

**WILDLIFE TOURIST MONITORING MANAGEMENT SYSTEM  
FOR KIPEDO VALLEY NATIONAL PARK IN  
UGANDA**

**BY**

**NAMATA DOREEN**

**DCS/10033/81/DU**

**AND**

**NANJOBE QULUTHUM**

**DCS/20026/82/DU**

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

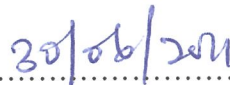
**JUNE 2011**

### APPROVAL

I certify that this research report submitted to school of computer studies was done under approval as the University Supervisor.



KORIR AMOS



DATE

## **DEDICATION**

This report is dedicated to the family of Namata Doreen and Nanjobe Quluthum, the whole of KIU fraternity for not forgetting KIPEDO VALLEY NATIONAL PARK IN UGANDA management for having availed us the case study. And thanks to Almighty God for protecting us safely up to this time.

## ACKNOWLEDGEMENT

wish to express my sincere gratitude to the people who have given us the assistance and encouragement, both material and spiritual, which facilitated us to carry out this study successfully.

## TABLE OF CONTENTS

DECLARATION .....	ii
APPROVAL .....	iii
DEDICATION .....	iv
ACKNOWLEDGEMENT .....	v
TABLE OF CONTENTS .....	vi
ABSTRACT .....	xi
CHAPTER ONE.....	1
INTRODUCTION .....	1
1.1 Background .....	1
1.2 Problem Statement. ....	1
1.3 Objectives.....	2
1.3.1 Main Objectives .....	2
1.3.2 Specific Objective.....	2
1.5 Scope.....	2
1.5.1 Geographical scope .....	2
1.5.2 Content Scope .....	3
1.6 Justification .....	3
1.7 Conceptual Frame Work .....	4
CHAPTER TWO.....	5
LITERATURE REVIEW .....	5
2.0 Overview .....	5
2.1 Database terminologies and definitions .....	5
2.2 Information system. ....	6
2.3 Computerization.....	6

2.4 Manual System.....	6
2.4.1 Advantages of manual systems.....	6
2.4.2 Disadvantages of manual systems.....	6
2.5 Computerized System .....	7
2.5.1 Advantages of a computerized system.....	7
2.5.2 Disadvantages of computerized system .....	7
2.6 Systems Development Lifecycles .....	7
2.7 Databases in Information Systems.....	8
2. 7.1 Effects of Database and DBMS .....	9
2.7.2 Disadvantages related with Databases and Database management system .....	9
<b>CHAPTER THREE.....</b>	<b>10</b>
<b>METHODOLOGY.....</b>	<b>10</b>
3.0 Introduction.....	10
3.1 Research design.....	10
3.2 Target population .....	10
3.3 Sampling techniques .....	10
3.4 Sample size .....	11
3.5 Reliability and Validity.....	11
3.6 Fact find Methodologies .....	11
3.6.1 Interviews.....	11
3.6.2 Questionnaires.....	12
3.6.3 Observations.....	12
3.6.4 Review of Documents.....	12
3.7 Data analysis .....	13
3.8 System Designs and Analysis .....	13

3.9 Development tools .....	13
3.10 Modeling .....	13
3.11 Design .....	14
3.12 Interfaces .....	14
3.13 Data Stores .....	14
<b>CHAPTER FOUR .....</b>	<b>15</b>
<b>FINDINGS, DESIGN AND IMPLEMENTATION.....</b>	<b>15</b>
4.0 Overview .....	15
4.1 Data presentation.....	15
4.2 Data Storage.....	16
4.3. Data Capturing From Respondents' .....	17
4.4. Data Capture from Administrators.....	17
<b>CHAPTER FIVE.....</b>	<b>19</b>
<b>SYSTEM REQUIREMENTS, DESIGN AND MODELLING.....</b>	<b>19</b>
5.0 Introduction .....	19
5.1 Weakness of the current system.....	19
5.2 Requirements Analysis .....	19
5.2.1. Functional Requirements inputs / expectation of the new system .....	19
5.2.2 Non-Functional Requirements .....	20
5.2.3. Minimum Hardware and Software Requirements. ....	20
5.2.4. System and requirement Analysis for new system .....	20
5.2.5. Hard ware requirement.....	21
5.2.6 Software Requirement.....	21
5.2.7 User requirements for new system.....	21
5.2.8. Functional requirements for new system .....	21

