

AN AUTOMATED ORPHANAGE RECORDS INFORMATION SYSTEM

**A CASE STUDY: TUMAINI CENTER
DAR ES SALAAM TANZANIA**

BY

**RAMADHANI HASSAN
BCS/41342/91/DF**

**A GRADUATION PROJECT REPORT SUBMITTED TO THE SCHOOL
OF COMPUTER STUDIES IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE AWARD OF DEGREE OF
BACHELOR IN COMPUTER SCIENCE
OF KAMPALA INTERNATIONAL
UNIVERSITY**

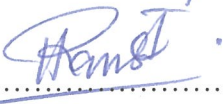
MAY, 2011

DECLARATION

I Ramadhani Hassan do hereby declare to the best of my knowledge that this project report is my original work and that it has never been submitted to any University or any institution of higher learning before for any academic award.

The literature and citation from other people's work have been duly referenced and acknowledged in the text, and reference.

Date..... 24th May 2011

Signed..... 

Ramadhani Hassan

(Student)

APPROVAL

This project report titled "Design and Development of a Computerized System of Orphanage Information System" has been completed under my supervision.

Signed.....



Prof. Vicente Gonzalez

Supervisor:

Date.....

24th May 2011

DEDICATION

I dedicate this project work to my dear parents for their moral and financial support, to my relatives and course mates for their support and encouragement during my entire study period, God bless you all.

ACKNOWLEDGEMENT

I thank my Almighty God for taking me through the process of project development. I wish to thank Mr. Barnaba Sulwa who is the acting manager of Tumaini center, for allowing me to use the organization as my case study. my special regards goes to my supervisor Professor Vicente Gonzalez for guidance, suggestions and comments which helped a great deal to accomplish this project work. And lastly I thank the academic staff of school of computer studies at Kampala International University for providing me enough knowledge throughout the course of my study.

ABBREVIATION

DBMS.....	Data Base Management System
DFDs.....	Data Flow Diagrams
SDLC.....	System Development Life Cycle
VBA	Visual Basic for Application
WINDOW XP.....	Window Experience
UPS.....	Uninterrupted Power Supply
CPU.....	Central Processing Unit
RAM.....	Random Access Memory
CD.....	Compact Disc
GHZ	Giga Hertz
GB.....	Giga Byte
NGO.....	Non Government Organization
CHH.....	Child Headed Households

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ABSTRACT

Tumaini center is located in Ukonga a suburb of the town center 8 kilometers from the city of Dar es salaam. This center is still using paper based file system to collect and store data, the paper based file system has been faced with many problems in daily working such as losing of some document, lack of security, data duplication, updating files, Therefore a computerized system should be introduced to alleviate the mentioned problems.

CHAPETR ONE

INRODUCTION

1.0 General Introduction

Arthur Rackhan et al noted that a computerized management system is a generic term used to describe application of computer hardware and software used to manage orphanage. Orphanage is the name to describe a residential institution devoted to the care of orphans- children whose parents are deceased or otherwise unable to care for them. Parents and sometimes grandparents, are legally responsible for supporting children , but in the absence of these or other relatives willing to care for the children they become a ward of the state, and orphanages are a way of providing for their care and housing. Children are educated within or outside of the orphanage. There are people who have come with the establishment of orphanage home to care for orphans but after sometime you will find them back to the street after they have been disappointed , due to lack of provision of the basic needs. The paper based file system which is used to store the information of orphans is not good enough to handle the information. The reason of pursuing in this study is because the issue of storing information of orphans has not yet been solved.

1.1 Background

Tumaini center is located in Ukonga a suburb of the town center 8kilometers from the city of Dar es salaam. It does the following to care for the orphans, in counseling and health, there is provision of counseling to children from first contact through rehabilitation, counseling for general health and HIV/AIDS which provide medical care for children and staff. In education, arts and culture Tumaini center reintegrate of primary dropouts back to classes enroll the new street children to government school in Dar es salaam, provision of basic school requirement including uniforms, books bus fares etc. Music training as culture and therapy, drama, theatre, sports, video and cultural programs as edu-entertainment. Provision of food, clothing and shelter facilities for children, supervision of cleanness, hygiene and general sanitation. This orphanage home is currently using the paper based system with existing methods that slow down the system. This is tiresome and time consuming.

1.2 Statement of the Problem

Tumaini centre was still using paper- based system to collect and store data since it was established. The paper based file system was faced with many problems in daily work such as loss of some documents. Other problem include lack of security, due to poor storage of data so every one could read it because there is no central automated security to secure data. Data duplication, because every one has to fill the data at its own time and departments and there was no administrator to check or control the data, redundancy that appeared several times. Separation and isolation of data, it was more difficult to access data which was isolated in separate files. Updating of files was difficult to update files since they are mixed up, this make it difficult to get them from the shelves. Therefore a computerised system will be introduced to alleviate the mentioned problems.

1.3 Objectives of the Study

1.3.1 General objective

The main objective of the project is to design, develop and test a reliable computerised information system which will help Tumaini centre to keep, maintain records of data.

1.3.2 Specific objectives

- i) To study the current system for collecting the information for system requirement.
- ii) To design and develop a reliable computerized information system which will be suitable for Tumaini orphanage centre.
- iii) To implement computerized information system that will eliminate the paper based file system.

