

**DESIGN AND IMPLEMENTATION OF AN ONLINE REPORTER'S
RECORD MANAGEMENT SYSTEM
CASE STUDY: AMNESTY INTERNATIONAL (UGANDA)**

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UNIVERSITY.**

JUNE 2011.

DECLARATION

I do hereby declare with truth that this project proposal is my original work and has never been presented to any academic institution for any award or certificate whatsoever.

The literature and citations from other people's work have been duly referenced and acknowledged in the text and bibliography.

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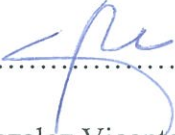
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APPROVAL

This Graduation project has been submitted with the approval of the following supervisor

Signed by.....

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Date.....

DEDICATION

To my parents, without whom my education would not have been a success. For all the love, understanding, encouragement, material and moral support, I appreciate. To my dear uncle, brothers and sisters, I love you all.

ACKNOWLEDGEMENTS

Special appreciation and acknowledgement to my parents who have been so helpful for me to successfully finish my course.

Special thanks to my late dad, mum and my uncle Moses, together with my entire family for their prayer and support during this journey. God bless you

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LIST OF ABBREVIATIONS

IT	Information Technology
SRO	Senior Resettlement Officer
DSS	Decision Support Systems
MIS	Management Information System
DRT	Demobilization Resettlement Team
AC	Amnesty Commission
TPS	Transaction Processing System
CD-ROM	Compact Disk-Read Only Memory
HTTP	Hyper Text Transfer Protocol
HTML	Hyper Text Markup Language
RAD	Rapid Application Development
IDP	Internally Displaced Persons
LRA	Lords Resistance Army
UPDF	Uganda People's Defense Force
HIV	Human Immune Virus
DBMS	Database Management System
UML	Unified Modeling Language
SQL	Structured Query Language
NALU	National Union for Liberation of Uganda

DEFINITION OF KEY TERMS

Amnesty: Means a pardon, forgiveness, exemption or discharge from criminal prosecution or any other form of punishment by the state.

Reporter: Under the Amnesty Law, a reporter is someone who takes steps to receive the amnesty.

Amnesty Commission: The commission is the main body overseeing the amnesty programme. It consists of seven persons who are appointed by the president, with the approval of parliament. The chairperson is a judge of the High Court. Like the chair, the members are people of high moral integrity.

Senior Resettlement Officer: This refers to the officers who register reporters as they arrive or report at the different reporting centers.

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ABSTRACT

The main objective of this project is to design an online Reporters' Record Management System with a view of improving data capture, management, retrieval and Production of timely reports so as to improve the performance of the Amnesty Commission.

Currently, the Amnesty Commission's information management system is manual. Under the system, agents (Senior Resettlement Officers) collect survey forms from the headquarters then transport them to their respective regions. Information from former combatants is obtained by filling in survey forms which are later transported back to the headquarters for approval. At the headquarters, the collected data is entered into a simple Microsoft Access database for future reference. This has made the registration process expensive in terms of transport and time. Other than the costs incurred, the forms are also prone to damage or loss when disasters like floods occur.

A centralized database was designed to store all the records obtained from the reporters at each reporting centre. User interfaces were developed to enable the senior resettlement officers and other users to access the database. Also Dream Weaver was used to produce dynamic reports and graphs depicting the trend of former combatants.

CHAPTER 1

INTRODUCTION

1.0 Introduction

This chapter discusses the background to the study, the Amnesty Commission, the problem statement, the general and specific objectives, scope and significance of this project proposal.

1.1 Background to the study

According to the Amnesty Commission Report (2007), “Uganda Amnesty Commission was started in 2000 to implement the Amnesty Act that was endorsed by the parliament of Uganda on 17th January 2000”. The Amnesty (Amendment) Act, 2006 (section 2) defines AMNESTY as “an act of reconciliation, pardon, forgiveness, exemption or discharge from prosecution or any other form of punishment by the state” and a REPORTER as “someone who takes steps to receive the amnesty”. However, the system in place, a simple centralized database running on Microsoft Access, is only used at the headquarters to enter reporters’ data after it has been physically transported from the other regional offices where the registration is done in paper files since the central database is not accessible.

The massive paperwork makes the Demobilization Resettlement Team (DRT) and the Senior Resettlement Officers (SRO) at the region offices spend many frustrating hours trying to process information from paper files. It is for this reason, therefore, that the Amnesty Commission needs a web-based information management system, which can be accessed by everyone wherever they are to speed up the process of storage and retrieval as well as general processing of information.

1.1 Background of Amnesty Commission

The Uganda Amnesty Commission is under the Ministry of Internal Affairs and it has currently six regional offices namely, Central, Gulu, Kitgum, Arua, Kasese and Mbale. Each office has a Demobilization Resettlement Team (DRT) that ensures reporters are registered. According to the Amnesty Commission Report (2007), “the Government of Uganda has employed throughout the years several means to end the armed conflict:

military campaigns, dialogue with rebel groups (like the Lord’s Resistance Army, the Holy Spirit Movement, the Peoples’ Redemption Army and the Uganda Peoples’ Democratic Army), and

cooperation with neighboring countries, such as Sudan, Rwanda and the Democratic Republic of Congo. Although such attempts have resulted in many of these rebel groups being defeated or renouncing armed conflict, others continue to undermine government capacities to enforce law and order, mainly in northern and eastern Uganda. Several peace negotiations under international support have yielded little progress to date”.

Following persistent calls for a peaceful resolution of the armed conflict, Parliament enacted an Amnesty Act, which was endorsed on 17th J January 2000. Since then, any Ugandan wishing to abandon rebellion is granted amnesty, without risk of criminal prosecution for offences related to the insurgency. For this reason the Amnesty Commission was established.

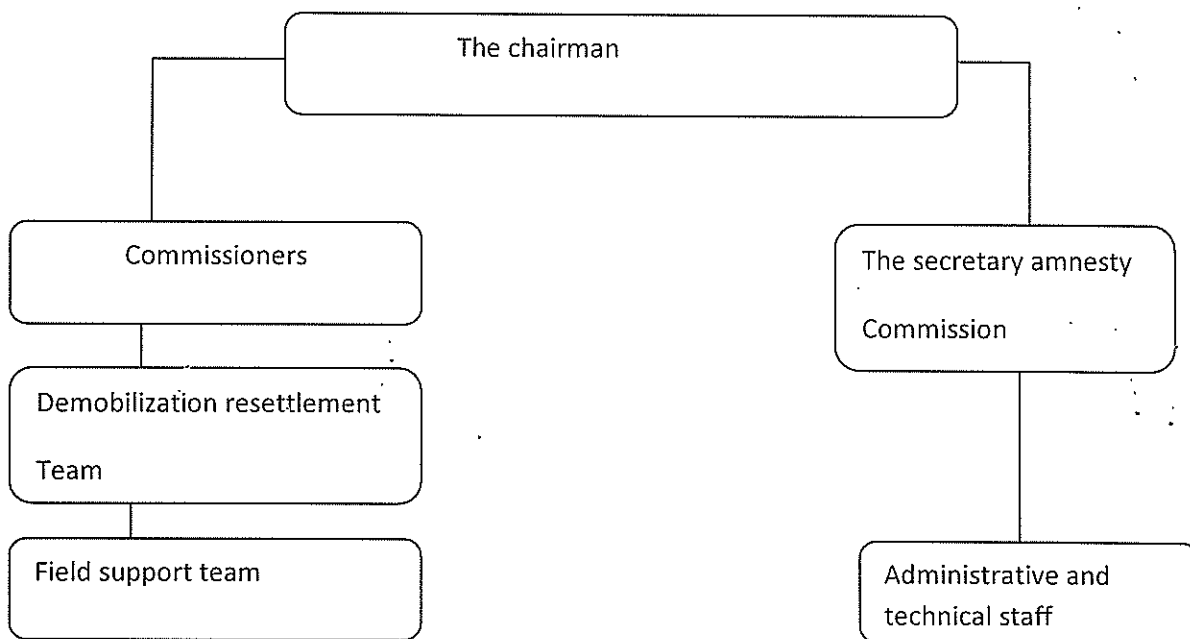


Figure 1.1: The Amnesty Commission organizational structure

1.3 Problem statement

According to the available literature, the Amnesty Commission’s information management system is manual. Under the system, agents (Senior Resettlement Officers) at the different reporting centers, collect information from reporters by filling in survey forms which are then transported to the headquarters for approval. Other than the high cost, the process involves a lot of paperwork which causes difficulty in data capture, storage, manipulation and retrieval and sometimes leads to loss of vital data. Therefore, there is a need to investigate the current system to come up with a model of an online reporters’ record management system that resolves these problems.

1.4 Objectives

1.4.1 General objective

The main objective of this project was to develop an online Reporters' Record Management System with the view of improving data capture, management, retrieval and production of timely reports.

1.4.2 Specific objectives

- To investigate the current Amnesty Commission's Reporters' Record Management System.
- To design a model of a computerized, web-based Reporters' Record Management System.
- To implement the new system model.
- To validate the model.

1.5 Scope

The study focused on the processes involved in resettling former combatants right from registration to awarding amnesty and, finally, reintegrating them back into the community. Emphasis was put on providing an online system that can be accessed at every reception centre in the different regions of Uganda like the Northern, Central, Eastern and West Nile, for easy registration without necessarily transporting registration forms to the regions.

1.6 Significance

On completion of the online reporters' record management system, the management of information and data of the Amnesty Commission was made much easier. Data capture, storage, manipulation as well as retrieval now takes a comparatively shorter time since each region can access the central database at the headquarters.

The system provides for effective and efficient records management with minimum cost and security through ensuring that users only access it up to a level registered to them. This research was based on selected theories or literature, which is the subject of the next chapter.

CHAPTER 2

Literature Review

2.0 Introduction

This chapter looks at the concept of amnesty; database management systems, information systems; information management system, system development approaches, online/web- based systems and unified modeling language. . It has reviewed related topics in the research area and the implementation tools and techniques which will deal with the system.

2.1 Amnesty

Demobilization or ex-combatants' return to civilian life

The Amnesty Commission operates along the model of the London-based rights activist, Amnesty International. This model entails a pre-discharge orientation program me for ex.- combatants and their dependants assembled in the discharge centers. Transport is also provided to the former combatants and their family and belongings from the discharge centers to the district of destination from district headquarters to their final destination. However, the former combatants have to arrange transport individually and pay for it with part of their transition allowance. The package includes cash payments to assist former combatants for a period of six months, health care support in case of several needs and financial contributions to their children's primary education (Nat. J.C, Markus. K. and Ingowiederhofer 1996).

Re —integration

It is clear from the beginning that Amnesty International's real measure of success would be the successful reintegration of former combatants into a civilian environment. In response to this challenge, the Amnesty Commission has progressively instituted measures in support of the economic reintegration of reporters. For instance, education, training, counseling, employment (support and self-employment). Amnesty International goes further to fund former combatants to continue with formal education, attend a vocational training institution or participation in a scheme that provides on-job training and advice by master craftsmen.

Programme managers of the Amnesty Commission have designed and implemented several measures to facilitate social reintegration. While the envisaged activities have been carried out more efficiently over time, it is evident that complete reintegration is a long and trying process, especially for female former combatants and wives.

The Amnesty Commission gives reinsertion (resettlement) support to former combatants and when they report to the reception centers, where the formal procedures for applying for amnesty take place, as well as other activities, such as the psycho-social, health status assessment and the provision of counseling and referral services. Former combatants that have been registered and granted amnesty will receive their documentation and initial reinsertion assistance in kind and some cash (mdrp.org 2007).

