### **3.5.1 Sampling techniques/ methods**

Sampling as methods a process used for analytical analysis in which a specific procedure is used for selecting sample members from a population. The sampling methods for the study will be Purposive and Convenience sampling. Purposive sampling involves selecting the individuals known for a specific criterion while Convenience sampling

We will use purposive sampling for the staff in selecting respondents in the research. Purposive Sampling is one where respondents of similar characteristics are chosen for samples. This involves the use of units that have characteristics that one needs in the sample. The units are selected on purpose. It is common in qualitative research. The purpose of this sampling is to identify individuals suited to help answer the research questions. It helps to find the background information about the research topic. ( Paul J. Lavrakas 2019) in his book *Experimental Methods in Survey Research: Techniques that Combine Random Samples*. describes that purposive sampling involves choosing respondents subjectively. For this study we shall use the staff of the National Library of Uganda. This is especially for the staff who are actively involved in the Current Awareness Service to collect information that will enable us to meet the suggested aims for the project.

Convenience Sampling is the searching of information from the available respondents. It involves the use of respondents who are convenient to the researcher. The researcher can ask people who are present in the street, public building or work place since testing the entire community is practically impossible. Gary. T Henry in his book *Practical Sampling* explains convenience sampling respondents will respond depending on the attitude on the current situation at hand.

### **3.5.2 Sample size**

A sample size is a number of participants chosen from the whole population. It can also be a part of the population which is deliberately selected for the purpose of investigating the properties of the parent population. (Nelson & Owens 2014). A selected sample size should give the adequate response to the study (Moorley & Shorten 2014). We shall use the Krejcie and Morgan (1970) table to determine the sample size of the study.

**Table 1: Population and Sample size**

<b>Category</b>	<b>Population</b>	<b>Sample size</b>
<b>Librarians</b>	<b>5</b>	<b>1</b>
<b>Library Users</b>	<b>25</b>	<b>10</b>
<b>Total</b>	<b>30</b>	<b>11</b>

### **3.6. Data collection methods.**

Data collection methods are the methodological processes of analyzing and gathering specific information to get relevant solutions to questions and evaluate the results. Data collection methods are also methods a researcher uses to collect the evidence necessary for building, creating and testing theories.

We used the following data collection methods for our research study.

#### **3.6.1. Interview method.**

An interview is face to face conversation between a researcher and a respondent. We shall use semi-structured interviews which will be in-line with the objectives of the study to serve as a guide for the research. Harrell & Bradley (2017) defines interviews as the discussions, usually one-on-one between an interviewer and an individual, meant to gather information on a specific set of topics. Using this method, the researchers will use a face to face interaction with the library staff. In this setting, the researchers have set questions to be based on while obtaining information from the library staff. According to Rajjibul 2013, unstructured interviews will be conducted with five librarians who participated in this study and the responses will be recorded with their permission. This enables the researchers to induce first-hand information from the librarians with regard to their experiences, challenges, frustrations and opinions.

### **3.6.2. Observation method.**

Observation method is a way of gathering data by watching behavior, events of the subject and it involves the basic technique of simply watching the phenomena until an insight is gained.(Kumar,2022). This research method provides the opportunity to monitor or access the process, situation and document evidence of what is seen and heard. It allows researchers to watch people's behaviors and interactions directly or watch for the results of behaviors or interactions. (Grove,1995). We are using this method to effectively collect data as we conduct our research at the National Library of Uganda.

### **3.6.3. Document review method**

The study needs to first identify the different documents which are concerned with the current awareness services (Bruce, 2018). The library houses a number of information materials such as books, Journals, Magazines, newspapers, and many others. The researchers studied these various materials and analyzed well how library and information services are provided to help users. Document review will help triangulate the claims about our project because it allows us to refer to multiple sources and combine this document review with interviews. (Bowen, 2009).

## **3.7 Data collection instruments**

These are instruments that are used for collecting data as well as the methodology of the tools. These instruments are to allow us to gain experience and to get note of data as it occurs to help in the study.

We shall use the following instruments: Interview guides, Observation guides and Document review guides.

### **3.7.1 Interview Guide.**

These are one on one conversations between the researcher and the respondent. This involves writing down questions that we shall use to ask the respondents while gathering the information. (Bradely 2017) defines an interview guide as a conversation between the interviewer and an individual on a specific study. For our study we shall use open ended questions. We intend to use this method on the library staff and selected library users.

### **3.7.2 Observation Guide.**

This mainly deals with the use of physical senses. This is a list of aspects that the researchers are keen to study in the field (Kawulich 2015). For this study we shall use observation guides to collect data mainly focusing on the particular setting. We shall focus on the activities concerning the current awareness system of the library.

### **3.7.3. Document review Guide.**

This involves the review of different documents that are like Journals, text books, magazines that already exist in the libraries. It involves documents only and no interviews or Observations are involved.

## **3.8. Data analysis and presentation**

### **3.8.1. Data analysis**

Data analysis is a systematic search for meaning. It is a way to process data so that what has been learned can be communicated to others (Hatch 2002). According to LeCompte and Schensul data analysis is a process used by researchers for reducing data to a story and interpreting it to derive insight. Data analysis in this project will be done using Microsoft excel in order to verify and arrange the data patterns and portray the data which will help detect problems in our project. This will be done in reference with objectives of the study, aim of the study and research questions that we established.

### **3.8.2. DATA PRESENTATION**

Data analysis and presentation is a process of representing the application of deductive and inductive logic to the research and data analysis.

Data will be presented in tables using descriptive statistics. After it is presented and analyzed, it will be interpreted and discussed. Qualitative data collected by the interview guide will be analyzed by the use of content analysis. Here findings will be compared with responses got by the questionnaire and analysis made there.



### **3.9. Data quality control.**

Data quality control is an integral part of all researchers and takes place at various stages for example during data collection, data entry or digitization and data checking and ensures that standards and procedures are adhered to throughout the project (Creswell, 2013). Data quality control involves validity and reliability as discussed below.

#### **3.9.1 Validity**

Validity in research is the issue of how valid the research is, in other words, how logical, truthful, robust, sound, reasonable, meaningful and useful the research is (Quinlan, 2011). As set by Quinlan (2011) this research will contribute to the knowledge because it involves participants who will be directly involved in the study. The validity of this research will be evident because the researcher should be strict in the research project. The same questionnaire will be used throughout the research to measure what it is supposed to measure. Validity is important in determining whether the statement in the questionnaires and interview guides were relevant to the study.

#### **3.9.2 Reliability**

Reliability relates to the dependability of the research, to the degree to which the research can be repeated while obtaining consistent results (Quinlan, 2011). Questionnaires will be tested to determine whether they produce the same result again and again and proved reliable. Quinlan (2011) indicates that the test and retest method is also used as a means of estimating reliability. The views and responses of 20 respondents about the questionnaire will be reviewed and used to improve the study instrument

### **3.10. Research procedure**

The study started with coming up with a research topic. This was done by the project researchers. Later with the approval of the topic by the supervisor and the committee, we started on the writing of the proposal. The writing of a research proposal that comprised three chapters with the guidance of the Project Supervisor. With the approval of the proposal, we will get a letter from the head of department to go to the field and do research. This will guide us as we carry out data collection for our research and also carry out analysis of the research. After we will present our

findings from the field to our project supervisor. We will design the electronic current awareness service system for the National Library of Uganda. We will then present our developed electronic current awareness system of the National Library to our supervisor for review and testing. A report will be written by the researchers and this consists of six chapters which explain the progress of our research project.

### **3.11. Ethical issues.**

Ethical issues in research are principles that preserve and protect human dignity and all rights of subjects involved in the research project.

In this study, respondents will be assured of their rights of consent, protection from disclosure of information and respect for their privacy. For example, in chapter two the literature reviews the authors whose works are used have been quoted before stating their opinions about the topic.

Library users and staff will not be forced into participation in the study and they will be assured of their right to withdraw whenever they feel the need to do so.

Before the collection of data, we shall have to get an approval from our project supervisor and present it to the administration of the National Library of Uganda before data collection is approved.

With this approval we shall need to also get consent from the library users before we collect information from them.

The information of the respondents will be kept confident and their data will not be accessed without permission or their consent.

### **3.12 Expected limitations of study**

1. Some library users might be reluctant to participate in the study
2. High costs of data that may be used during research.
3. Language barrier may also be a challenge as some respondents might not be good at English and the researchers might not understand some of the local languages of the respondents.

4.High transport costs to and from the field.

### **3.12.1. Delimitations**

1. Explaining to users the importance of this study so that they are not that reluctant to participate.
2. We shall utilize our available data bundles and Wi-Fi connection to reduce data costs.
3. We shall use the English language and some local dialects in order to collect all the data we need for the research.
4. We shall request for transport money from our parents to fund our project.