1.4 Research Question

- i) How will the current system be studied in order to collect information for the new system?
- ii) How will the project be able to design and develop a suitable computerized information system?

- iii) How is the database management system be able to eliminate paper based file system?

1.5 Scope of the Study

The study covers the Tumaini orphanage centre in Dar es salaam Tanzania. The offices covered are administration and manager's offices. Where all names of the orphans and corresponding details are entered in the system.

1.6 Significance of the Study

Development of the new system improved management and services in Tumaini centre offers great advantages such as giving a high level of efficiency in data storage, manipulation and retrieval.

1.7 Limitation of the Study

1.7.1 Financial constraints

Financing a study of this magnitude in terms of research, software, hardware and other resources is costly, hence lead to project stagnation.

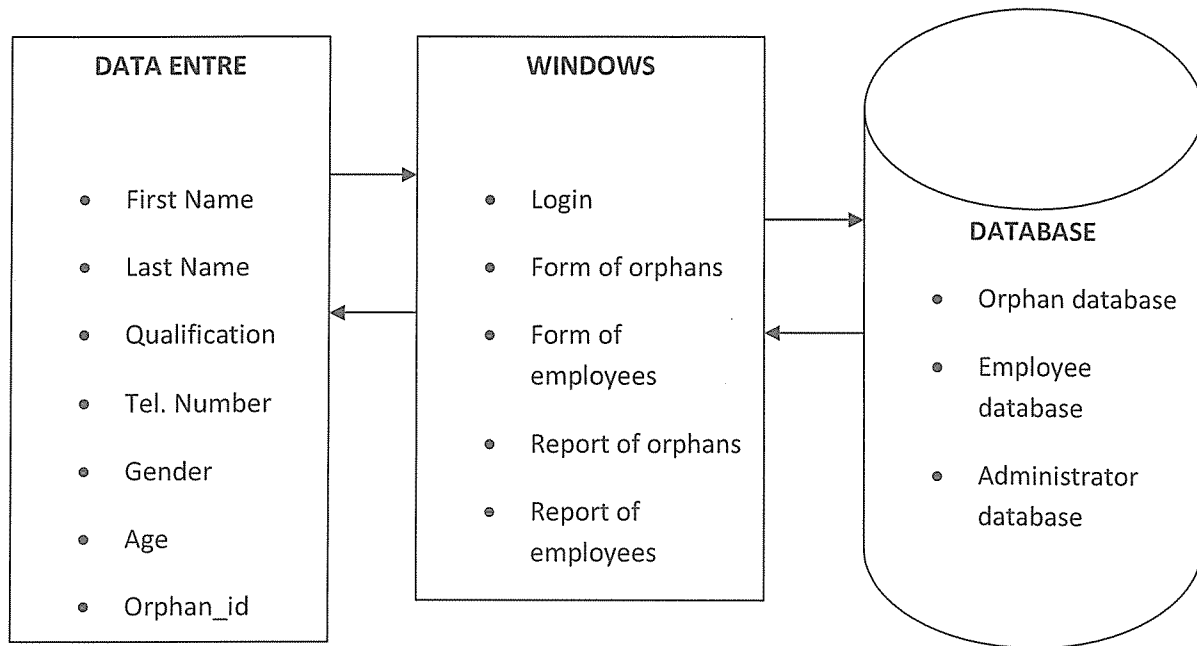
1.7.2 Time constraints

As a student, time is always a limiting factor as there are other academic activities that require attention. Furthermore, time limits reduce the amount of time one can take to research and make a better project.

1.7.3 Limited experience

Lack of experience in this field limited the speed and tactics at which the project had to be carried out by fully skilled and experienced person. Therefore, we had to research and learn new techniques which were to bring perfect project.

1.8 Conceptual Framework



From the diagram above, data entry will be entered through a graphical user interface (GUI) which is visual basic 6.0. The information is then saved in the database. The user could also request for information from the database through reports and queries.

1.9 Conclusion

The database management system stores all orphans and staff information of Tumaini centre, whereby all names and corresponding details are entered into the system.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

An Orphan is a person (typically a child) who has lost both parents, often through death. Orphanage is the name to describe a residential institution devoted to the care of orphans-children whose parents are deceased or otherwise un able to care for them. Tumaini is a Swahili word which means Tumaini centre is one of them and it has come up with the same idea to cater for orphans different researchers have come up with different review has discussed below.

2.1 Theoretical reviews

2.1.1 Database Management System

Silberschats(et al, database system concept) a database management system is a collection of interrelated data and a set of programs to access those database, contains relevant to an enterprise. For any information system to function to the satisfaction of its need it must have a database to enable the storage of data.

James Williams (200) defines a database as an integrated collection of logically related records or objects. DBMS is a set of computer programs that controls the creation, maintenance and use of database of an organisation and its end users.

2.1.2 Advantages of Databases

- i. Data can be shared, it might not be possible to satisfy the data requirement of the new applications without having to add to the database.
- ii. Redundancy can be reduced, in file based system redundancy is unavoidable but with the database files are integrated and this problem is eliminated as long as data administrator is aware of a data requirement for both applications.
- iii. Inconsistence can be avoided in file based.

iv. Integrity can be maintained to ensure that the data in the database is collect, data is controlled centrally permitting the data administrator define and the database administrator implement integrity constraints known as business rule.

v. Security can be enforced, data access is restricted to those with password and proper permission.