There are many young formerly abducted persons who express the need to continue with their education. It is imperative to point out that many IDP camps, especially in Gulu and Kitgum, have a school nearby. Some of these schools, commonly referred to as bush schools, are started by the government, former teachers and camps inhabitants who have attained some level of higher education. Health services, especially HIV, primary health care and access to medical services, are insufficient and also psychological support to deal with the trauma is dearly needed. These services are provided by the commission and also it has skilled leaders that are able to support community reintegration mechanisms (Maxie J. M 2007).

The Amnesty Commission is in the final stages of opening up a resettlement centre for rebels of the LRA to help accommodate them after signing the peace agreement before finally reintegrating them into the community. This was revealed by the team of officials from the commission who routinely tour Eastern, Northern and West Nile regions to assess the capabilities of people to receive the rebels upon their return home.

They said the centre will also serve as the first transit location to rehabilitate the combatants before reintegrating them with their relatives (James. E 2008).

Mrs. Christine Amongin Aporu Okol, a member of the commission, said in an interview that the transit centre would first open in Gulu. She said the idea of having the returnees at a reception centre after demobilization is to help the commission document and give resettlement packages to enable them live normal lives in their villages. "Upon rehabilitating the rebel returnees at the centre for three months, those with interests to join the UPDF would be integrated into the regular army, while those

who would wish to return home would be resettled with their relatives after receiving packages,” said Aporu Okol.

2.2 Database management system

Much of the world’s scientific and technical information is contained in more than 2,800 databases that are now available online (Williams, 1985). Williams further argues that databases now serve nearly every major field; the traditional and scientific disciplines, law, politics, social sciences, arts and humanities and specialized database for such areas of oil spills, child abuse, automobile recalls, robotics, shipping and even shopping.

Databases can provide the facilities to store and retrieve massive amounts of data and organize the collaboration of many individual scientists (Hagedorn and Rambold, 2000). They permit the documentation of intellectual property rights in complex situations with multiple authors and editors, an impossible task in a printed publication.

Recent years have seen a steady growth in the number of information service companies that offer electronic access to proprietary databases. With firms in a variety of different industries facing increased world-wide competition, there is a greater need for accurate and timely information (Jam and Kannan, 2002).

2.3 Information systems

An information system has been defined technically as a set of interrelated components that retrieve, process, store, and distribute information to support decision making, coordination, and control in an organization (Laudon 2006).

An information system has also been defined as a system that collects data, stores and computes business transaction data and presents the result of processing to the management in an organization in form of information for decision making. This collected information can be used for carrying out statistical reports (Cornell 2005). Cornell further states that building a comprehensive information system is time consuming and requires significant financial and labor resources. Collecting appropriate data sets, analyzing data, and organizing these data are challenging tasks and require significant effort. However, the benefits of having a comprehensive information management system greatly outweigh the difficulties.

An information system has been referred to as any organized combination of people, hardware, software, communication, networks and data resources that collects, transforms and disseminates information in an organization (O’Brian). O’Brian further states the benefits of information systems as

follows; decrease in information processing costs, decrease in operating costs, increased operational efficiency, improved information availability, improved management decision making.

An information system has been described as an organized collection, storage, and presentation system of data and other knowledge for decision making, progress reporting, and for planning and evaluation of programmes. It can be either manual or computerized, or a combination of both (ojp.usdoj.gov 2007).

Importance of information systems

- Information systems can help companies extend their reach to faraway locations, offer new products and services, reshape jobs and work flows, and perhaps greatly change the way they conduct business (Laudon 2006).
- They provide support to operational managers by tracking the individual transactions that occur within the organization (Laudon 2006).
- Information systems also provide management with summarized strategic information needed to make certain decisions (Laudon 2006).
- They also perform and record daily routine transactions necessary for any business.
- Information systems can process paperwork much faster than people, this aids managers and other workers analyze problems, visualize c complex subjects, and create new products (Laudon 2006).

2.4 Information management systems

When information systems are designed to provide information needed for effective decision making by managers, they are called management information systems (MIS). MIS is a formal system for providing management with accurate and timely information necessary for decision making.

A management information system has been defined as an integrated machine system that provides information to support the planning and control function of managers in an organization. The output of an MIS is information that serves managerial functions. When a system provides information to persons who are not managers, then it will not be considered as part of an MIS. Generally, MIS deals

with information that is systematically and routinely collected in accordance with a well-defined set of rules (Management-hub .com2007).

Advantages of MIS

- It facilitates planning: MIS improves the quality of plans by providing relevant information for sound decision — making. Due to increase in the size and complexity of organizations, managers have lost personal contact with the scene of operations.
- It minimizes information overload: MIS changes the larger amount of data into a summarized form and thereby avoids the confusion which may arise when managers are flooded with detailed facts.
- MIS encourages decentralization: Decentralization of authority is possible when there is a system for monitoring operations at lower levels. MIS is successfully used for measuring performance and making necessary changes in the organizational plans and procedures.
- It brings coordination: MIS facilitates integration of specialized activities by keeping each department aware of the problem and requirements of other departments. It connects all decision centers in the organization
- It makes control easier: MIS serves as a link between managerial planning and control. It improves the ability of management to evaluate and improve performance. The use of computers has increased the data processing and storage capabilities and reduced the cost.
- MIS assembles, process, stores, retrieves, evaluates and disseminates the information.

2.5 System development approaches

2.5.1 Prototyping

Prototyping has been described as the process of quickly putting together a working model (a prototype) in order to test various aspects of a design, illustrate ideas or features and gather early user feedback. Prototyping is often treated as an integral part of the system design process, where it is believed to reduce project risk and cost. Often one or more prototypes are made in a process of iterative and incremental development where each prototype is influenced by the performance of previous designs. In this way, problems or deficiencies in design can be corrected. 'When the

prototype is sufficiently refined and meets the functionality, robustness, manufacturability and other design goals, the product is ready for production (En.wikipedia.org 2007).

Early visibility of the prototype gives users an idea of what the final system looks like, increases system development speed, assists to identify any problems with the efficacy of earlier design, requirements analysis and coding activities and helps to refine the potential risks associated with the delivery of the system being developed. However, a producer might produce a system inadequate for overall organization needs and there is a possibility of causing systems to be left unfinished (En.wikipedia.org2007).

For that reason, therefore, the above approach was not chosen for the proposed system since the Amnesty Commission's needs as a whole are essential to develop the system.

2.5.5 Rapid application development (RAP)

RAD is a term originally used to describe a software development process. The methodology involves iterative development and the construction of prototypes. RAD approaches may entail compromises in functionality and performance in exchange for enabling faster development and facilitating application maintenance (James, M 1991).

Rapid application development was a response to non-agile processes developed in the 1970s and 1980s, such as the Structured systems analysis and design method and other waterfall models. One problem with previous methodologies was that applications took so long to build that requirements had changed before the system was complete, resulting in inadequate or even unusable systems. Another problem was the assumption that a methodical requirements analysis phase alone would identify all the critical requirements. Ample evidence attests to the fact that this is seldom the case, even for projects with highly experienced professionals at all levels (James, M 1991).

This is the approach that this study followed because it is an iterative and incremental process, which allows the refining of user requirements and the prototypes developed enable faster development and facilitation of application maintenance.

2.6 Online /web-based systems

Since this project's general objective was to develop an online or web-based reporters' record management system, it was necessary to review selected literature about online systems.

Given the rapid adoption of computers and digitization of information, physical media such as CD-ROMs and online networks are at least two electronic alternatives being used for delivering business

information (Bashyam 2000). Real time information system benefits are not gained automatically but can be achieved only if the systems are meaningfully integrated into management process (Zani 1970).

Online retrieval systems are becoming easier to use as a result of the introduction of artificial intelligence techniques and user-friendly front-ends and gateways. These online information services are likely to have lower costs for building and maintaining the service compared to the physical media services (Bashyam 2000).

2.7 Unified modeling language

To develop the design and implementation of this project, entity relationship diagrams as well as data flow diagrams were used. Therefore, there was need to briefly define unified modeling language, which is the main tool for creating them.

The UML (Unified Modeling Language) is a way of representing the various requirements, relationships and other software development concepts in a way that can be used to help model a system. It is a methodology to model the processes, states and classes in a software project. There are many different ways in UML of representing relationships and data flow. Among these are Class, Use Case, State Machine, Collaboration and Sequence diagrams. It can also be used to model other things besides software; it is sometimes used to model business logic. One of the advantages of using a standardized methodology like UML is that if developers need to communicate ideas it is easier as all the concepts are there to be used. Many software tools are available which make the processes in UML easier to implement (Dmwiki 2005).

In order to obtain the required information, several methods were used and several design and implementation tools were applied as discussed in the next chapter.

CHAPTER 3

Methodology

3.0 Introduction

This chapter discusses the approaches to data collection, techniques for data analysis that will be used for designing and implementation of the proposed project system. This section comprises of the research design which describes the tools, instruments, approaches, processes and techniques employed in the research study, data collection, analysis, design, logical flow implementation, testing and validation as detailed below. The system is going to be developed through the following stages:

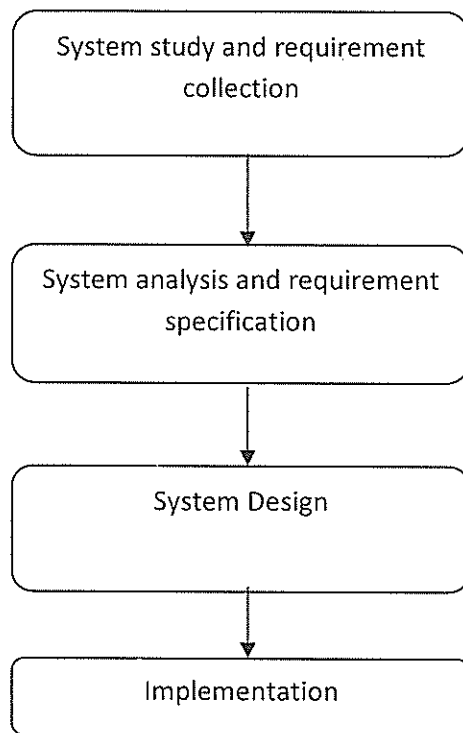


Figure 1:2 Stages in system development

3.1 Requirements Definition

A critical study of the existing system was carried out and evaluation was done to identify any inefficiency that the system seeks to address. The following fact-finding methods were used to establish the requirements of the developed system.

3.1.1 Reading documents about the existing system

The researcher reviewed existing Amnesty Commission documents such as reports and journals to establish the inputs required for the development of the online reporters' record management system.

3.1.2 Interviewing the relevant members of staff

An interview is defined as a formal face-to-face meeting for instance, a conversation, as one conducted by a reporter, in which facts, or statements, are obtained. The advantage with this technique is that it is a flexible and better tool than a questionnaire for the evaluation of the validity of the information that is being gathered avoiding misunderstandings and carefully evaluating the responses (martymodell.com 2007).

As per this proposed project, interviewing members of staff, such as the systems administrator and the senior resettlement officer (SRO), was done to avail the research team with the information concerning the current system and the difficulties encountered.

3.2 Data analysis

The requirements obtained were analyzed and further categorized into user, system, functional or non-functional requirements so as to differentiate, simplify, and refine requirements when changes occur.

3.3 Design tools

The information obtained shall then be structured into diagrams like, data flow diagram (DFD5), entity relationship diagrams (ERDs) and data dictionary to model and map the flow of data among entities. The design of the online reporters' record management system involves conceptual, logical and physical designs so as to produce a complete, detailed specification of the program me components and of the database to be maintained by the system.

