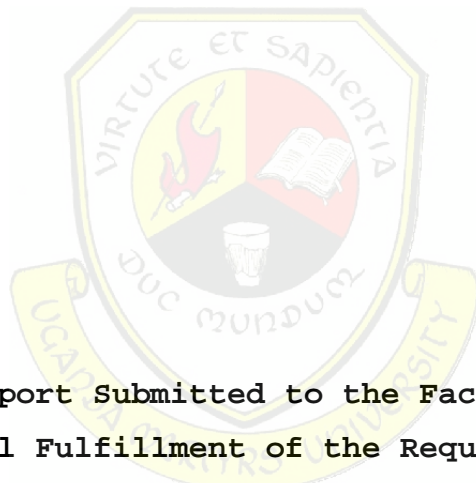


**DEVELOPMENT OF PARLIAMENTARY ONLINE INFORMATION SHARING
COMMUNITY SYSTEM**

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ACRONYMS AND ABBREVIATIONS

BBC	British Broadcasting Cooperation
CBOs	Community Based Organizations
CEPA	Center for Policy Analysis
COCIS	College of Computing and Information Science
DFD	Data Flow Diagrams
FK	Foreign Key
HTML	Hyper Text Markup Language
MIS	Management Information Systems
MP	Member of Parliament
NDI	National Democratic Institute
NGOs	Non-Governmental Organizations
PK	Primary Key
PRO	Public Relations Office
RCDF	Rural Communication Development Fund
SQL	Standard Query Language
UCC	Uganda Communications Commission
WWW	World Wide Web

ABSTRACT

This report represents an online sharing community mainly developed for the parliament and people of Uganda. The information sharing community system gave an integrated view of different registered groups and people. The current systems used are manual where information is kept while others the discussion forum is disabled. The project was an important area for development because of the efficiency, reliability and security of the procedures within and outside the parliament.

The aim of this project was to develop an online information sharing community with which users can participate after registration using their accounts and can interact with their respective members of the parliament library. This online community comes as a solution to a widening gap in communication and interaction among parliamentarians and the public that has continued to exist partially due to lack of proper and cheap means of communication and interaction.

The outcome of the project was an integrated system capable of online registration, downloading publications like books uploaded by the administrator, discussion forum, and people can comment on different posts. The system can provide timely access to information.

CHAPTER ONE

INTRODUCTION

1.0 Introduction

The emergence of information communication technologies has brought a lot of changes to the way things are done in the world. These changes are across the spectrum; the way private companies do business, the way universities do things, the way governments provide services to their citizens and the way they interact with the stakeholders at large.

Due to an increase in use and adoptability of technology in the world and Uganda in particular, social media usage has grown all over the country for example the use of Facebook, twitter, WhatsApp and other sites. This has enhanced communication, collaborative decision making and information handling.

Apart from the social media sites, online communities have proved to be the best ways for e-governance where people take part in the decision making process for the country.

The main objective of this project was mainly to come up with a parliament online information sharing community application which contains a discussion forum for the citizens, chat room for members of parliament.

This is mainly to solve the problem of lack of proper means of communication and collaboration in the decision making process.

This will be achieved by making the information accessible on the community portal and providing a discussion forum for all registered members to communicate and share information.

1.1 Background of the study

A visit to government departments is a nightmare; it is characterized by a lot of paperwork, long queues, bureaucracy, cramped spaces and a lot of frustrations. With the growing demands of citizens and changing global rules and regulation, governments are under pressure to deliver the right quality and at the right time. Governments are trying to tackle the demand by re-engineering their processes and eventually ICT play a role in the proposed solutions, when ICT is properly used, it has potential to empower people to overcome development obstacles, address social problems, and strengthen democratic institutions. However for a country to gain from the benefits of ICT, technology must be implemented and used effectively. The transformation to use ICT to provide services by government; e-government is slowly gaining ground across the world.

E-governance, which is a paradigm shift over the traditional approaches in public administration, means rendering of government services and information to the public using electronic means. This new paradigm has brought about a revolution in the quality of service delivered to the citizens.

It has ushered in transparency in the governing process; saving of time due to provision of services through a single window, simplification of procedures, better office and record management, reduction in corruption and improved attitude, behavior and job handling capacity of the dealing personnel (Monga, 2008)

E-governance in developed countries

Technological advancements have been credited for playing a significant role in the globalization of trade, communication and life styles, Vasarhelyi and Alles (2008)

Thus, modern communication technologies or information and communication technologies (ICT) have been credited with not only improving efficiency or productivity in the business world but also with improving the standard of living for global citizens. This has been particularly apparent in the industrialized world, although the recent economic crisis has resulted in a slowdown of (ICT) spending in Europe and USA (Rojko et al, 2011)

However the role of ICT in serving as a catalyst to enhance economic development and the quality of life in developed and developing countries continues to be debated in the research literature (Lu, 2001; Mansell, 2001; Mistry, 2005; Brynjolfsson and Saunders, 2010). Recently, countries around the world have

utilized ICT in an attempt to efficiently provide information and governmental services to the population.

The use of ICT to provide information to citizens and to connect citizens and government has been called e-governance or e-government in the research literature. Some researchers have suggested that e-government is only a subset of e-governance (albeit a major one) while others have suggested that e-government and e-governance cannot be defined the same way and must be viewed differently (Palvia and Sharma, 2007). These authors also contend that e-government is a generic term that refers to the delivery of government information and services via the internet, while e-governance is a broader idea that refers to the use of ICT by government and private organizations to execute the functions of managing effectively (Bannister and Walsh, 2002; Finger and Pecoud, 2003). Since our focus is on the use of ICT in government and the delivery of information to provide services to civilians in local or national government and not on private organizations that may use ICT to manage effectively, I utilized the generic term e-government.

The internet and e-governance in Uganda

The sharing and use of digital information has been an important computing concern since 1960's with the advent of the www.

This explains the big numbers of people who use the internet in Uganda now for several purposes for example social sites like Facebook, twitter, Myspace, linkedin and many others.

In reference to the above Ugandans have utilized the internet to collaborate and promote cooperation. This explains why the statistics show there were 750,000 internet users as September 2007 in Uganda which translated to 2.6% of the population. This means that organizations and individuals are recognizing the critical function of information technology plays in the supporting development in a country.

More people in Uganda have access to technology and internet than 11 years back. In 1997 the internet usage was at 1% to 3% in 2007 and drastic increase to 9.8% in 2008% (World Bank, 2009).

Internet promotion has been an increase in Uganda as per world development. Indicators show that in 1997-19988, 1000-5000 people were connected to internet and it is now to an increase of 3.2 million people (history, T, 2000).

In addition to the above, the Uganda Communications Commission (UCC) recently finished a development of a new rural communication development fund (RCDF). This is a new policy 2010-2014 geared towards extending internet connectivity to schools in rural areas in Uganda; under the same program they

distribute computers and solar electricity to rural areas (UCC magazine 2010).

In Uganda, the government has also tried to implement e-governance for examples all ministries have websites, the Ugandan parliament has a website which provide information regarding different areas they serve. This has enabled people to access information they need to know about such departments. However the problem with e-governance in developing countries in Uganda is that interactive systems like online communities are still lacking. Thus people are limited to only static information rather than participating in discussions through web logs, discussion boards and chat rooms.

1.2 Problem Statement

Currently bills in parliament are being passed into laws in the republic of Uganda, however the process does not cater for people's contributions and views. This is because members of parliament hardly find time to go their constituents due to limited funds, fixed schedules like committee meetings, trips and other programs.

In addition, the process of accessing various parliamentary materials like speeches and committee reports is tedious due to the fact that communication is being carried out through physical interaction i.e. parliamentary boards which stress the physical presence of individuals and the failure to raise

quorum in some instances. This is evidenced by delays in passing bills, more expenditure by the government and dissatisfaction with the public order bills, anti-pornography bills, anti-homosexuality bills and many others which have raised concern from local and international parties.

At any level of the legislators work; whether committee, plenary or constituency, good information allows them to understand problems, consider solutions, influence policies or strategies and identify areas of weakness (Dietrich-Schulz, 2008)

Therefore this project intends to address the problem of lack of improper means of communication and collaboration in decision making that has caused a chain of problems which include information retrieval, dissemination and poor communication between parliament and the people of Uganda which has led to poor dissemination of information to and from the parliament and passing of bills without enough information from the people in constituents.

1.3 Main Objective

To develop a parliamentary online information sharing community system that allows different people to get parliamentary information and also give their views and allow them participate in parliamentary activities and discussions.

1.4 Specific Objective

1. To study the current systems used to gather peoples' views and to disseminate and share parliament information with the general public order to identify their strength and weaknesses and formulate/determine requirements for the proposed application.
2. To determine the information format and kind which should be shared using the proposed system.
3. To explore the various technology approaches, quickness and tools which could be used in the development of the community system.
4. To design, develop, test and validate an online parliament information sharing community using the appropriate available tools.

1.5 Research Questions

What are the current methods used in conveying and sharing information in the Ugandan Parliament?

What are the strengths and weakness of the systems used in information dissemination?

What are the uses of information portals in organizations?

What guidelines and principles are followed when designing information portals?

1.6 Scope

Geographical Scope

This study will be carried out at the Uganda Parliament - Kampala. It will mainly focus on developing online information sharing community system.

Subject Scope

The scope of this project was system development for only the parliament of Uganda and the citizens of Uganda.

The project was meant to develop the parliament online sharing community that includes various components like chat rooms, discussion board, content/document storage, groups and accounts.

1.7 Significance of the study

1. To the community

- The system narrows the gap between legislators and the people through open sharing and information and knowledge over discussion forums.

2. To the parliament

- The system enables stakeholders to conduct virtual meetings and discussions as opposed to physical meetings and enable them in collection of information.

- It helps in minimizing cost incurred conducting physical meetings for example between parliamentarians and the people they represent.

3. To other researchers

- Repository for numerous materials like reports, order papers, bills, constitution, minutes, other resources and activities.

4. To the researcher

- It is a requirement for the award of a Bachelor of Science degree in Information of Uganda Martyrs University.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter presents all the literature which was reviewed by the researcher. It presents literature from sources like books, journals, newspapers, magazines and the internet.

This section covers topics like online communities, history of online communities, political online communities, how political online communities work, systems used by the Ugandan parliament and systems used by other developed countries.

2.1 Overview of online communities

2.1.1 A community

The idea of a community is not a new concept. What is new, however, is transferring it over into the online world. Before, a community was defined as a group from a single location. If you lived in the designated area, then you become part of the community. Interaction between community members was done primarily face-to-face in a social setting. This definition for community no longer applies. In the online world, social interactions no longer have to be face-to-face or based on proximity, instead they can be with literally anyone anywhere.

A community therefore can refer to a group of people with related interests, whether in one location or several locations.

2.1.2 An Online Community

An online community is: where a group of people with similar goals or interests connect and exchange information using interactive web tools like e-mails, discussion boards and chat systems (Toumi, I 2000)

An online community can take the form of an information system where anyone can post content or anywhere a restricted number of initiate posts, such as weblogs.

Online communities have also become supplementary form of communication between people who know each other primarily, groups or new people.

Many means are used in social software separately or a combination including text based chat rooms and forums that use voice video and text.

According to Toumi, I, (2000), significant socio technical change may have resulted from the proliferation of such internet based social networking services.

2.1.3 History of on line communities

The idea of a community is not a new concept, what is new however is transferring it into online world.

Before, a community was defined as a group from a single location, if you lived in the designated area, then to become part of the community. Interaction between the community members was done primarily face to face and social setting. Today, this definition no longer applies in online world. Social interactions no longer have to be face or based on proximity, instead they can be with literary anyone anywhere.

In his contribution to the BBC's on-line communities' day in June 1999, Internet guru & Howard Rheingold (1999) said: 'Structurally, the internet has inverted the few-to-many architecture of the broadcast age, in which a small number of people were able to influence and shape the perceptions and beliefs of entire nations. In the many-to-many environment of the ne, every desktop is a printing press, broadcasting station and place of assembly. Mass media will continue to exist and so will journalism but these institutions will no longer monopolize attention of others.

Thus the neighborhoods near the factory and office, employees, vendors, customers, shareholders, governments, politicians and so forth are communities in the traditional and potentially the Internet Community Sense.

2.1.4 Political on line communities

Howard Rheingold was one of the earliest author to write about virtual communities, he came out with an idea defining such communities as "social aggression that emerge from net when enough people carry on those public discussions long enough, with sufficient human feelings for websites of personal relationship in cyberspace" (Rheingold, 2000)

Accordingly, political online communities can be structured and organized in very different manners. What they have in common is that they are influencing or willing to influence the functions of the political system, and that is the process of legislation and definition of norms for society as a whole. The articulation and aggregation of interests of political support, but also political socialization and recruiting of political personnel are usually regarded as central input functions of the political system (Fuhse 2005). So these are exactly the dimensions that should be considered in analyzing political potentials and actions of online communities.

2.1.5 How political on line communities work

Online communities can make use of the internet both for their inner organization and for interaction with the outside world and the multiple ways of action may be used in a politically relevant manner. The members may discuss and specify central objectives of the community in chats or forums. They may also

vote on their leaders in e-voting. Passive members and new supporters can be mobilized via mailing lists and newsletters describing current events and future aims and asking for financial or active support. In order to address unknown people as personally as possible, e-mail chain letters can be used, because they are usually forwarded between mates and friends (Hauser 2001).

The public can be informed by an interesting website which summarizes relevant information. This can be done in a fancy way when a fake-site parodies a well-known official website by imitating its design but filling it with completely different contents (Becker et al. 2002: 96-97)

Online polling can be integrated to find out about options and use the results as arguments in campaigns. Important additional background information can be arranged in a wiki whereas a weblog or micro blog is a well suited to go along with a campaign and report about current events, actions and success stories in chronological order.

2.2 Social media communication

According to Maden et al 2004, in social median communication, communities take the form of a social network and the communal groups within them, people establish associative friendship and allegiances around content, objects, products, services and ideas. How they communicate is simply subject to tools and

network that people adopt based on influence, social groups and culture.

Therefore in an on line community we developed, we paid attention to such form that has been described above.

We came up with an on line form of communication because the distinct advantage of electronic information retrieval is that potentially all word in the database can be searched for to retrieve relevant information (Shelagh 1995).

2.2.1 Cross media communication

This can also be referred to as cross mode or cross channel communication which is conversation that can span multiple forms of media to communicate between e-mails and sms, text and voice by smoothing over irregularities between technologies across media systems. This allows people to select a technology based on current convenience or suitability rather than requiring people to use one particular system. For example the old fashioned email that was typically interacted with purely using (Heyer, M. 2002). You had to use email to check messages sent to the host.

2.2.2 Mobile social media

Mobile social media network is a social networking where one or more individuals of similar interests or common ideas conversing or connecting with one another using mobile phone

much like web based social networking, mobile social networking occurs in virtual communities, a current trend for intended social networking websites like MySpace, facebook has turn to mobile (Wright, W. 2010)

2.3 Online Communities

Developing and developed countries that have taken e-government initiative knowledge management have achieved positive results even when restricted to basic infrastructure.

I describe examples of application in different countries and draw conclusions from their experiences.

2.3.1 Beijing City Government website

The Beijing city government website provides citizens with facilities such as services, information or laws and regulations, a news center, links to other government departments and email.

The email section invites citizens to make suggestions about the government developments, to complain about the government services or to report unsatisfactory government work. The e-mail section enables knowledge sharing and knowledge management as citizens are able to offer their know-how on areas to improve. The website further provides electronic forum to obtain answers to questions such as how to move ones' official residence to Beijing and the forum should respond by listing

specific regulations and procedures thus enabling additional knowledge sharing. While it is simply a website with email communication and electronic forum functions, it facilitates two way communications between the government and the public which in turn opens up the possibility for knowledge exchange and management.

On the other hand, it does not provide platform for discussion by the legislators and also amongst the citizens themselves.

2.4 Review of related systems in Uganda

In a country of about 35 million people, keeping up with what's on people's minds can be enormous task for the 375 members of parliament in Uganda, where there have been significant changes in government in recent years.

In 2005, Uganda voted to restore a multi-party political system through a constitutional referendum process. As a result, Ugandans are still figuring out what they want from their lawmakers and in turn, members of parliament are still learning the right mix of legislative work and constituent-focused casework to keep voters content and engaged. Not all have been successful. Since 2005 there has been a 65 percent turnover rate in parliament as voters have cast out MPs they didn't think were serving them well.

Often, representatives make grand promises as to voters during the campaign season to fix local problems but lack follow-through after an election. Many citizens rarely see their representatives outside of elections and most don't know how to contact them. Though Ugandans want to be involved in the political process, citizens have few avenues through which they can engage with the parliament or national government.

Several similar systems are being used by the above parties to communicate.

2.4.1 "Uspeak" Uganda

This is a system the parliament of Uganda and NDI, in partnership with the European-based E-governance NGO, Gov2U, developed. It is an innovative system for citizens to communicate with their representatives and help lawmakers respond to citizen's needs.

The system is designed to help MP's gather information from constituents, organize reports and set priorities for responses, while recognizing the challenges they face, such as limited resources and few or no full-time staff.

The tool allows constituents to share their views and request information on issues from MP's by text message, voicemail or by leaving a message with the U Speak call center. U Speak then aggregates the reports and request by issue, which allows MP's to track the information, including number of contacts and

types of issues and compare them to the number of messages received by other lawmakers on these issues.

Each MP has sole access to his or her inbox, which sorts the messages into three categories: opinions, requests for information and requests for action. The system allows MPs to mark the cases as pending or closed, so they can track the casework in their districts. The web-based tool permits MPs to stay in touch with their constituents anywhere an internet connection is available.

The new innovation would enable MPs to spend as little time convening meetings and travelling distances up and down the country to make inquiries about issues affecting the constituents, thanks to the new technology however it has challenges.

In reference to the National Democratic Institute, they have so far spent 300,000 US dollars a within a few constituents, this means it is costly to implement in the whole country as opposed to the online community.

In addition to that, users pay 110Ugx for each message which becomes costly in the long run.

It is also being implemented by Uganda Telecom Company which is a problem because many mobile users use other networks like MTN, AIRTEL and many others hence they are biased to UTL based

systems. This is different with this system since it is open to all networks and the entire public.

2.4.2 Parliament watch Uganda

Parliament Watch Uganda uses a website, and an accompanying social media strategy modeled on similar initiatives in other countries to provide information about Parliament but also monitor closely on-going developments in bills and committees. This initiative aims to strengthen democracy in Uganda by building on of its key institutions: an independent, transparent, responsive and accountable Parliament and enhancing greater citizen participation in the legislative process. (<http://PsrlismentWatchUganda>)

To build transparency, responsiveness and accountability of Parliament, the Centre for Policy Analysis (CEPA) has created "Parliament Watch Uganda". A virtual parliament tracker that monitors Parliament on a regular basis and provides both relevant data and information, on the one hand and expert analysis on the other.

The parliament of Uganda has distinguished itself as one of the most active in the region. Information on Parliamentary processes, however, it is extremely difficult to access, making it difficult to craft legislation that is more responsive to popular demands, undermining media initiatives to provide

accurate coverage of Parliament and wakening civil society's ability to provide oversight on legislation and budgeting.