## CHAPTER FOUR

### ANALYSIS, PRESENTATION AND DISCUSSION OF FINDINGS

#### 4.1. Introduction

This chapter presents, analyzes and discusses the findings of the study. The purpose of the project was to develop a current awareness system for National Library of Uganda in order to avail timely updates of the available information for the users. Data was presented in text, figures and tables according to the project objective.

#### 4.2. Response rate

This was examined to understand the different categories of respondents of the study so as to reduce the biases since information is obtained from different people. Different methods were used while collecting data from the respondents and that is interview, observation and document review. We expected all 25 expected users to respond but only 10 responded. This is because some users were not comfortable with being interviewed by the researchers. Out of the expected 5 library staff, only one responded because she had been put in charge to guide us during our study at the National Library of Uganda.

We used the survey response rate to calculate the response rate of the respondents. A Survey response rate is a percentage calculated by dividing the number of completed surveys by the total number of those surveyed and multiplying it by 100%. For example, in case one surveys 100 and the responses are 25 then the response rate will be  $(25/100) = 0.25$ .  $0.25 * 100 = 25\%$ . The response rate will therefore be 25%.

The table 2 shows the response rate of the respondents of the study, 90.9%% of the respondents who participated in the study were library users and 9.10% were library staff. Interview method, observation method and document review method were used to collect data.

**Table 2: Response rate**

Category of respondents	Expected response	Actual number of respondents	Percentage (%)
Library users	25	10	90.9%
Library staff	5	1	9.1%
total	30	11	100%

Source: (Field data, 2022)

The staff percentage is 9.1% because out of the 5 available staff, only 1 staff member was assigned to guide us during our study by the library secretary director.

The library user's percentage is 90.9% because out of 25 expected users only 10 users offered to respond during the research.

The response rate of the respondents that we recorded was low since most of the users are not motivated with the current system that is used at the national library of Uganda.

#### **4.3. Objective One: To Examine the Current System Used to Provide Current Awareness Services at National Library of Uganda.**

This objective aimed at collecting data for providing the Current awareness Service offered at the National Library of Uganda. We acquired responses from library users and librarians of National Library of Uganda because they are cardinal patrons of the library to whom accessibility of resources should be granted. We collected the information using the interview and observation methods to collect the data.

In the interview with the reference librarian, the library offers current awareness services to the library users through the use of a notice board that is in one strategic location.

**Table 3: The Current System Used to Provide Current Awareness Services at National Library of Uganda.**

<b>CATEGORY</b>	<b>ACTUAL NUMBER OF RESPONDENTS</b>	<b>PERCENTAGE %</b>
Notice board	5	45.4%
Display table	1	9%
Magazine rank	1	9%
Social media	2	18%
News clipping	1	9%
Brochures	1	9%
<b>TOTAL</b>	<b>11</b>	<b>100%</b>

Source:(Field data) 2022

From table 3, the majority of the respondents 5(45.4%) reported that notice boards are used. 2(18%) reported the use of social media platforms like Twitter, Facebook. 1(9%) reported that display tables are used. 1(9%) reported the use of magazine ranks. 1(9%) reported the use of news clippings. 1(9%) reported the use of brochures. All these were used to find out what materials are used to deliver CAS to the library users.

45.4% of the respondents reported the use of notice boards because it is commonly used by the library staff to update the users at the National Library of Uganda. They further reported that it is

conducive for them to use and approach whenever they needed to find out about any new acquisitions.

9 % of the response was from the library staff. She reported that the library also uses Display tables, newspaper clippings, brochures and magazine ranks.

As a result of our research, we found out that the current system used to provide current awareness services at the National Library of Uganda was a notice board. Respondents through the interview we had with them explained that the library has the following systems in providing current awareness.

Notice boards are used by the librarians to update the users. During our field study, we found out that the National Library of Uganda uses a notice board as one of its current awareness service systems.

*“The notice board is where we display our new acquisitions of the year but it is not usually updated”*

says one of the librarians.

Some of the respondents, the library users, were aware of the notice board located at the library having information on new acquisitions though they don't often inquire about it.

Some social media platforms are also used to provide the current awareness services to the users. With an interview with the reference librarian, the library users receive alerts via Facebook, Twitter, Instagram, Tik tok and You-tube for videos. She further said that

*“The library staff use WhatsApp group for communication and sometimes telegram to communicate with the staff”*

Al Awadhi & Al-Daihani (2018) suggest that social media help the users to send requests social media should always be used because it encourages the user to make requests on the information that they may need or require in order to carry out the research activities that they need through online replies and interactions with the library patrons.

Library users approach the display tables to find out about the library's new acquisitions. The library occasionally displays her collection on the display table to showcase her collection. This is done to inform users about the new acquisitions.

The library also uses the news clipping services to provide current awareness services to the user. Here the librarian during the interview reported that the librarians make copies of the required information by the users and photocopy for the users. For instance, a researcher during our interview approached the librarian and requested for a copy of the New Vision newspaper dated 1998 for the months of June and July which was available.

Book exhibitions are also organized by the library to inform the users about the library collection. This is through displaying the library collections outside for users to see. The librarian reported that the books are removed from the shelves and brought outside for viewing.

The library staff use telephone calls to update each other about any communications to be passed on in the library. In the interview with the reference librarian, all offices in the library have phones that are used to communicate with one other. The secretary director had to call the reference librarian to inform her about our study and research that was to be carried out using her guidance.

Brochures are always designed by the library and displayed and given to people within and around the library. The brochures always contain brief information about the library and also the types of holding that it has. This helps to inform the users and update them about the services that the library offers. The librarian during the interview reported that before any event, brochures are designed and given to people to inform them about the upcoming event like reading sensitizations that are sometimes carried out in some districts around the country

#### **4.4. Objective Two: To Determine the Challenges Faced By The National Library Uganda In Providing Current Awareness Services Using The Current Awareness System.**

This objective is aimed at finding out the challenges faced by the National Library of Uganda in providing current awareness services using the current awareness system available. We collected data using the interview, observation and document review methods. We interviewed the



reference librarian Ms. Carol and reported a number of challenges the library faces when delivering current awareness services using the current awareness system. Some library users were also allowed to be interviewed.

**Table 4: Challenges facing the National library of Uganda in providing Current Awareness Services**

CHALLENGES	NUMBER OF RESPONDENTS	PERCENTAGE %
Lack of awareness	3	27.2%
Limited security	1	9%
Language differences	5	45.4%
Inadequate funds	1	9%
Limited professional skills.	1	9%
TOTAL	11	100%

Source:(Field data) 2022

From the table, the majority of the respondents 5(45.4%) reported that they face a challenge of language differences, 3(27.2%) reported lack of awareness. 1(9%) reported limited professional skills 1(9%) reported limited security and 1(9%) reported inadequate funds.

45.4% of the respondents reported language differences as a challenge affecting provision of CAS among the library users and staff. This is because the country is a multicultural country and has many languages within. The library being located in the central region where the local language is Luganda affects some users since communications are sometimes made in Luganda. 45.5% of the respondents reported that this leaves them out from accessing and interpreting the

information. Wales, Skinner & Hayman (2017) from chapter two of the research in their study on language and culture advise that a universal language which is English should be used to communicate and deliver current awareness service systems in order not to leave out any users.

Lack of awareness among the library users can also affect the provision of CAS services to the users of the National Library of Uganda. This is because some users do not bother to access the notice board to get to know about the latest updates. This is sometimes because of laziness among some users, others do not know where the library notice board is located. 27.2 of our respondents reported that this affects the provision of services to the library users. The librarian said that; *“we sometimes put notices on the notice board about the library being closed on specific days but some users do not read the notices and end up finding the place closed”*. (Selby, 2019) explains that some users are not aware of the services because they fear to consult from the librarians for fear of being looked at as stupid or dumb at the end of the day.

9% of the respondents reported limited professional skills among the library staff also affects the provision of CAS. The reference librarian reported that some library staff are not well vast with the systems that are used because of the low skills. These skills are required to maintain, operate and update the system. (Akpojotor 2016) explains that to reduce all this, there should be more training that is offered to the librarians in order to acquire more skills. In house training and provision of more computers can be offered to the different libraries to ensure timely updates of information to the users.

9% of the respondents reported that limited security also affects the provision of Current Awareness Services at the National Library of Uganda. The reference librarian reported that the library at times wants to display books for users outside the library but fear that the books might be stolen by people and there is less security to keep the books outside the library premises safe.