3.4 Implementation tools

Here, individual system components were built and tested. This involves the use of MYSQL server to support and provide back-end programming of the system database, HTML for developing the graphical user interface, PHP for communication between the graphical user interface and the database, and JavaScript for validation.

Technologies which will be used and reason why		
Database management system		MYSQL It is free, fast, reliable open source relational database. It is inexpensive software to use and ease of use. Easily integrate with Ms Windows 2000 and other Microsoft application
Programming language		PHP Php support all major platforms (UNIX, WINDOWS), and features native support for most popular database. Php is lightweight and focused on the web- where it can solve complex problem scenarios. Offer very higher performance. It is fast, stable, secure, easy secure, easy to use and open source.
Table showing the technologies used and reasons		

3.5 Testing and validation

This covered the functionality of the system and its usability. It involved presenting the model to stakeholders and interacting with them to get their views on the model, consultations with a team of experts and use of test data to ensure that the user gets the expected output.

3.6 Project Plan and Schedule

A project is a sequence of unique, complex and connected activities having one goal and purpose and that must be completed by a specific time, within a budget and according to specification. Therefore it needs to be planned. Project planning identified the required tasks to complete the project; this was based on the methodology that was used to achieve the goal. The project needs to be timed basing on the project plan and the methodology and its schedule that was used is as follows.

TASK	DESCRIPTION	DURATION
Investigation	Identification of problems and alternatives and possible solutions	4 weeks
Analysis	Problem definition and understanding of it using collected data.	4 weeks
Design	Define and design inputs, outputs, processes, storage, control and backup	8 weeks
Development	Coding, testing and debugging. Acquire software and hardware	6 weeks
Implementation	Convert hardware/software directly, phased, pilot or parallel	13weeks
Maintenance	Audit system and evaluate system periodically	After every 2 month

3.7 Risk Assessment

This is a process of identifying, evaluating, and controlling what might go wrong in a project before it becomes a threat to the successful completion of the project or implementation of the information system.

Staffing risks: - Data processing changes often bring about organizational stress. Introduction of computer also requires employee adjustments. Staffing decisions are necessary to select and train workers for new jobs

To deal with employees whose jobs have been eliminated or reduced in content or appeal.

Proper planning and leadership reduce the resistance of employees and managers because of significant changes. Also the risk of training managers and employees to acquaint them with computer capabilities.

Control risks: - Computers can quickly signal out-of-control conditions, thus bringing about faster awareness of problem.

Triggered control reports, based on

Economic risks

An investment decision involving many thousands of dollars must be made to implement the new system. Computer system can improve the organization economic position by reducing ratio of expenses in movement of collecting report from each centre. It can still fail to create returns out of the invested money or it can bring more or still be average as it was.

Impact of failure

Introduction of the new system can fail to pick up and totally bring down the current system. It can be implemented still but after a short while fails to meet and compete with the existing system.

3.8 Limitations of the Study

Time

The time taken to move in and out to conduct studies is somehow limited in certain areas of study. In allocating limited to particular activities may be limited and fail to get the whole information in the short available time.

Costs

The costs of traveling, publications of questionnaires, and other costs accrued during the study have a limitation to the researcher and the researcher may opt to take short cuts which are not effective.

Distance

The distance between the home place, study area and other areas of interest might be far that at times will limit the researcher to complete or make it to the areas. Also some areas are inaccessible.

Estimates

The estimation made about the study might not span throughout the project life cycle and this limits the researcher in making other estimates. It is always made to be higher than the estimated, but end up being more than expected. The estimates range from resources needed, costs needed, personnel and duration.

Insufficient Resources

Resources may be allocated but fail to finish the projected work which limits the progress of the study.

Appointments

Making appointments with different people to conduct interviews, collection of data and may be to analyze data is always postponed or failed due to failure to turn out for the appointment by the appointee.

Failure to manage to the plan

The researcher may fail to stick to the stipulated project plan and this he/she strays in conducting study which is a limitation to the study.

Lack of organization commitment to the system development methodology

If the organization in study fails to commit itself to be available in terms of provision of sources, data, time and approval of the researcher to conduct the research is a limitation to the study.

3.9 The proposed system.

The proposed system seeks to overcome the shortfalls associated with the old system. It will seek to achieve the following goals:

Improve the current data collection, storage and update methods.

Increase collaboration by putting in place a database that enables the units within the scope to share information on data stored.

Improve on data capture and reporting. It was possible to make periodic reports based on accurate information.

Quick and efficient retrieval of data.

3.9.1 Benefits of the proposed system

The following benefits were accrued from the use of the new system.

- There was increased functionality of the database. Every data was entered in one database instead of there being a number of files, papers, books and registers scattered all over. This created space that could be put to other use.

- It helped provide data consistency thus improving on accurate record keeping and data capture. Errors due to manual computations were greatly reduced.
- The proposed system offered increased security to the system by use of passwords.
- Only rebels that are seeking amnesty are the only ones that can enter information that is of importance to it. This lead to freedom of expression among they that want to feel the form
- This information has then been easily accessed hence cutting down on time wastage.
- The proposed system kept records of all information about rebels that have sought for amnesty, and the action taken
- It helped generate reports on the commonly courses of rebel activity and that was useful for the amnesty international in conducting sensitization and awareness programs that would educate the societies on the prevention of rebel activity
- The data was stored proximate to the location where it is most frequently used and therefore can be referred to at any time.
- The development application and database ensured a unified system of record keeping.
- The proposed system helped increase efficiency and effectiveness of the amnesty international programs

3.10 Conclusion

With the research complete and the system in place this minimized the cost spent in collecting the date by reporter's from each centre and Users had confidence in confidentiality of information and got from them and they feel so free to fill in the needed information ,this will lead to better and enhanced quality service in the organization.

CHAPTER 4

SYSTEM DESIGN

4.0 Introduction

This chapter presents the stages through which the proposed systems was developed systems was developed which were; systems analysis, design and implementation.

4.1.0 Systems study

The study of the current Amnesty Commission's information management systems was carried out at the Amnesty Commission headquarters using the interview guide provided in Appendix B.

Currently, the Amnesty commission is using a manual system to register former combatants. The senior resettlement officer's registration/survey forms from the Amnesty Commission head office and transport them to their respective reception centers in the different regions. Once former combatants report, they are registered by the senior resettlement officers using these forms. The forms are later sent back to the Amnesty Commission head office where they are critically analyzed and then amnesty is awarded to those former combatants. The information provided on the survey forms is later entered into Microsoft Access for future reference.

4.1.1 Weaknesses of the existing system

The following weaknesses were identified after a critical analysis of the Amnesty Commission's information management system.

- The survey forms are in paper form which makes former combatants' records prone to loss and destruction in case of any disasters like floods.
- Too much paperwork which is so tiresome and causes difficulty in data capture, storage, access, manipulation and retrieval.
- There is also a high cost involved in transporting the survey forms.

4.2.0 Systems Analysis

4.2.1 User Requirements

In order for the proposed online reporters' record management systems to allow easy interaction with the system users, the users require that the system design must match the following requirements.

- The interface must be user-friendly and intuitive, that is easy to learn and use.

- The system must provide some resilience to user errors and allow the users to recover from errors.
- A consistent Graphical User Interface (GUI) that enables users to log into their profiles and carry out their roles.
- The reports from the system must be accurate and complete in relation to the provided data.
- The system should be secure by having access control measures such as use of usernames and passwords in order to prevent unauthorized users from accessing it.

4.2.2 Functional Requirements

Basing on the information collected from the interviews the researchers conducted the online reporter 'record management systems meet the following requirements.

- The system must accept input from the user through the interface.
- The system should give a warning when important fields are not filled in or wrong values are entered.
- The systems should also provide security measures to the database by using user IDs and passwords to avoid unauthorized access.
- The system should provide security to the entered data for instance a session should expire after a given period of time.
- The system shall recognize each user after he/she has logged in.
- The system should generate reports on the former combatants' turn-up by rebel group.
- The system should also generate a graph to show gender distribution of reporters.
- The system should generate a report to show a list of reporters within a given period of time.

4.2.3 Non-functional requirements

Non-functional requirements are the constraints to the system requirements. They include the following;

- The system should be scalable.
- The system should be fast enough in its operation.
- Access to the system should be restricted to only authorize users.
- MYSQL, PHP, HTML, Dreamweaver and JavaScript shall be used to implement the system.

4.2.4 System Requirements

These requirements represent a detailed description of the services offered by the system and the constraints and can serve as a contract between the developer and the client. The following specifications are needed for the proposed system to function as expected.

4.2.5 Hardware Requirements

The following minimum specifications are required for the online reporters' management system to run on an ordinary desktop computer.

- Intel Pentium III or IV processor
- Minimum of 128 MB
- 10GB or more Hard Disk Drive space.
- A network interface card
- Uninterruptible power supply

4.2.6 Software Requirements

To a great extent, the usefulness of the hardware depends on the software available and management ability to control software utilization. For the online reporters' record management system application software to run, the following software must be present on the computer to which the application is to be installed.

- MS SQL server installed.
- Operating system for the server should be Windows 2000 server/XP/NT
- Operating system for the client PCs should be Linux, Windows 2000/XP/NT

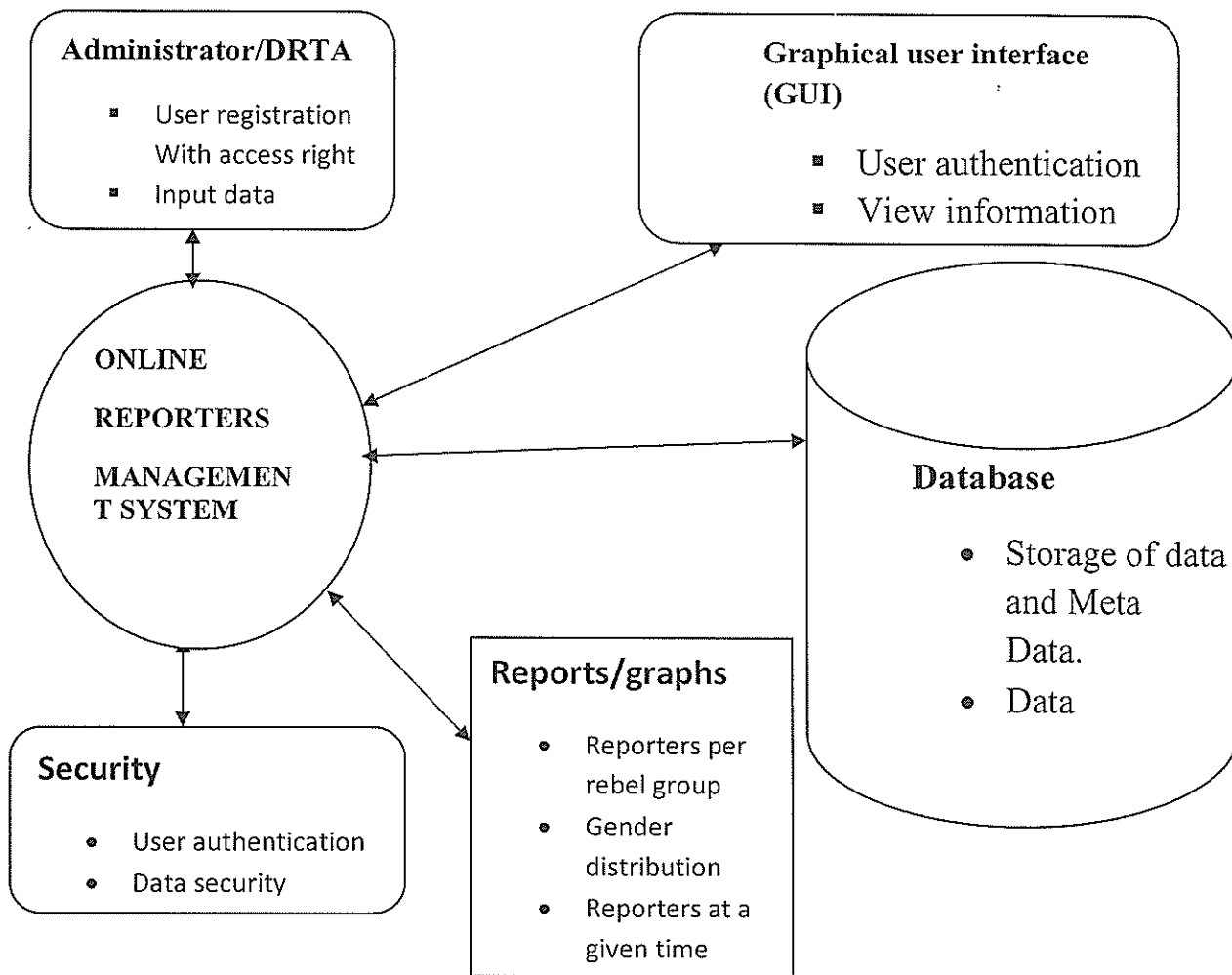
4.3.0 System Design

This explains the methods that were used to come up with the system from the requirements specification document. These include: context diagrams, entity relationship diagram, data flow diagram.