2.5 Conclusion

The availability of knowledge and information through internet offers significant potential for developing countries enables citizens to strengthen in their economy because they obtain educational resources and government services that were previously unavailable. Economic limitations require government to find solutions for knowledge and information delivery. One such solution is virtual or online communities which rely on combined knowledge of their participants.

The findings demonstrated that the creation of online communities is inexpensive and technically simple. The required technology platforms can be obtained with the best information and communication technologies. The demand for hardware, software or bandwidth is relatively modest.

Online communities enable knowledge exchange and have been demonstrated to facilitate the exchange of know how both in the public and private sector throughout the world. Several success scenarios point to their effectiveness and reliability in information management and knowledge sharing.

However much, there are challenges to the implementation and use of online communities especially the cost, infrastructure and availability of technology and services, the online

community suggested here are among the least demanding in terms of financial and technology requirement and thus will be available even on the most modest technology infrastructures

The proposed system provides a platform for all citizens regardless of the network and place to involve in discussions via chat rooms and discussion boards which lack in the above systems.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

This sections provides and illustration of the stages that have been followed when performing data collection, analysis, design and development of the proposed system.

3.1 Data collection

The researcher applied data collection techniques such as interviews and document review to determine the requirements of the parliament online information sharing community through this data, he learnt more about the current trends and limitations of the existing systems.

Interviews

An interview is a planned meeting during which you obtain information from users of the existing system. It is a face to face interaction with users of the existing with the aim of collecting information about the problem associated, for example I interviewed the Members of Parliament and other stakeholders about the challenges they face while using the existing systems. I used interviews as compared to other techniques because it is easiest technique of collecting data besides the required information could be directly got from the interview.

It is also the best source of qualitative information I.e. opinions of people, policies and subjective description of activities and problems.

It is convenient for respondents who do not communicate properly in writing or are lazy to complete questionnaires. I interviewed members of parliament, ICT officers, PRO officers, The Ugandan Parliament library officers and the public (citizens).

Document Review

This involves reading from the existing documents about related systems and finding already published materials and documentation concerning the problems of communication and further seeks a deeper understanding of the possible ways and available technologies that can be implemented to build an effective, reliable and better sharing online system to improve communication between the parliament and the citizens of Uganda.

Documentation that was studied include organization charts, methods and procedure manuals, job descriptions, forms and reports, paper document flow diagrams written by stakeholders during the course of their work.

In the requirements activity, studying documentation is good for understanding legislation and getting some background information on the work.

3.2 Analysis

This is where the researcher identified the problems, opportunities and determined the feasibility of the project which include operational, technical and financial feasibility and identify possible solutions and options to use, then recommend the most appropriate to management and outline the development plan as well.

User requirements were refined to specify the new system. The researcher analyzed the existing system review by building its model and then analyzed the new system requirements from the user's point of view, got sufficient information decided to proceed into the design phase.

3.3 System Design

The main purpose of the design is to satisfy all documented requirements and identify all outputs, inputs, files, manual procedures and application programs.

It consists of technical design for programs/ functions (pseudo-code), reports, user interfaces and database designs, use case designs etc.

System design techniques

Conceptual and logical models such as Data flow diagram, Entity relational diagrams (ERD) and Enhanced Entity relational diagrams (EERD) were drawn. These models helped in gaining a

clear sight of the database objects and the relationships among them. The major drawing tool used was Microsoft visual.

Data Flow diagrams were used in the process of analyzing the existing online system. DFDs aided in showing how data moved and changed through the system in graphical top-down method. They helped to give graphical illustration of a system's components, processes and the interface between them.

The EERDs showed a clear breakdown of entities, the relationship between them and their attributes.

3.4 System Implementation

Implementation ensures the construction/delivery of an information system; it prepares the functioning of the documented system. It includes writing, testing and documenting application programs. So after the entire design phase, the researcher implemented the system using tools such as XHTML, CSS, JavaScript, MySQL.

Interfaces Development

This is the front end of the system, i employed XHTML to come up with the outlook of the interface then added in CSS for the design and uniformity of the interfaces that were developed and also used JavaScript front end validations of some basic forms before server end verification. However i also used JavaScript front end validations of some basic forms before server end

verification. However I also used JQuery to add more design features to the interfaces.

Back End Development

This is mainly the server side and the database end of the system which enables functionalities to be achieved. For the server side scripting, the researcher used Microsoft visual studio for building asp.net pages and writing the C#. And for the database development, MySQL was used due to the ease of its implementation across various platforms and for the backend.

3.5 System Testing and Validations

This was to ensure that the system functions are as required and also to verify that system requirements.

Test specifications were made where test plans were prepared as well as programming and testing which included writing program codes that were used. Finally there was user training about the system acceptance testing by user simulating production conditions.

The researcher ensured that the system functionality worked according to the user specified constraints. (refer to fig. 10) This applied to the required user inputs like the user name and passwords which were tested so as to confirm that they work properly for example the length and components of the inputs as

required by the system I.e. "integers", "characters" or "Enum" as specified.

This is therefore evidenced by Figure 7 chapter four where the system validates account information before accessing the online community.

CHAPTER FOUR

FINDINGS AND ANALYSIS

4.0 Introduction

This is a chapter that describes and explains the results or the findings from the system study and analysis of these findings. This chapter also presents the requirements for the proposed system. This section is means of ascertaining whether the system meets the set objectives.

To study the existing process of acquiring information of the parliament of Uganda, this was achieved through the use of data collection methods such as interviews and reading documentations.

4.1 Background of the study

The Ugandan parliament is the country's legislative body and was established in 1962 soon after the country's independence.

The Ugandan parliament is most significant of the institution's functions to pass laws which will govern the country.

The Ugandan Parliament is located in Kampala at Parliament Avenue, P.O box 7178, Kampala Parliament road.

The parliament of Uganda derives its mandate and funtions from the 1995 constitution, the laws of Uganda and its own rules of procedure.

The constitution contains articles which provide for the establishment composition and functions of the parliament of Uganda and empowers parliament to make laws on any matter of peace, order, development and good governance of Uganda and to protect the constitution and promote democratic governance in Uganda.

4.2 Communication methods and systems currently used in parliament

The parliament uses a number of systems and methods to enable communication within the parliament of Uganda and the methods are broken down below

4.2.1 File/Manual based communication methods and systems used by the parliament

Magazines, these are publications, usually periodical publications that are printed and published electronically they are generally published on a regular schedule and contain a variety of content through the public relations office called "THE AUGUST HOUSE", and these provides information about the achievements of the month and other information that needs to be passed on.

Library, this provides books, reports, flairs, charts and other important documents that contain important information that is of need to the people, researchers and the members of parliament as well.

The parliament has provides calendars, diaries etc these give information to the people.

The Public relations office, according to our interview results the PRO office is always open for any information inquiry and different officers are always there to attend to these people.

Talk show on TVs, radios, meetings and many others can as well be held by the legislators, the members of parliament and different departments within the parliament and mostly the phone messages can as well be used within the parliament to communicate, and then to inform and ask questions by the people to their representatives in the parliament and then newspapers where the parliament has a column for reporting weekly sessions and the parliamentary activities of the week and all their achievements are published and can be accessed by the public.

Weakness of the manual systems

- The manual systems are expensive in regard to costs, it is very costly to print the magazines, charts and flairs and purchasing books for the library use.
- There is limited interactivity within these systems; people are given less chances to ask questions for example the TVs, radios and newspapers.

- There is limited access to the parliament library and not everybody can get access to it, accordingly it should be accessed by the parliamentary staff.
- Limited privileges where people can only read without participation for example newspaper, magazines, charts and other tools.
- Manual systems are much time consuming and Lots of Manual labor is required for record keeping, updating, and publications of the parliament activities.
- No proper records for the workers, members of parliament and book transactions and often the books are lost and the librarian is not aware of this in case manual records books is lost data will be completely lost.
- Data is stored in filling cabinets for example the parliament website and can get in the wrong hands and can be used against the government.
- Data is not always reliable as it is hand written and some human errors might have occurred example wrong telephone numbers.

4.2.2 Computer based communication methods and systems used by the parliament

Website

The Ugandan Parliament website, it is the main online avenue from the parliament and is responsible for giving out information to the public to be accessed by all people as long as they can access internet from anywhere, the information provided include the committee reports, information about the organs and departments in the parliament, the parliamentary sessions, order papers, news and all activities in the parliament.

The parliament website links to another system known as U-SPEAK which provides a platform for people to communicate to their members of parliament directly, this tool allows the constituents to share their views and request for information on certain issues from MPs using text messages, voicemail or leaving a message with the U-SPEAK all centre SPEAK then aggregates the reports and requests by issue which allows the Mps to track the information including the number of contacts an types of issues, and compares them to the number of messages received by other law makers on these issue, this web enabled tool enables MPs to keep in touch with their constituents anywhere as long as the network connection is available.

The public relations is the one responsible for providing information to the ICT department to update this website. A fesco is another online web system that is used internally in the parliament and it is basically used by staff in the parliament to enable communication with each other. This system can as well be used to send and receive documents like reports, order paper and so on.

E-mails and mailing lists

The e-mailing list can also well be used to enable communication between the parliament and the people as long as they subscribe for it, according to the PRO several people have subscribed for this and receive weekly updates on the parliamentary sessions and its activities.

E-mails as well these can be used by the public to communicate to the parliament, people can ask and discuss questions either to the parliament or to their specific leaders in the parliament using messages as long as they can access the internet.

The parliament through the PRO can as well use social media; i have social sites like face book and twitter. Different departments, offices, individuals of that is members of parliament and the parliament is self-have accounts and pages which can be accessed by people on these social media sites.

Results from interviews

During data collection and system study, two divisions of the sample population were interviewed on which research was to be carried out these were.

The staff users who included 17 members: 5 members of parliament, 5 library officials at the parliament, 5 public relations officers at the parliament, 2 members in the ICT department. The citizen users were 15 making it 32 in total.

The graph below shows the results from sample population that was used during our research in parliament.

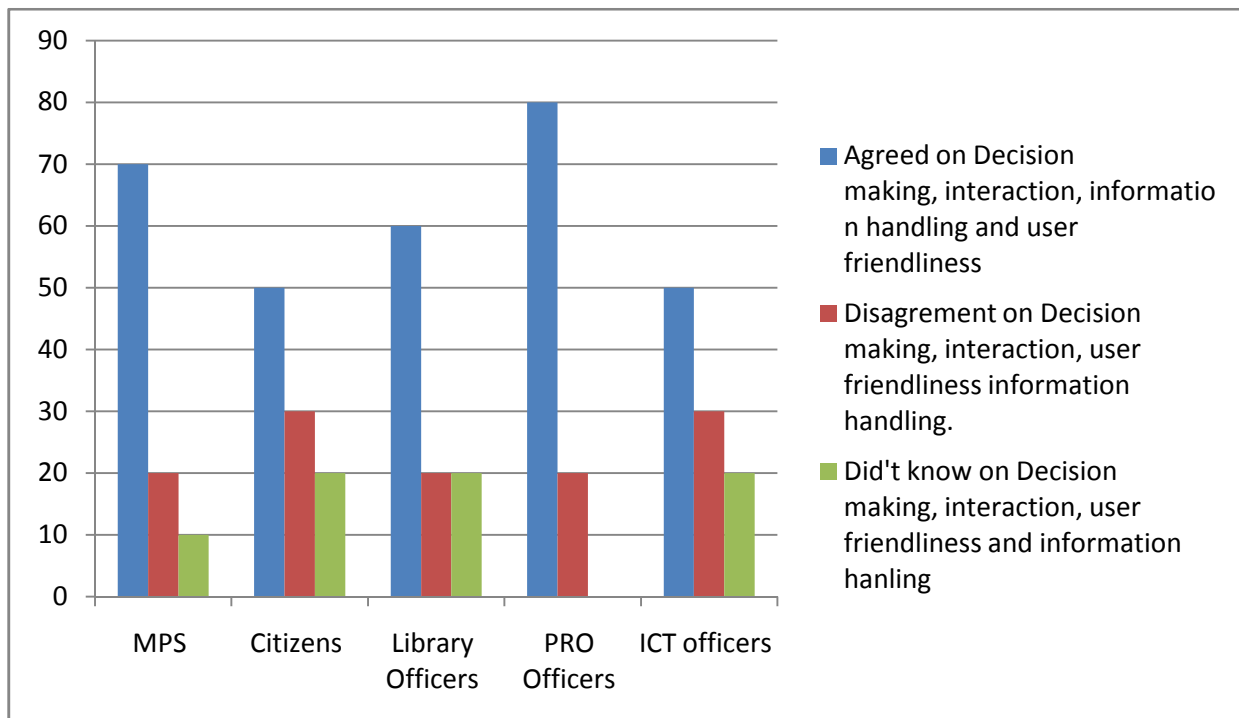


Figure 1: graph showing results from the sample of population of the research

4.3 Limitations of the new system

- 1. Limited access.** The system is limited to only registered users. Those without accounts in the community cannot participate. It can be accessed only by people who have internet services.
- 2. Time consuming.** There is need to create account for every member of the community. This takes some time.
- 3. Delays.** There are delays in information disclosure since it requires the administrator to verify if some information should be posted or not.
- 4. Illiteracy.** The community is limited to only the people who have knowledge about computer/computer skills. More so it is limited to only people who know English because it is developed using English language.
- 5. Maintenance.** The community requires offline maintenance which further affects the cost benefit analysis.

Analysis of the current communication methods and methods used by parliament

In our system study the researcher carried out interview to different categories of people as shown in a table below.

Table 1: Sample population of the people interviewed

#	Category	No. of people
1	Members of parliament	5
2	Citizens of Uganda	15
3	Library officials at the parliament	5
4	Public relations office parliament	5
5	ICT office-parliament	2

4.3.1 Challenges associated with the current methods and systems

- There is less interactivity where most of the above systems have limited interaction, they lack discussion forum where people can interact with both the legislators and amongst themselves.
- There is also limited control for the social media sites through they enable interaction, these are rarely controlled because they are owned by private organizations thus anyone can post anything of face book and can be seen by the public.

- There is limited Security sending detailed personal information and employment history online can present a security risk for the applicant. While many recruiters and job sites that use encrypted online application systems promote the security and safety of the process, there have been numerous examples around the world of hackers' obtaining the legislators' information.
- Mostly data is kept on registers and these are stored in filling cabinets and this consumes a lot of space and a lot of time and retrieval of data is very slow as it has to be searched it has to be searched in loss of registers and this waste lots of time.
- There are always high volumes of response because most people can access the internet and could potentially see the parliament's job posting, this leads to inundate with responses, many of them from unqualified candidates. You will have to take time that you may not really have to wade through each application and this overwhelms the network and over loading

Thus there is recommendation for a new system which is an online parliament information sharing community. This is a system that is anticipated and possess the solutions to the current system both offline and online.

It is an online system like any other based systems that can be accessed by all people who are connected to the internet.

The new system allows registration of different people these include the members of parliament (legislators). The parliament, staff, casual users (the public) and the administrator. All these categories of people have different privileges to the system and each has an account with the system that obtains their usernames and passwords.

After logging in to the system, there system users can access the system in full; they can add member, delete members, delete groups, delete posts and approving them before they are published and then uploading the books to the library and removing them.

The system administrator is in charge of controlling the system by adding groups, and member, delete members, delete groups, delete posts and approving them before they are published and then uploading the books to the library and removing them.

The recommended system thus serves to solve most of the weaknesses of the current systems since it guarantees security, interactions and is cheap in terms of costs.

The table below shows areas that people proposed to be improved or enhanced

Table 2: Table showing the main areas of the system

Major aim of the system	Current system	New system
Decision making	Top management make most decision on behalf of the people without reliable information/consultation	Discussion forum will enable collaborative decision making Chat rooms can also be a good way to enhance communication and decision making.
Information handling	Most information is kept in hard copies for example reports that are accessed by only a few people and the parliament library is limited to staff and Mps Little information is delivered from constituencies to the MPs and parliament.	People can access information at any time from the community People can provide information from their constituencies from anywhere at any time. Reports and publications can be uploaded on the community and downloaded by members.

Based on the findings from the system study (represented in table 3), The researcher was able to sample 32 people of which 15 were citizens, 5 members of parliament, 5 Uganda parliament officials, ICT office people and 5 public relations officers. I present our deductions in the b chart below (figure one).

Table 3: illustrates number of MPs, citizens, PRO officers, Library offices and ICT officers' opinions about the problems and recommendation from the old system to the new system

Statistics of problem existence and recommendation to a new system in (%)	MPs	Citizens	Library officers	PRO officers	ICT officers
Agreed on Decision making, interaction, information handling and user friendliness	70	50	60	80	50
Disagreed on Decision making, interaction, user friendliness information handling	20	30	20	20	30
Didn't know on Decision making, interaction, user friendliness and information handling	10	20	20	0	20
Total	100	100	100	100	100

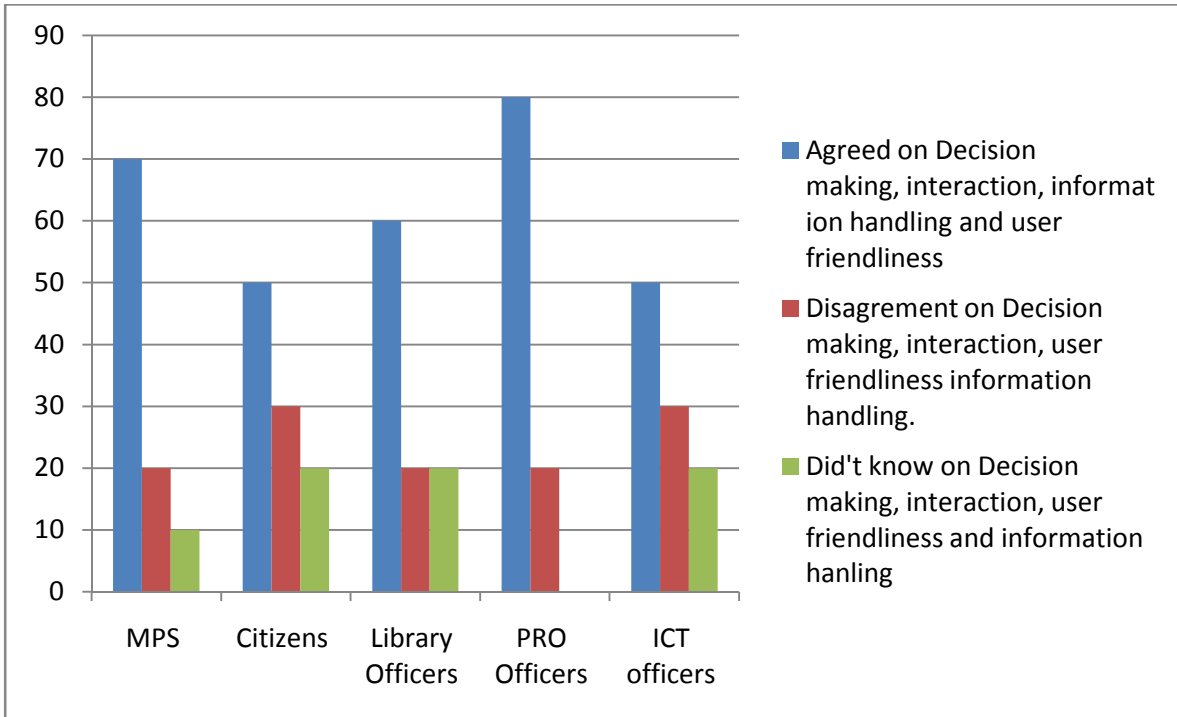


Figure 2: Showing statistics of MPs. Citizens, library officers, PRO officers and ICT officer about the existing system problem and recommendation

In order to document all the end user requirements for the system, data collected was analyzed using structured analysis approach in order to rigorously specify the processes. This section includes the requirements of the new system that are categorized into user requirements and system requirements. Under user requirements I categorized the under functional and non-functional requirements of the system.