5.3. Architectural design .....	21
5.3.1 Input .....	22
5.3.2 Data processing and manipulation .....	22
5.3.3 Output.....	22
5.3.4 Storage .....	23
5.4. Conceptual diagram of the system .....	23
5.5 .Conceptual data model.....	23
5.5.1 State Diagram.....	24
5.5.2 Data Flow Diagram .....	24
5.5.3 Detailed Data Flow Diagram for Reservations (Guest house, Hotels and Motels) .....	25
5.5.4 Entity Relationship Model (ERM).....	26
5.5.5 Program flow.....	26
5.6. LOGICAL DESIGN .....	27
5.6.1. Registration Table.....	27
5.6.2 Staff Table Form .....	28
5.6.2.1. Reports .....	28
5.6.2.2. Forms .....	28
5.6.3. Staff Registration Table.....	29
5.6.4. Data Entry Operations.....	30
5.7.1. Login Table Form. ....	30
5.7.2. Registration form for Staff.....	31
5.7.3 System Features/User Views .....	31
5.7.4. Tables over view .....	31
5.7.5. Registration' Table (WELCOME TO KVNPN TABLE FORM) .....	32
5.8. WELCOME TABLE.....	33



5.8.1 Registration Table forms.....	33
5.9. Testing.....	40
5.9.1 User Testing .....	40
5.9.2. Functional testing.....	40
<b>CHAPTER SIX.....</b>	<b>41</b>
<b>DISCUSSION, RECOMMENDATIONS AND CONCLUSION .....</b>	<b>41</b>
6.0. Overview .....	41
6.1 Discussion .....	41
6.2 Limitation of the Study .....	42
6.3 Future works .....	42
6.4. Recommendation .....	42
6.5 Conclusion .....	43
<b>REFERENCES.....</b>	<b>44</b>
<b>APPENDIX A WELCOME FORM .....</b>	<b>45</b>
<b>APPENDIX B REGISTRATION FORM.....</b>	<b>46</b>
<b>APPENDIX C INTERVIEW GUIDE.....</b>	<b>53</b>
<b>APPENDIX D QUESTIONARE FOR ADMINISTRATORS.....</b>	<b>54</b>
<b>APPENDIX E _QUESTIONAIRE FOR TOURISTS .....</b>	<b>56</b>

## ABSTRACT

Wildlife is refers to the place where animals, birds kept such as; giraffe, ostrich, elephant, cheetah, leopard, kudu, zebra, buffalo and so many others. Kipedo Valley National Park is located in the extreme North of the country bordering with Sudan and Kenya, .It covers an area of 1,344 sq .km. The project is about casing the tourist data monitoring system in the National park l setting Kipedo National Park as a case study. A manual system of data entry, update and storage of data of tourist is riddled with problems. As a way of solving the above problems, a computerized system has been introduced where there will easy accessibility of data, reliability and security. This computerized system has been developed to deal with some of the problems faced by the current procedure of manual tourist data entry. It will be able to address issues such as long queues by enabling quick registration, data storage and update of data more efficiently to handle tourist service inquiries by use of the system. It is anticipated that the computer based system will save time and reduce human errors in the data management process and data redundancy. The system will also improve on transparency hereby improving on the effectiveness and efficiency in tourist records keeping such as names, contacts, locations, emails and so many others. This computerized system as so many objectives such as analysis whereby this is the process of inspecting, cleaning, transforming, and modeling data with the goal of highlighting useful information, suggesting conclusions, and supporting decision making, Design and modeling a system,develop,test and validity and others. The project also as some methodologies and some of them are interview, questionnaires, observation and some others first and for most methodology is refers to as to the methods used for conducting research. The methods chosen for data collection of this project are a combination and quantitative methods which is often the best and most efficient approach to collecting in depth and complete information. Qualitative methods are for conducting researches that rely on open ended of depth of people, thoughts, actions and others. In addition to that interview, these are the fact finding techniques whereby the system analysts collects nformation from individuals through face to face interaction. This method involves my physical nteraction with the respondents about my topic “ Wildlife Tourist Database Management System where I visited KVNP and interviewed respondents questions from the questionnaire /interview guides about the topic as the respondent answer questions I filled the answer in the questionnaire, users, identify ideas and requirements thus allows me to discover area of understanding.

furthermore Questionnaires is also another methodology used in carrying research whereby it allows the collection of data from a large number of people and then wide distribution ensures that some things remain anonymous leading to more honest answers. This method helped me to set up question schedules called questionnaires to the respondent to answer at their specified time .i.e. how is tourist records stored at KVNP? What type of system used to capture tourist record at KVNP? Another methodology is Observation; this provides the evaluator opportunity together data while capturing a variety of interaction. However observation tools are of two kinds which are Direct observations and Participant observations. This method observation I carried it out using my naked eyes, to make record and reports about what actually happened in the field without relying on verbal or written response.

## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.0 Introduction**

Wildlife is refers to the place where animals, birds kept such as; giraffe, ostrich, elephant, cheetah, leopard, kudu, zebra, buffalo and so many others. The project is about casing the tourist data monitoring system in the Kipedo national park. Kipedo is one of the National parks in the extreme north of the country bordering with the Sudan and Kenya which is casing tourist's data monitoring system out of its manual system of data entry, updates and storage. As a way of solving these problems of manual tourist data record system, a computerized system is introducing easy accessibility of data, reliability and security.

#### **1.1 Background**

This Kipedo Valley National Park(KVNP) started in 1980 after discovering that the environment was a habitat of different species of animals and these includes giraffe, ostrich, elephant ,cheetah, leopard ,zebra ,buffalo and amongst others in the entire country .The park is located at the extreme north of the country bordering with Sudan and Kenya covering an area of 1,344sq.km but due to its remoteness the area is less visited, although it has the strategic scenery of mountains and vast savannah landscapes and some few settlement by the Karamojong pastoralists. This park is under government supervision with minimum security.

#### **1.2 Problem Statement.**

The entry of tourist's records and other information in the receipt book takes a long time since its manual. Moreover information must again be transferred to the KVNP tourist's ledgers. This is a difficult task since each tourist has his/her own page and information like names, contacts, locations, emails, and others and must be repeated on every page. This leads to data redundancy thus causing update anomalies.

## **1.3 Objectives**

### **1.3.1 Main Objectives**

The main objective of this study is to design and implementation of the system that is able to improve efficiency in handling routine records collection activities and data for the tourists.

### **1.3.2 Specific Objective**

- i. To investigation, the hardships of the system in so that it can be changed to computerized system in order to make the work easy.
- ii. To analysis the data, to improve on the speed, data security, and data transformation since it changes from manual to computerized system.
- iii. To design and model the system, that can improve on the styles and models of capturing tourist information.

## **1.4. Research questions**

- i. What are the major problems you encounter when using this manual system of data entry in this KVNP?
- ii. How do you secure your data for the visitors in this park after you have captured it on those paper files?
- iii. How did you structure / arrange your objects about which you capture data for the KVNP?

## **1.5 Scope**

### **1.5.1 Geographical scope**

Kipedo Valley National Park is located in the extreme North of the country bordering with Sudan and Kenya, Kipedo Valley National Park covers an area of 1,344 sq .km. but it has the most spectacular scenery of mountains and vast savannah landscapes. The park

is home to the Karamojong pastoralists. Animal species found in the region include; giraffe, ostrich, elephant, cheetah, leopard, kudu, zebra, buffalo, amongst others.

### **1.5.2 Content Scope**

The project covers the activities of tourists' record keeping. Other managerial issues such as tourists, staff, Animals species, Accommodation, Departments, payments, reservations record and others. The project is only confined to the tourists' record handling activities in KVNP. The study takes a period of five months starting with the month February to the month of June. This helps to develop a computerized system that manages the tourists' records in KVNP thus Quick and efficient handling of tourists at the KVNP, hence avoiding time wastage.

### **1.6 Justification**

In order to achieve the objective above, the following can help in accomplishing this project and these include;

It improves the speed of capturing and retrieving tourists information by putting in place computers generated management reports for faster decision making

It improves on data security through restricted access by use of usernames and passwords and also to enhance on data backups and recovery contingency plans in case of system failure due to disasters.

It reduces on redundancy of data and improves on space usage by employing computers in the KVNP.