Inadequate funds to fund all the current awareness systems at once to function. This is because the library sometimes has a fixed budget, reported the librarian staff. For example, the organization of some activities like the book exhibitions that require enough funds to be carried out. (Siegel & Wright, 2015) explain that unfavorable government policy towards libraries is a hindrance to Current Awareness Services. This is because low funds are allocated to the libraries.

This makes the maintenance of the Current Awareness Systems expensive hence being left or abandoned by those who manage the systems.

From further observation and carrying out interviews from the library users and staff we found out that the library also faces these challenges while providing CAS services to the users.

Limited space for some of the materials to be displayed to the users. This is especially because the library has limited space to cater for both the displays and the users all together. For example, Ms. Carol told us that there is no space to display the newspapers acquired by the library on a daily basis hence having to just pile them up on one of the reading tables which also inconveniences the library users sometimes.

The librarians also face a challenge with relevance between the library users and the staff. This is because the librarians at times think that the materials being displayed might be of use to the users but in the end are not useful hence no information being passed on to the users. This therefore affects the provision of current awareness services to the library users.

The librarians use a manual system to update the users which is tiresome for them while notifying the users. The librarians use the notice board, bulletins, brochures, newsletters and operating all of them all at once is exhausting hence reducing on the effectiveness. This therefore affects the provision of Current awareness services to the users because the users are well vast with different systems.

Sometimes the information that is updated is outdated because of the duration the library takes to make the books to be displayed. For example, the library always releases a copy of the latest bibliography once a year and yet the Bibliographies would be having information that is useful to the library users. A bibliography is a list of works on a subject or by an author that were used or consulted to write a research paper, book or article.

The staff explained that they sometimes use social media to update the users about the available materials. However sometimes it is tiresome to update all the platforms because they all operate differently. Ms. Carol further said that some of the librarians are not well versed with the platforms hence making it difficult for them to update the users. This therefore challenges the provision of the services to the users.

Because of where the library notice board is located, it stands high chances of being destroyed by natural circumstances such as rain that can spoil the board because of the material it is made of. This therefore affects the provision of current awareness services to the users.

Unlike some libraries, the National Library of Uganda has one notice board located at the library premises entrance in that if someone's misses reading the notice, there are high chances of them not being updated about the available information.

We also collected some information from the users that were interviewed and they faced some of the following challenges.

The notice board which is one of the places information is put to update the users is not visually attractive at all and does not give morale to the users to approach it to find out what has been pinned.

Some users narrated that the location of the notice board is not conducive. Some claimed that it is hidden and can't be located easily unless one is keen enough.

From further viewing of documents, the Annual Report 2019-2020 of the National Library of Uganda, some of the challenge's users, especially those with disabilities, face is limited access to the premises because of its infrastructural design. And because of this therefore, the library users find it difficult to access the library updates that are sometimes put on the library notice board.

The National Library of Uganda: Challenges faced in performing its Institutional Practices, one of the Library manuals by Jane Kawalya explains that one of the challenges that affect the practices is inadequate funds to run the activities. For example, book exhibitions need funds to mobilize people to attend.

#### **4.5. Objective Three: To determine the requirements necessary to develop an electronic current awareness system for the National Library of Uganda.**

In this objective, we aimed at establishing the requirements necessary to develop a current awareness system for the National Library of Uganda. We collected data using interview, observation and document review methods. The respondents view was highly considered

because they were the prospective users of the proposed electronic current awareness services system and henceforth it was necessary to develop a system with requirements favorable and tailored by the library users.

#### **4.5.1. User requirements.**

When we asked respondents through interviews, they explained that user requirements for the electronic current awareness system for the National Library of Uganda will be used for input, processing, storage and output of information. The respondents emphasized on the user requirements purpose which is to perform tasks that are set by the end user for example information output and display of results. (Skouby 2022) explains that user requirements are those set by the end users and express how the system performs tasks and are in the form of hardware and software equipment that 100% corresponds to our findings in the field. They provided various responses in relation to the most possible hardware and software requirements as summarized in the tables below.

##### **4.5.1.1. Software requirements.**

The respondents suggested that we would want use HTML, My SQL, PHP, XAMP Wamp server and Microsoft office (Microsoft Visio) software requirements in order to perform tasks and provide instructions to the system. (Horkoff 2021) stated that software requirements provide instructions that run the system and will be used for some of the most complex activities of the system in problem solving. We obtained this information through the interview method.

##### **4.5.1.2 Hardware requirements.**

Respondents suggested that we use hardware requirements that are easy to operate and work with for example processor, computers, keyboards and mouse .These would support the system in terms of input, processing, output and communication.Cham,2021 stated that hardware requirements will give commands to the software and this will enable the system provide effective services of information delivery.

The library suggested that we should use hardware requirements that are compatible with the software and can easily be operated by the users. We collected this information using the interview guide.

#### **4.5.2. Functional requirements**

We requested respondents to give their view on how the functional requirements of the system should be in order for the system we were developing to function properly. (Lawrence,2012) stated that functional requirements are requirements that specify the functions of a system or software.

The library users suggested that the system should have the following functional requirements: be authentic and allow only authorized users, give feedback to all users, store information about the library correctly and have a list of information materials available. Lawrence 2012 explains functional requirements are those that specify the functions a system or software system can perform.

The librarian also suggested that the system should be able to generate reports when needed in PDF and DOC format; this will enable the users to acquire information by downloading them.

##### **4.5.2.1 Entities.**

Entities are real world representation of a database. Our system is comprised of a database and these are some of the entities in our database.

##### **4.5.2.2 Data types**

Data types describe the kind of data expected in each column of the database. The data types of our system are text, character, variable characters and integers. Each data type describes the kind of data in the columns of the database. We asked our respondents about which data types should be involved in the database and they gave us the response of text, character , variable characters and integers.

### **4.5.3 Non-functional requirements.**

When asked about the non-functional requirements for the system we were going to develop for the national library of Uganda the respondents gave us their responses on the nature of non-functional requirements and according to them non-functional requirements are the requirements that define the system.(Vetter Mittal,2015) who stated that functional requirements are the constraints that must be adhered to during system developments.

The respondents suggested that they should have at least these non-functional requirements, the system should be faster in information processing. The system should be reliable and accurate, that is to say it should be able to provide data whenever it is needed. Vetter & Mittal,2015 explains non-functional requirements as constraints that must adhered to during the system developments like in terms of operational costs and performance.

### **4.6. Objective four: To develop a current awareness system for the National Library of Uganda in order to provide timely updates to users about the available information.**

In this section we aimed at developing a current awareness system for the National Library of Uganda in order to provide timely updates to users about the available information. We collected data using the interview and document review method. From the findings from the document *“Development of a web-based personalized current awareness/selective dissemination of information system for library information technology researchers in Federal University of Technology , Minna”*, we found out that for a system to be effective, it has to have bibliographic resources matching with the user profile so that resources are made available via their emails on time.

During the interview with the reference librarian of the National Library of Uganda, she advised that development involves defining, testing and implementing a new software update this corresponds to the information in “The Essential Practices For Information Technology article 2007” where system development is defined as the definition and implementation of a system standards according to the system development life cycle. (Madge &Robu 2019) explains that system development should be emphasized to enable a system to achieve goals of providing excellent services and assisting users with educational and research needs.

Respondents suggested that the developed system has an option of them filling in their details like name, contact and email so that they can always get a notification in case something new is acquired. They further suggested that the website is regularly updated so that they can have timely updates on any library events. (Yext 2022) who said a website should inform library users about new acquisitions through notifications.

We reviewed the annual report of national library 2019-2020 and found out that as a library the current awareness systems they use in provision of current awareness services are manual systems and incase an electronic system is developed it should have a user interaction through having the option of asking questions by the user in order to find out their particular need and also the to be developed system should have a list of all the types of information materials in the library for example the books, magazines, newspapers, and others this system will highly improve and develop the reading culture in Uganda.

We also reviewed a policy paper “The National Library of Uganda: Its beginnings, services, challenges and future prospects 2011” we found out that current awareness can be provided online to library users who cannot physically access the library through alerts like notifications which appear on the gadgets. This is to help provide timely updates to users. (Snoderly 2022) states system design ensures that the information system is operational and used hence meeting quality standards of service provision this corresponds to our finding in the field.

Respondents suggested that system maintenance involves ways of keeping the system running. They said it involves removing system errors and testing the software. (Lisa Richards 2022) explains that system maintenance is a term that encompasses various forms of computer maintenance needed to keep a system running.

Respondents suggested that the system should be designed using a programming language which is interactive with the users and can be understood. For example PHP, Java script, sublime text, XAMP software



## **CHAPTER FIVE**

### **AN ELECTRONIC CURRENT AWARENESS SYSTEM FOR NATIONAL LIBRARY**

#### **5.1. Introduction**

This chapter presents prototypes, designs and models of the Current Awareness Systems.