2.2 Information System

According to (2002) defines information system as a collection of people, procedures and equipment designed, constructed, operated and maintained to collect, record, process, store, retrieve and display information.

According to Flicker Myron (2001) defines information system as a set of interrelated components working together to collect, retrieve, process and distribute information.

2.2.1 Components of an information system

Input

This is a start up component in which a system operates. It largely determines the nature of output in the system. Unless the input is accurate, the output cannot be expected to be accurate , inmost cases output for one system becomes input for another system(Henry Charton, 2002)

Process

It is defined as an activity that makes possible the transformation of input to output. Machine, functions, operation may act as a processor transformed data into output(Henry Charton, 2002)

Output

It is defined as a result of an operation. It's the main objectives for which an information system is designed. Though output largely depends up on the input, its nature may be vastly different from those of input.(Henry Charton, 2002)

People

These are the users of the system, includes system analysts, programmers, database administrator, end users.(Henry Charton, 2002)

Procedures

Are the rules that govern the working of the information system, example how backups are done and security etc.(Henry Charton, 2002)

2.2.2 Role of information system in an organization

It helps managers with planning, controlling and decision making

It enables organization to utilize resources optimally

It enables employees to utilize time effectively

It acts as a communication tool within the organization and outside environment

It helps an organization to produce product and services of high quality through avoiding errors/mistakes.

2.3 Orphan and Orphanage

Thomas Kennington 2004 states that an orphan is a person (typically a child), who has lost both parents, often through death. One legal definition used in the USA is some one bereft through "death or disappearance of, abandonment or desertion by, or separation or loss from, both parents". Common usage limits the term of children,(or the young of animals) who have lost both parents. On this basis half- orphans are those with one surviving parents.

Therefore, Most researchers have explained that HIV/AIDS parents are headed by a single woman usually a grandmother and sometimes an aunt of the Orphans. These HIV/AIDS parents can be defined as the families that take care of the kids in their homes and let them stay for a while. In addition, foster parents are families that do provide a safe place for kids to be cared for. The fact that kids can do a lot of things for themselves they need a house to stay and someone to take care for them. They also, need to sleep, eat nutritious food, to eat, clothes to wear, medical

care, school, love and security .Therefore, these physiological needs are very important to be observed in the family.

According to the capacity of the extended family safety net for orphans in Africa; Foster G, Makufa C; International Conference on AIDS, (2000), argues that indicators of saturation of the extended family safety net are presented using published data. Traditionally, paternal aunts and uncles were the main caregivers. Grandparents and distant relatives are now frequently caregivers due to social change and high orphan prevalence. Measures of safety net strength includes; rate of widow remarriage; extend of purposive fostering; frequency of contact with relatives. Measures of saturation of traditional extended family mechanism include; changes in paternal; maternal relative caregiver ratio: changes in grandparent; aunt-uncle ratio: increased prevalence of child headed households (CHH); sibling dispersal or migration

According to Urassa M, (1997), Orphan hood, child fostering and the AIDS epidemic has caused an increase in adult mortality and consequently an increase in the numbers of orphaned children. Data were used from the Kisesa Community Study in Northwest Tanzania, to assess the prevalence and consequences of Orphan hood in the context of existing child care practices in a rural area with moderately high HIV- prevalence.

According to Foster, G.,& Williamson.(2000),believes that customarily, in Africa, orphaned children have been absorbed into kinship groups, including grandparents, aunts, uncles and other extended family members. Based on a review of current literature, Foster and Williamson went as far as explaining that in extended families, children beneficially retain the continuity of familiar relatives and settings. Also Gebru, M. & Antifoam, R. (2000), likewise assert that the family is clearly the best environment for the healthy growth and development of children. While the extended family has been the focus of care for orphans and has usually been able to effectively absorb orphan within communities, particularly in rural areas where extended families are more intact, there are signs that the traditional extended family structure is fraying as the number of AIDS orphans rises.

According to Oburu and Palmerus, K. (2005), In Kenya which found that the average age of care –giving grandmothers is 62 and those are willing to take care on the responsibility for orphans, the arrangement usually brings worsening economic conditions for everyone involved, since a

great percentage of these care givers are unemployed and or elderly. Therefore, the research need to be done in order to know the benefits and challenges which foster parents do get from orphans at given location. For example, according to Thanh, T. (2006); explains that the treatment of orphans in foster families, in many cases can be harmful to the children. He went as far as explaining that the existing literature suggests that biological and indigenous children are treated better than foster children. It also reveals that foster children are more at risk of dying, getting ill, being undernourished and lacking material basics than a foster family's own children.

However, the assumption behind community based approaches is that communities as a whole have better resources than either individual families or institutions to define and address collective needs if their efforts are strategically supported. For example; according to Nyambedha, et. al; and UNICEF (2004), argues that in responding to the growing number of AIDS- orphaned children, United States Agency for International Development (USAID) is developing community –based strategies, including families those designed to strengthen the coping skills of families and communities, and to motivate governments to protect AIDS-affected children. The number of foster children (orphans) is growing and becoming large compared to foster parents who are willing to take care for the orphans. Therefore, socially both foster parents and foster children need to be supported in different ways by the government and the community at whole. This because foster under breathtaking stress, physically, psychologically and spiritually.