4.4 Requirements for the proposed system

4.4.1 User Requirements

These are the requirements users expect the system to perform upon its implementation and completion.

a) Citizens

- The system should allow users register and get accounts with the system.
- The application must allow users to chat
- The system should allow users access documents like reports, magazines and download them.
- The system should allow users to discuss by commenting and posting in the community.
- The system provides a mechanism to avoid/prevent errors.

b) MPs

- The system should allow MPs to get accounts by use of the administrator.
- The system should allow MPs to chat with each other without any difficulty.
- The system should allow MPs access documents and download them.
- The system should allow MPs to participate in the discussion forum by commenting on people's posts.

c) Administrator

- The system should allow the administration to open accounts for MPs.
- It should allow the administrator to approve and disapprove posts.
- The system should allow MPs to participate in the discussion forum by commenting on people's posts.

4.4.2 Functional Requirements

These requirements define what a system is supposed to do and show specific behaviors or functions of the final system.

The following functional requirements are identified for the proposed system.

- The system should allow storage of user information and account information.
- The application should provide a mechanism for authentication and validation through the use of passwords and user names.
- The application should display the created events and groups to other users.
- The system should allow all the officials to view all the discussions.

- It allows the system administrator to approve and disapprove people's posts.
- The system admin posts and deletes those posts which may not be appropriate for the community.

Non-functional requirements

These capture the properties of the current developed systems like security, performance among others. This looks at some behavior aspects that are accomplished by the system and they include.

- The system is reliable where by anytime data is sent it is received as sent without any errors.
- The system is fault tolerance thus avoiding simple input errors to disrupt it.
- The system is portable such that runs on the different hardware platforms and can operate on the different environments.
- The system is user friendly, easy to learn and use by all computer literate people.
- The application performance has to be efficient and effective in its context of how fast it is as many people are involved in the interaction.

Other Requirements

These are mainly Hardware, software and security implementations are expected to be in place to enable high performance and availability of this system.

Hardware requirements for the system.

Table 4: shows the hardware requirements that are used to develop the system

Hardware	Minimum requirements	Reason
Processor	Speed of at least 1.8 GHz	Affordable
Random Access Memory	2GB	Faster performance and enough memory to allow execution of queries.
Hard disk space	50GB	Relative storage capacity
Display (Monitors, printers etc)		Clear visibility

Table showing the software requirements that were used to develop the Uganda parliament online community

Table 5: Software Requirements

Software requirements	Minimum system requirements	Reasons
Operating systems	Microsoft window 7 and higher versions	Relatively affordable and available
Microsoft office	Microsoft office Visio 2007	For drawing diagrams and documentation
Microsoft office	Microsoft office (Microsoft excel) 2007	Data analysis
Database	MYSQL	Less costly
web server	Xamp with specifically MySQL	Less costly
Browser	Mozilla/opera/ Google chrome	Used in validation

4.4.3 Security Requirements

The system security model designed should restrict access to system resources and only grant access to authorized users with specified privileges accordingly i.e by implementing different user account privileges.

CHAPTER FIVE

SYSTEM DESIGN

5.0 Introduction

This chapter is about the system design, the researcher presents the designs for the proposed system.

Context Diagram

Figure 3 below illustrates the context diagram which describe the interactions between the Uganda parliament online information sharing community and its external entities namely; Administrator, Members of parliament and the citizens of Uganda. It shows how the information flows to and from the entities to the system and vice versa.

5.1 Context Diagram for Online Uganda Parliament Information Sharing

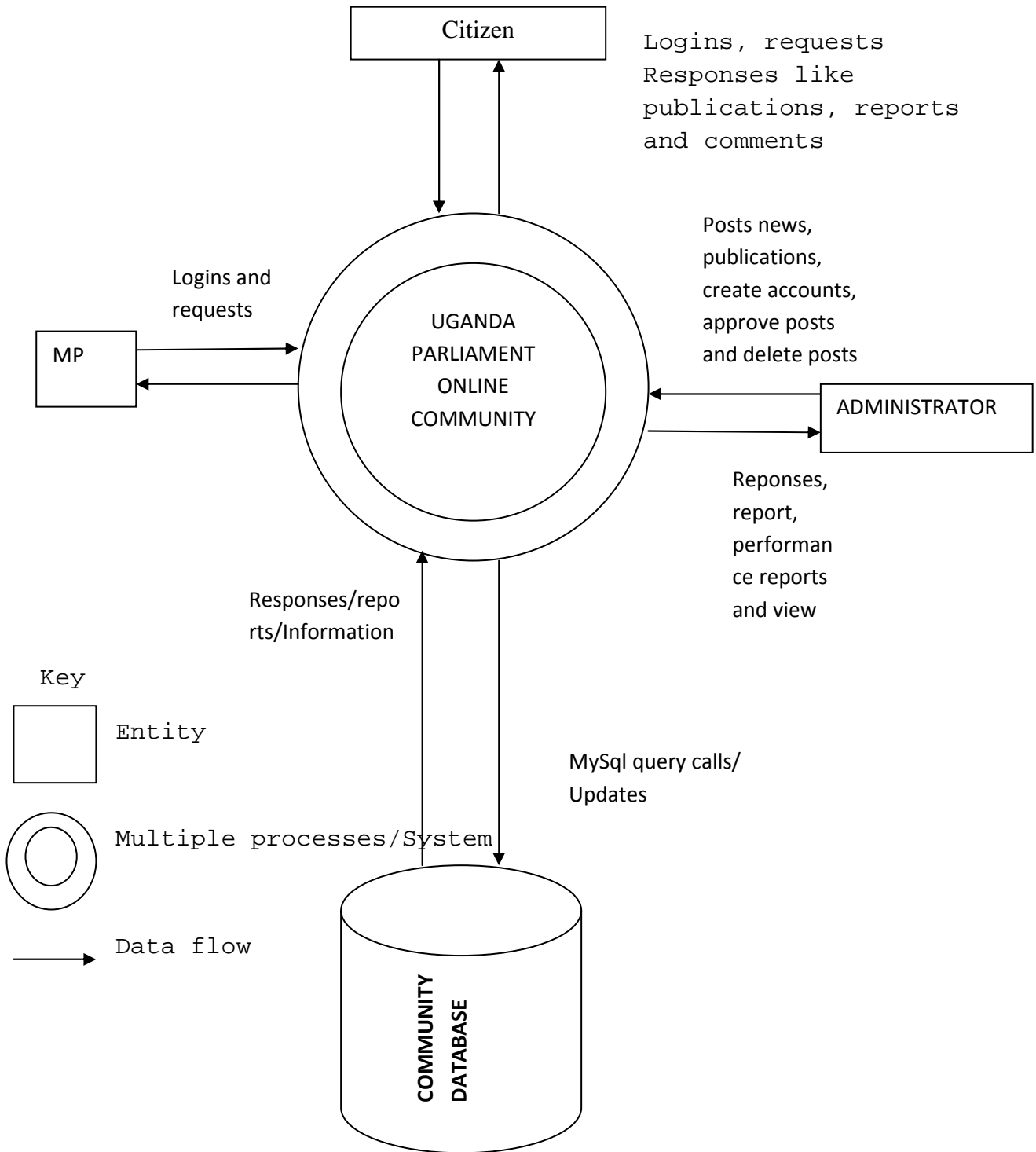
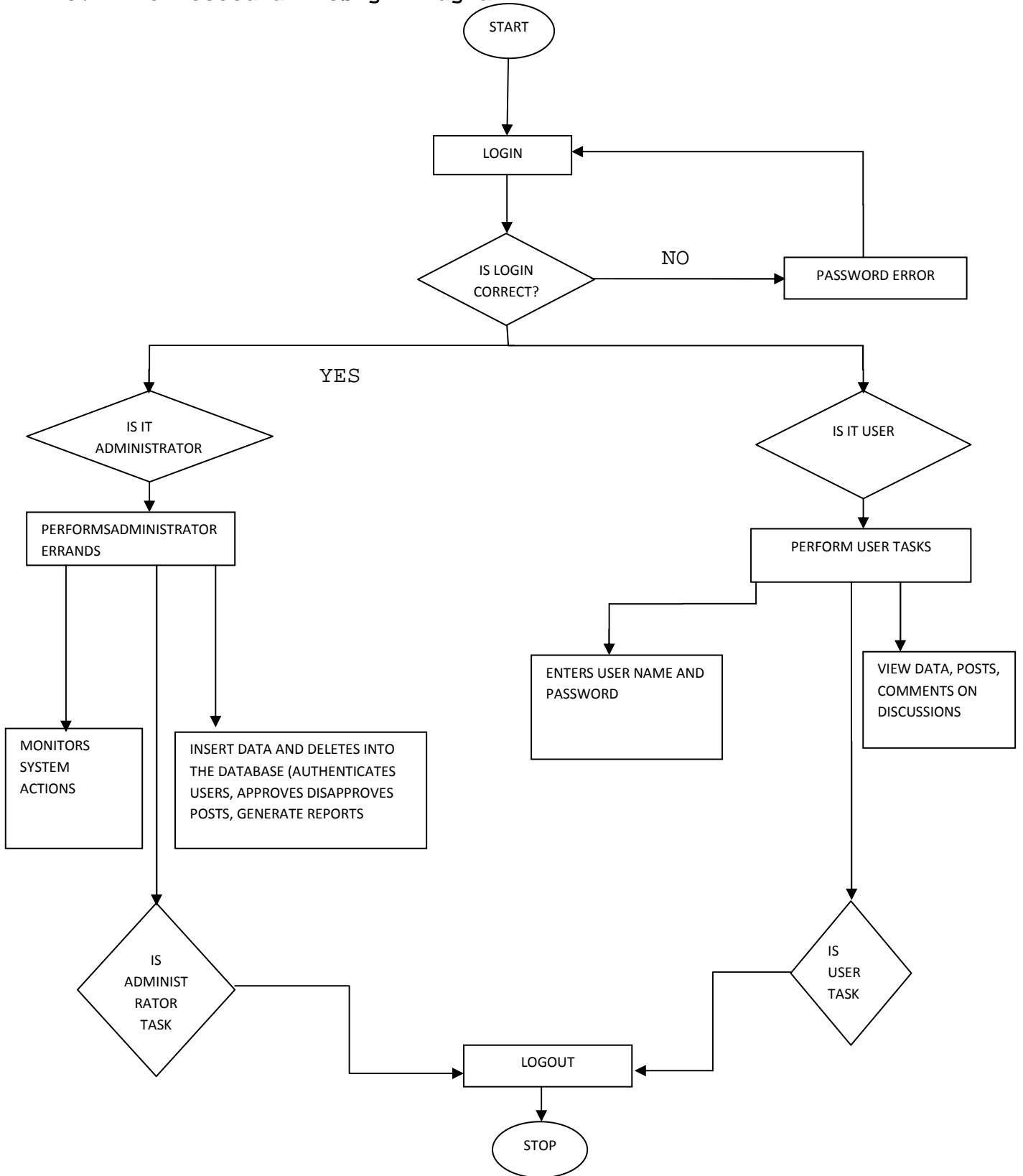


Figure 3: Context Diagram for Online Uganda Parliament Information Sharing

5.2 Architectural Design Diagram



5.3 The use case diagram for the parliamentary online information sharing community system

Figure 4 below is the use case diagram, which clearly illustrates the processes involved in the system and their details. The diagram shows that the system administrator has the privileges of authenticating the system users and can also log into the system within the system, posts and deletes posts, approves and disapproves posts. In the figure, the users can register, post, log in view news, view publications in the online library, comment on posts, events.

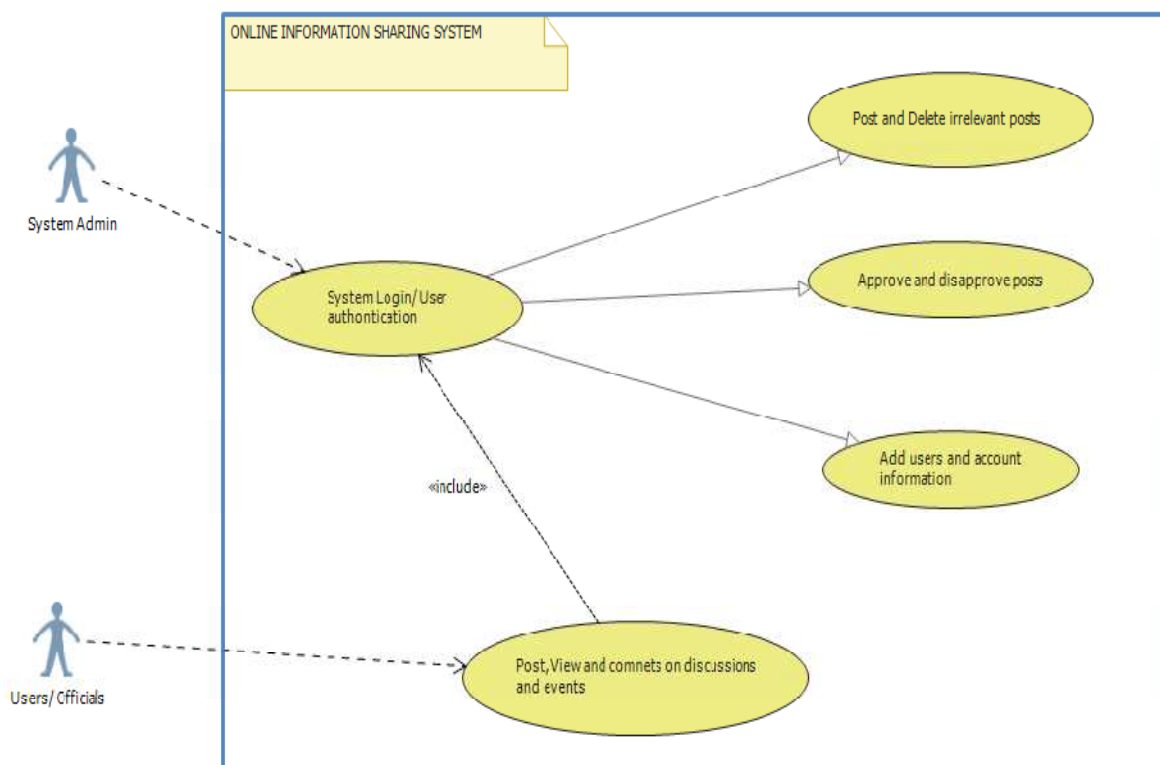


Figure 4: The use case diagram for the parliamentary online information sharing community system

5.4 Structural and Behavioral Designs of the Interfaces of the Proposed Application

5.4.1 Structure of the Login page

HOME	ABOUT	CONTACT	LOGIN
------	-------	---------	-------

SLIDING IMAGES

ONLINE INFORMATION SHARING

Use local account to login	
SYSTEM LOGIN	
USERNAME	<input type="text"/>
PASSWORD	<input type="password"/>
	<input type="button" value="LOGIN"/>

About System Login

- Provide a correct username and password to login to the system
- If you forgot your password contact the systems admin for help
- System is highly monitored for all the active uses

**** Wish you the best... ***

Login Page

This login page interface, the user will enter the username and password and then click on the login button to start the application, if the user enters a correct name, password and logs in, they will get authorization to the system, however with the wrong password or username, the users will not be

granted access not the system. It will display Invalid username or password and try again.

5.4.2 Structure of the Error Page

HOME	ABOUT	CONTACT	LOGIN
-------------	--------------	----------------	--------------

Sliding images

ONLINE INFORMATION SHARING

Use a Local account to Log in	
System Log In	
User Name:	<input type="text"/>
Password:	<input type="password"/>
<input type="button" value="LOGIN"/>	
invalid UserName or Password!!!!	

About System Login

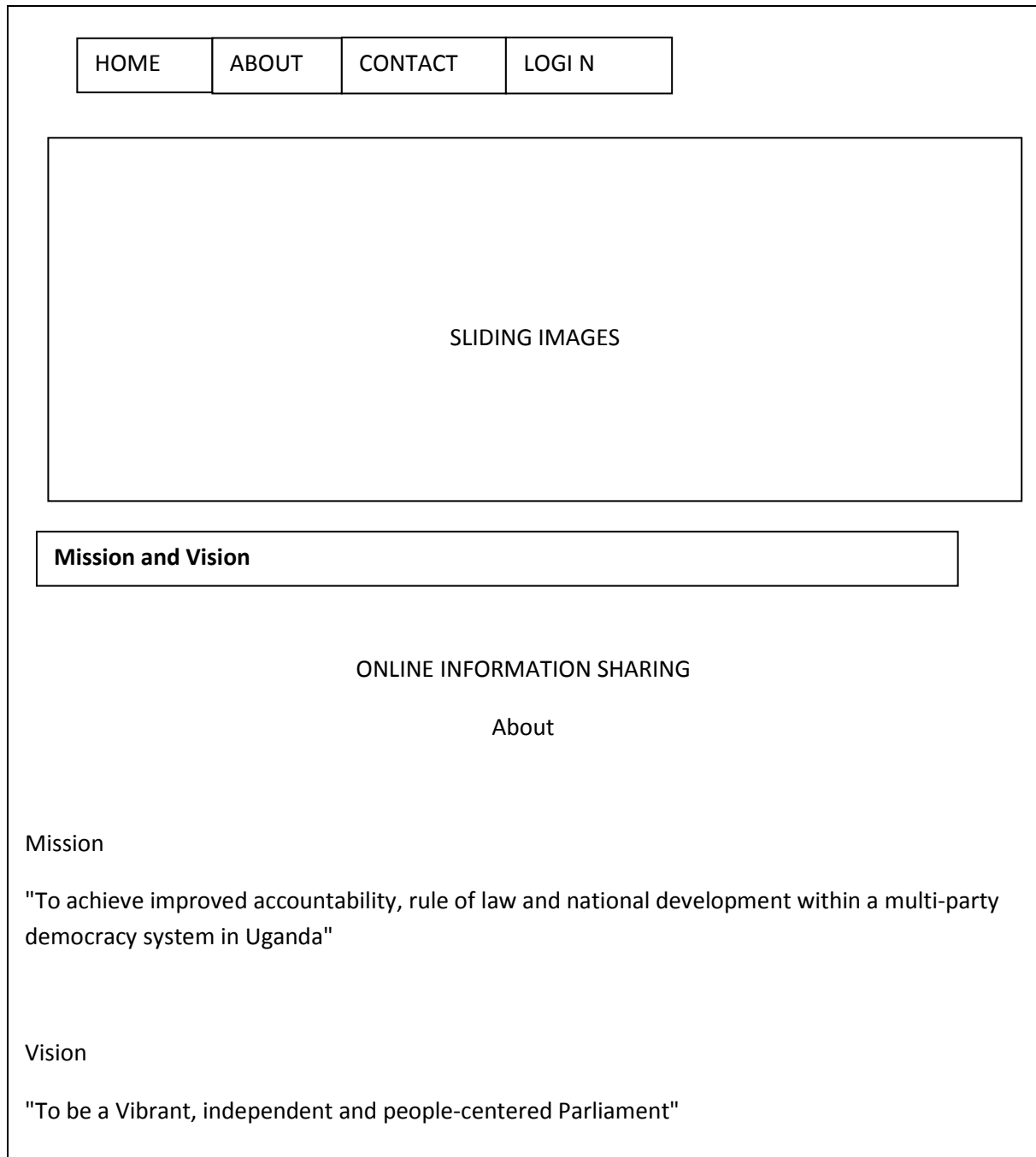
- Provide a correct userName and password to login to the system
- If you forgot your password contact the systems admin for help
- Syetm is highly monitored for all the active uses

**** Wish you the best... ****

Error Page

This interface will show If the user is not granted access to the system because of putting the wrong username or password, so they will not have authorization.