#### **5.1 Scope of the Current Awareness Service System**

1. To make the existing system more efficient
2. To provide a user-friendly environment where users can be serviced better
3. Make functioning of the library more efficient
4. To improve on the library services through informing the users

#### **5.2 The existing Current Awareness System at the National Library of Uganda.**

The existing system is operated manually by the staff at the National Library of Uganda.

Can only be accessed for information only if someone approaches the library physically.

The most frequently used methods are the notice board, the display tables, newspaper clippings, magazine rank.

#### **5.3. The proposed system for the National Library of Uganda.**

The proposed system is an electronic system and can be accessed by the users at any point for timely updates.

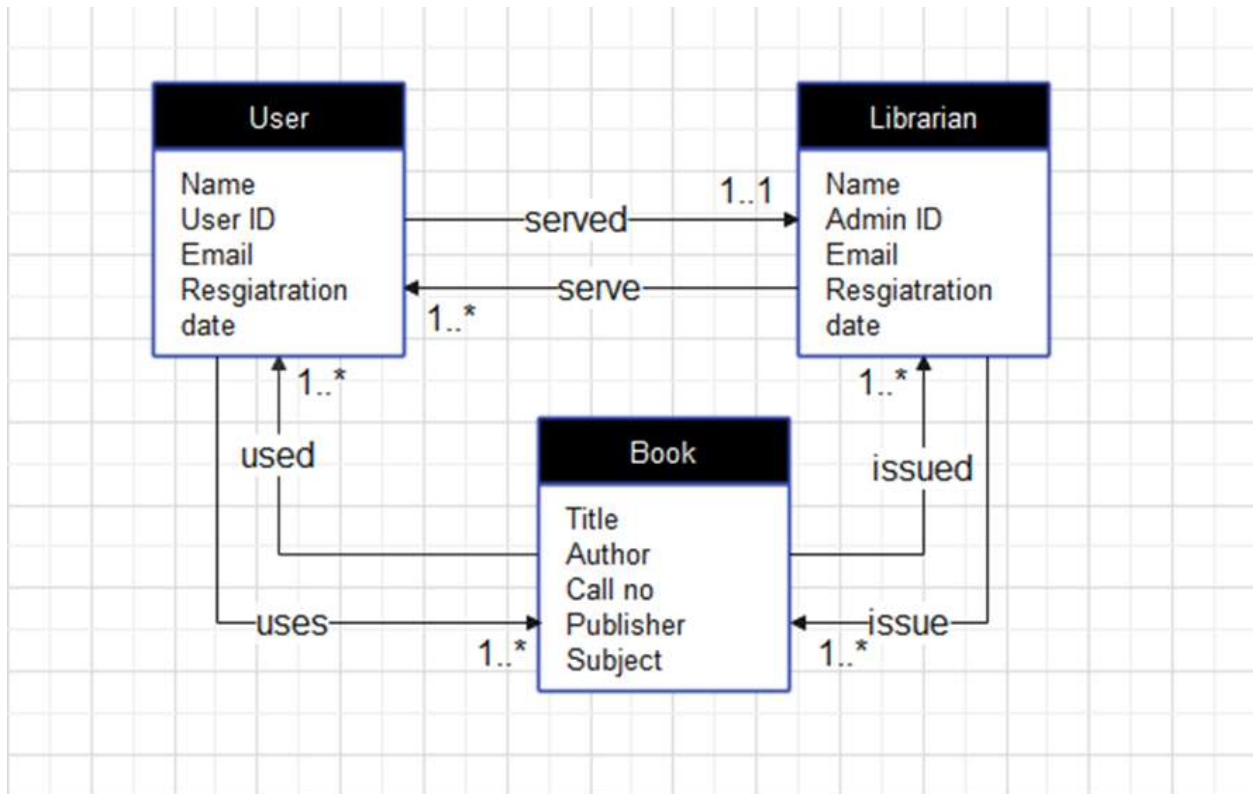
It is a free system since the system is hosted by the XAMP app and users do not incur any expenses to use the system.

It is user friendly and easy to operate by any user.

##### **5.3.1 Contextual diagram**

This is the graphical representation of the flow of data through a Current Awareness Information System. It shows what kinds of information will be input and output from the system. One of the most widely used system analysis process models is the contextual diagram

**Figure 1 Contextual diagram**



**Table 5: ADMIN**

FIELD No	FIELD NAME	FIELD TYPE	WIDTH
1	USER ID	INT	15
2	FIRST NAME	TEXT	20
3	LAST NAME	TEXT	20
4	EMAIL	VARCHAR	30
5	REGISTRATION DATE	DATE TIME	10

Source: Field Data (2022)

**Table 6: USER LOGIN DATABASE FILE/TABLE**

<b>FIELD No</b>	<b>FIELD NAME</b>	<b>FIELD TYPE</b>	<b>WIDTH</b>
<b>1</b>	<b>USER NAME</b>	<b>TEXT</b>	<b>20</b>
<b>2</b>	<b>PASSWORD</b>		<b>20</b>

Source: Field Data (2022)

**Table 7: SIGN UP / REGISTRATION TABLE.**

<b>FIELD No.</b>	<b>FIELD NAME</b>	<b>FIELD TYPE</b>	<b>WIDTH</b>
<b>1</b>	<b>FIRST NAME</b>	<b>TEXT</b>	<b>30</b>
<b>2</b>	<b>LAST NAME</b>	<b>TEXT</b>	<b>20</b>
<b>3</b>	<b>USER NAME</b>	<b>TEXT</b>	<b>20</b>
<b>4</b>	<b>PASSWORD</b>	<b>CHAR</b>	<b>15</b>
<b>5</b>	<b>ROLL No.</b>	<b>CHAR</b>	<b>15</b>
<b>6</b>	<b>EMAIL</b>	<b>VARCHAR</b>	<b>20</b>
<b>7</b>	<b>PHONE No.</b>	<b>CHAR</b>	<b>10</b>

Source: Field Data (2022)

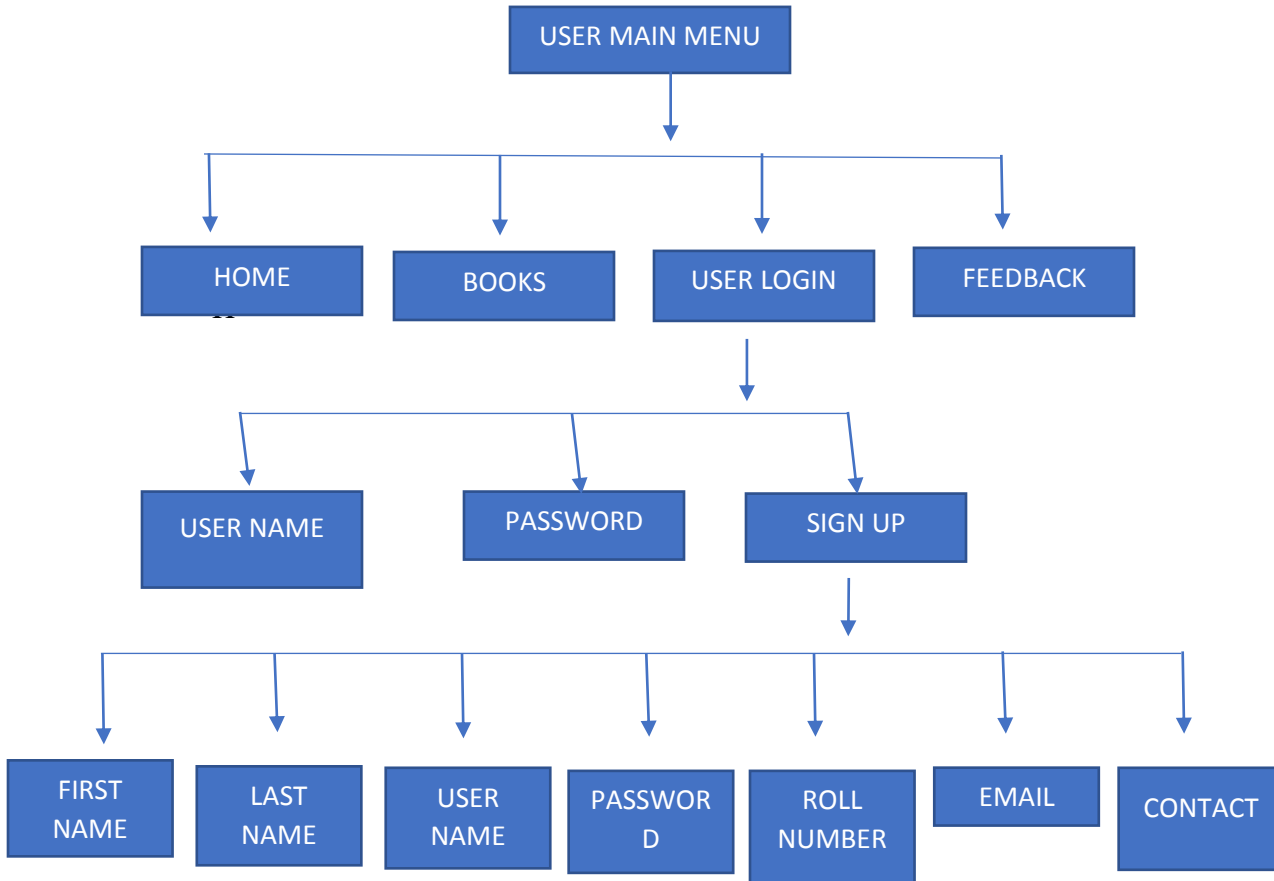
**Table 8: BOOK DETAILS DATABASE FILE TABLE**