Also it is indicated that the children are psychologically affected due to parental illness and death such as depression, guilt, anger and fear.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

The introduction of methodology covered the purpose of the study, the approach will described the nature and pattern that the research intended to follow. This research inductive because data was collected from the field and conclusion arrived at. It also covered the research design and strategy, the population sample, the sampling design, data collection methods, data analysis and interpretation methods. The research employed the following methodologies in collecting data, primary data, secondary data, in selecting areas. Primary data were those which were collected afresh and for the first time which happens to be original in characters which had already passed through statistical process. Secondary data were those interviews or personal interviews which were general in face to face conversation to the informants.

3.1 Data collection methods

3.1.1 Questionnaire

The researcher used questionnaire to collect data by some set of documents with questions that were set out to respondents. It used standardized format that led more reliable data than any other technique. Therefore research used this method to collect information since it allowed collection of data from large number of people and it also helped to collect a lot of information over a very short time of a period. The researcher used a set of both open and closed ended questionnaire to identify research problem in an attempt to collect relevant data in effort to answer the research question under investigation. Open ended questions were used to respondents for more information while closed ended question were used for easy statistical data entry and analysis. Some questions that will be asked are:-

1. When did the Tumaini centre start operating?
2. Which kind of system is the Tumaini centre using to run its daily activities?

3. What is your view on the implementation of the new system in the Tumaini centre?

4. Is there any need of computerising the system?.....

3.1.2 Interviews

The researcher used the interview as a first research instrument because it allowed the exploration of specific topics, while allowing people to tell what was important. The researcher had common questions to ask such as what was going on efficiently and what was going inefficiently, what motivated people, how they liked their job and their system management, the goals of their organization, the obstacles to performance and success, and what it took to get ahead. Therefore, most questions in interview had problems, this means that interviewer followed up questions that brought out more information. Even when there were no formal problems, the researcher usually asked people to elaborate further, and made sure the person was completely done with on topic before moving to another, because some people needed more prompting questions than other.

3.1.3 Observation

The researcher also used observation as another research instrument. This involved collecting data about the performance of employees by directly observing them at work. This technique was suitable because the researcher got the first hand and accurate information about the existing system. Since the current system used by the Tumaini centre was paper based system processes that interrupted the flow of documents in this system were easily observed and therefore interruptions were observed rather than hearing them. So as to come up with useful information about the orphanage through this technique the researcher based on the following steps.

- Making observations of the current system
- Hypothesising and explanation for the new system
- Predicting a logical sequence of the hypothesis
- Testing the prediction in an experiment
- Creating a conclusion with data gathered in the experiment

3.2 System requirements

This phase described the functions of the Tumaini center's computerized Information system and involved visiting the Organization and interacting with the orphans and employees of the concerned office to try and come up with the system requirements and form a basis for my software development. The system constraints and services were established in this stage and planning was underway basing on the fact gathered. The functions were described by data flow diagrams.

3.2.1 Hardware and Software Requirements

Since the system was transformed from paper based to computerized system, the following hardware and software were recommended to be used for the introduced system.

3.2.1.1 Hardware Interface

Uninterrupted Power Supply (UPS).

A complete computer (with CPU, keyboard, mouse and monitor)

Pentium III- IV processor with 2.4 GHZ processing speed

CD-Rom drives

512 MB-1GB of RAM and above

80-120 GB hard disks

Printer.

3.2.1.2 Software Interface

Microsoft visual basic 6.0

Microsoft Windows XP Professional (Service Pack 2) operating system.

Microsoft Access

3.3 Software architecture

The gathered requirements in the analysis phase were divided into two groups; the software design had fundamental abstractions and their relationships were defined while the hardware design required defining the architecture of the proposed system. According to the proposed system, the design objectives were:

Maintainability – The ability to easily make changes, enhancements, or improvements.

Dependability – The ability to rely on the software to function properly when needed.

Efficiency – The ability for software to use computing resources effectively (mainly space and time).

Usability – The ability for the end user to easily and effectively put the software to proper use. The output of this stage was an architectural model which described the hierarchical structure of the program components, the manner in which the components interact and the structure of data that are used by the components.

3.4 Software Architecture

3.4.1 User interface

The user has to enter the valid password in the login screen to access the system, incase of the invalid password the user can not access the system.

3.4.2 Database

On the other hand this system had a database to store all information about Tumaini center. DBMS that was suitable for the establishment and implementation of the new system for the center which was Microsoft Office Access, because is a relational database management system that combined the relational Microsoft Access Database engine with a graphical user interface and software development tools. Therefore the benefit of Access from a programmer's perspective was its relative compatibility with VBA modules to manipulate Access tables.

Therefore Ms Access had many advantages and features that gave security, protection, maintenance, reliability and performance on operation of data

3.4.3 Programming logic

To develop this software for the Tumaini center, the researcher preferred to use visual basic as a programming language because it is visual and events driven programming language and programming was done in a graphical environment. Therefore it was relatively easy to learn and use programming language, because of its graphical development features. With visual basic users were able to click in the certain object randomly, so each object was programmed independently to be able to respond to those actions. The language allowed the researcher to create simple Graphical User Interface applications. Since default attributes and actions were defined for the components, a simple program was created without having to write many lines of code.