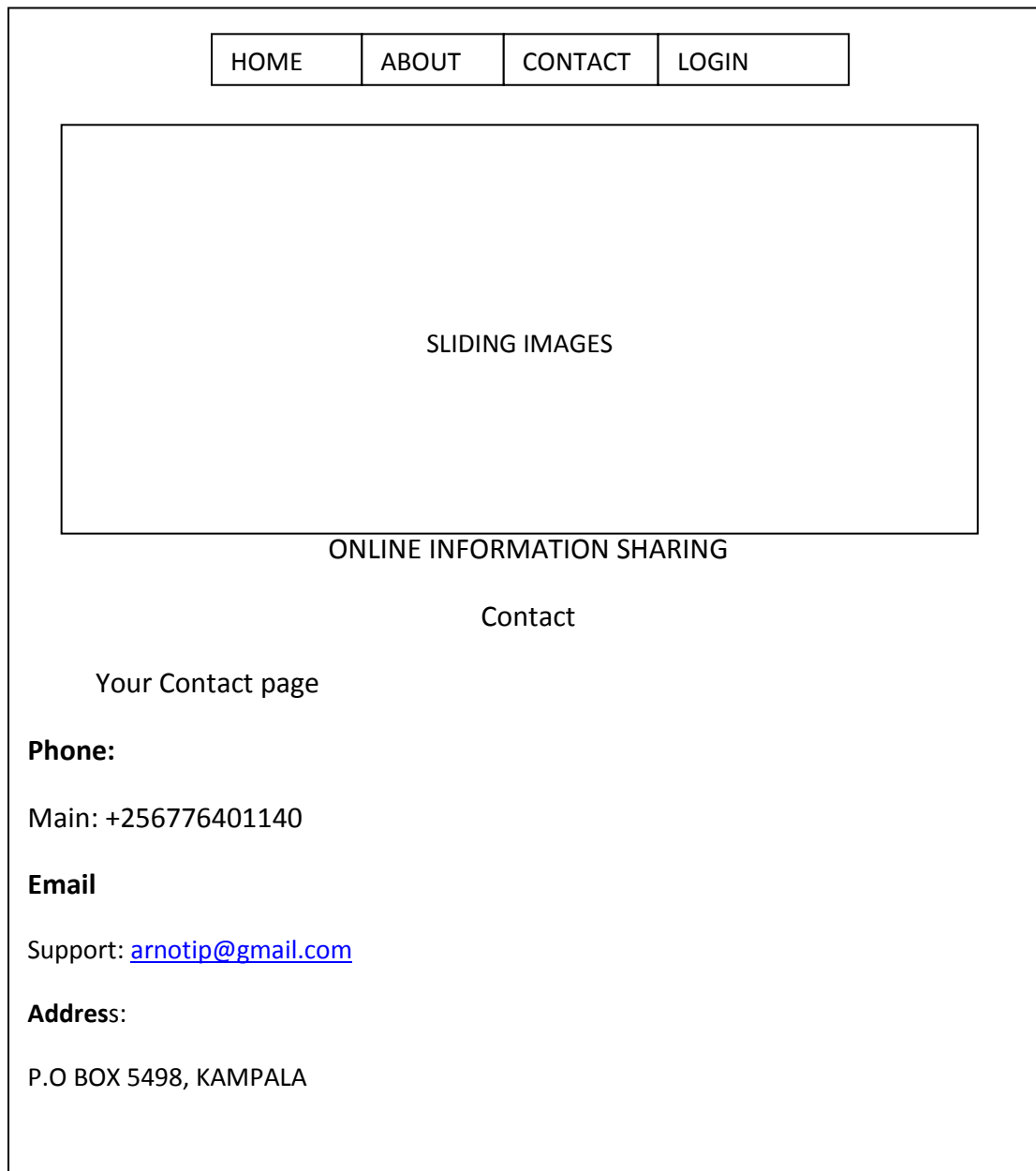
5.4.3 Structure of the about page



About us page

This interface will allow the user to view the Parliament information such as the mission and vision. This interface will also provide links to other pages.

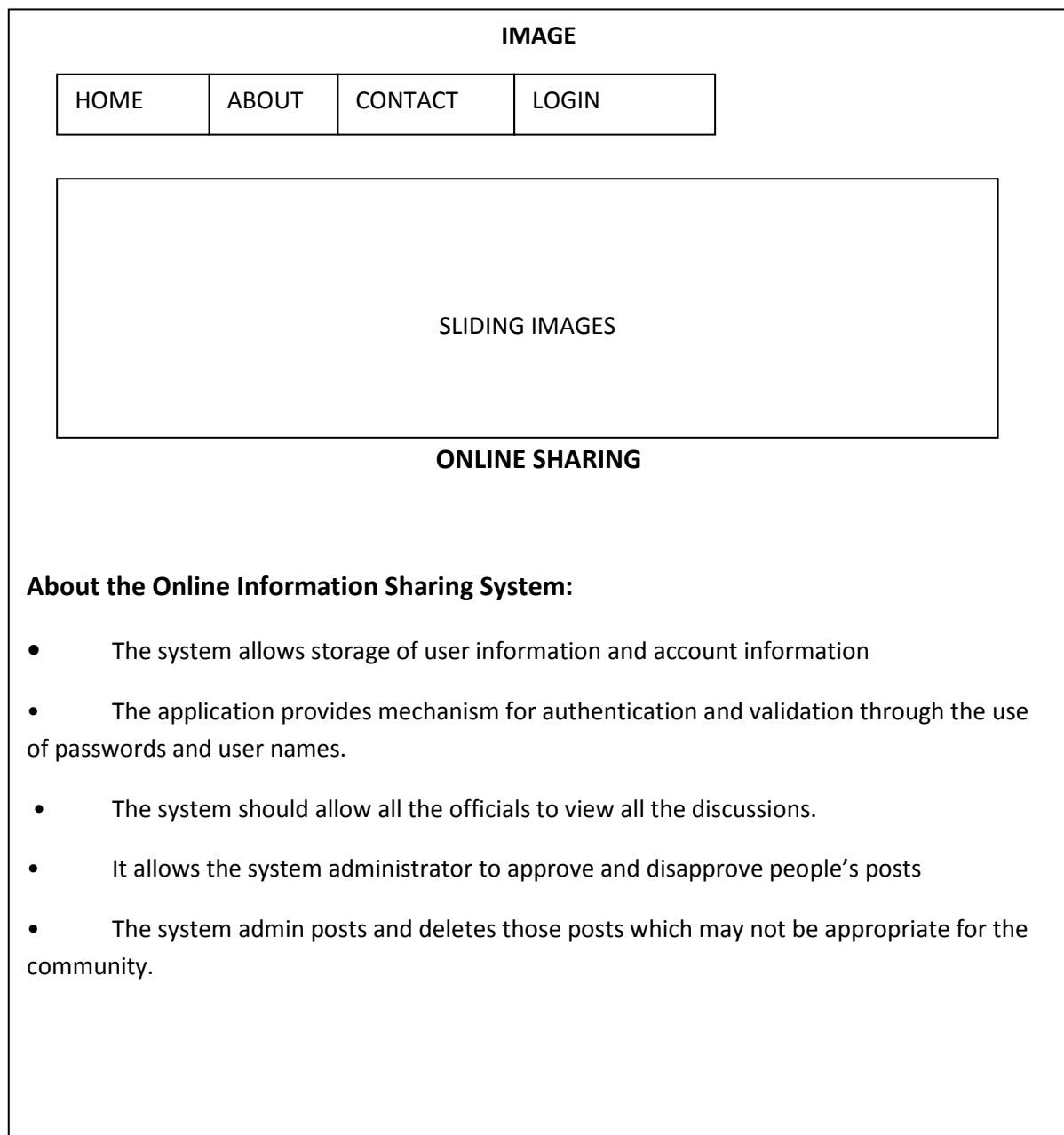
5.4.4 Structure of the contact page



Contact Us page

This interface will enable the users to view the contact details such as the postal address, the mobile contact and the email address.

5.4.5 Structure of the home page



Homepage

On this front end interface, the users will view different sliding images of the parliament online sharing system and also access other links on this page such as About, contact, Login and also brief information about the system.

5.4.6 Structure of the Administrator Homepage

IMAGE																																																																																					
ONLINE INFORMATION SHARING SYSTEM																																																																																					
System Admin's Management Center																																																																																					
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 5px;">System Admin</td> </tr> <tr> <td style="padding: 5px;">System Mgt</td> </tr> <tr> <td style="padding: 5px;">Member Biodata</td> </tr> <tr> <td style="padding: 5px;">Account Info</td> </tr> <tr> <td style="padding: 5px;">Comments Mgt</td> </tr> <tr> <td style="padding: 5px;">Publicaton & News</td> </tr> </table>	System Admin	System Mgt	Member Biodata	Account Info	Comments Mgt	Publicaton & News	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="8" style="text-align: center;">Header</td> </tr> <tr> <td colspan="8" style="text-align: center;">Members Biodata</td> </tr> <tr> <td style="text-align: center;">Manage</td> <td style="text-align: center;">User code</td> <td style="text-align: center;">First name</td> <td style="text-align: center;">Second Name</td> <td style="text-align: center;">Position</td> <td style="text-align: center;">Date of Birth</td> <td colspan="2" style="text-align: center;">Marital Status</td> </tr> <tr> <td></td> <td style="text-align: center;"><input type="text"/></td> <td style="text-align: center;"><input type="text"/></td> <td style="text-align: center;"><input type="text"/></td> <td style="text-align: center;"><input type="text"/></td> <td style="text-align: center;"><input type="text"/></td> <td colspan="2" style="text-align: center;"><input type="text"/></td> </tr> <tr> <td style="text-align: center;">Edit Delete</td> <td style="text-align: center;">1</td> <td style="text-align: center;">Admin</td> <td style="text-align: center;">Admin</td> <td style="text-align: center;">Admin</td> <td style="text-align: center;">02, Feb 1990</td> <td colspan="2" style="text-align: center;">Married</td> </tr> <tr> <td style="text-align: center;">Edit Delete</td> <td style="text-align: center;">2</td> <td style="text-align: center;">Kiwanutuk</td> <td style="text-align: center;">Eric</td> <td style="text-align: center;">M.p</td> <td style="text-align: center;">02Mar 1990</td> <td colspan="2" style="text-align: center;">Married</td> </tr> <tr> <td style="text-align: center;">Edit Delete</td> <td style="text-align: center;">3</td> <td style="text-align: center;">Namutehi</td> <td style="text-align: center;">Mary</td> <td style="text-align: center;">M.p</td> <td style="text-align: center;">04APR 1990</td> <td colspan="2" style="text-align: center;">Married</td> </tr> <tr> <td style="text-align: center;">Edit Delete</td> <td style="text-align: center;">4</td> <td style="text-align: center;">kanye</td> <td style="text-align: center;">Arno</td> <td style="text-align: center;">M.p</td> <td style="text-align: center;">05Jun 1988</td> <td colspan="2" style="text-align: center;">Married</td> </tr> <tr> <td colspan="8" style="height: 20px;"></td> </tr> </table>							Header								Members Biodata								Manage	User code	First name	Second Name	Position	Date of Birth	Marital Status			<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>		Edit Delete	1	Admin	Admin	Admin	02, Feb 1990	Married		Edit Delete	2	Kiwanutuk	Eric	M.p	02Mar 1990	Married		Edit Delete	3	Namutehi	Mary	M.p	04APR 1990	Married		Edit Delete	4	kanye	Arno	M.p	05Jun 1988	Married									
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Edit Delete	4	kanye	Arno	M.p	05Jun 1988	Married																																																																															

Administrator Homepage

This interface will enable the administrator to view the current status, such as members that have been registered and can manage the system through editing of member biodata, managing user accounts by authenticating users, managing comments, publication and news.

5.5 Database Design

5.5.1 Logical Design

Name of the data base: onlinsharing

Tables in the database

1. Biodata

2. Users

3. Comment

4. Publication

5. News

5.5.2 Table structures

Table 6: Structure of the biodata table

Field Name	Data Type	NULL	Key	Extra
Id	Int (10)	Not null	Primary key	Auto-increment
fName	Varchar(100)	Not null		
sName	Varchar (100)	Not null		
Position	Varchar (100)	Not null		
Date_of_Birth	Date ()	Not null		
Maritalstatus	Varchar (45)	Not null		
Email	Varchar (100)			
Contact	Varchar (100)	Not null		
SeatNo	Varchar (100)			
Photo	BLOB			
regDate	TimeStamp	Not null		

Users table

Table 7: Structure of the Users table

Field Name	Data Type	NULL	Key	Extra
Id	Int (10)	Not null	Primary key	Auto-increment
username	Varcha(200)	Not null		
Password	Varchar(200)	Not null		
staffCode	Int (10)	Not null		
Role	Varchar (50)	Not null		
Status_	Int (10)	Not null		
Online	BIT (1)	Not null		

Table 8: Structure of the publication table

Field Name	Data Type	NULL	Key	Extra
Id	Int (10)	Not null	Primary key	Auto-increment
Details	Mediumtext()	Not null		
TargetRoll	Varchar (45)	Not null		
Path	Varchar(100)	Not null		
PostDate	Date ()	Not null		
Email	Varchar (50)	Not null		
PostedBy	Int (10)	Not null		
Status_	Int (10)	Not null		

Table 9: Structure of the news table

Field Name	Data Type	NULL	Key	Extra
Id	Int (10)	Not null	Primary key	Auto-increment
Details	longText ()	Not null		
PostDate	Date ()	Not null		
PostedBy	Int (10)	Not null		
TargetGroup	Varchar (45)	Not null		
Status_	Int (10)	Not null		

Table 10: Structure of the comment table

Field Name	Data Type	NULL	Key	Extra
Id	Int (10)	Not null	Primary key	Auto-increment
newsID	Int (10)	Not null		
Details	Text	Not null		
PostDate	Timestamp ()	Not null		
PostedBy	Int (10)	Not null		
Status_	Int (10)	Not null		

Entity Relationship Diagram

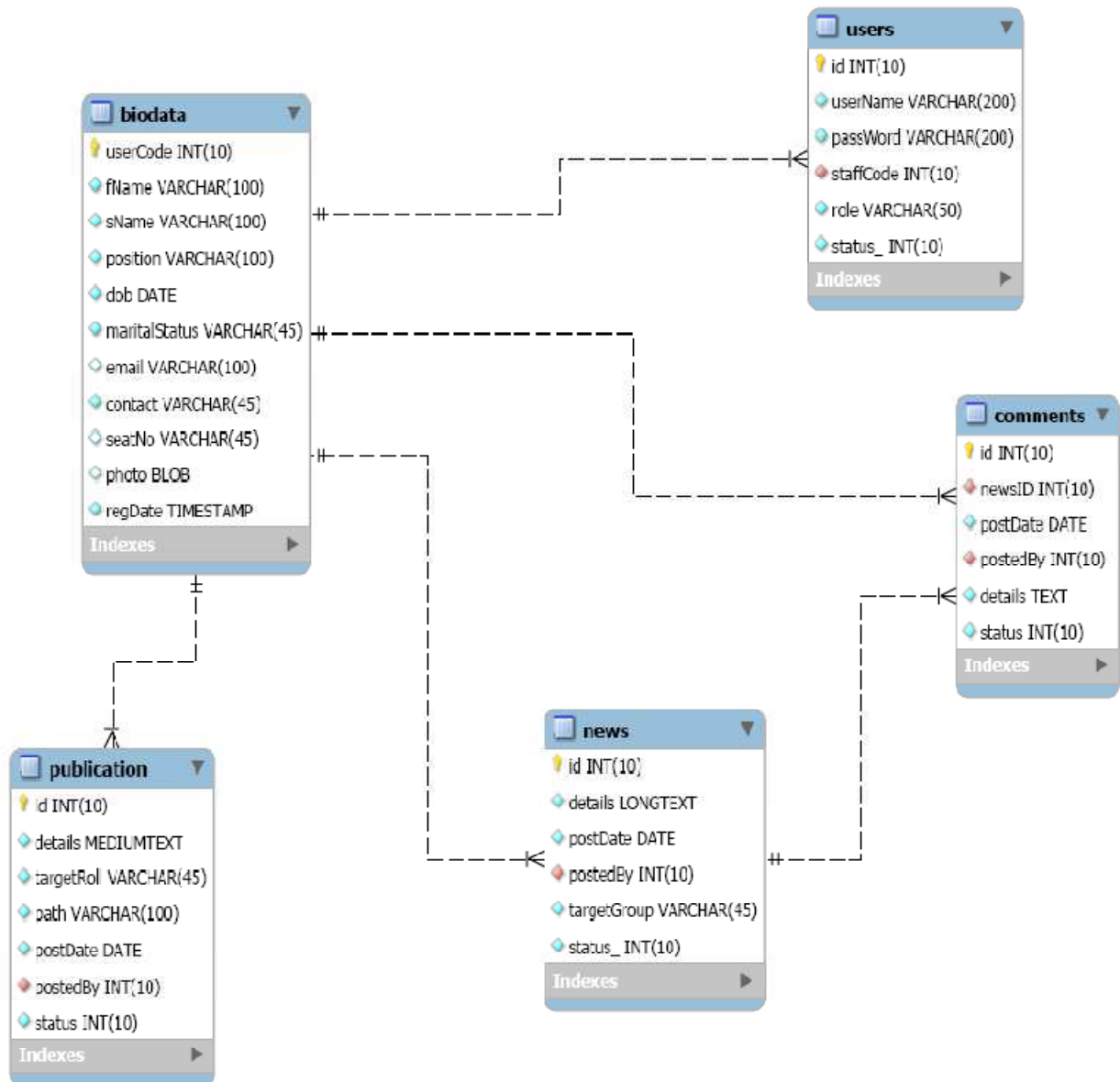


Figure 5: Entity Relationship Diagram

5.5.3 Physical Design

Create Database: 'onlinsharing';

Use onlinsharing;

```
CREATE TABLE 'biodata' ('Id' Int (10) Not null Primary key
Auto increment, 'fName' Varchar (100) Not null, 'sName' Varchar
(100) Not null, 'Position' Varchar (100) Not null,
'Date_of_Birth' Date () Not null, 'Maritalstatus' Varchar (45)
Not null, 'Email' Varchar (100), 'Contact' Varchar (100) Not
null, SeatNo Varchar (100), 'Photo' BLOB, 'regDate' TimeStamp
Not null) ;
```

```
CREATE TABLE 'Users' ('Id' Int (10) Not null Primary key Auto
increment, username Varchar (200) Not null, 'Password' Varchar
(200) Not null, 'staffCode' Int (10) Not null, 'Role' Varchar
(50) Not null, ' Status_' Int (10) Not null, 'Online' BIT (1)
Not null);
```

```
CREATE TABLE 'publication' ('Id' Int (10) Not null Primary key
Auto increment, ' Details' Mediumtext () Not null, 'TargetRoll'
Varchar (45) Not null, 'Path' Varchar (100) Not null,
'PostDate' Date () Not null, 'Email' Varchar (50) Not null,
'PostedBy' Int (10) Not null, 'Status_' Int (10) Not null);
```

```
CREATE TABLE `news` (`Id` Int (10) Not null Primary key Auto
increment, `Details` longText () Not null, `PostDate` Date ()
Not null, `PostedBy` Int (10) Not null, `TargetGroup` Varchar
(45) Not null, `Status_` Int (10) Not null);
```

```
CREATE TABLE `comment` (`Id` Int (10) Not null Primary key
Auto increment, `newsID` Int (10) Not null, `Details` Text ()
Not null, `PostDate` Timestamp () Not null, `PostedBy` Int (10)
Not null, `Status_` Int (10) Not null)
```

CHAPTER SIX

IMPLEMENTATION

6.0 Introduction

This chapter presents the implementation phase of the proposed system. It presents the different categories of technologies used during the implementation of this project, the screen shots of the implemented system and the testing results.