4.3.1 Architectural Design

The architectural design gives a high level view of the proposed system with the main components of the system as well as how these various components work together to achieve the desired goals. The diagram below illustrated the architectural design of the proposed system.

Figure 3: Architectural Design of the proposed system

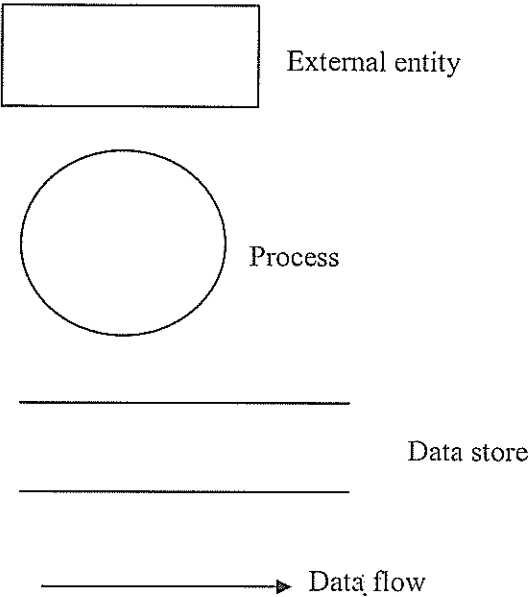


4.3.1 Data Flow Diagram

In order to document all the end user requirements for the proposed on line reporters' record management system, the structured analysis approach was used to specify the processes that occurred within each module. It was for this reason that a context diagram, level 0 diagram and level 2 diagrams were used to model and map the flow of data among system entities.

The diagram depicting the flow of data in the Amnesty Commission used the following symbols:

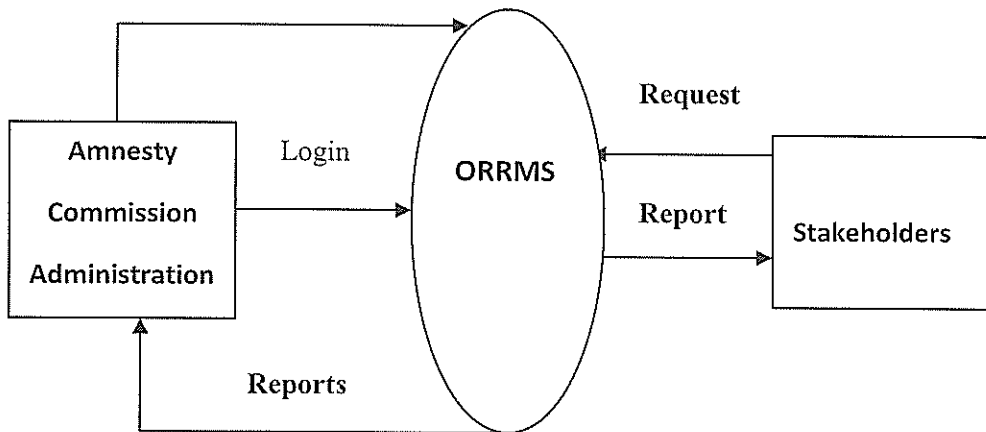
Figure 4: Symbols used in data flow diagrams



4.3.2: Context diagram of the proposed system

Figure 5: Context diagram of the proposed system

Enter Reporter's Details



4.3.3 Level 0 data flow diagram of the proposed system

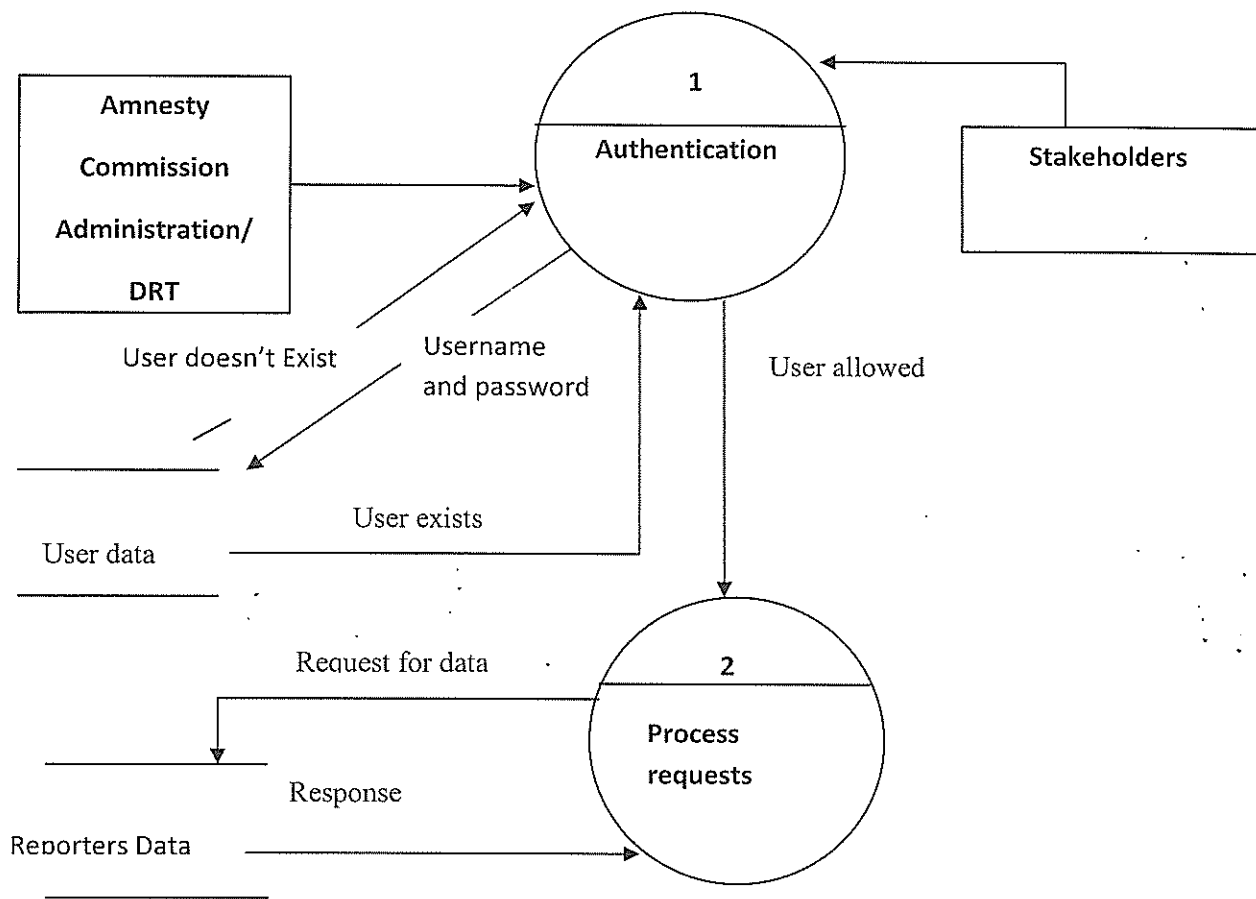
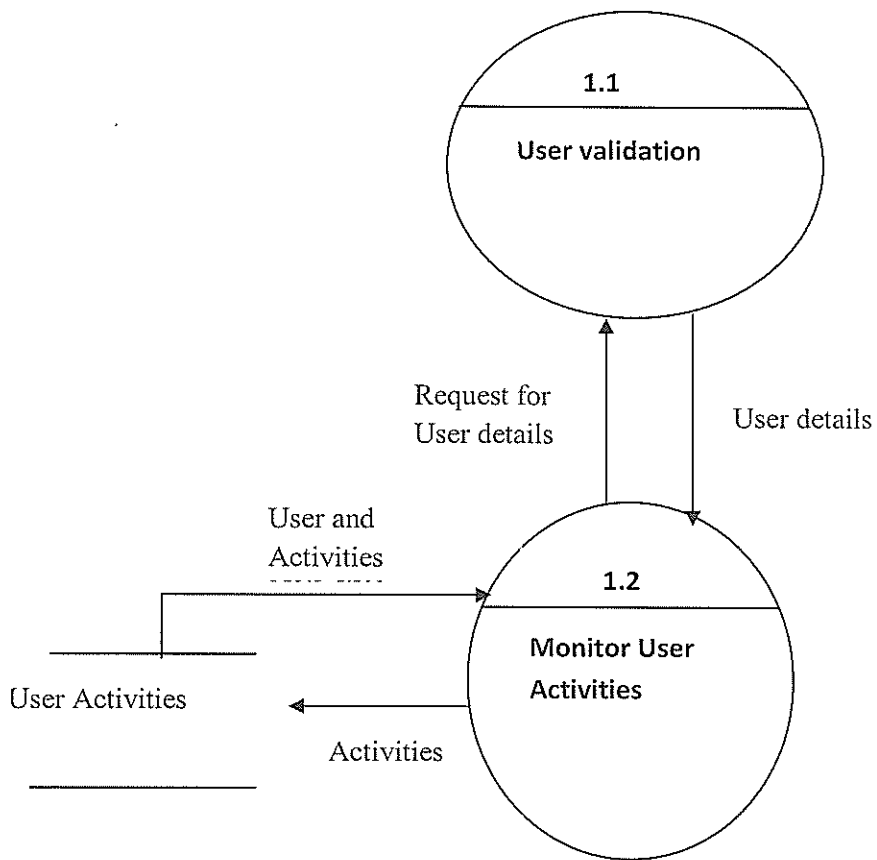


Figure 6: Level 0 data flow diagram for the proposed system

4.3.4 Level 1 data flow diagram for the proposed system



4.3.5: Level 1 data flow diagram for process 2 of the proposed system.