3.5 System Testing

3.5.1 Unit Testing

Unit or program testing is a test performed on individual event and modules that had been coded, and stub tested for a program were tested as an integrated unit, it was the testing of an entire program. System testing ensured that application programs written and tested in the isolation work properly when they are integrated into the total system. The system was tested in the administration office of Tumaini center.

3.5.2 System Testing

This ensured that application programs written and tested in isolation work properly when they were integrated into the total system. Just because a single program worked properly doesn't mean that it works properly with other program. The integrated set of program should be run through a systems test to make sure one program properly accepts, as input, the output of other programs. Once the system test was completed and determined to be successful, we preceded the implementation of the system.

3.6 Implementation

3.6.1 System Testing and Validation

During this stage, each of the components from the design was realized as a program unit. Each unit then was either verified or tested against its specification obtained in the design stage. The individual program units representing the components of the system were combined and tested as a whole to ensure that the software requirements were met. When the researcher was satisfied with the product, then the staffs were allowed to test the system (acceptance testing) to prove whether the system would meet the user's requirements. This was actually the stage where the researcher achieved the fifth objective which was to test and validate the system. This phase ended when the product was accepted by the staffs (users). The system was developed using Microsoft visual basic 6.0 in creating the user interfaces and the database was developed using Microsoft Access.

3.6.2 Operation and Maintenance

Maintenance included corrective Maintenance that involved correcting errors which were not discovered in earlier stages of the development process while leaving the specification unchanged and enhancement maintenance involved changes that the staffs (users) thought could improve the effectiveness of the product, such as additional functionality. Also the researcher trained users on how to use the system and offered them a user manual which described how to install and use the system.

3.7 Methodology for Development of System

According to the case study, SDLC (System Development Life Cycle) was the best methodology for the development of the Tumaini center system; it covered many activities, starting from studying why the system was to be built, analyzing problems, choosing the system design and architecture, implementing and testing it up to delivering the system as product to the user. It was done through several development phases and each phase continued and refined what was done in the previous phase.

1 Planning

This helped the researcher to study why the system was to be built and defining its requirements. It also helped the researcher to carry out an investigation to establish what the current system did, what problems were and chose the requirements for the system user. In carrying out an investigation, information about the current system was collected by recording the problems and requirements described by the users of the recent system, hence built a picture of the required system.

2 Analysis.

In this phase, the researcher performed activities such as problems identification, analysis and even predicting potential problems that could arise in the future regarding the system. The deliverables of this phase gave the researcher a picture on how the system was supposed to be built and guide the developers' works. Analysis was carried out to establish the current system in detail in order to find out, the difficulties and problems of the system, the user requirements, the inputs to the system and the outputs generated.

3 Design.

System analysis led to design decision, which exactly determined how the system was to operate in terms of process, data, hardware and user interface. This specified how the system was to be implemented through the use of DFD which showed the flow of data through a system. Since DFDs are structured methodology tool, then the researcher used them as a design techniques and tools for the new system.

4 Implementation.

It was probably the most resource, cost, and time consuming phase of all. Here is when the physical system was validated and finally installed. It also included activities such as user training and system maintenance. And then I came up with the concept of implementing the new system which improved the quality of service, utilization of resources, faster access to management's information and reduction of expenditure.

CHAPTER FOUR

DESIGN, IMPLEMENTATION AND ANALYSIS OF RESULTS

4.0 Introduction

Hardware, software, security and also the user requirements were the requirements needed for the new system to be implemented. Implementation deals with the process of converting the system specifications into executable programs. System specification involved processes of software design and programming

4.1 User interface design

When a guest or an orphan arrived at the center, the receptionist provided the guest with the status summary which contains all the requirements that were free for that day. Once this was done the receptionist recorded this.

The administrator had the duty of keeping employees and orphans' records and producing reports that were printed using a printer. The administrator and other staff first entered a valid password for authentication if the password was invalid an error message was displayed on the screen and access was denied.

4.2 Database design

The database used was called Computerized Orphanage Information System (COIS) Database and had 2 tables namely:

Orphan table

Employee table

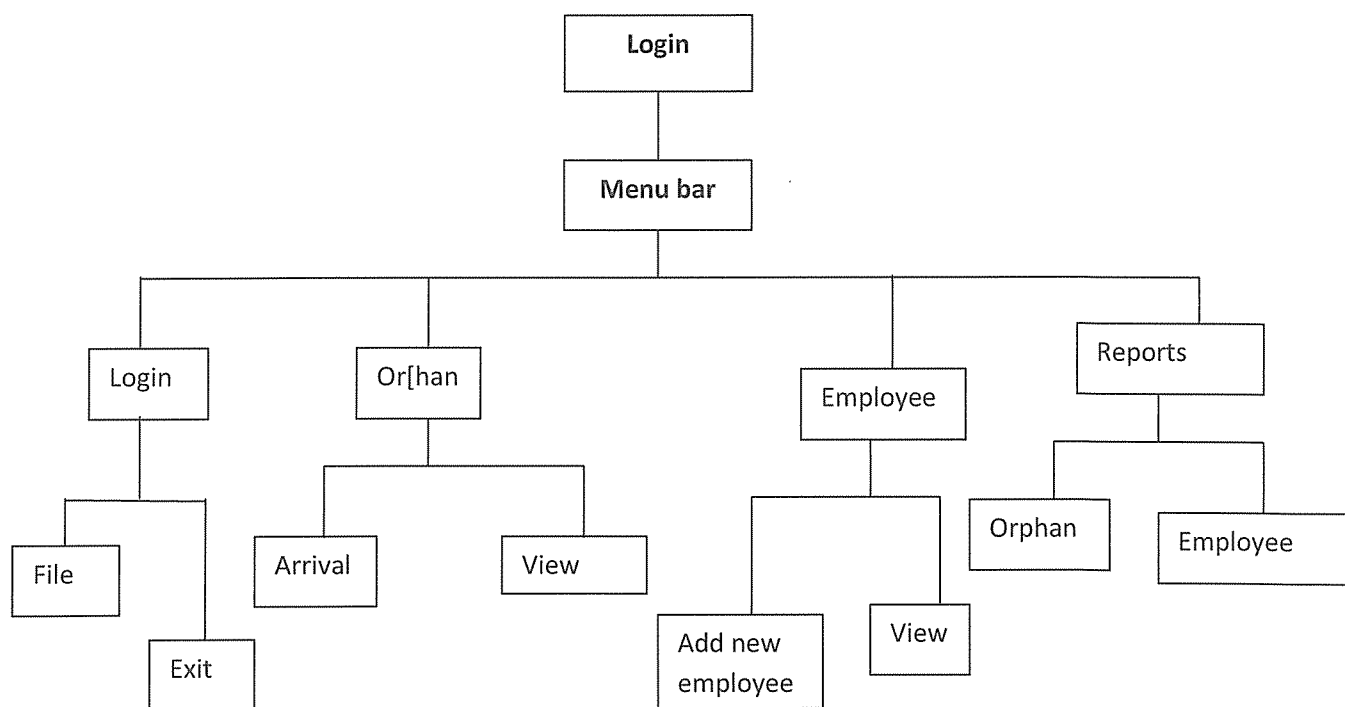
The description of the fields of each table named above is summarized in the table below.

Table	Field	Data type	Field Size	Description
Employee				
	FName	Text	15	First Name
	LName	Text	15	First Name
	Age	Number	10	Age of an employee
	Qualification	Text	30	
	Employee_Id	Number	15	Employee Identity
	Tel_Number	Number	15	Telephone number
	Date	Date/Time	15	Employee joining date
	Nationality	Text	15	Nationality of an employee
	Gender	Text	15	Gender
Orphan				
	FName	Text	15	First Name
	LName	Text	15	Last Name
	Age	Number	10	Age of an orphan
	City	Text	30	The city where an orphan come from
	Orphan_Id	Number	15	Orphan Identity
	Gender	Text	15	Gender
	Nationality	Text	15	Nationality of an orphan

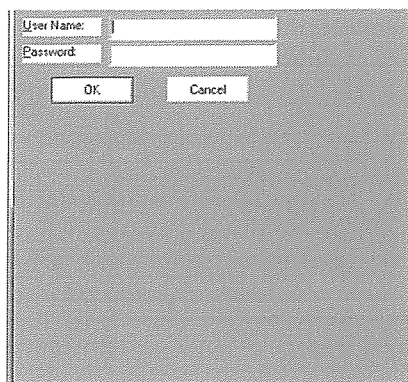
4.3 Information flow of the system

4.4 Execution Sequence

Figure for execution sequence which shows how the system executes.



Login screen

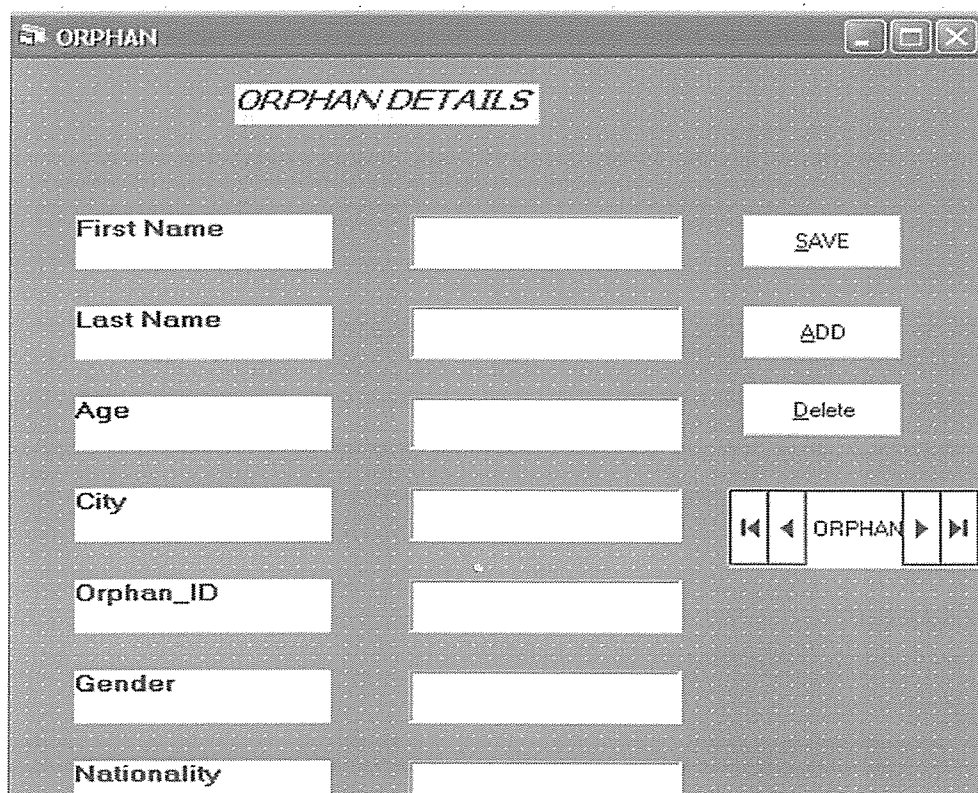


A login screen with a grey background. It features two input fields: 'User Name:' and 'Password:'. Below these fields are two buttons: 'OK' and 'Cancel'.