6.1 Technologies used during the implementation

Several technologies were used in the implementation phase. Technologies were selected basing on the need, availability, cost and more importantly support for rapid development.

- i) HTML (Hypertext Markup Language) -The researcher used this language to provide means to describe paragraphs lists and to supplement that text with in interactive forms, embedded images, and other objects. This was mainly to implement the system user interfaces.
- ii) Cascading Style Sheets (CSS) - This style was used to describe the presentation (look and formatting) of the interfaces. It improved content accessibility, provided more flexibility and control in the specification of presentation characteristics, enabled multiple pages to share formatting, and reduced complexity and repetition in the structural content.

iii) Database implementation was achieved using MySQL as a database management system. MySQL was used because of its compatibility with most platforms.

iv) Microsoft visual studio for building asp.net pages and writing the C# code.

6.2 The system user interface implementation

The following are some of the snap shots of the user interfaces which were implemented using the above technologies

HOME PAGE Snap shot



Figure 6: The Homepage interface

This displays brief information about the online information sharing system.

ABOUT PAGE

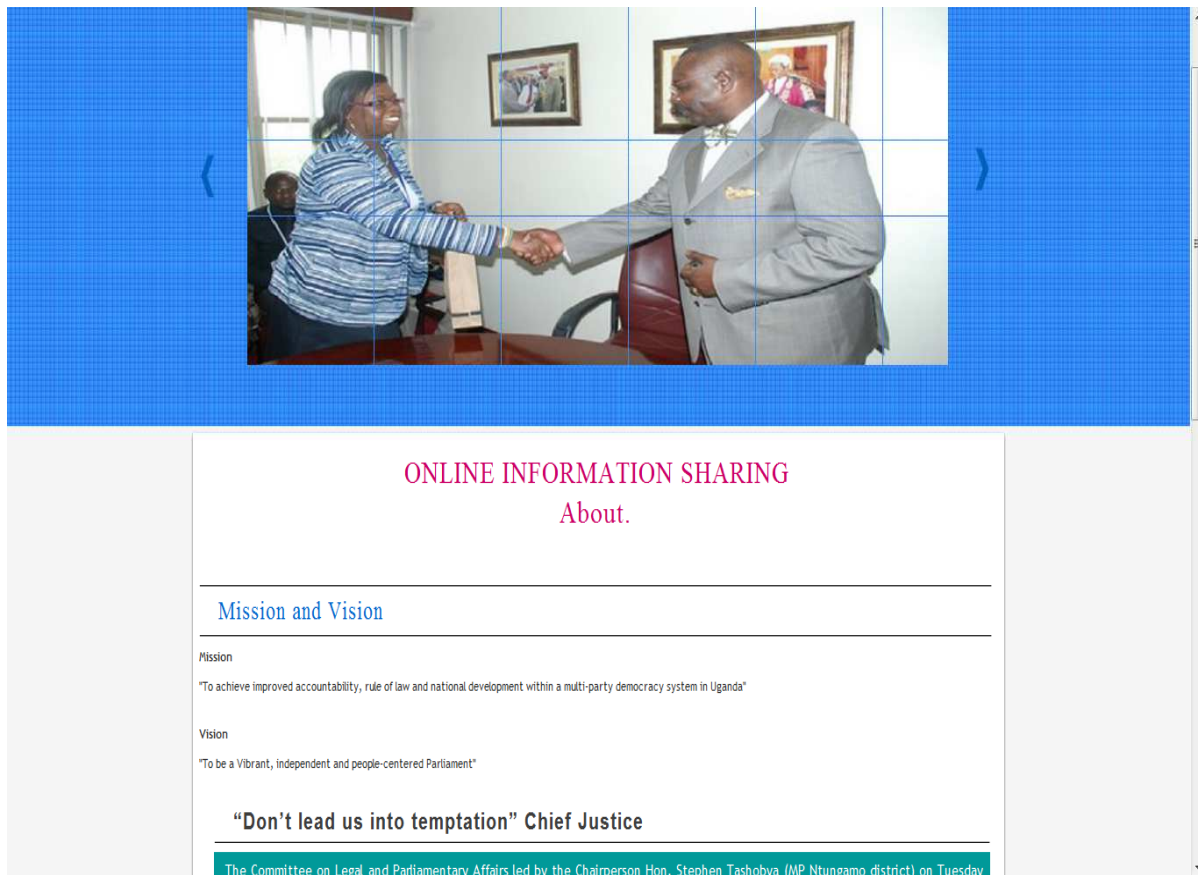


Figure 7: about page interface

This page gives brief knowledge of the mission and vision and vision of the Uganda online parliament information sharing system

CONTACT PAGE

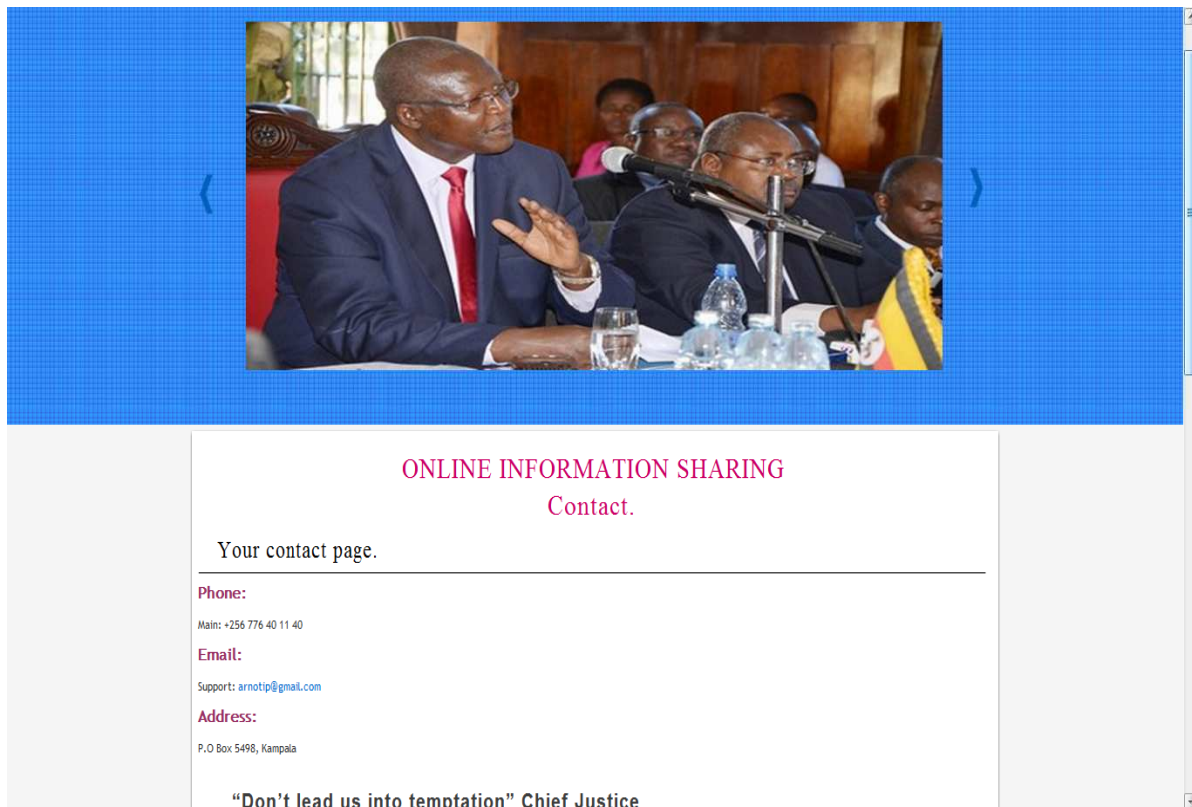


Figure 8: Contact page interface

This interface displays address details and contacts for the Uganda parliament online Sharing system.

ADMIN LOGIN

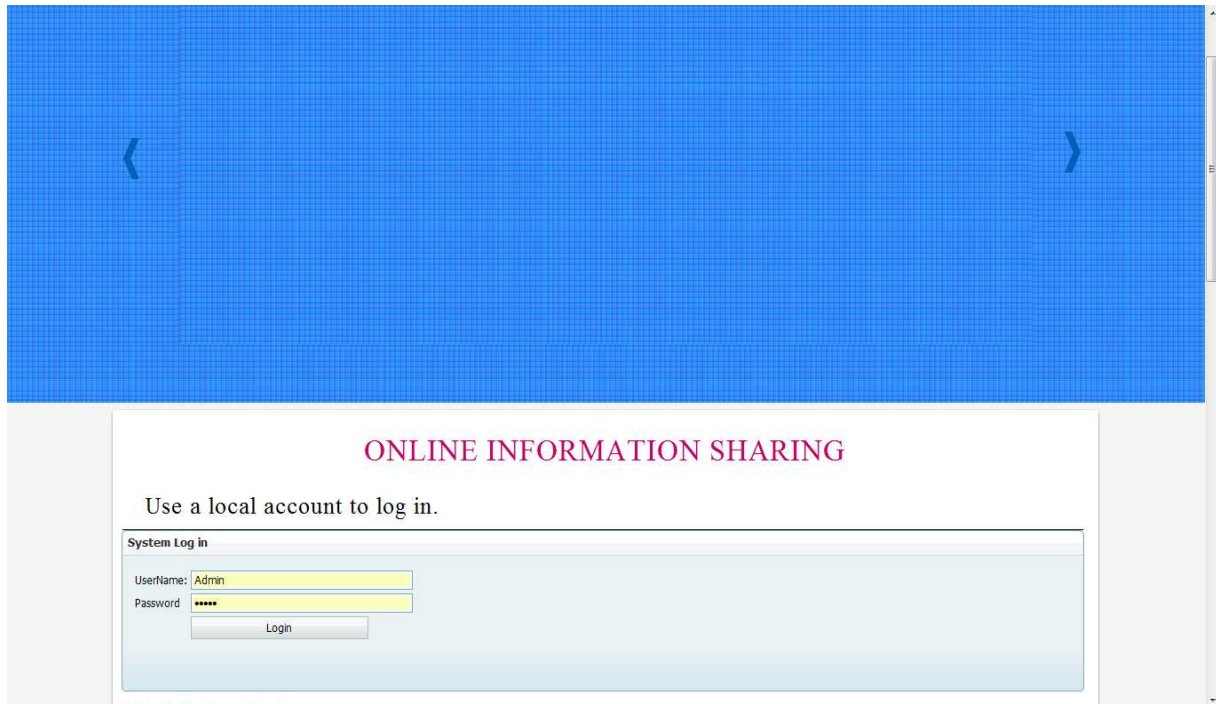


Figure 9: Administrator Page Interface

On this page, users are authenticated, they submit in their user name and password for authorization to access a particular page, if the password is incorrect, it will display invalid username or password and they are requested to try again.

ADMINISTRATOR ERROR PAGE

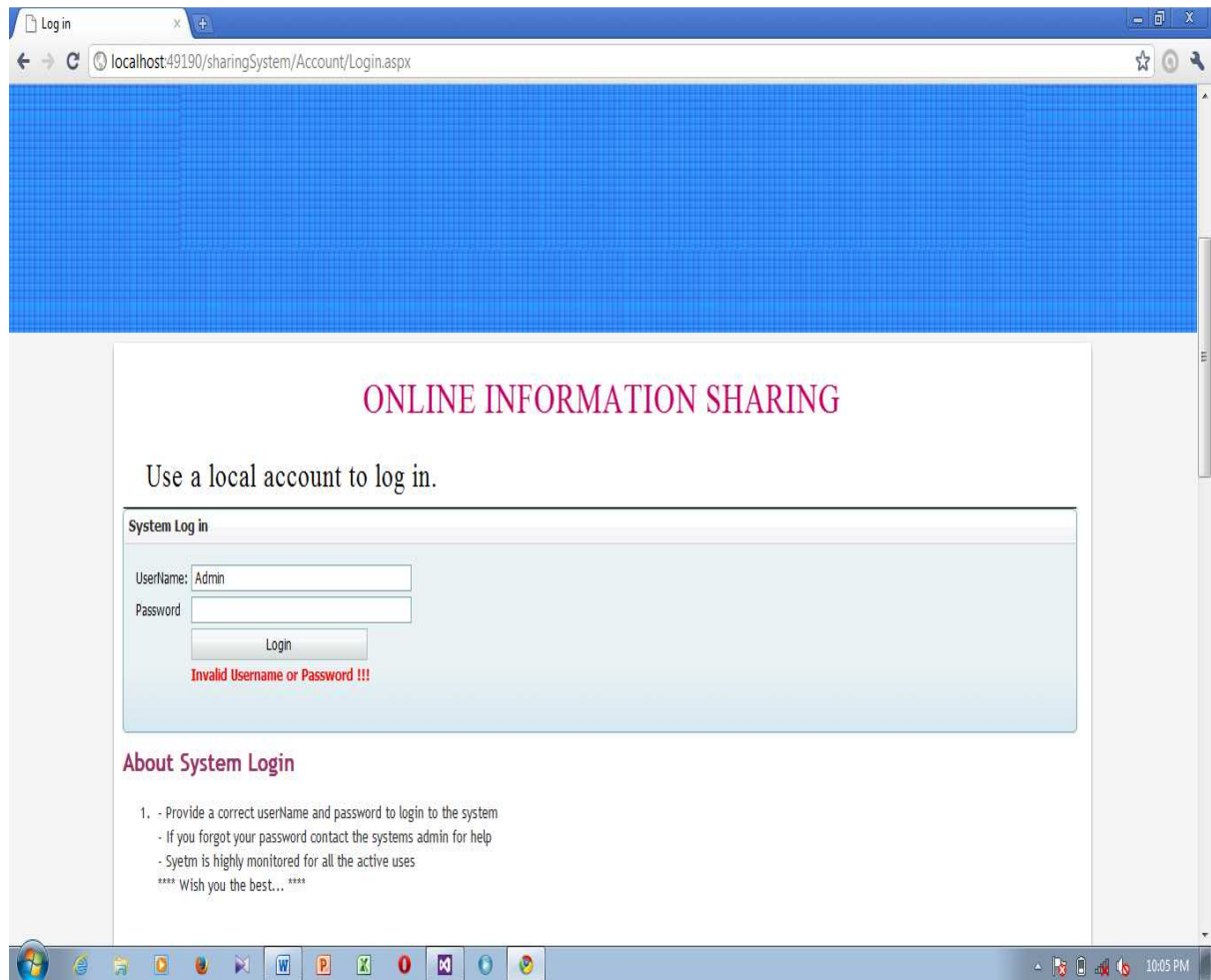


Figure 10: If the administrator logs in successfully, the home page is displayed where he can add member accounts, approve posts, and manage news and publications.

ADMINISTRATOR'S HOMEPAGE

PARLIAMENT OF THE REPUBLIC OF UGANDA

ON-LINE INFORMATION SHARING SYSTEM

Welcome: Admin Date: Wednesday, May 27, 2015 <<Logout

System Admin's Management Center

System Admin
System Mgt
Member Biodata
Account Info
Comments Mgt
Publication & News

Header

Add Member

Members Biodata

Manage	User Code	First Name	Second Name	Position	Date of Birth	Marital Status	Email	Contact	Seat No	Reg
Edit Delete	1	Admin	Admin	Admin	02, Feb 1990	Married	admin@info.com	070225626	32	19,
Edit Delete	2	Kivanuka	Fred	M.P	23, May 1980	Married	fred@gmail.com	070252626	43	19,
Edit Delete	3	Namutebi	Joanita	M.P	26, May 1990	Single	joanita55@yahoo	0702562625	77	18,
Edit Delete	4	kanyesigye	arnold	m.p	31, May 1988	Single	arnotip@gmail.co	0776401140	45	24,

Figure 11: Administrator homepage interface

The system administrators homepage allows him manage accounts by adding members, approving and disapproving posts, registering users, managing comments, publications by uploading content into and updating news to specific target groups.