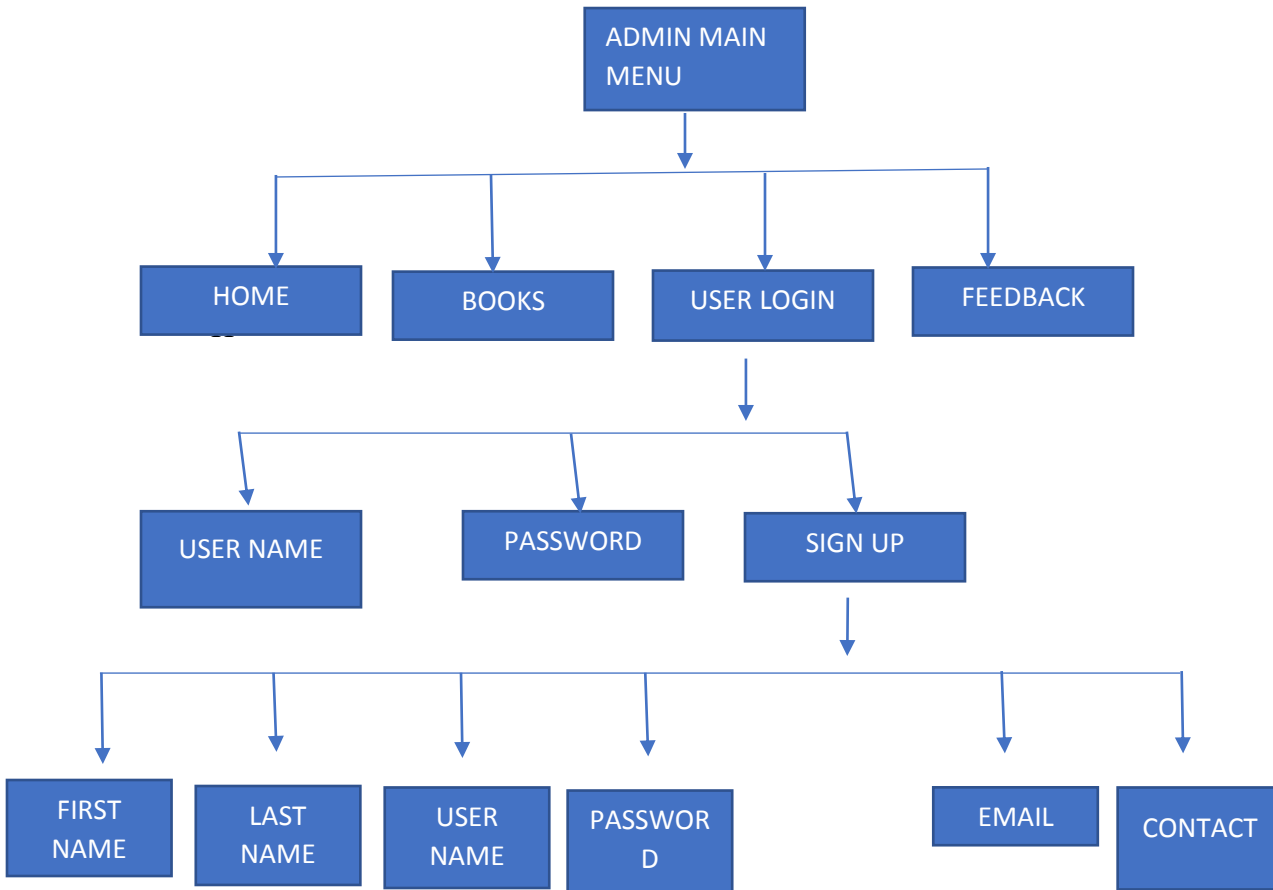
<b>FIELD No.</b>	<b>FIELD NAME</b>	<b>FIELD TYPE.</b>	<b>WIDTH</b>
<b>1</b>	<b>BOOK ID</b>		<b>10</b>
<b>2</b>	<b>BOOK NAME</b>	<b>TEXT</b>	<b>20</b>
<b>3</b>	<b>AUTHOR</b>	<b>TEXT</b>	<b>20</b>
<b>4</b>	<b>EDITION</b>	<b>TEXT</b>	<b>10</b>
<b>5</b>	<b>STATUS</b>	<b>TEXT</b>	<b>10</b>
<b>6</b>	<b>QUANTITY</b>	<b>CHAR</b>	<b>10</b>
<b>7</b>	<b>DEPARTMENT</b>	<b>TEXT</b>	<b>20</b>

Source: Field Data (2022)

### 5.3.2. DATA FLOW DIAGRAMS

The proposed flow chart for our system.





From the figure above, the system receives and sends data from and to the library users and the library staff. It shows that the administrator logs into the system and can add, delete, or even edit user information into the system, search for users, authentication of the new user. Library users can as well view all the updates and the notifications from the system interface.

#### **5.4 Systems development process**

The system was designed and developed using a software called PHP including the use of Cascading Style sheet (CSS) and PHP. PHP was used to describe the structure of the text base information in the files. Whereas, CSS was used to manipulate the display of the PHP pages from the main configuration files. We used the library staff and users to carry out systems testing and see whether they can receive their emails from the librarians and website as well. Metadata for each single document was copied and recorded separately.

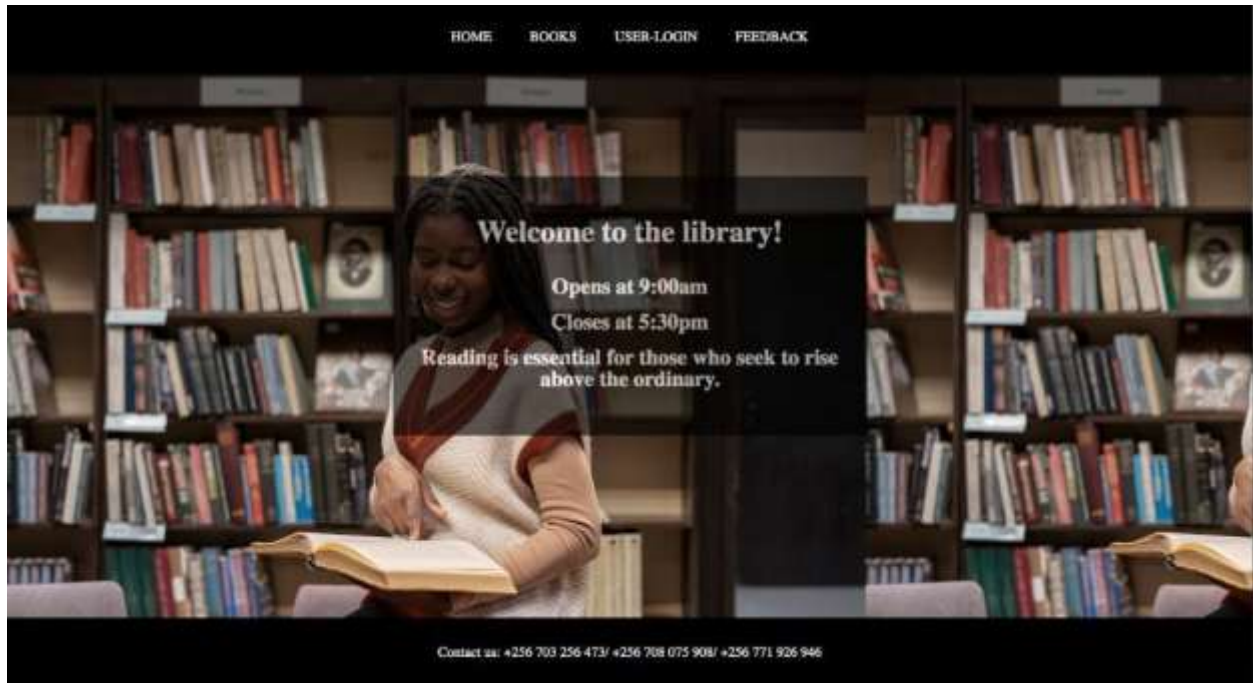
#### **5.5 System interfaces**

##### **5.5.1 Home page.**

This is the library home page interface with all the links to the systems interfaces. It has links to user's login, user's registration, books, admin login and feedback. These can help the library staff and users to link up with the users of the library.