This is log in screen where an administrator enters his/her name in order to access the system, in case of the wrong password a person cannot access the system

Screen shots of form and reports.

Form of orphans



A screenshot of a software window titled 'ORPHAN' with a subtitle 'ORPHAN DETAILS'. The window contains a form with several input fields and buttons. The fields are labeled: 'First Name', 'Last Name', 'Age', 'City', 'Orphan_ID', 'Gender', and 'Nationality'. To the right of the 'First Name' field is a 'SAVE' button. To the right of the 'Last Name' field is an 'ADD' button. To the right of the 'Age' field is a 'Delete' button. Below these buttons is a navigation bar with buttons: '<<', '<', 'ORPHAN', '>', '>>'. The window has a standard Windows-style title bar with minimize, maximize, and close buttons.

This form of orphans allows the administrator to enter the information required for the orphan once he or she arrives to the Tumaini orphanage centre, after entering the information the information is saved into the system by clicking the save button.

Form of employee

The screenshot shows a window titled "EMPLOYEE" with a standard Windows-style title bar (minimize, maximize, close buttons). Inside the window, the title "EMPLOYEE DETAILS" is centered at the top. Below the title, there are six input fields arranged in two columns. The left column contains labels for "First Name", "Last Name", "Age", "Qualification", "Employee_ID", and "Telephone Number". The right column contains corresponding empty text boxes. To the right of the "First Name" box is a button labeled "SAVE". To the right of the "Last Name" box is a button labeled "ADD". To the right of the "Age" box is a button labeled "DELETE". To the right of the "Qualification" box is a set of navigation buttons: a double left arrow, a single left arrow, the text "EMPLOYEE", a single right arrow, and a double right arrow. Below the "Employee_ID" and "Telephone Number" boxes, there are two more empty text boxes, but they are not labeled.

This section shows the continuation of the form from the previous screenshot. It contains three labeled input fields: "Date", "Nationality", and "Gender". Each label is followed by an empty text box for data entry. The form has a dotted background pattern.

This form of employee allows the administrator to enter the information required for an employee once he or she employed to the Tumaini orphanage centre, after entering the information the information is saved into the system by clicking the save button.

Orphans report



MDIForm1 - [DataReport2]

File exit

Zoom 100%

ORPHANS REPORT

FName:	Ali
LName:	Jumanne
Age:	11
City:	Dar es salaam
Orphan_Id:	orph2
Gender:	male
Nationality:	Tanzanian
FName:	Sharifa
LName:	Ramadan
Age:	8
City:	Tanga
Orphan_Id:	orph7

This is the report form for an orphan, it can be printed if wanted to be printed for other purposes, to get this form the user can click on view from the menu bar of the system then click on report then click on orphan report.

Employee report

The screenshot shows a Windows application window titled "MDIForm1 - [DataReport1]". The window has a menu bar with "file" and "exit". Below the menu bar is a toolbar with a "Zoom" dropdown set to "100%". The main content area displays the following report:

EMPLOYEE REPORT

FName:	Juma
LName:	Aboubakar
Age:	23
Qualification:	diploma in
Employee_id:	emp4
Tel_Number:	753911090
Date:	2/3/2001
Nationality:	Tanzanian
Gender:	male

At the bottom of the window, there is a "Pages:" section with navigation buttons and a page number "1". The Windows taskbar at the bottom shows the "start" button and several open applications: "rams prop12 - ...", "TUMAINI VISUAL", "Project1 - Micr...", and "MDIForm1 - [D...". The system clock shows "1:59 PM".

This is the report form for an employee, it can be printed if wanted to be printed for other purposes, to get this form the user can click on view from the menu bar of the system then click on report then click on employee report.

4.5 Execution Sequence

For ease of reference, this user guide gives a quick overview of the main functions of the software, shorts and general information concerning the software.

Starting and quitting the Tumaini center's Computerized Information System

Assuming that you have installed the program in C:\Program files and the program is running in window XP environment on a personal computer. Under Window XP, you start the system in the following ways:

- By clicking on the 'start' button (in the left corner of your screen), then choosing 'All Programs'; several other programs will be displayed. Choose Tumaini among the programs.
- By clicking on the Tumaini, the system will start to operate.

NOTE:

- Before accessing application, you will be prompted to enter a password for authentication. In case of wrong password an error message will appear.
- You can end your Tumaini system by selecting 'Exit' from the menu bar.

Menu Bar

Depending on the window you are working in, may be a different menu may be displayed at the top of the Tumaini system window. This menu bar let you access various features of the Tumaini system that you can use in that window. The main menu contains parts which include Login, file and exit.