Member Login Page

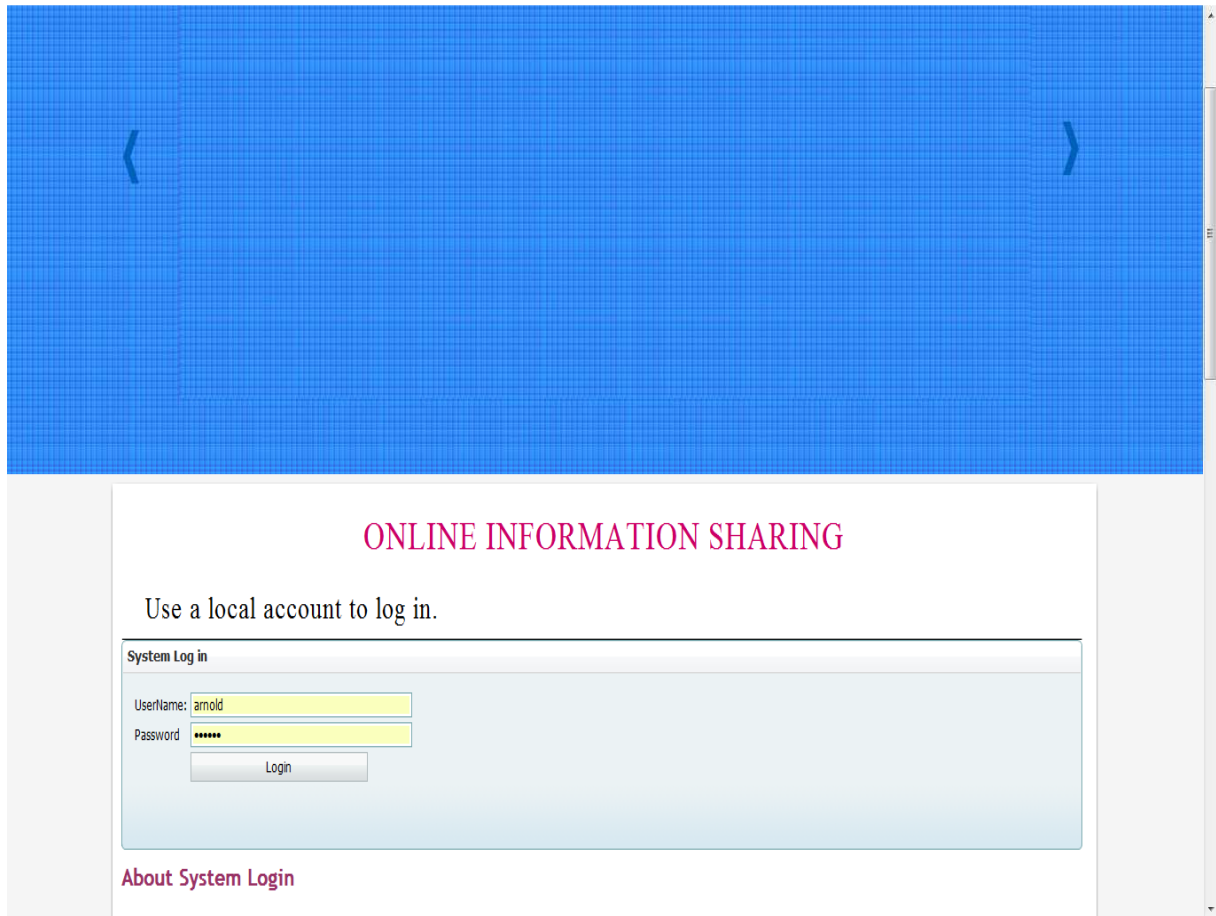


Figure 12: Members Login Interface

It reminds the member to prepare his authentication details

Member Error Page

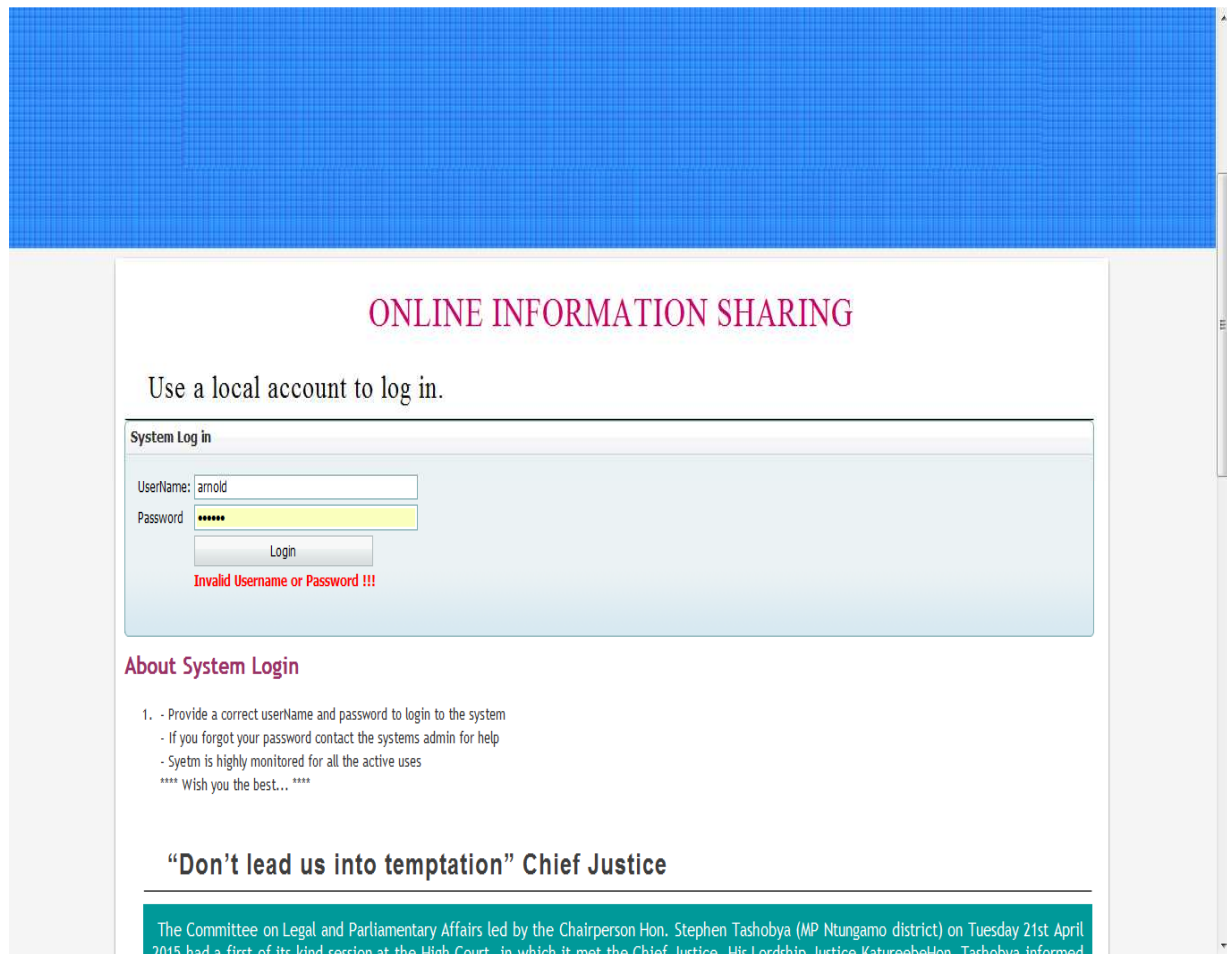


Figure 13: In case the login details are wrong, the system does not validate the user, it rejects the username and password that is not registered and there is a redirection to the registration page or login in again. This is the error page that shows validation/authentication

Members Homepage

PARLIAMENT OF THE REPUBLIC OF UGANDA

ON-LINE INFORMATION SHARING SYSTEM

Welcome: arnold Date: Wednesday, May 27, 2015 <<Logout

Member's Management Center

Accounts Mgt
System Mgt
News & Publications

News Publication Discussions

Posted News

4/19/2015
IUIU
[Back to top](#)

4/19/2015
Ssekamwa Ibra abayita okubeerawo mu meetingi yo kwanjula kwe eKanyogoga – Kawanda leero ku sawa kumi (4:00pm) ewa Mwami Kaweesa ku kalina. 0773318431
Ssekamwa Ibra abayita okubeerawo mu meetingi yo kwanjula kwe eKanyogoga – Kawanda leero ku sawa kumi (4:00pm) ewa Mwami Kaweesa ku kalina. 0773318431
Ssekamwa Ibra abayita okubeerawo mu meetingi yo kwanjula kwe eKanyogoga – Kawanda leero ku sawa kumi (4:00pm) ewa Mwami Kaweesa ku kalina. 0773318431
Ssekamwa Ibra abayita okubeerawo mu meetingi yo kwanjula kwe eKanyogoga – Kawanda leero ku sawa kumi (4:00pm) ewa Mwami Kaweesa ku kalina. 0773318431
Ssekamwa Ibra abayita okubeerawo mu meetingi yo kwanjula kwe eKanyogoga – Kawanda leero ku sawa kumi (4:00pm) ewa Mwami Kaweesa ku kalina. 0773318431
Ssekamwa Ibra abayita okubeerawo mu meetingi yo kwanjula kwe eKanyogoga – Kawanda leero ku sawa kumi (4:00pm) ewa Mwami Kaweesa ku kalina. 0773318431
Ssekamwa Ibra abayita okubeerawo mu meetingi yo kwanjula kwe eKanyogoga – Kawanda leero ku sawa kumi (4:00pm) ewa Mwami Kaweesa ku kalina. 0773318431
[Back to top](#)

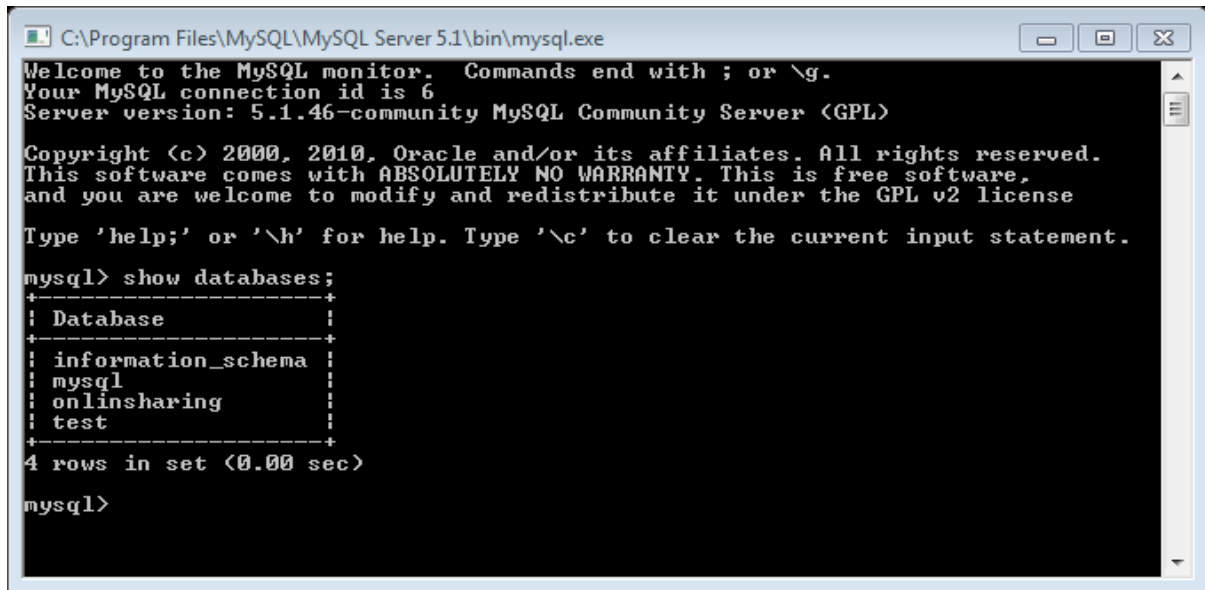
4/20/2015
jhgfhdsf sffys uy yfs fds
[Back to top](#)

Figure 14: the member homepage allows him manage his account by having the privileges of being able to change his password and also system management accessing news, publications and downloads and also be able to post, comment and discuss with authenticated users/members in the system.

6.3 Database Implementation

The database that was used as the central repository for the system was created using MYSQL

The following are snapshots for the database implementation



```
C:\Program Files\MySQL\MySQL Server 5.1\bin\mysql.exe
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 6
Server version: 5.1.46-community MySQL Community Server (GPL)

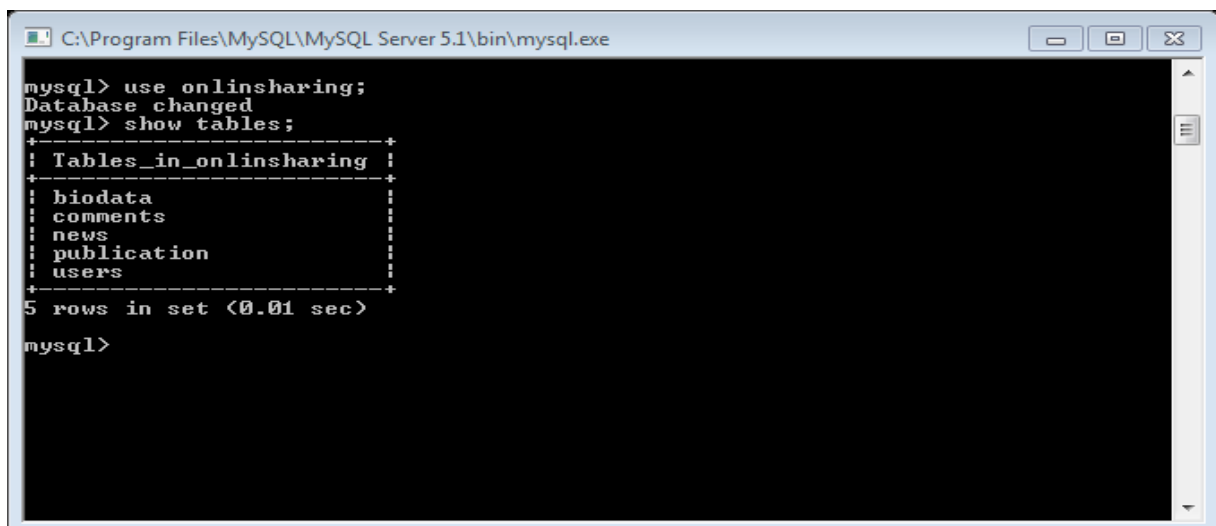
Copyright (c) 2000, 2010, Oracle and/or its affiliates. All rights reserved.
This software comes with ABSOLUTELY NO WARRANTY. This is free software,
and you are welcome to modify and redistribute it under the GPL v2 license

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> show databases;
+-----+
| Database |
+-----+
| information_schema |
| mysql      |
| onlinsharing |
| test      |
+-----+
4 rows in set (0.00 sec)

mysql>
```

Figure 15: Snap shot showing onlinsharing as one of the databases created



```
C:\Program Files\MySQL\MySQL Server 5.1\bin\mysql.exe

mysql> use onlinsharing;
Database changed
mysql> show tables;
+-----+
| Tables_in_onlinsharing |
+-----+
| biodata                |
| comments                |
| news                    |
| publication              |
| users                    |
+-----+
5 rows in set (0.01 sec)

mysql>
```

Figure 16: The snaphot showing tables in onlinsharing database

Description of the Tables

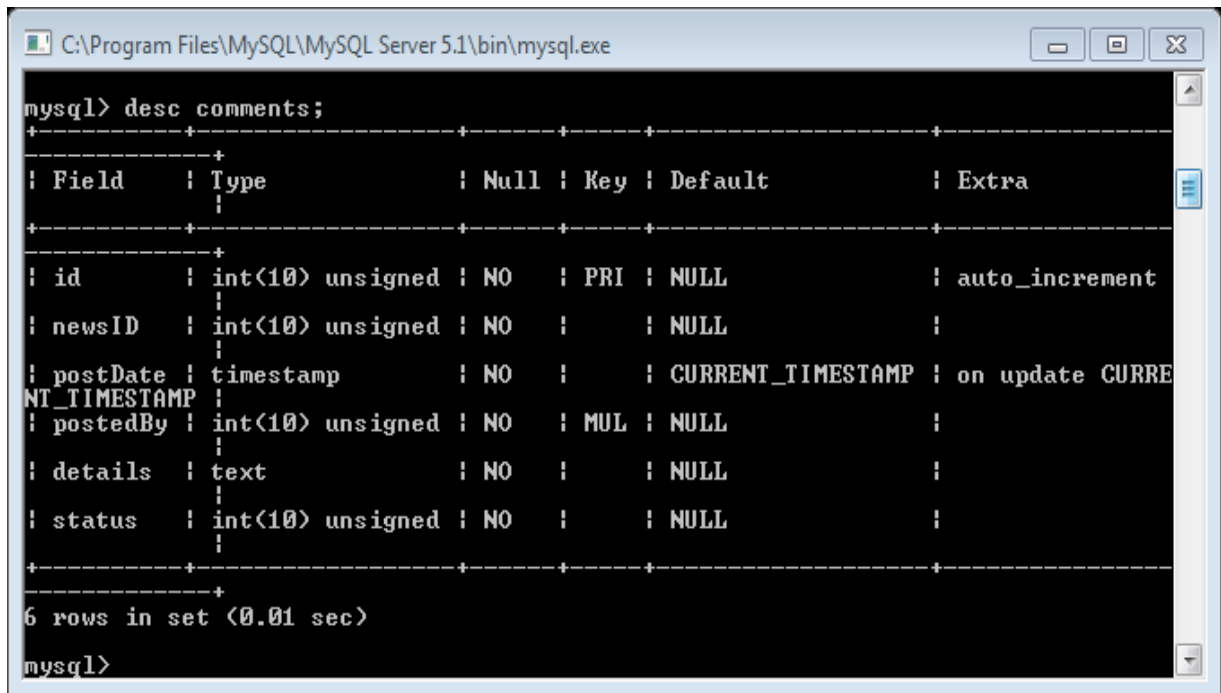
A biodata description

```
mysql> desc biodata;
+-----+-----+-----+-----+-----+-----+
| Field          | Type                | Null | Key | Default        | Extra          |
+-----+-----+-----+-----+-----+-----+
| userCode       | int(10) unsigned    | NO   | PRI | NULL           | auto_increme  
ment          |
| fName         | varchar(100)        | NO   |     | NULL           |               |
| sName         | varchar(100)        | NO   |     | NULL           |               |
| position      | varchar(100)        | NO   |     | NULL           |               |
| dob           | date                | NO   |     | NULL           |               |
| maritalStatus | varchar(45)         | NO   |     | NULL           |               |
| email         | varchar(100)        | YES  |     | NULL           |               |
| contact       | varchar(45)         | NO   |     | NULL           |               |
| seatNo        | varchar(45)         | YES  |     | NULL           |               |
| photo         | blob                | YES  |     | NULL           |               |
| regDate       | timestamp           | NO   |     | CURRENT_TIMESTAMP | on update CURRENT_TIMESTAMP |
+-----+-----+-----+-----+-----+-----+
11 rows in set (0.01 sec)

mysql>
```