Library Users can have access to this platform but it remains only to the registered users to view the information. Only registered users can login into the system to access the services offered by the library. Using this interface, librarians can login and send notifications to the library users, and library users can send their inquiries to the librarians and get feedback.

**Figure 2: Home page**



Source: Field Data (2022)

### **5.5.2 User Login interface**

This platform helps users and to login into the system to have access to information and to execute different functions of the library. This helps the system to select only the registered users to have access to the library's inference.

Both the library users must first login to the system in order to access the services offered from the library. The library users and librarians have the usernames and passwords which are provided by the administrator. The system was designed with the user names and the password however these can be changed by the user. The steps below can be followed to login to the system;

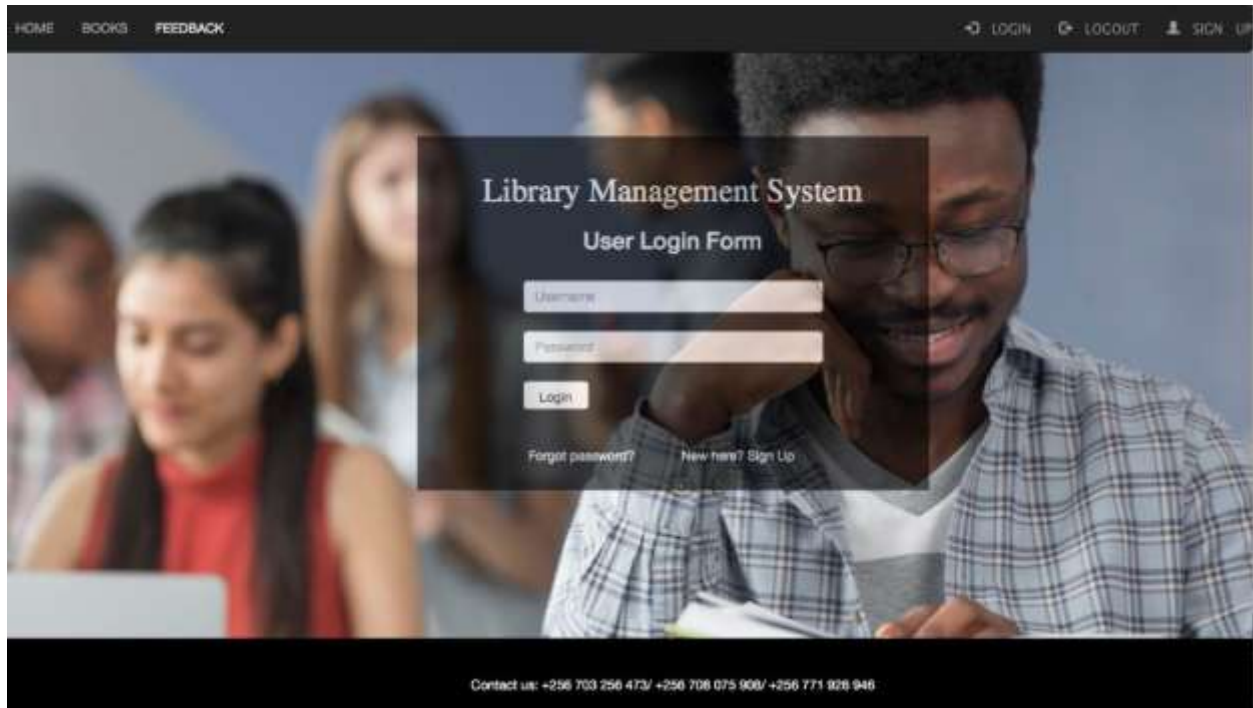
Click Login

Enter your user name and password

Press Enter or Click Login



**Figure 3: User Login interface**



Source: Field Data (2022)

### **5.5.2.1 Sign up user interface**

This interface allows the librarians and users to register into the new in the system. The details that are captured for a new member are; First name, last name, username, password, roll number (assigned by librarian), email, phone number.

**Figure 4: Sign up user interface**

The image shows a web browser window displaying the 'Library Management System' registration form. The form is titled 'Library Management System Registration Form' and contains several input fields: 'First Name', 'Last Name', 'User Name', 'Email', 'Roll No', 'Password', and 'Phone No'. A 'Sign up' button is positioned at the bottom of the form. The background of the page is a blurred image of an open book and a keyboard. The top navigation bar includes links for 'HOME', 'BOOKS', 'FEEDBACK', 'LOGIN', 'LOGOUT', and 'SIGN UP'.

Source: Field Data (2022)

Librarians have the rights to access this interface through the system database. They can add new members into the system by following the steps;

Approach the librarian for a roll number.

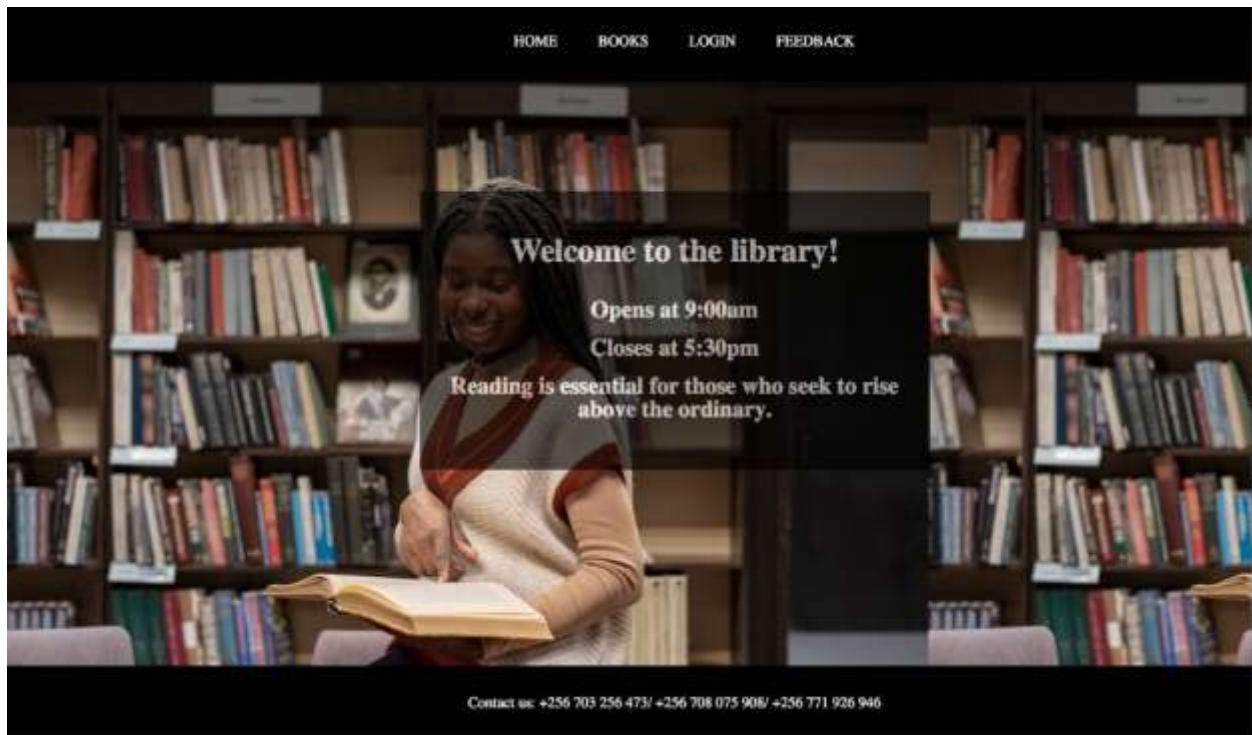
It is assigned randomly.

### **5.5.3 Admin Login Interface.**

This platform helps the Admins to log in to the system and have access to the user's details. This further helps the admins to have access to the user's emails and contacts in case of individual responses or feedbacks. This interface has the Admin database.

The Admin must have to log in in order to be able to post any information from the Admin database.