CHAPTER FIVE

DISCUSSIONS, CONCLUSION AND RECOMENDATION

5.0 Introduction

As it was previously explained at the beginning of this project, the study came about for the purpose of developing a reliable and better computerized system that is efficient and fully operational for Tumaini center. The problem was mainly due to the inefficiency and slow services that were provided by the center. The researcher found out that it was due to the paper based system with existing methods that slowed down the system.

5.1 Discussion chapter by chapter

Chapter one, this chapter covers the following subheadings:

- General introduction; which is the layout of what the project is all about or contents thereof.
- Background, this describe the location and activities of the case study institution or organization, and Tumaini center is located in Ukonga a suburb of the town center 8kilometers from the city of Dar es salaam. and in brief it mention the pressing needs or rather the problems that have necessitated the study.
- Statement of the problem, this is focal point of the research, it should refer to what has been detected and needs a solution in the practical or theoretical computer world. It should clearly state the nature of the problem and its known or estimated magnitude or extent.
- Objectives of the study, this is geared towards addressing the problem of the study already identified and explained above.
- Scope of the study, this is the (area) subject matter coverage.
- Significance of the study
- Limitation of the study, these are problems met during the research and how to overcome them
- Conceptual frame work.

Chapter two, this chapter gives an appraisal of the extent to which the existent literature the research, such as addresses the problem which are handling and gives the theoretical framework for the project.

Chapter three, this chapter covers the population and area of study, data collection tools such as interviews, observation and questionnaire. Software architecture which includes user interface and programming logic. And this chapter is labeled by using the classical System Development Life cycle (SDLC) as a methodology for development of system.

Chapter four covers the user interface design, the database design which has two tables namely orphan and employee tables. It also has the information flow and execution sequence of the system.

Chapter five, this chapter covers the discussion about chapter by chapter and recommendation of the system.

About the software, this is the software which was deigned by using of database which is Microsoft Access which is used to store all the information of orphans such as their names, age, the city she or he come from, and nationality, and the information of all the employees of Tumaini centre such information includes their names, age, qualification, and telephone number among others. Also the system has a user interface which was designed by using visual basic6.0 which help the administrator to enter the orphans and employees' information into the database.

The software which was implemented in Tumaini orphanage center, manager and the employees concluded that the system is very convenient in that they can enter data into the system, keep, maintain and retrieve records of data from the system.

5.2 Recommendations

The researcher recommended that; features that had not been implemented in this application software but were initially desired features should be implemented, the researcher in future should design and implement the web site for the application in order to improve the efficiency, reliability and usability of this system.

5.3 Conclusion

After the research on the current system, the researcher found many inconsistencies and weaknesses that were caused by the paper based system with existing methods that slowed down the system. This was tiresome and time consuming for employees especially when a group was large. Therefore, it was for this reason that a computerized Information system needed to be employed in the Tumaini center to eliminate the aforementioned shortcomings.

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APPENDECIES

A)Sample code

```
Private Sub cmdadd_Click()
```

```
EMPLOYEE.Recordset.AddNew
```

```
End Sub
```

```
Private Sub cmddelete_Click()
```

```
EMPLOYEE.Recordset.Delete
```

```
End Sub
```

```
Private Sub cmdsave_Click()
```

```
EMPLOYEE.Recordset.Save
```

```
End Sub
```

```
Private Sub cmdadd_Click()
```

```
ORPHANS.Recordset.AddNew
```

```
End SubPrivate Sub cmddelete_Click()
```

```
ORPHANS.Recordset.Delete
```

```
End Sub
```

```
Private Sub cmdsave_Click()
```

```
ORPHANS.Recordset.Save
```

```
End Sub
```

```
Private Sub mnuemployee_Click()
```

```
frmEMPLOYEE.Show End Sub
```

```
Private Sub mnuemployeeereport_Click()
```

```
DataReport1.Show
```

```
End Sub
```

```
Private Sub mnuexit_Click()
```

```
Unload Me
```

```
End Sub
```

```
Private Sub mnuorphans_Click()
```

```
frmORPHANS.Show
```

```
End Sub
```

```
Private Sub mnuorphansreport_Click()
```

```
DataReport2.Show
```

```
End Sub
```

B) Questionnaire guide

Questions that were asked:-

1. When did the Tumaini center start operating?

It started to operate in 2000

2. Which kind of a system is the Tumaini center using to run its daily activities?

The system used was paper based file system

3. What is your view on the implementation of the new system in the Tumaini center?

It has helped to enter data into the system, keep, maintain and retrieve records of data from the system easily.

4. Is there any need of computerizing the system?.....

yes

5. Does the current system affect the institution's performance?

Yes

☒

No

☐

Explain why.....

Because the system implemented in Tumaini orphanage center is very convenient in that they can enter data into the system, keep, maintain and retrieve records of data from the system.

Interview with some employees

C. Questions that were asked

1. What procedures and details taken when receiving an orphan?
2. What do you understand by the term computerized system?
3. Do you find problems in using the current system? If yes name them.
4. What do you think about introducing a computerized system?
5. What improvements would you like in the new system?
6. Would you like to be part of the computerized system pilot study?
7. Do you have any idea how many functions a computerized system has and what they can be used for?

D. Interview with Orphans

Questions that were asked:

1. What is your name?
2. How old are you?
3. What comments do you have on the services provided by the Tumaini center?
4. Why did you leave home?
5. How did you join Tumaini center?