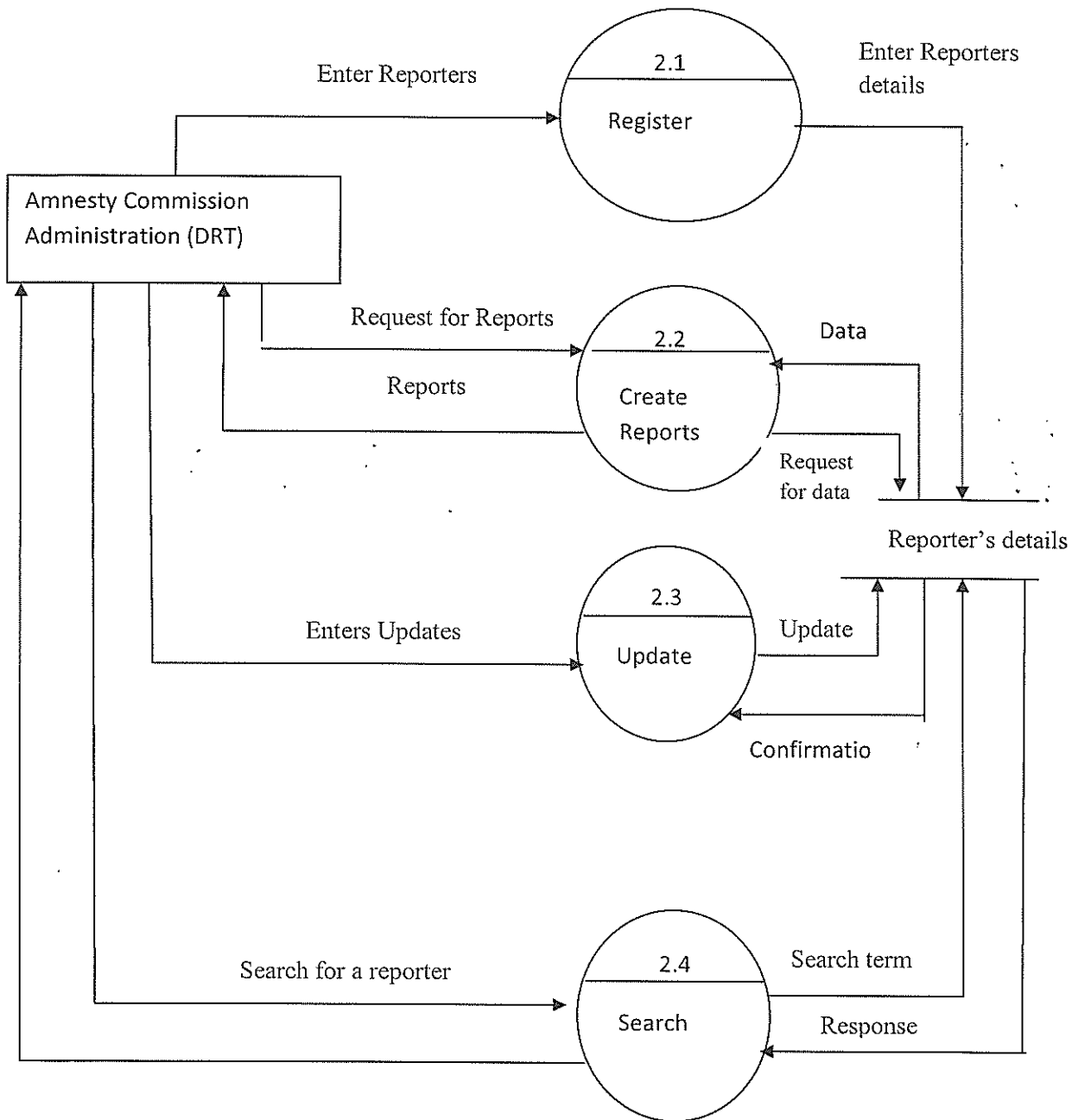


Figure 7: Level 1 data flow diagram for process 2 of the proposed system

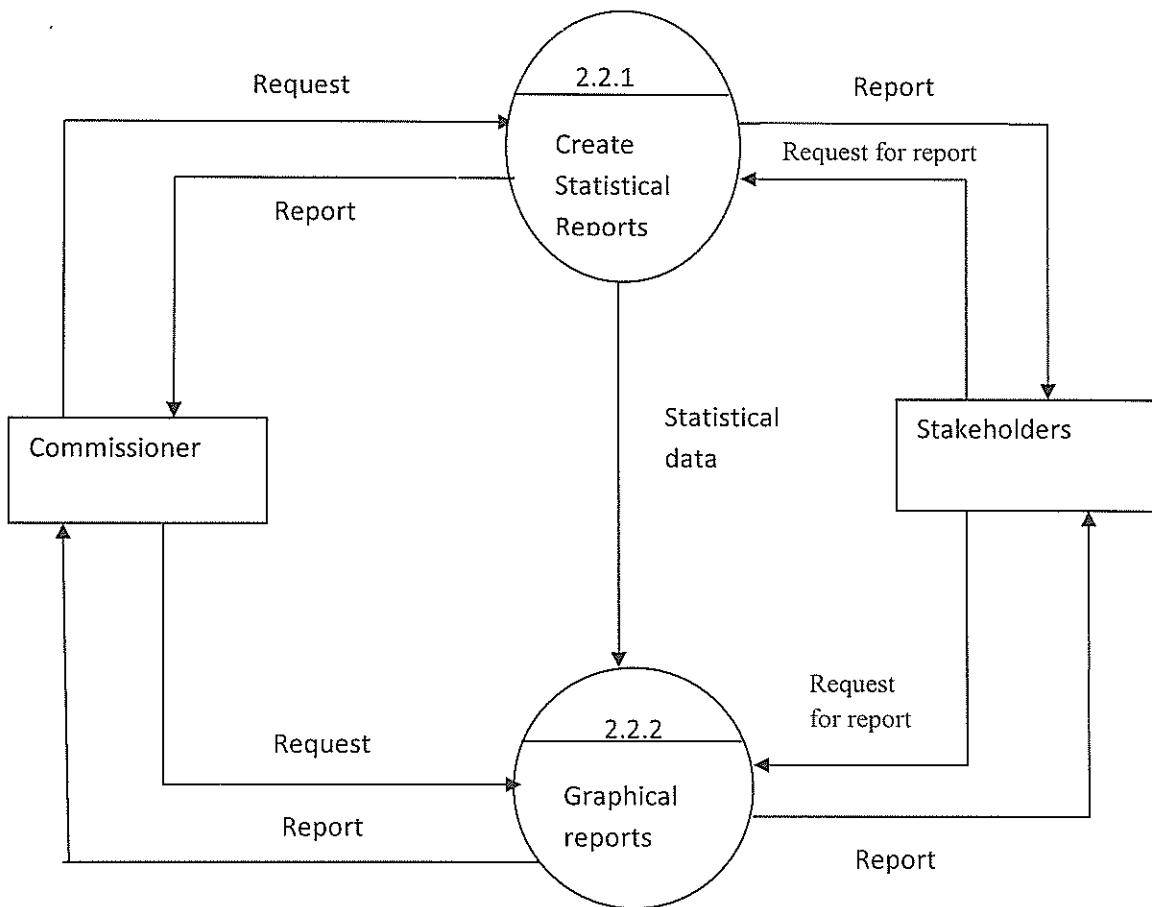
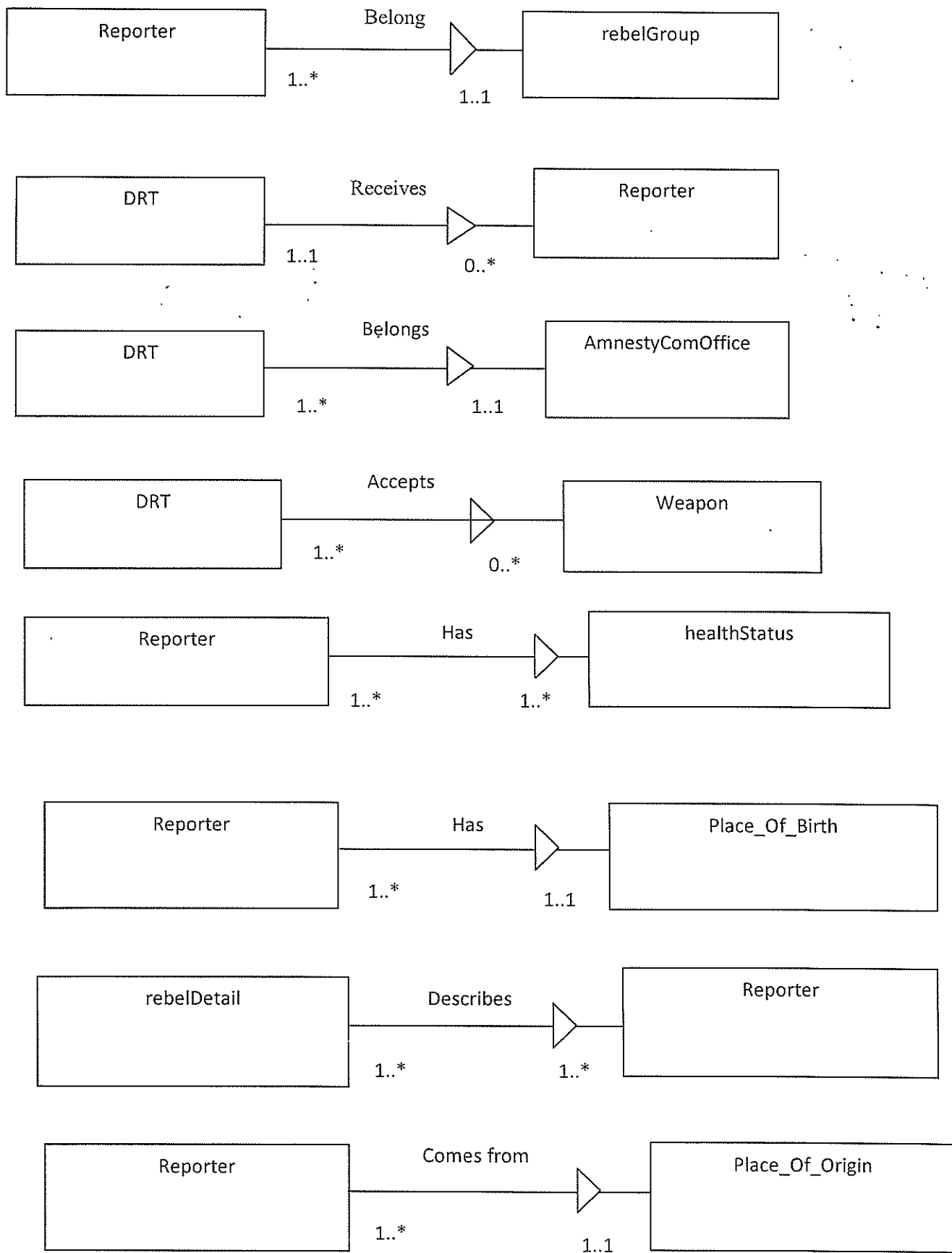