Figure 17: The snaphot showing the description of 'biodata' table

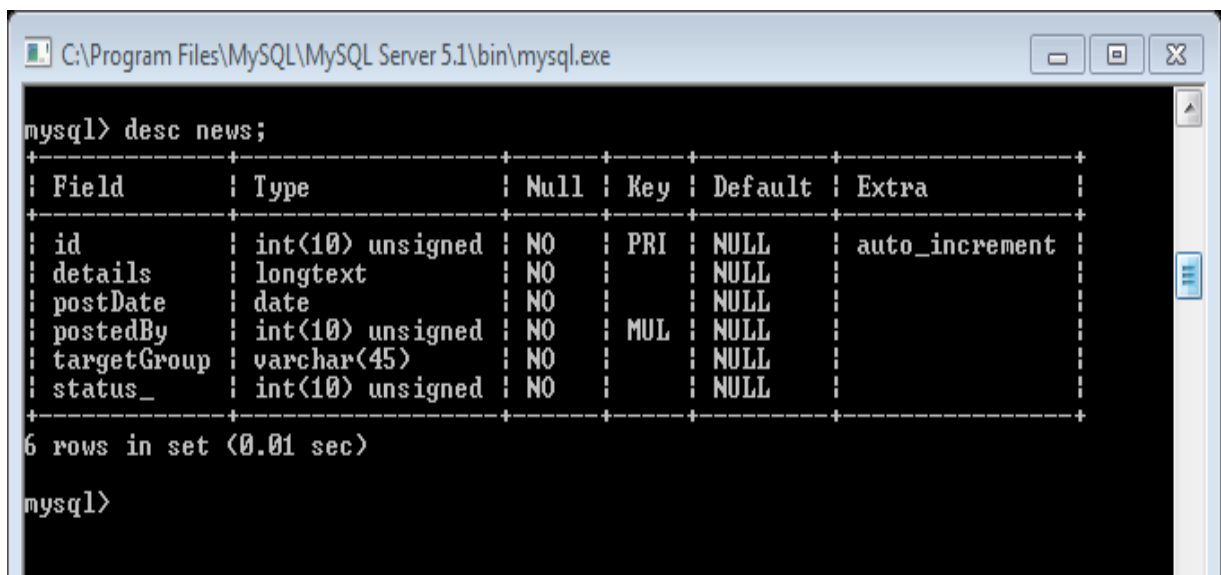
B 'comments' description



```
C:\Program Files\MySQL\MySQL Server 5.1\bin>mysql.exe
mysql> desc comments;
+-----+-----+-----+-----+-----+-----+
| Field | Type          | Null | Key | Default | Extra          |
+-----+-----+-----+-----+-----+-----+
| id    | int(10) unsigned | NO   | PRI | NULL    | auto_increment |
| newsID | int(10) unsigned | NO   |     | NULL    |                |
| postDate | timestamp      | NO   |     | CURRENT_TIMESTAMP | on update CURRENT_TIMESTAMP |
| postedBy | int(10) unsigned | NO   | MUL | NULL    |                |
| details | text           | NO   |     | NULL    |                |
| status | int(10) unsigned | NO   |     | NULL    |                |
+-----+-----+-----+-----+-----+-----+
6 rows in set (0.01 sec)
mysql>
```

Figure 18: The snapshot above is showing description of 'comments' table

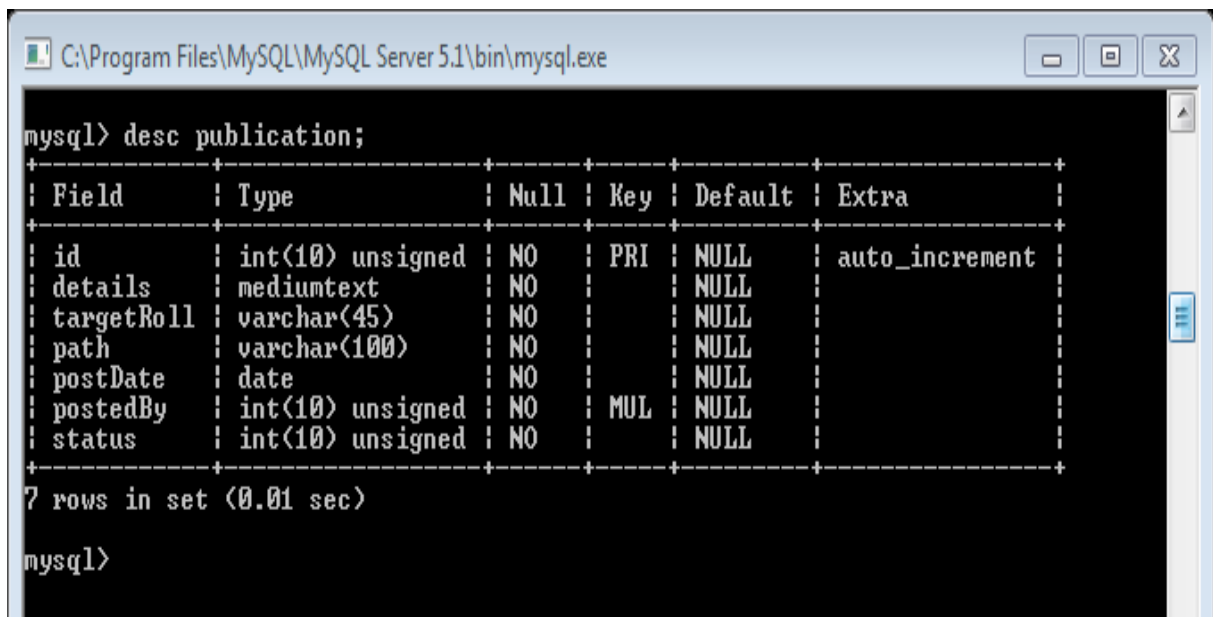
C 'news' description



```
C:\Program Files\MySQL\MySQL Server 5.1\bin>mysql.exe
mysql> desc news;
+-----+-----+-----+-----+-----+-----+
| Field      | Type          | Null | Key | Default | Extra          |
+-----+-----+-----+-----+-----+-----+
| id         | int(10) unsigned | NO   | PRI | NULL    | auto_increment |
| details    | longtext       | NO   |     | NULL    |                |
| postDate   | date           | NO   |     | NULL    |                |
| postedBy   | int(10) unsigned | NO   | MUL | NULL    |                |
| targetGroup | varchar(45)    | NO   |     | NULL    |                |
| status_    | int(10) unsigned | NO   |     | NULL    |                |
+-----+-----+-----+-----+-----+-----+
6 rows in set (0.01 sec)
mysql>
```

Figure 19: The snapshot above is showing description of 'news' table

D 'publication' description



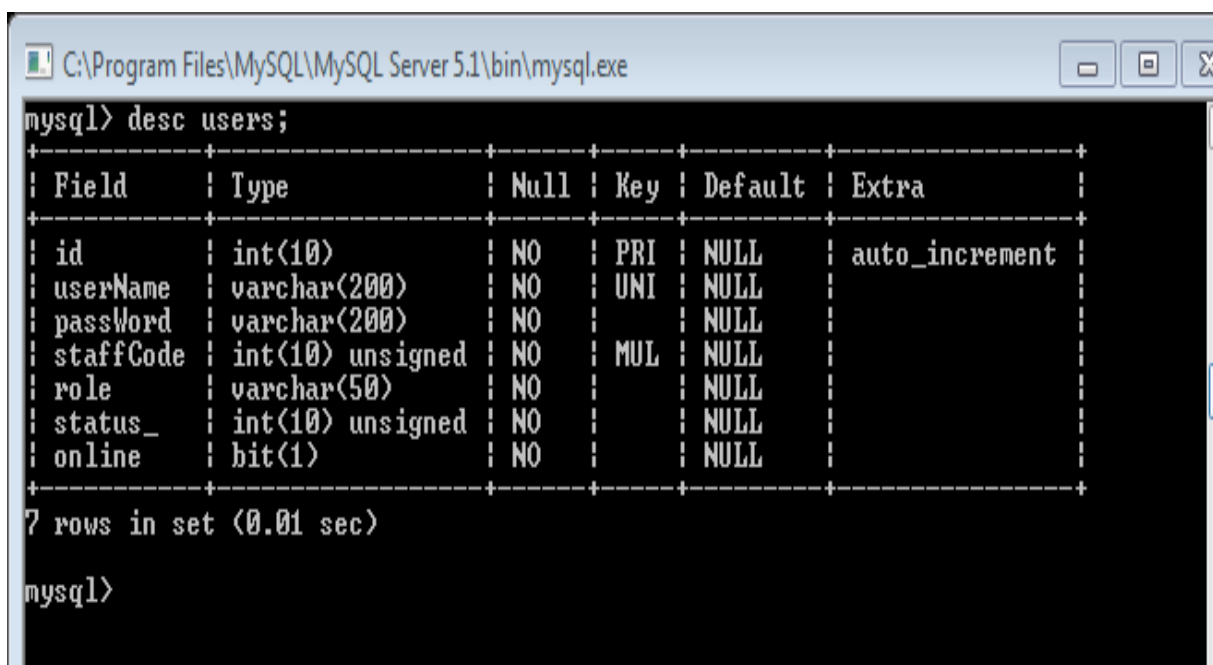
```
C:\Program Files\MySQL\MySQL Server 5.1\bin>mysql.exe

mysql> desc publication;
+-----+-----+-----+-----+-----+-----+
| Field      | Type                | Null | Key | Default | Extra          |
+-----+-----+-----+-----+-----+-----+
| id         | int(10) unsigned   | NO   | PRI | NULL    | auto_increment|
| details    | mediumtext         | NO   |     | NULL    |               |
| targetRoll | varchar(45)        | NO   |     | NULL    |               |
| path       | varchar(100)       | NO   |     | NULL    |               |
| postDate   | date               | NO   |     | NULL    |               |
| postedBy   | int(10) unsigned   | NO   | MUL | NULL    |               |
| status     | int(10) unsigned   | NO   |     | NULL    |               |
+-----+-----+-----+-----+-----+-----+
7 rows in set (0.01 sec)

mysql>
```

Figure 20: The snapshot above showing the description 'publication' table

E 'users' description



```
C:\Program Files\MySQL\MySQL Server 5.1\bin>mysql.exe

mysql> desc users;
+-----+-----+-----+-----+-----+-----+
| Field      | Type                | Null | Key | Default | Extra          |
+-----+-----+-----+-----+-----+-----+
| id         | int(10)             | NO   | PRI | NULL    | auto_increment|
| userName   | varchar(200)        | NO   | UNI | NULL    |               |
| password   | varchar(200)        | NO   |     | NULL    |               |
| staffCode  | int(10) unsigned    | NO   | MUL | NULL    |               |
| role       | varchar(50)         | NO   |     | NULL    |               |
| status_    | int(10) unsigned    | NO   |     | NULL    |               |
| online     | bit(1)             | NO   |     | NULL    |               |
+-----+-----+-----+-----+-----+-----+
7 rows in set (0.01 sec)

mysql>
```

Figure 21: The snapshot above the Showing the description 'users' table

6.4 System validation and testing

The researcher carried out system testing with an aim of finding errors in the system. The researcher also performed system validation to ensure that the system confirmed to the defined user needs requirements. The researcher presented the system to some of the users so as to get feedback about the system performance in relation to their requirements.

Testing

The test results were got from the different testing phases that were conducted during system implementation. The system was tested in the unit level and integration level. During unit testing, unit modules are tested to ascertain that they functioned as individual units. During integration tests, the unit modules are linked together and tested to ascertain that they work together as a system.

The authentication of the system could only allow registered users to access the system information and make necessary changes. Each of the users logged in and their options were tested exhaustively and the system was found to be satisfying.

Validation of the data to be captured by the system was also done through inputting wrong data and observe how the system responded by displaying errors.

For example if someone's is not an administrator or he does not know the password then cannot log into the system.

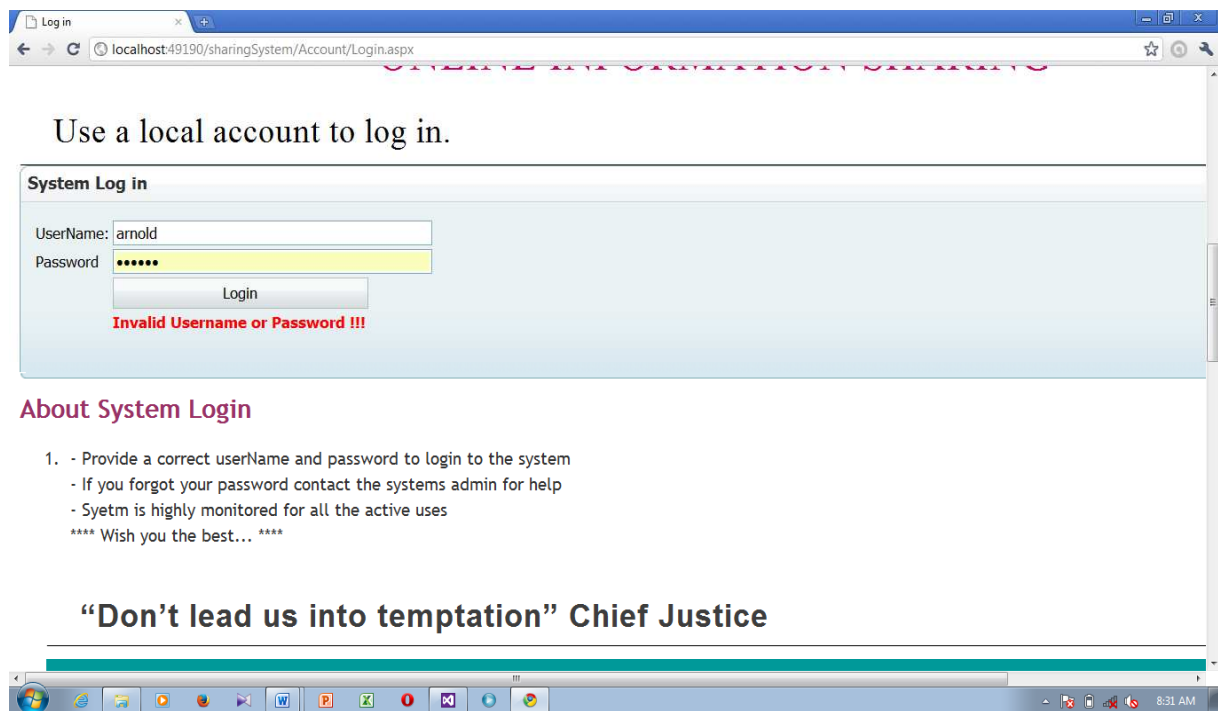


Figure 22: Testing login credentials

Validation

The system was presented to proficient people in the field of application to check whether the system conformed to the standards. More tests on validation are carried out on the system to verify that it met the specified user requirements.

The system was presented to users and the feedback was got in regard to the performance of the system and to determine whether the system met their needs, users are satisfied with the system and reached the conclusion that the system was simple to use. The system was found to be effective in simplifying parliament communication process and decision

making. The authentication procedure implemented in the system could only allow the approved users to use the system.

The table below shows the performance of the system (validation);

Table 11: Table showing system validation figures

#	Description	Percentage (100%)
1.	Interactivity	80
2.	Security	70
3.	Information handling and access	70
4.	User friendliness	80
5.	Decision making	70

CHAPTER SEVEN

RECOMMENDATIONS AND CONCLUSION

7.0 Introduction

This chapter gives a brief summary of the recommendations of the study, Limitations and the conclusions. This focuses on justification for the tools and Methodologies to implement the project. Evaluation of project achievements, management issues encountered and suggestions for future implementations. The recommendations are based on the researcher's analysis and interpretations of the findings in the design of Parliament online information sharing community, including group reflections.

This new system developed will improve on the activities of the Uganda Parliament as well as the citizens of Uganda and it is also going to embrace the objectives addressed in the earlier chapters.

7.1 Summary

Objective that were completed during the design of the system

1. The parliament online information sharing community was designed successfully.
2. The Parliament online information sharing community was implemented using visual studio, and MySQL programming languages.

3. The system was successfully tested and validated.

7.2 Recommendation

The system is recommended to provide a platform for people to communicate to their members of parliament directly by requesting for information on certain issues from MPs using text messages, chatting, discussing or leaving a message and getting feedback as well basing on requests made.

7.2.1 Recommendations to system users

The researcher recommends the proposed system to be deployed. This is because the system is easy to use, saves time, reduces paperwork and also reduces the burden of MPs looking for information in each and every constituency physically as well as reducing on the costs incurred in the whole process. On addition to that citizens also can be able to access information easily from the community without incurring much cost.

7.2.2 Recommendations to future Researchers

The future researchers to a similar project are recommended to put more emphasis on the online information sharing community. The researcher believes that in the near future, more people will be well conversant with the system so any improvements on this project should enable MPs to communicate directly with their people in different constituencies online.

7.2.3 Other recommendations

Training; it is recommended to train MPs, citizens and employees in parliament to show them how the system works. This will be important for the system to blend in with other activities that take place in the parliament of Uganda and the country at large.

7.3 Conclusions

The entire project and implementation of the system was both a challenge and a great learning experience for me. The researcher took great delight in the fact that, despite the challenges, was able to meet the objectives of the study successfully and satisfactorily. The main objective of this project was coming up with online information sharing community and its ability to enable instant communication, discussion and collaboration in decision making this was successfully implemented.

It was a good experience for the researcher and this has gave him a better understanding and exposure in research, design and implementation of IT related systems and applications in the real world; both simple and complicated systems. This is because a lot of effort was put in during the project where the researcher interacted with many people, programming languages and applications.

However the researcher faced challenges like illiterate people, lack of enough funds, opposition and discouragement from some people and unreliable information.

Never the less, the project was a boost to my academic and career skills and has greatly improved on my capabilities.

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APPENDICES

Sample code:

Accounts Management

```
<script
src=" /sharingSystem/WebResource.axd?d=pynGkmcFUV13HelQd6_TZEv4g
pe998ZDTIFu_L0ipgcJR8JBkhCu26v8eRULouxbKM2GKtknHgk2PW7mUkmIzw2&
amp;t=635377019880000000" type="text/javascript"></script>
<script src=" ../Scripts/WebForms/MsAjax/MicrosoftAjax.js"
type="text/javascript"></script>
<script type="text/javascript">
//<![CDATA[
if (typeof(Sys) === 'undefined') throw new Error('ASP.NET Ajax
client-side framework failed to load. ');
//]]>
</script>
<script
src=" ../Scripts/WebForms/MsAjax/MicrosoftAjaxWebForms.js"
type="text/javascript"></script>
<div class="aspNetHidden">
<input type="hidden" name="__VIEWSTATEGENERATOR"
id="__VIEWSTATEGENERATOR" value="F6A36AF4" />
<input type="hidden" name="__EVENTVALIDATION"
id="__EVENTVALIDATION"
value="KwLfORRqmIv6SW/SqsJtgXtP1eUmkyQMk3kYaRknn9qOm81LTGzSPqsb
a4ZXsi4xsYTT4wkdqQKujld3rVUFQaAnR8DmGJU4Es+TJD4sYssA146CU8FKz2f
```

```
Y2drdGsWIsOp/IIqiddOGgWNX60G1/Cs.jpA/0kbXGxKIrOCqPNyr1VSRVhXKodw
p0mHyUeALXyBR3QOp+LqwcU1+tOkfdkg==" />
</div>
<div>
<table class="auto-style1" style="border-style: outset; border-
color: #99CCFF;">
<tr>
<td>
<p class="auto-style2">
<table class="auto-style1" style="border-color: #0000FF;
border-
bottom-style: groove">
<tr>
<td class="auto-style7">
<script id="dxis_341350517"
src="/sharingSystem/DXR.axd?r=1_44,1_76,1_62,2_34,2_41,2_33,1_6
9,1_67,2_36,1_48,1_56,2_27,1_54,3_8,3_7-MMsNa"
type="text/javascript"></script>
</td>
</tr>
<tr>
<td>
<div class="auto-style7">
```

```
<a href="~/" class="dxpDisabledButton">ON-LINE INFORMATION  
SHARING SYSTEM</a></div>
```

```
</td>
```

```
</tr>
```

```
</table>
```

```
</p>
```

```
</td>
```

```
</tr>
```

```
<tr>
```

```
<td>
```

```
<table class="auto-style1">
```

```
<tr>
```

```
<td class="auto-style3"><strong>Welcome:</strong></td>
```

```
<td class="auto-style5">
```

```
<script type="text/javascript">
```

```
//<![CDATA[
```

```
Sys.WebForms.PageRequestManager._initialize('ctl00$ScriptManage  
r1', 'form1',
```

```
['tctl00$ASPxRoundPanel1$ContentPlaceHolder1$ASPxRoundPanel2$Up  
datePanel1','ASPxRoundPanel1_ContentPlaceHolder1_ASPxRoundPanel  
2_UpdatePanel1'], [], [], 90, 'ctl00');
```

```
//]]>
```

```
</script>
```

```
<label class="dxeBase_Glass" id="lblUsername" style="color:
```

```
#3399FF; font-weight: 700">Admin</label>
```

```

</td>
<td class="auto-style4">
<label class="dxBase_Glass" id="lblDate" style="color:
#3399FF; font-weight: 700">Date:Wednesday, May 27, 2015</label>
</td>
<td style="text-align: right">
<a id="LinkButton1"
href="javascript:__doPostBack('#39;ctl00$LinkButton1#39;,#39;
#39;)">&lt;&lt;Logout</a>
</td>
</tr>
</table>
</td>
</tr>
<tr>
<td>
<table class="dxrpControl_Glass" cellspacing="0"
cellpadding="0" id="ASPxRoundPanel1" style="width:100%;border-
collapse:collapse;border-collapse:separate;">
<tr>
<td valign="top"><table cellspacing="0" cellpadding="0"
style="width:100%;border-collapse:collapse;border-
collapse:separate;">
<tr>