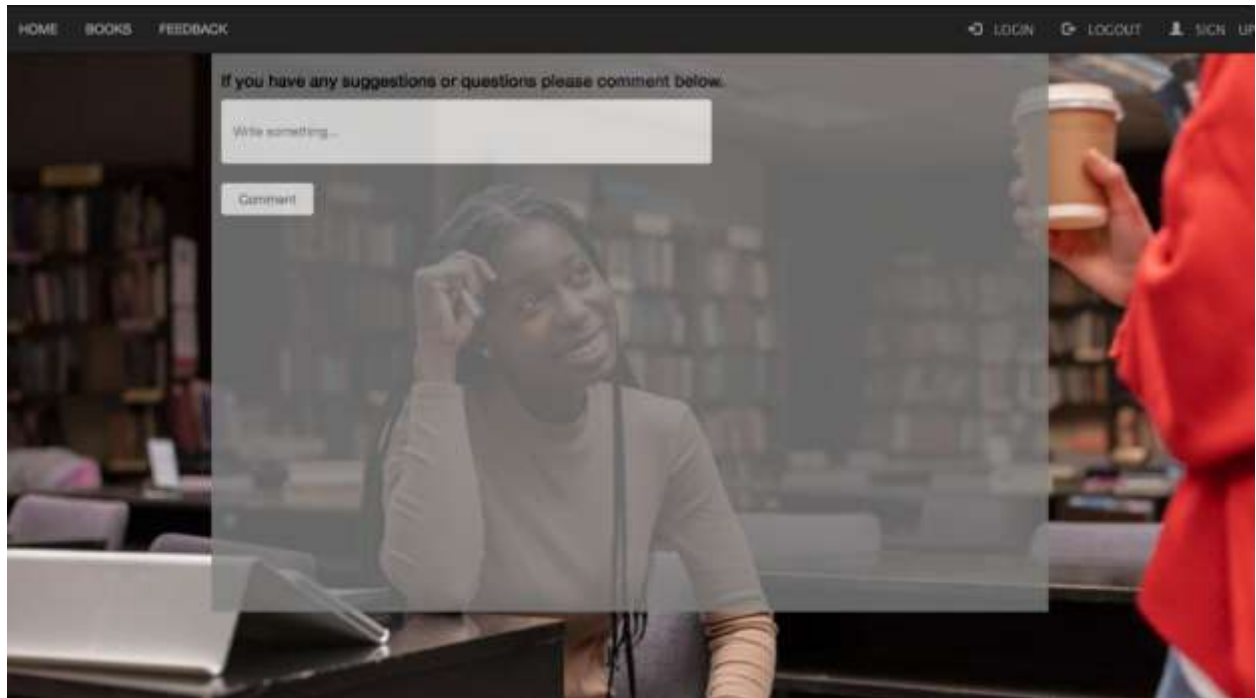
**Figure 5: Admin Login Interface**



#### **5.5.4 Feedback interface**

This interface helps the library users to inquire from the library staff. Users are free to ask the librarian any kind of question using this system. For Instance, users can ask the librarian a question by using the system and receive a reply from the librarian.

**Figure 6: Feedback interface**



Source: Field Data (2022)

The library users can log into the system in order to pose the questions to the librarians. The steps below are followed to use the library services from the library;

Click feedback

Type inquiry in the space provided.

Press Comment

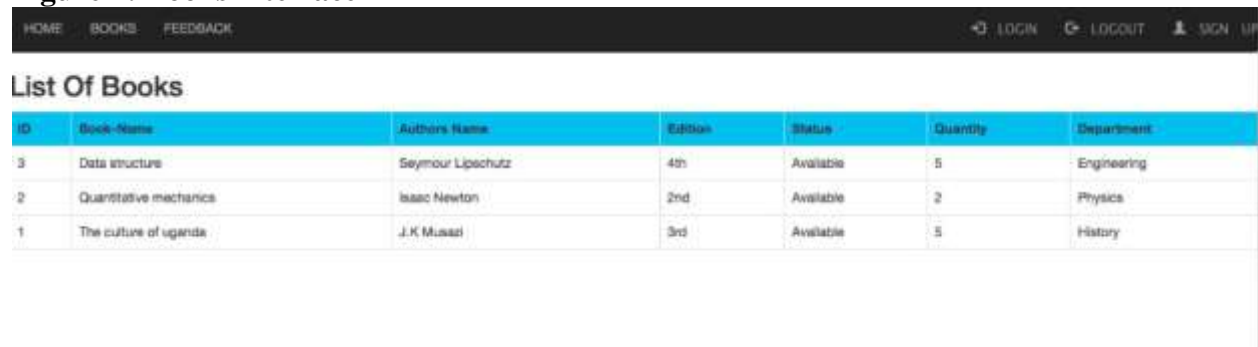
Librarian sees comments from the database and gives feedback.

From the database responds to the comment and gives a response to the comment.

### **5.5.5 Books interface**

This interface is where the library staff post the newly acquired materials.

**Figure 7: Books interface**



ID	Book Name	Authors Name	Edition	Status	Quantity	Department
3	Data structure	Seymour Lipschutz	4th	Available	5	Engineering
2	Quantitative mechanics	Isaac Newton	2nd	Available	2	Physics
1	The culture of Uganda	J.K Muasi	3rd	Available	5	History

Source: Field Data (2022)

The library staff from their database can update this section and whatever is in the librarian database is in the book interface. They do it as follows;

## **5.6 System testing and validation**

After the system development (designing), testing was carried out to establish the functionality of the Current Awareness Information System for Albert Cook Library.

### **5.6.1 System testing**

Testing was performed by running the system under different conditions to determine its behaviors and functionality. Using different test data to identify and correct data in the system ensured the system developed would correctly perform the library operations. System testing for the functionalities of different system modules towards data inputs was also performed.

### **5.6.2 System validation**

This was met to ensure that the system is effective under all conditions. This was done by allowing selected users to check whether the system satisfies user needs and meets the specified requirements, checking for correct system input data and output to ensure that the system is complete and accurate

## **CHAPTER SIX**

### **SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS**

#### **6.1 INTRODUCTION.**

This chapter presents the summary, key findings, conclusions, recommendations and areas for further study.

#### **6.2 SUMMARY**

The study aimed at developing an electronic current awareness system for the National Library of Uganda. The study was conducted based on four objectives and these were to: examine the current system used to provide Current Awareness Services at National Library Uganda, determine the challenges faced by the National Library Uganda in providing Current Awareness Services using the Current Awareness System, establish the requirements necessary to develop a Current Awareness System for National Library Uganda and develop a Current Awareness System for the National Library of Uganda in order to provide timely updates to users about the available information.

The study employed a case study while adopting a qualitative research approach to collect data from the respondents. Interview, observation and document review methods were used to collect the data from the respondents. We purposively selected one librarian and 10 library users at the National Library of Uganda who took part in the study.

The current awareness system used at the National Library of Uganda is manual, paper based tiresome and is poorly located. The challenges of this system were: Inadequate funds to run the available system, low levels of ICT among library staff and users, language differences in the library, limited professional skill to run the system, lack of awareness among the users about the available current awareness services in the library, affective barriers and unfavorable government policies. The functional requirements that we needed to develop an electronic current awareness system were a system user interface, authenticity of the system, audit tracking, reporting requirement, administrative functions, regulatory function. The non-functional requirements were reliability, data integrity, scalability, usability, system security and maintenance.

The study recommended that an electronic current awareness system should be developed to update users about the new library acquisitions available. Other recommendations were to regularly update users on new acquisitions, improve more ICT services in the library, engage users more to make communication easy in case of need of updates.

### **6.3 KEY FINDINGS.**

The study found out that;

The respondents visit the library on a daily basis in order to get information in line with what they are researching, so there is a great need for CAS.

The library sometimes sends alerts using social media to notify them about the new library events. Newsletters and display tables are also used by the librarians to alert the users about the available information. Book exhibitions are also sometimes organized by the library to showcase her collection to the users.

The library uses various methods in offering CAS to her users some of which include word of mouth at the reception desk with the reference librarians, use of notice boards. They also use display tables and book exhibitions to show the users the available information

Most of the challenges the respondents faced in current awareness services were absence of internet access to some users, delayed display of new library acquisitions, high costs incurred by the when delivering the CAS to the users, irregular CAS delivery via email and text. The study also showed that the CAS available at the library is not effective to the users since there is delay in delivering messages via text and email and they can only access information once they access the library notice board physically.

The library has all the necessary hardware to implement an electronic current awareness system for the National Library of Uganda. These include the computers, internet connection.

## **6.4 CONCLUSION.**

From the study we concluded that;

Since the library users at the National Library of Uganda visit the library daily to find out about the new library acquisitions, the library staff should always update the notice board whenever they get new acquisitions.

The library users not only use notice boards but also different social media platforms in case they can't access the library physically.

The notice board is the mostly used method used to update users about current acquisitions and library events.