Figure 8: Level 2 data flow diagram for the proposed system

4.3.7 Conceptual design.

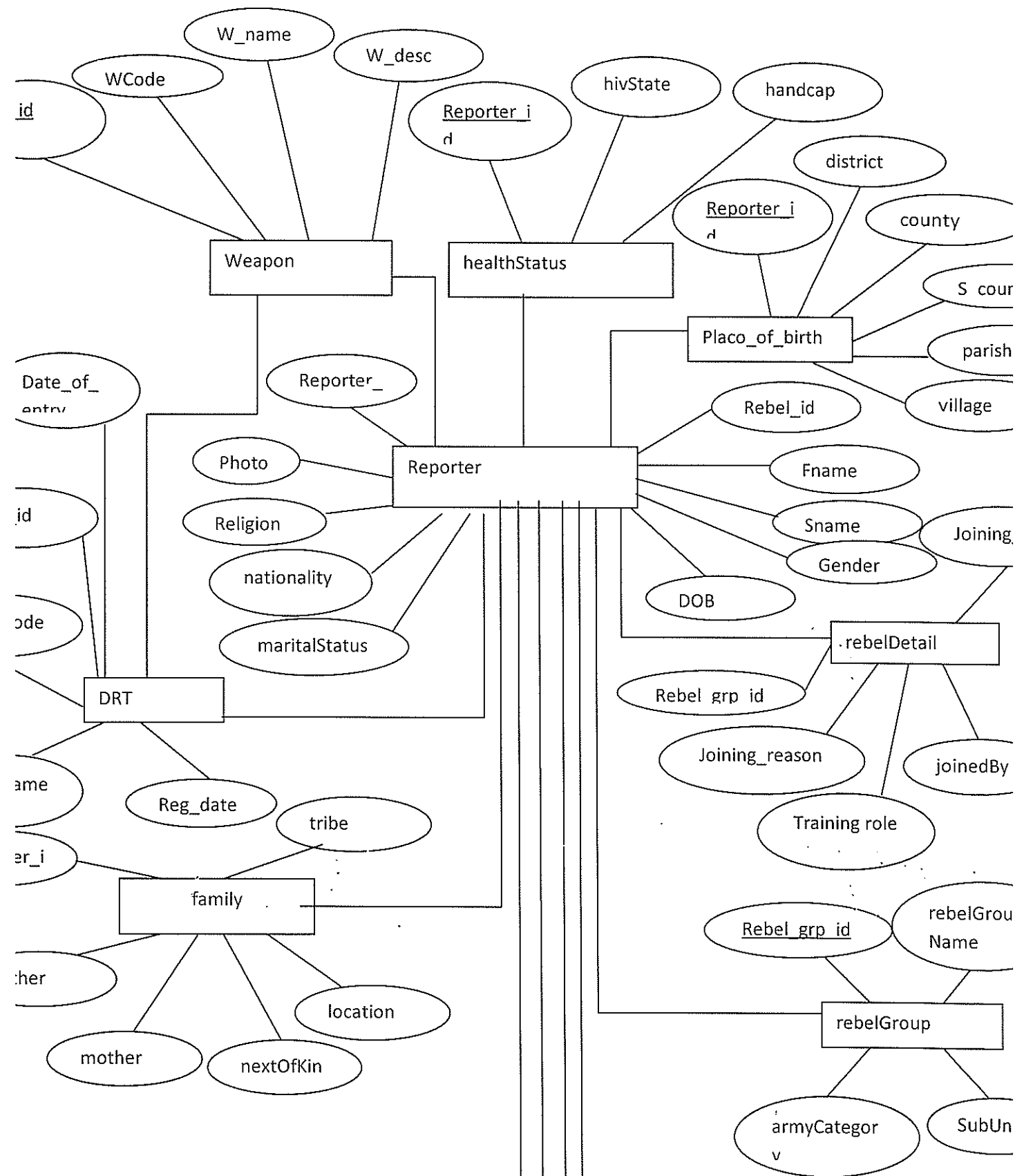
This stage involved the process of creating the database that would support the system's objectives. Data modeling techniques were used to create a model of a database structure in the most realistic way possible independent of all physical consideration. Attributes, entities and their relationships were identified.

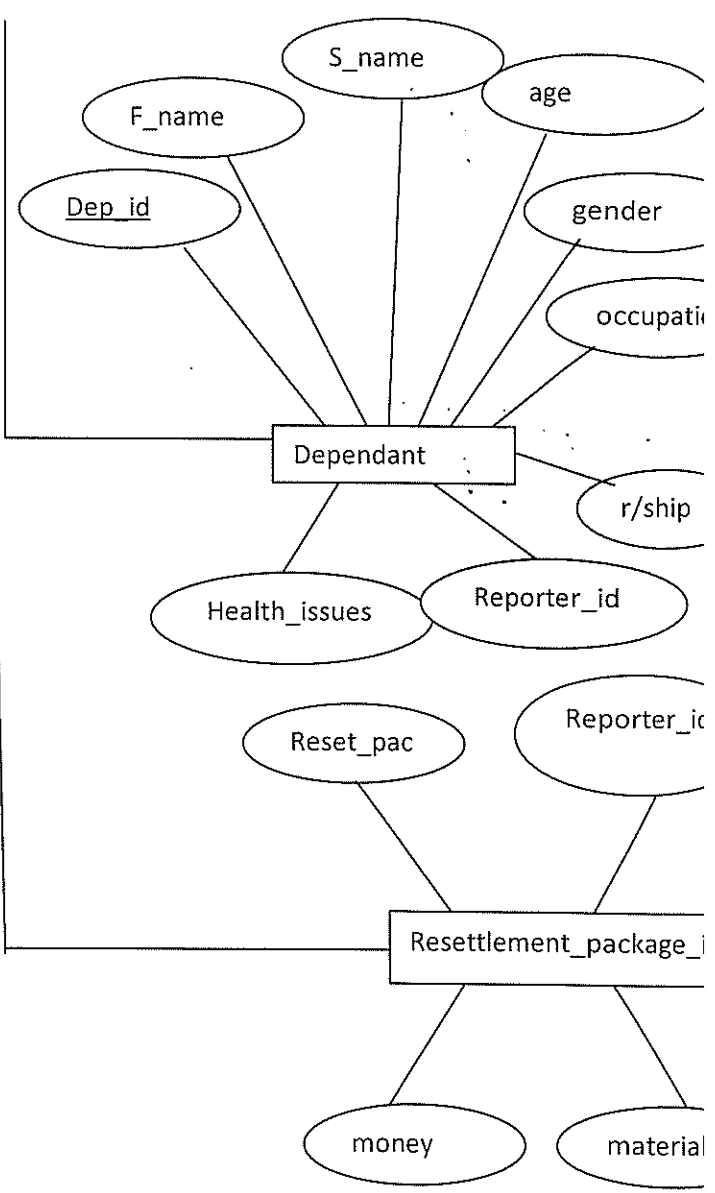
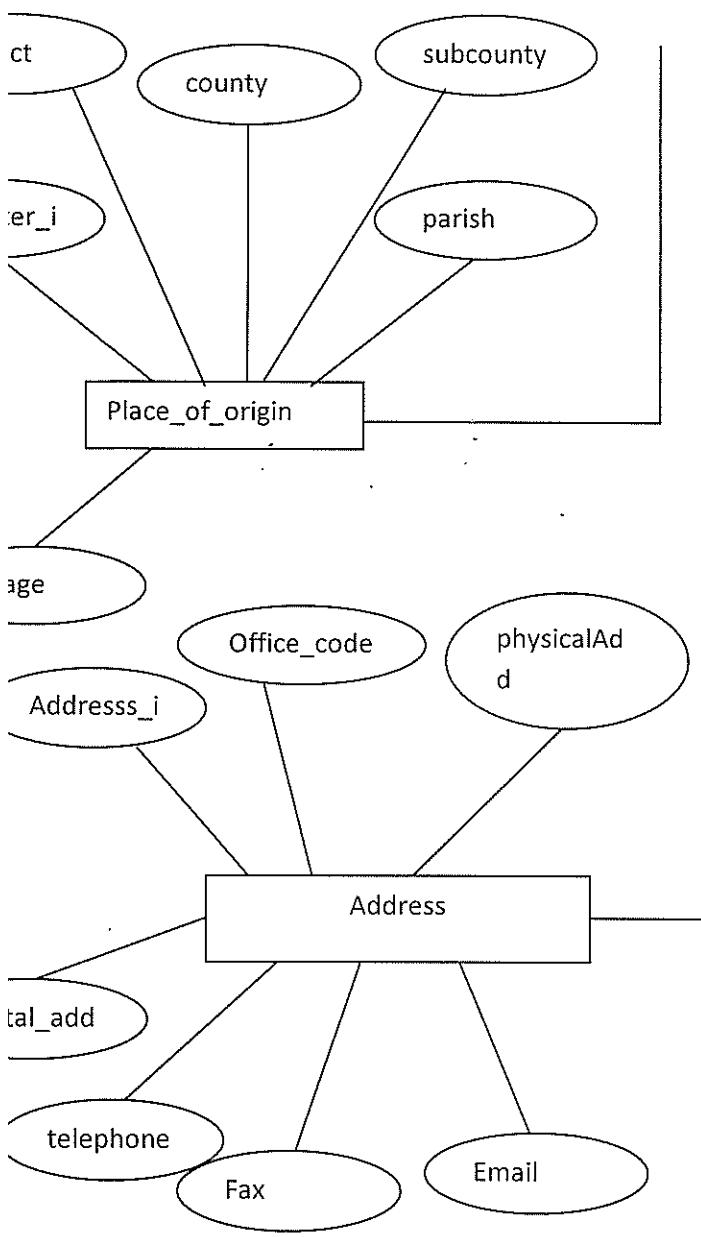
4.3.8 The entities and attributes of the system.



4.3.9 Entity relation diagram

Figure 9: Entity relation diagram





4.3.10: Mapping entity types.

Reporter (reporter_id, rebel_id, fname, sname, gender, dob, marital_status, nationality, religion, photo)

User (iser_id, name, date_of_entry)

Address (address_id, office_code, physicalAddress, postal_address, telephone, fax, email)

Dependant (download_id, name, s_name, age, gender, occupation, relationship, reporter_id, health_status)

Download (download_id, filename, size, is_feature, is_archived, date_of_entry)

Drt (drt_id, office_code, drt_name, reg_date)

Family (reportor_id, tribe, father, mother, nextOfKin, location.

HealthStatus (reporter_id, hivState, handicap)

News_analysis (news_id, title, body, is_featured, is_archived, date_of_entry)

Photogallery (reporter-id, photo, title, desription)

Place_of_birth (reporter_id, district, county, subCounty, parish, village)

Place_of_origin (reporter_id, district, county, subCounty, parish, village)

Rebel_description (rebelGroup_id, joining_dte, joining_reason, joinedBy, training, role, escape_date, duration)

Rebel_group (rebelGroup_id, rebelGrouName, armycategory, subunit)

Regional_office (office_code, office_name)

Reporter_address (address_id, reporter_id, physicalAddress, telephone)

Resettlement_package (resettlement_package_id, reporter_id, money, material)

War-detail (reporter-id, rank, nickname, operationBase, commander)

Weapon (weapon_id, weaponCode, weapon_name, weapon_desc)

4.3.11 Logical Design

Data definition of each relation

Table 1: Reporter relation.