```



```

<td></td><td
class="dxrpTE"><div
style="height:1px;width:1px;overflow:hidden;">
</div></td><td></td>
</tr><tr>
<td class="dxrpHLE"><div
style="height:1px;width:1px;overflow:hidden;">
</div></td><td class="dxrpHeader_Glass"
style="height:23px;padding-left:2px;padding-right:6px;padding-
top:0px;padding-bottom:0px;"><table cellpadding="0"
cellpadding="0" style="width:100%;border-
collapse:collapse;border-collapse:separate;">
<tr>
<td class="dxrp" style="width:100%;"><span
id="ASPxRoundPanell1_RPHT">System Admin&#39;s Management
Center</span></td>
</tr>
</table></td><td class="dxrpHRE"><div
style="height:1px;width:1px;overflow:hidden;">
</div></td>
</tr><tr>
<td class="dxrpLE"><div
style="height:1px;width:1px;overflow:hidden;">

```

```

</div></td><td id="ASPxRoundPanell1_RPC" class="dxrp
dxrpcontent" style="width:100%;padding-left:4px;padding-
right:6px;padding-top:10px;padding-bottom:10px;">
<table class="auto-style1" style="vertical-align: top">
<tr>
<td class="auto-style6" style="vertical-align: top">
<input type="hidden" id="ASPxRoundPanell1_ASPxNavBar1GS"
name="ASPxRoundPanell1_ASPxNavBar1GS" value="0;1" /><table
class="dxnbControl_Glass" cellspacing="0" cellpadding="0"
id="ASPxRoundPanell1_ASPxNavBar1" style="width:236px;border-
collapse:collapse;border-collapse:separate;">
<tr>
<td class="dxnbCtrl" valign="top"><table cellspacing="0"
cellpadding="0" style="width:100%;border-
collapse:collapse;border-collapse:separate;">
<tr>
<td style="width:100%;"><table cellspacing="0" cellpadding="0"
style="width:100%;border-collapse:collapse;border-
collapse:separate;">
<tr style="display:none;">
<td id="ASPxRoundPanell1_ASPxNavBar1_GHE0"
class="dxnbGroupHeader_Glass" style="width:100%;"><table
cellspacing="0" cellpadding="0" style="width:100%;border-
collapse:collapse;border-collapse:separate;text-
decoration:inherit;">

```

```

<tr>
<td class="dxnb dxnb-ghtext" style="width:100%;">System
Admin</td><td class="dxnbImgCellRight_Glass dxnb"></td>
</tr>
</table></td>
</tr><tr>
<td id="ASPxRoundPanell1_ASPxNavBar1_GHC0"
class="dxnbGroupHeaderCollapsed_Glass"
onclick="aspxNBHClick(event,
&#39;ASPxRoundPanell1_ASPxNavBar1&#39;;, 0)"
style="width:100%;cursor:pointer;"><table cellpadding="0"
cellpadding="0" style="width:100%;border-
collapse:collapse;border-collapse:separate;text-
decoration:inherit;">
<tr>
<td class="dxnb dxnb-ghtext" style="width:100%;">System
Admin</td><td class="dxnbImgCellRight_Glass dxnb"></td>
</tr>
</table></td>
</tr><tr style="display:none;">
<td id="ASPxRoundPanell1_ASPxNavBar1_GC0"
class="dxnbGroupContent_Glass" style="width:100%;border-top-

```

```

width:0px;"><table cellspacing="0" cellpadding="0"
style="width:100%;border-collapse:collapse;border-
collapse:separate;">
<tr id="ASPxRoundPanell1_ASPxNavBar1_I0i0_"
onclick="aspxNBIClick(event,
&#39;ASPxRoundPanell1_ASPxNavBar1&#39;, 0, 0)">
<td id="ASPxRoundPanell1_ASPxNavBar1_I0i0_T"
class="dxnbItem_Glass" style="width:100%;cursor:pointer;"><a
href="Default.aspx">My Account</a></td>
</tr>
</table></td>
</tr>
</table></td>
</tr><tr class="dxnbGroupSpacing_Glass">
<td></td>
</tr><tr>
<td style="width:100%;"><table cellspacing="0" cellpadding="0"
style="width:100%;border-collapse:collapse;border-
collapse:separate;">
<tr>
<td id="ASPxRoundPanell1_ASPxNavBar1_GHE1"
class="dxnbGroupHeader_Glass" style="width:100%;"><table
cellspacing="0" cellpadding="0" style="width:100%;border-
collapse:collapse;border-collapse:separate;text-
decoration:inherit;">
<tr>

```

```

<td class="dxnb dxnb-ghtext" style="width:100%;">System
Mgt</td><td class="dxnbImgCellRight_Glass dxnb"></td>
</tr>
</table></td>
</tr><tr style="display:none;">
<td id="ASPxRoundPanell1_ASPxNavBar1_GHC1"
class="dxnbGroupHeaderCollapsed_Glass"
onclick="aspxNBHClick(event,
&#39;ASPxRoundPanell1_ASPxNavBar1&#39;, 1)"
style="width:100%;cursor:pointer;"><table cellpadding="0"
cellpadding="0" style="width:100%;border-
collapse:collapse;border-collapse:separate;text-
decoration:inherit;">
<tr>
<td class="dxnb dxnb-ghtext" style="width:100%;">System
Mgt</td><td class="dxnbImgCellRight_Glass dxnb"></td>
</tr>
</table></td>
</tr><tr>
<td id="ASPxRoundPanell1_ASPxNavBar1_GC1"
class="dxnbGroupContent_Glass" style="width:100%;border-top-
width:0px;"><table cellpadding="0" cellspacing="0"

```

```

style="width:100%;border-collapse:collapse;border-
collapse:separate;">
<tr id="ASPxRoundPanell1_ASPxNavBar1_I1i0_"
onclick="aspxNBIClick(event,
&#39;ASPxRoundPanell1_ASPxNavBar1&#39;; 1, 0)">
<td id="ASPxRoundPanell1_ASPxNavBar1_I1i0_T"
class="dxnbItem_Glass" style="width:100%;cursor:pointer;"><a
href="memberBiodata.aspx">Member Biodata</a></td>
</tr><tr class="dxnbItemSpacing_Glass">
<td></td>
</tr><tr id="ASPxRoundPanell1_ASPxNavBar1_I1i1_"
<td class="dxnbItem_Glass dxnbItemSelected_Glass"
style="width:100%;cursor:default;">Account Info</td>
</tr><tr class="dxnbItemSpacing_Glass">
<td></td>
</tr><tr id="ASPxRoundPanell1_ASPxNavBar1_I1i2_"
onclick="aspxNBIClick(event,
&#39;ASPxRoundPanell1_ASPxNavBar1&#39;; 1, 2)">
<td id="ASPxRoundPanell1_ASPxNavBar1_I1i2_T"
class="dxnbItem_Glass" style="width:100%;cursor:pointer;"><a
href="comments.aspx">Comments Mgt</a></td>
</tr><tr class="dxnbItemSpacing_Glass">
<td></td>
</tr><tr id="ASPxRoundPanell1_ASPxNavBar1_I1i3_"
onclick="aspxNBIClick(event,
&#39;ASPxRoundPanell1_ASPxNavBar1&#39;; 1, 3)">

```

```

<td id="ASPxRoundPanell1_ASPxNavBar1_I1i3_T"
class="dxnbItem_Glass" style="width:100%;cursor:pointer;"><a
href="publications.aspx">Publication & News</a></td>
</tr>
</table></td>
</tr>
</table></td>
</tr>
</table></td>
</tr>
</table></td>
</tr>
</table><script id="dxss_326297737" type="text/javascript">
<!--
aspAddHoverItems('ASPxRoundPanell1_ASPxNavBar1',[[['dxnbGroupHeaderHover_Glass'],[''],['GHE0','GHE1']],[['dxnbGroupHeaderCollapsedHover_Glass'],[''],['GHC0','GHC1']],[['dxnbItemHover_Glass'],[''],['I0i0_','I1i0_','I1i2_','I1i3_'],['I','T'],[[''],[''],[''],[''],['']],[['']],['Img']]]);
var dxo = new ASPxClientNavBar('ASPxRoundPanell1_ASPxNavBar1');
window['ASPxRoundPanell1_ASPxNavBar1'] = dxo;
dxo.uniqueID = 'ctl00$ASPxRoundPanell1$ASPxNavBar1';
dxo.autoCollapse=true;
dxo.groupsExpanding=[false,true];
dxo.groupCount=2;
dxo.InlineInitialize();
//-->

```

```

</script>
</td>
<td style="vertical-align: top">
<table class="dxrpControl_Glass" cellspacing="0"
cellpadding="0"
id="ASPxRoundPanell1_ContentPlaceHolder1_ASPxRoundPanel2"
style="width:100%;border-collapse:collapse;border-
collapse:separate;">
<tr>
<td valign="top"><table cellspacing="0" cellpadding="0"
style="width:100%;border-collapse:collapse;border-
collapse:separate;">
<tr>
<td></td><td
class="dxrpTE"><div
style="height:1px;width:1px;overflow:hidden;">
</div></td><td></td>
</tr><tr>
<td class="dxrpHLE"><div
style="height:1px;width:1px;overflow:hidden;">
</div></td><td class="dxrpHeader_Glass"
style="height:23px;padding-left:2px;padding-right:6px;padding-
top:0px;padding-bottom:0px;"><table cellspacing="0"

```



```

cellpadding="0" style="width:100%;border-
collapse:collapse;border-collapse:separate;">
<tr>
<td class="dxrp" style="width:100%;"><span
id="ASPxRoundPanel1_ContentPlaceHolder1_ASPxRoundPanel2_RPHT">A
ccounts Management</span></td>
</tr>
</table></td><td class="dxrpHRE"><div
style="height:1px;width:1px;overflow:hidden;">
</div></td>
</tr><tr>
<td class="dxrpLE"><div
style="height:1px;width:1px;overflow:hidden;">
</div></td><td
id="ASPxRoundPanel1_ContentPlaceHolder1_ASPxRoundPanel2_RPC"
class="dxrp dxrpcontent" style="width:100%;padding-
left:4px;padding-right:6px;padding-top:10px;padding-
bottom:10px;">
<div
id="ASPxRoundPanel1_ContentPlaceHolder1_ASPxRoundPanel2_UpdateP
anel1">
<table class="auto-style1">
<tr>
<td class="auto-style7">userName:</td>
<td class="auto-style8">

```

```

<table class="dxedTextBoxSys dxedTextBox_Glass" cellspacing="0"
cellpadding="0"
id="ASPxRoundPanel1_ContentPlaceHolder1_ASPxRoundPanel2_txtUser
name" style="width:200px;border-collapse:collapse;">
<tr>
<td class="dxic" style="width:100%;padding-left:2px;padding-
right:2px;padding-top:2px;padding-bottom:2px;"><input
class="dxEditArea_Glass dxEditAreaSys"
id="ASPxRoundPanel1_ContentPlaceHolder1_ASPxRoundPanel2_txtUser
name_I"
name="ctl00$ASPxRoundPanel1$ContentPlaceHolder1$ASPxRoundPanel2
$txtUsername"
onfocus="aspxEGotFocus(&#39;ASPxRoundPanel1_ContentPlaceHolder1
_ASPxRoundPanel2_txtUsername&#39;)"
onblur="aspxELostFocus(&#39;ASPxRoundPanel1_ContentPlaceHolder1
_ASPxRoundPanel2_txtUsername&#39;)"
onkeydown="aspxEKeyDown(&#39;ASPxRoundPanel1_ContentPlaceHolder
1_ASPxRoundPanel2_txtUsername&#39;, event)"
onkeyup="aspxEKeyUp(&#39;ASPxRoundPanel1_ContentPlaceHolder1_AS
PxRoundPanel2_txtUsername&#39;, event)" type="text"
style="height:15px;" /></td>
</tr>
</table><script id="dxss_468348303" type="text/javascript">
<!--

```

```

var dxo = new
ASPxCliientTextBox('ASPxRoundPanell1_ContentPlaceHolder1_ASPxRoun
dPanel2_txtUsername');
window['ASPxRoundPanell1_ContentPlaceHolder1_ASPxRoundPanel2_txt
Username'] = dxo;
dxo.uniqueID =
'ctl00$ASPxRoundPanell1$ContentPlaceHolder1$ASPxRoundPanel2$txtU
sername';
dxo.RequireStyleDecoration();
dxo.styleDecoration.AddStyle('F', 'dxeFocused_Glass', '');
dxo.InlineInitialize();
//-->
</script>
</td>
<td class="auto-style9">&nbsp;</td>
<td class="auto-style10">Role:</td>
<td class="auto-style16">
<table class="dxeButtonEdit_Glass" cellspacing="1"
cellpadding="0"
id="ASPxRoundPanell1_ContentPlaceHolder1_ASPxRoundPanel2_txtRole
" style="width:200px;">
<tr>
<td style="display:none;"><input
id="ASPxRoundPanell1_ContentPlaceHolder1_ASPxRoundPanel2_txtRole
_VI"
name="ASPxRoundPanell1_ContentPlaceHolder1_ASPxRoundPanel2_txtRo

```

```

le_VI" type="hidden" value="Member" /></td><td class="dxic"
onmousedown="return
aspXDDDropDown(&#39;ASPXRouPanel1_ContentPlaceHolder1_ASPXRou
ndPanel2_txtRole&#39;;, event)" style="width:100%;padding-
left:1px;padding-right:1px;padding-top:1px;padding-
bottom:1px;"><input class="dxEditArea_Glass dxEditAreaSys"
name="ctl00$ASPXRouPanel1$ContentPlaceHolder1$ASPXRouPanel2
$txtRole" value="Member"
id="ASPXRouPanel1_ContentPlaceHolder1_ASPXRouPanel2_txtRole
_I"
onchange="aspXETextChanged(&#39;ASPXRouPanel1_ContentPlaceHol
der1_ASPXRouPanel2_txtRole&#39;)"
onblur="aspXELostFocus(&#39;ASPXRouPanel1_ContentPlaceHolder1
_ASPXRouPanel2_txtRole&#39;)"
onfocus="aspXEGotFocus(&#39;ASPXRouPanel1_ContentPlaceHolder1
_ASPXRouPanel2_txtRole&#39;)" type="text"
onkeydown="aspXEKeyDown(&#39;ASPXRouPanel1_ContentPlaceHolder
1_ASPXRouPanel2_txtRole&#39;;, event)" readonly="readonly"
style="height:15px;cursor:default;" /></td><td
id="ASPXRouPanel1_ContentPlaceHolder1_ASPXRouPanel2_txtRole
_B-1" class="dxButtonEditButton_Glass" onmousedown="return
aspXDDDropDown(&#39;ASPXRouPanel1_ContentPlaceHolder1_ASPXRou
ndPanel2_txtRole&#39;;, event)" style="width:13px;-khtml-user-
select:none;"><table class="dxbebt" cellspacing="0"
cellpadding="0" style="width:13px;border-
collapse:collapse;border-collapse:separate;">

```

```

<tr>
<td class="dx"></td>
</tr>
</table></td>
</tr>
</table><input type="hidden"
id="ASPxRoundPanell1_ContentPlaceHolder1_ASPxRoundPanel2_txtRole
_DDDWS"
name="ASPxRoundPanell1_ContentPlaceHolder1_ASPxRoundPanel2_txtRo
le_DDDWS" value="0:0:-1:-10000:-10000:0:-10000:-10000:1" /><div
id="ASPxRoundPanell1_ContentPlaceHolder1_ASPxRoundPanel2_txtRole
_DDD_PW-1" style="position:absolute;left:0px;top:0px;z-
index:10000;visibility:hidden;display:none;">
<table
id="ASPxRoundPanell1_ContentPlaceHolder1_ASPxRoundPanel2_txtRole
_DDD_PWST-1" cellspacing="0" cellpadding="0" style="border-
collapse:collapse;border-collapse:separate;position:relative;">
<tr>
<td
onmousedown="asp PWMDown(event ,&#39;ASPxRoundPanell1_ContentPlac
eHolder1_ASPxRoundPanel2_txtRole_DDD&#39; , -1, false)"
style="width:200px;cursor:default;"><table
id="ASPxRoundPanell1_ContentPlaceHolder1_ASPxRoundPanel2_txtRole

```

```

_DDD_CLW-1" cellspacing="0" cellpadding="0"
style="width:200px;border-collapse:collapse;border-
collapse:separate;">
<tr>
<td
id="ASPxRoundPanell1_ContentPlaceholder1_ASPxRoundPanel2_txtRole
_DDD_PWC-1" style="height:100%;"><div
id="ASPxRoundPanell1_ContentPlaceholder1_ASPxRoundPanel2_txtRole
_DDD_CSD-1">
<table class="dxListBox_Glass" cellspacing="0" cellpadding="0"
id="ASPxRoundPanell1_ContentPlaceholder1_ASPxRoundPanel2_txtRole
_DDD_L" style="border-collapse:collapse;border-
collapse:separate;">
<tr>
<td valign="top"><div
id="ASPxRoundPanell1_ContentPlaceholder1_ASPxRoundPanel2_txtRole
_DDD_L_D" class="dxlbd" style="width:100%;overflow-
x:hidden;overflow-y:auto;">
<input
id="ASPxRoundPanell1_ContentPlaceholder1_ASPxRoundPanel2_txtRole
_DDD_L_VI" type="hidden"
name="ctl00$ASPxRoundPanell1$ContentPlaceholder1$ASPxRoundPanel2
$txtRole$DDD$L" /><table
id="ASPxRoundPanell1_ContentPlaceholder1_ASPxRoundPanel2_txtRole
_DDD_L_LBT" cellspacing="0" cellpadding="0"

```

```
style="width:100%;border-collapse:collapse;border-
collapse:separate;">
<tr class="dxListBoxItemRow_Glass">
<td class="dxListBoxItem_Glass">Admin</td>
</tr><tr class="dxListBoxItemRow_Glass">
<td class="dxListBoxItem_Glass">Member</td>
</tr>
</table>
</div></td>
</tr>
</table><script id="dxss_224586952" type="text/javascript">
```