The library faces a number of challenges because of limited funds to fund activities like the book exhibitions and also some library staff are not well equipped to run the CAS available.

The library staff should put the different hardware needed to run the system into use.

## **6.5 RECOMMENDATIONS.**

From the study, we recommend that:

The library staff regularly updates the library notice board with new acquisitions to cater for users that visit the library regularly.

With the rapid growth of technology in the current generation, many people opt to use social media platforms like Facebook, Twitter, Instagram in order to interact and communicate with one another. The librarians can therefore utilize such platforms to update the users about the currently available materials.

The library administration should organize durational training sessions for the staff of the library. This can be in computer skills, communication skills. This is mainly to increase their knowledge and effectiveness while in the library.

Since the library has the required hardware for the system, the library will be able to run the electronic current awareness system easily.



## **6.6 AREA OF FURTHER STUDY.**

We suggest further study on these.

1. Factors affecting the maintenance of Current Awareness Systems in Libraries of Uganda.
2. Digitization of Information resources.

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## APPENDICES

### OBSERVATION GUIDE

Dear respondent, we are Bachelor's Degree students in Library and Information Sciences at East African School of Library and Information Science, Makerere University. As part of our course, we are undertaking a research project on designing an electronic Current Awareness Service system at the National Library of Uganda. As a requirement for the award of the above-mentioned degree. This is to request you to kindly answer the questions below. The findings of the study will be used Design a Current Awareness System for the National Library of Uganda. As a requirement for the award of the above-mentioned degree. This is to request you to kindly answer the questions below. The findings of the study will be used Design an electronic Current Awareness System for the National Library of Uganda for the library users to effectively utilize information resources from the National Library of Uganda. All responses will be treated as confidential and no answer is wrong so feel free to bring out your views by answering these questions appropriately.

The library uses the notice board for current awareness services. We intend to observe the following things in our study.

OBJECTIVES	OBSERVATION
1. Examine the current awareness services provided at the National Library of Uganda	1. Current awareness systems used at the library. 2. Duration taken.
3. To determine the challenges faced by the National Library of Uganda in providing Current Awareness Services using the system.	Materials used. Method used. Technology used.

<p>4. Establish the requirements necessary to develop a Current Awareness System for the National Library of Uganda</p>	<ol style="list-style-type: none"> <li>1. Materials used to provide Current Awareness Services.</li> <li>2. Nature of materials used.</li> </ol>
<p>5. Develop a current awareness system for the National Library of Uganda in order to provide timely updates to users about the available information</p>	<ol style="list-style-type: none"> <li>1. Nature of system available at the library.</li> <li>2. How effective is the current system?</li> <li>3. How is the system maintained?</li> </ol>

**INTERVIEW GUIDE FOR LIBRARIAN.**

Dear respondent, we are Bachelor’s Degree students in Library and Information Sciences at East African School of Library and Information Science, Makerere University. As part of our course, We are undertaking a research project on designing an electronic Current Awareness Service system at the National Library of Uganda. As a requirement for the award of the above mentioned in the current degree. This is to request you to kindly answer the questions below. The findings of the study will be used to Design a Current Awareness System for the National Library of Uganda. As a requirement for the award of the above-mentioned degree. This is to request you to kindly answer the questions below. The findings of the study will be used Design an electronic Current Awareness System for the National Library of Uganda for the library users to effectively utilize information resources from the National Library of Uganda. All responses will be treated as confidential and no answer is wrong so feel free to bring out your views by answering these questions appropriately.

**Section A. Current Awareness Services offered at National Library of Uganda.**

1. What current awareness services do you offer at the National Library of Uganda?

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2. How are current awareness services offered to library users at the National Library of Uganda

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**Section B. Methods used in delivering current awareness services at National Library of Uganda**

1. What are the different tools used in the delivery of current awareness services at the National

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2. Which tools do you recommend that should be used by the librarians to deliver current

awareness services to the library users?

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**Section D. Challenges in offering Current Awareness Services at National Library of Uganda.**

1. What are the challenges you face while providing the current awareness services at the National Library of Uganda?

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2. Give any suggestions for solving the challenges mentioned above.

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**Section E. Design of a Current Awareness Service System for the National Library of Uganda.**

1. We are trying to develop an electronic current awareness; in case it is developed would it be of great help to you?

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2. Would an electric current awareness system be effective to update information to users?

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3. How will you implement the system we shall design?



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4. What are your views on an automated system for offering the current awareness services at the National Library of Uganda?

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5. What functions should an automated system for offering current awareness services at the National Library of Uganda perform?

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6. What impact would an automated system for offering current awareness services have if implemented at the National Library of Uganda?

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Thank you

**INTERVIEW GUIDE FOR LIBRARY USERS.**

Dear respondent, we are Bachelor’s Degree students in Library and Information Sciences at East African School of Library and Information Science, Makerere University. As part of our course, we are undertaking a research project on designing an electronic Current Awareness Service system at the National Library of Uganda. As a requirement for the award of the above mentioned in the current degree. This is to request you to kindly answer the questions below. The findings of the study will be used Design an electronic Current Awareness System for the National Library of Uganda for the library users to effectively utilize information resources from the National Library of Uganda. All responses will be treated as confidential and no answer is wrong so feel free to bring out your views by answering these questions appropriately.

**Section A. Current Awareness Services offered at National Library of Uganda.**

1. What current awareness services are at the National Library of Uganda?

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2. How are current awareness services offered to library users at the National Library of Uganda

.....

**Section B. Methods used in delivering current awareness services at National Library of Uganda**

1. What are the different tools used in the delivery of current awareness services at the National

.....

2. Which tools do you recommend that should be used by the librarians to deliver current awareness services to the library users?

.....

**Section D. Challenges in offering Current Awareness Services at National Library of**

**Uganda.**

1. What are the challenges you face while using the current awareness services at the National Library of Uganda?

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.....

2. Give any suggestions for solving the challenges mentioned above.

.....

.....

**Section E. Design of a Current Awareness Service System for the National Library of Uganda.**

1. We are trying to develop an electronic current awareness; in case it is developed would it be of great help to you?

.....

2. Would an electric current awareness system be effective to update information to users?

.....

.....

3. How will you use the system we shall design?

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.....  
4. What are your views on an automated system for offering the current awareness services at the National Library of Uganda?

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5. What functions should an automated system for offering current awareness services at the National Library of Uganda perform?

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6. What impact would an automated system for offering current awareness services have if implemented at the National Library of Uganda?

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Thank you.

## DOCUMENT REVIEW GUIDE

1.The following are the documents we are going to review at the national library.

DOCUMENT	AREA OF SPECIFICATION	EXAMPLES
1. Report.	1.Develop an electronic current awareness system.	Development of a Web-based Personalized Current Awareness/ Selective Dissemination Of Information System for Library Information Technology Researchers In Federal University of Technology, Minna.
2. Library manuals	1.Provision of Current Awareness Systems.( How is current awareness provided)	The National library of Uganda Challenges faced in performing its institutional practices.
3. Annual Reports	1. Provision of Current Awareness.	Annual reports of the national library 2019-2020
4. Policy papers	1. Provision of current awareness.	The National Library of Uganda: Its Beginnings, Services, Challenges and Future Prospects 2011.

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## COLLEGE OF COMPUTING & INFORMATION SCIENCES EAST AFRICAN SCHOOL OF LIBRARY AND INFORMATION SCIENCE (EASLIS)

27<sup>th</sup> September, 2022

The Librarian  
National Library of Uganda  
Plot 50, Buganda Road  
Kampala, Uganda

Dear Sir/Madam,

### RE: INTRODUCTION LETTER

This is to introduce to you the following students who are pursuing a Bachelor of Library and Information Science (BLIS) in Year III at the East African School of Library & Information Science under the College of Computing of Information Sciences, Makerere University.

- |                          |                |
|--------------------------|----------------|
| 1. Agaba Romis Wise      | 19/U/11460/EVE |
| 2. Akiror Esther Pronnah | 19/U/18826/PS  |
| 3. Nimusiima Martha      | 19/U/11046/EVE |

As part of their degree programme, they are entitled to carry out a project under the course: BLS 3224: Project. The title of their project is "*Current Awareness System for the National Library of Uganda*". Your library has been identified as a case study for this project.

The purpose of this communication is to request you to offer them the necessary assistance required.

Please note that all information provided to them will be used for academic purposes only.

Thank you.

Sincerely,

Dr. Clement Lutaaya  
AG. HEAD OF DEPARTMENT  
LIBRARY AND INFORMATION SCIENCES



*Alba Hooe*  
*I Authority is hereby given*  
*II please handle*  
*Alba Hooe*  
*28/9/2022*