Attribute	Description	Data type and size	Constraint
rebel-id	ID of rebel group	Varchar(12)	Not null
reporter__id	Reporter's unique identifier	Varchar(12)	Primary key
fname	Reporter;s first name	Varchar(15)	Not null
sname	Reporter's surname	Varchar(15)	Not null
gender	Gender of reporter	Enum(M,F)	Not null
dob	Reporter's date of birth	Varchar(15)	Not null
Marital-status	Reporter's marital status	Varchar(20)	Not null
nationality	Reporter's nationality	Varchar(20)	Not null
religion	Reporter's religion	Varchar(20)	Not null
photo	Reporter's photograph	Varchar(150)	Not null

Table 2: User relation

Attribute	Description	Data type and size	Constraint
User_id	Administrator/DRT identifier	Bigint(25)	Primary key
name	Administrator/DRT name	Varchar(200)	Not null
Date_of_entry	Date data is entered	date	Not null

Table 3: Address relation

Attribute	Description	Data type and size	Constraint
Address-id	DRT's address	Int(2)	Primary key
Office-code	DRT's office code	Varchar(15)	Not null
Physical address	DRT's physical address	Varchar(300)	Not null
Postal_address	DRT's postal address	Varchar(20)	Not null
Telephone	DRT's telephone number	Varchar(15)	Not null
Fax	DRT's fax number	Varchar(12)	Not null
email	DRT's email address	Varchar(30)	Not null

Table 4: Dependant relation

Attribute	Description	Data type and size	Constraint
Dependant_id	Dependant's identifier	Int(5)	Primary key
F_name	Dependant's first name	Varchar(15)	Not null
S_name	Dependant's surname	Varchar(15)	Not null
Age	Dependant's age	Varchar(10)	Not null
Gender	Gender of dependant	Varchar(10)	Not null

Occupation	Dependant's occupation	Varchar(30)	Not null
Relationship	Dependant's relationship	Varchar(12)	Not null
Healthstatus	Dependant health status	Varchar(15)	Not null
Reporter_id	Reporter's identifier	Varchar(15)	Foreign key

Table 5: Download relation

Attribute	Description	Data type and size	Constraint
Download_id	Download identifier	Bigint(25)	Primary key
Name	Download name	Varchar(300)	Not null
Filename	Download filename	Varchar(100)	Not null
Size	Download file size	Varchar(100)	Not null
Is_featured	Date download is featured	Enum('1','0')	Not null
Is_archived	Date download is archived	Enum('1','0')	Not null
Date_of_entry	Date download is entered	datetime	Not null

Table 6: DRT relation

Attribute	Description	Data type and size	Constraint
Drt_id	DRT's unique identifier	Varchar(12)	Primary key
Office_code	DRT's office code	Varchar(15)	Not null
Drt_name	DRT's name	Varchar(30)	Not null
Reg_date	Date DRT registers a reporter	date	Not null

Table 7: Family relation

Attribute	Description	Data type and size	Constraint
Reporter_id	Reporter's identifier	Int(6)	Primary key
Tribe	Reporter's tribe	Varchar(12)	Not null
Father	Reporter's father	Varchar(15)	Not null
Mother	Reporter's mother	Varchar(15)	Not null
nextOfKin	Reporter's next of kin	Varchar(15)	Not null
location	Reporter's location	Varchar(200)	Not null

Table 8: Health status relation

Attribute	Description	Data type nad size	Constraints
Reporter_id	Reporter's identifier	Varchar(12)	Primary key
Hivstatus	Reporter's hiv status	Varchar(12)	Noy null
handcap	Physical appearance of the reporter	Varchar(255)	Not null

Table 9:News_analysis relation

Attribute	Description	Data type and size	Constraint
News_analysis_id	News identifier	Bigint(25)	Primary key
Title	News title	Varchar(200)	Not null
Body	News body	Text	Not null
Is_featured	Date news was featured	Enum('1','0')	Not null
Is_archived	Date news was archived	Enum('1','0')	Not null
Date_of_entry	Date news was entered	Datetime	Not null

Table 10: Photogallery relation

Attribute	Description	Data type and size	Constraint
Reporter-id	Reporter's identifier	Int(3)	Primary key
Photo	The reporter's photograph	Varchar(200)	Not null
Title	Title of photograph	Varchar(30)	Not null
description	Photo graph description	Varchar(150)	Not null

Table 11:Place_of_birth relation

Attribute	Description	Data type and size	Constraint
Reporter_id	Reporter's identifier	Varchar(12)	Primary key
District	Reporter's district	Varchar(20)	Not null
county	Reporter's county	Varchar(20)	Not null
Subcounty	Reporter's subcounty	Varchar(20)	Not null
Parish	Reporter's parish	Varchar(20)	Not null
village	Reporter's village	Varchar(20)	Not null

Table 12:Place_of_origin relation

Attribute	Description	Data type and size	Constraint
Reporter_id	Reporter's identifier	Varchar(12)	Primary key
District	Reporter's district	Varchar(20)	Not null
county	Reporter's county	Varchar(20)	Not null
Subcounty	Reporter's subcounty	Varchar(20)	Not null
Parish	Reporter's parish	Varchar(20)	Not null
village	Reporter's village	Varchar(20)	Not null

Table 13:Rebel_description relation

Attribute	Description	Data type and size	Constraints
Rebelgroup_id	Rebel group identifier	Int(6)	Primary key
Joining_date	Reporter's joining date	Date	Not null
Joining_reason	Reporter's reason for joining the group	Varchar(255)	Not null
Joinedby	How the reporter joined the group	Varchar(15)	Not null
Training	Training done in the fighting group	Varchar(255)	Not null
Duration	Period the reporter has been in the group	Varchar(4)	Not null
Role	Reporter's role in the group	Varchar(200)	Not null
Escape_date	Date reporter escaped from group	date	Not null

Table 14:Rebel_group relation

Attribute	Description	Data type and size	Constraints
rebelGroup_id	Rebel group identifier	Varchar(12)	Primary key
rebelGroupname	Rebel group name	Varchar(50)	Not null
armyCategory	Rebel group category	Varchar(30)	Not null
Subunit	Sub unit of rebel category	Varchar(20)	Not null

Table 15: regional_office relation

Attribute	Description	Data type and size	Constraint
Office-code	Regional office code	Varchar(15)	Primary key
Office_name	Regional office name	Varchar(15)	Noy null

Table 16:reporter addresses relation

Attribute	Description	Data type and size	Constraints
Address-id		Int(12)	Primary key
Physical address	Reporter's physical address	Varchar(300)	Not null
Telephone	Reporter's telephone number	Varchar(15)	Not null

Table 17:resettlement_package relation

Attribute	Description	Data type and size	Constraint
Resettlement_package_id	Resettlement package identifier	Int(5)	Primary key
Reporter_id	Reporter's identifier	Varchar(12)	Not null
Money	Amount in cash given to a reporter	Double(6,3)	Not null
Material	Material given to a reporter	Varchar(400)	Not null

Table 18: War_detail relation

Attribute	Description	Data type and size	Constraints
Reporter_id	Reporter's identifier	Varchar(12)	Primary key
Rank	Reporter's rank in fighting group	Varchar(30)	Not null
Nickname	Reporter's nickname in fighting group	Varchar(20)	Not null
OperationBase	Operational base of fighting group	Varchar(50)	Not null
commander	Reporter's commander in fighting group	Varchar(15)	Not null

Table 19: weapon relation

Attribute	Description	Data type and size	Constraints
Weapon_id	Weapon identifier	Int(5)	Primary key
weaponCode	Weapon code	Varchar(15)	Not null
Weapon_name	Weapon name	Varchar(20)	Not null
Weapon_desc	Weapon description	Varchar(255)	Not null

CHAPTER 5

SYSTEM IMPLEMENTATION

5.0 Introduction

This chapter looks at the procedure used to physically realize the user interfaces and the database of the proposed system. The database design was converted into the physical database using MySQL and the tools used to implement the user interfaces and connect it to the database were HTML, and PHP, the validation was done using JavaScript. The source code of the proposed system has been excluded from the documentation because the codes are bulky; however, sample source code for validation of regular expressions is included in appendix D of this documentation.

5.2 Project implementation

Project implementation is putting into effect a piece of research work.

To implement the system the following were done:

- Acquire the installation of requirements e.g. hardware, software.
- Data collection.
- Planning analysis and project writing
- System design and user training
- System testing and review
- System implementation and report writing

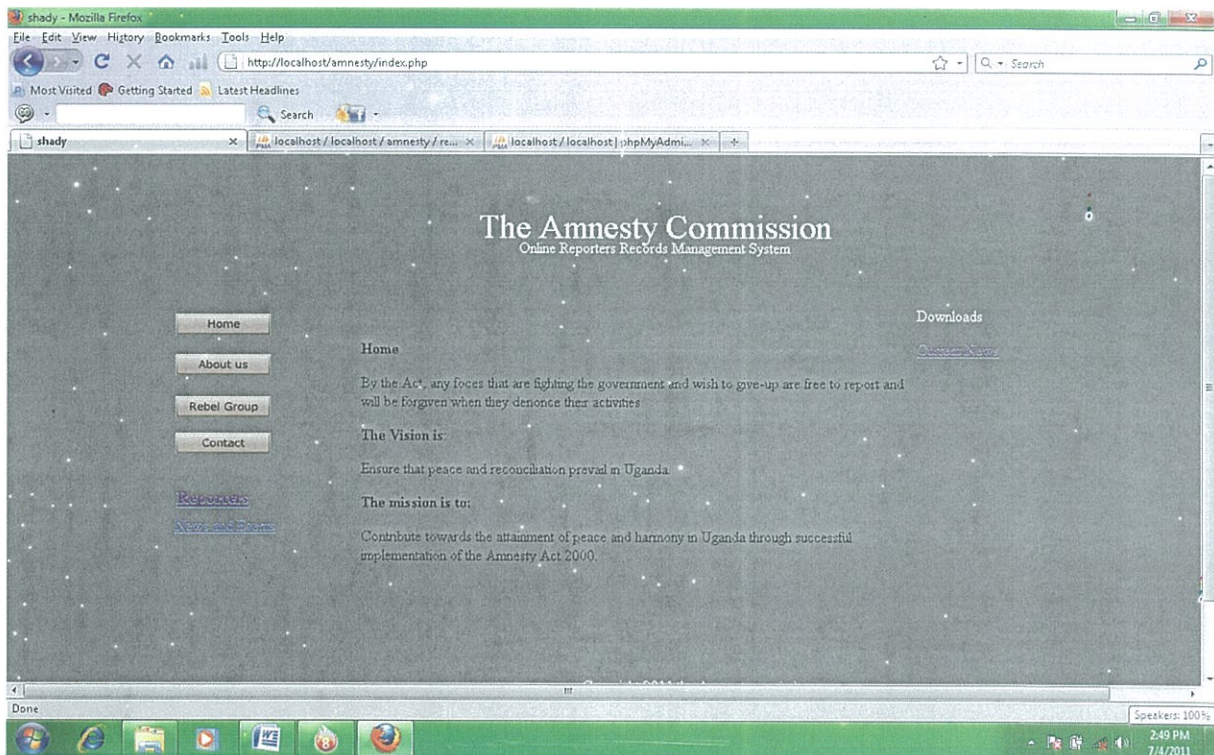
5.2.1 System implementation

Systems implementation is the delivery of that system into production (meaning day to day implementation). The implementation phase delivered the production system into operation. The functional system from the construction phase was the key input to the implementation phase of the system. The deliverable of the implementation phase was the operational system, the operation and support stage of the life cycle.

5.2.2 Samples of the interfaces in use.

The online reporter's record management system was designed to allow only authorized users access the database through the use of user names and passwords

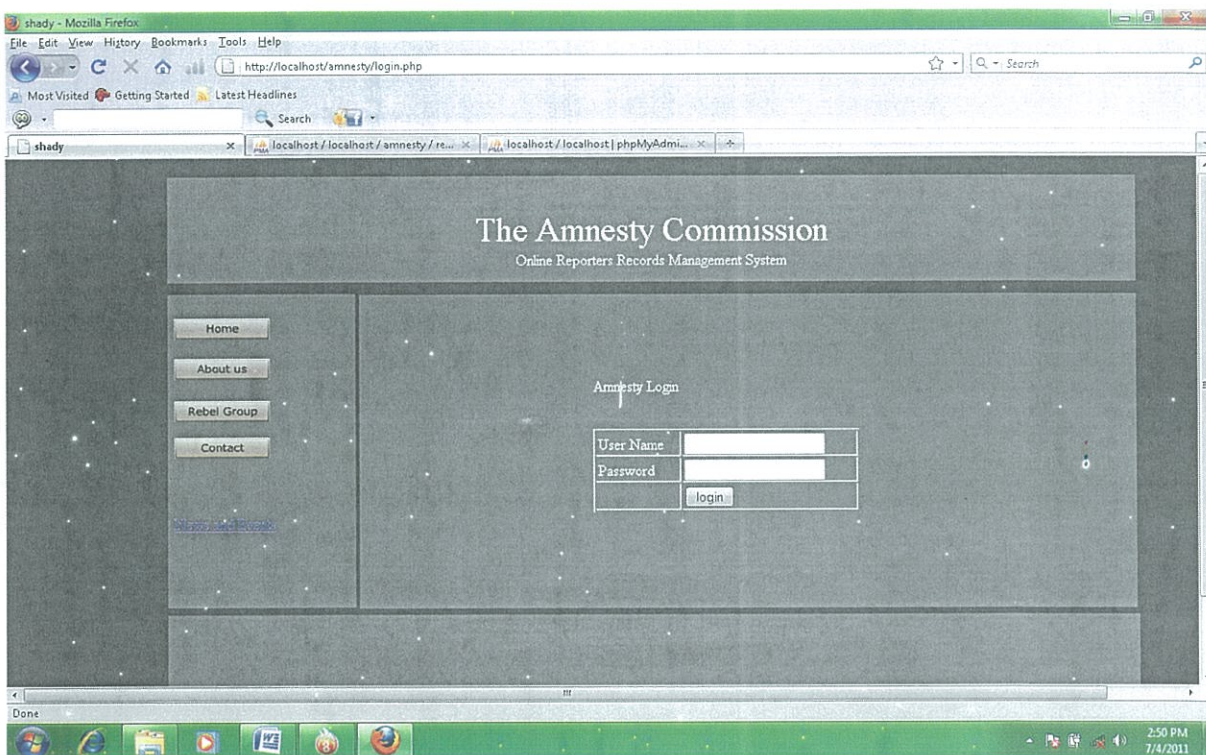
Figure 10: First interface to the user



Login scenario

A user named 'Administrator' logging into the online reporter's record management system with some password as shown below:

Figure 11: Login form



If the user is authorized, then he/she is given access to the database. Otherwise, the user is warned with an error message shown below:

Figure 12: invalid login message

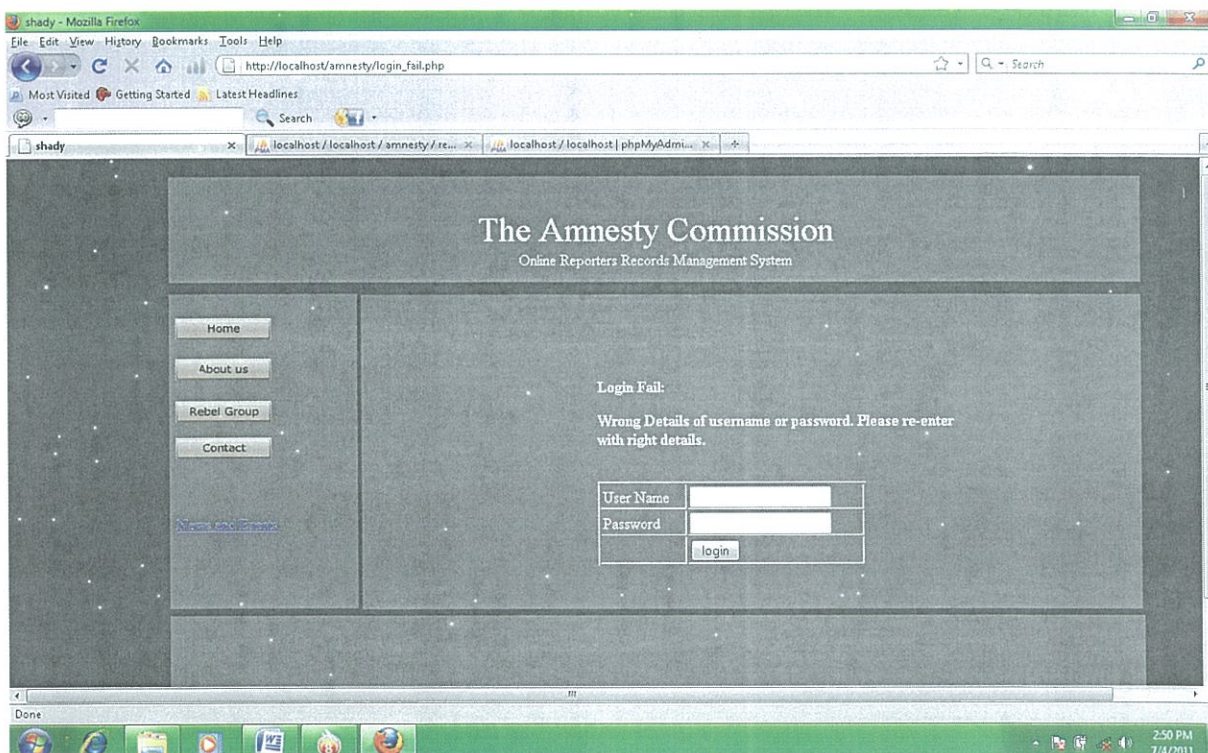


Figure 13: form for registering a reporter

The screenshot shows a Mozilla Firefox browser window with the URL `http://localhost/annesty/reporters.php`. The page title is "The Amnesty Commission Online Reporters Online Management System". The form is titled "Reporter ID" and contains the following fields:

Reporter ID	<input type="text"/>
Rebel ID	<input type="text"/>
First Name	<input type="text"/>
Last Name	<input type="text"/>
Gender	<input type="text" value="M"/>
Age	<input type="text"/>
Marital Status	<input type="text" value="Married"/>
Nationality	<input type="text"/>
Religion	<input type="text"/>
Photo	<input type="text"/> <input type="button" value="Browse Photo"/>

At the bottom of the form, there are three buttons: "Submit", "Check all reporters", and "Check single record". The browser's address bar shows the URL `http://localhost/annesty/reporters.php` and the status bar shows the time 2:51 PM on 7/4/2011.

5.3 Discussion of findings

The outcome of this project was to come up with a system that would manage reporter's data such as a reporter's bio data and former fighting group.

The system works in such a way that the administrators or the demobilization resettlement team at the different reporting centers enter details of former combatants into the system. And since the system provides a functionality of generating reports and is online, the Amnesty Commission heads instantly have access to all reports in the centers to attend to the needs of its stakeholders accordingly.

5.4 The benefits of the project

The system provides consistent data from all the various centers which can aid in effective decision making and management at the Amnesty Commission.

- This system can generate reports about the former combatants at the different reporting centers.
- Information is organized in one central database where the Amnesty Commission can easily retrieve it.
- It attends to the need to share information quickly, easily.
- The system is automated therefore accessing data is at random and much faster.

- It ensures authenticity to the users of the system thereby eliminating the problem of unauthorized access or data insecurity.
- The system also brings co-ordination. It facilitates integrations of specialized activities by keeping each regional office aware of the problem and requirements of other regional offices.

5.5 Limitations.

- ✓ The researcher was unable to access certain information because it was confidential to the Amnesty Commission.
- ✓ The researcher had limited time to design the proposed system, therefore more functionalities that may have been added to the system to add on its usefulness was not addressed.
- ✓ The researcher lacked enough resources that were required to fully design the entire system, due to the fact that computer laboratories at the faculty of the computing and information technology have few computers with the software that can integrate certain technologies.
- ✓ Broad based information also gave the researcher hard time to select the relevant information.
- ✓ Virus interferences as well as expenses were encountered since the software was frequently corrupted by the viruses.

5.6 conclusion

The chapter basically has exhausted the system implementation process with all the diagrams that support each implementation level. The next chapter will look into the conclusions and recommendations of the new system.

CHAPTER 6

CONCLUSIONS AND RECOMMENDATIONS

6.0 Introduction

This chapter highlights the conclusion as well as the recommendations as per the online reporter's record management system. The project was implemented successfully with the goal of developing a model of an online Reporters' Record Management System. This project was also able to view the captured, managed, and retrieved data, through timely reports to the different stakeholders.

6.1 Conclusions

The online Reporters' record management system answered the key questions described in the operations of Amnesty commission. It also encouraged demonstrative decision support, information Management and Transaction support system in the organization.

Therefore, the online reporters' record management system was successfully implemented to automate the operations in the organization.

6.2 Recommendations.

The data entrants in the different regional offices should enter correct information into the system for better results.

The online reporters' record management system needs constant maintenance and upgrading its hardware and software so as to operate efficiently and meet the requirements of the users.

The systems administrator should ensure data integrity through use of tight security for example use of firewalls.

BIBLIOGRAPHY

Bashyam, T.C.A (2000).SE.(may-Jun)

Brozit, M.(2000)system development: strategic framework computers/General information

Busha, C (1980).Research methods in librarianship: techniques and interpretation. London Academic press Inc

Dmwiki(2005).Unified language

<http://www.devmaster.net/wiki/UML> (accessed 20th 01/2011)

En.wikipedia.org(2007).Rapid a application development

http://en.wikipedia.org/wiki/Rapid_Application_development(accessed 20th/01/2011)

EN.wikipedia.org(2007).software Development approaches

http://wikipedia.org/wiki/AGILE_application_development (accessed 11th 02/2011)

Jain, S. and Kannan, P.K (2000).Pricing of information products online: management science, vol.48, No. 9, 1123-1142.

James, M (1991). Rapid Application Development, Macmillan Coll Div.

Kenneth C. Laudon, Kenneth Laudon and Jane P.Laudon (2006). Essentials of Business information Systems: Prentice Hall, Englewood Cliffs, NJ.

Management-hub.com (2007).Management Information Systems.

<Http://www.management-hub.com/i nformation-management-advantages.html>

(Accessed 29th /05/2008)

Martymodell.com(2007).Interviews

<http://www.martymodell.com/pgsa2/pgsa07.html> (Accessed 29th /05/2008).

Maxie, J.M (2007).Africa 2007.

<http://www.iipt.org/africa2007/PDFs/Muwonge.pdf> (Accessed 19th /04/2008)

Hagedorn, c and Rambold, G(2010).A methods to establish and revise descriptive datasets over the Internet.Taxon, vol. 49, No. 3, Golden jubilee part , Aug S!&-S28.

Nat. J. C, Markus.K. And Ingoweederhofer (1996).Case studies in war to peace transition Demobilization or ex-combatant return to civilian life.

O'Brian (2006).Managing information technology in the business enterprise.

Ojp.usdoj.gov/BJA/evaluation/glossary/glossary_i.htm

(Accessed 29th /05/2008).

Raymond, L.(2005).Net development, service design and price Competition in Business information Services.vol.48

The Amnesty (Amendment) Act, 2006

The Amnesty commission (2007). The Amnesty commission Report 2006-2007.

Williams, E.M (1985).Electronic database management science, vol.16.No. 6, Application series.Feb,B350-B355

Zani, W.M. (1970).Real –Time Information System: A Comparative Economic Analysis Management Science, vol. 6, No. 6.

APPENDIX A: INTERVIEW GUIDE

This interview was one of the methodologies used to collect data in the research carried out at Amnesty Commission about registration of former combatants.

The following questions guided the interview with the system administrator.

1. When did Amnesty Commission start?
2. Why was it implemented?
3. Do you have any system in place that can be used to collect and store information?
4. How effective is the system at data capture, storage and retrieval,?
5. How is the information passed on from the regional office/reporting centers to the headquarters and vice versa?
6. Is the system online?
7. Do you encounter any problems with the existing system in place?

The following questions also guided the interview with the senior resettlement officer

1. How do you collect information from the reporters and what survey tool do you use?
2. How do you register the reporters from the region?
3. What is the age bracket that qualifies to be granted Amnesty?
4. How long does it take for one to get full Amnesty?
5. What is involved in the resettlement process?
6. What happens after the registering of the reporter?
7. How do you resettle them in the community?