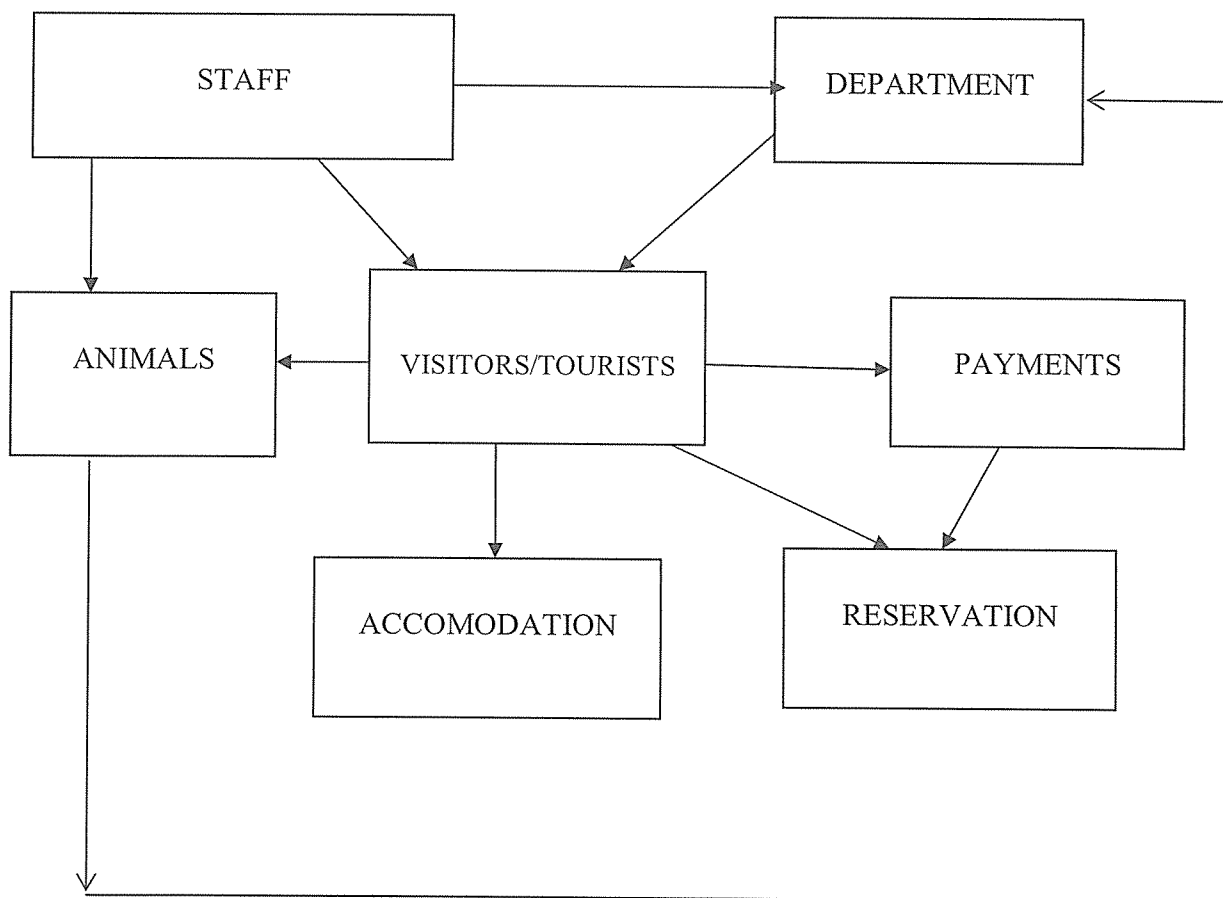
It enhances and improves on identification process of a number of tourists who visit the national park in a given period of time in order to minimize forgery of tourists' records

It avoids dependence on the use of application software's such as excel, and others so that a lot of information can be handled in form database which is easy to access and retrieve from.

It provides basic processes and information as literature on future researchers interested in similar studies.

### 1.7 Conceptual Frame Work

CONCEPTUAL FRAME WORK SHOWING THE RESPECTIVE OBJECTS IN THE CONTENT SCOPE THAT IS USED TO GENERATE ENTITY RELATIONSHIP DIAGRAMS/MODELING (ERD/M)



## CHAPTER TWO

### LITERATURE REVIEW

#### 2.0 Overview

Whereas literature review is an account of what has been published on a topic by accredited scholars and researchers, this literature is only confined to the content that is employed in the design of the tourists' information system.

#### 2.1 Database terminologies and definitions

**Relational database:** Codd, E. (1987) notes that data is split between different dimensional tables which are linked together via a set of unique keys.

**A file:** Destrehan A (2001) defines a file as a container of information concerning one aspect of the organization such as details on debtors or financial accounts. A record contains information about a given person, product or event.

**A field:** Earl M.J (1989) defined it as what contains a specific piece of information within a record.

**Normalization:** Elmasri and Navathe (1994) define normalization as a technique for producing a set of relations with desirable properties given the data requirements of an enterprise

**An entity;** According to Howe D (1989), an entity is an item (a person, a job, a business, a product etc).

**An attribute:** Thomas M (1985) defines it as the characteristic or property of an entry. For a customer, attributes include customer name and address, amounts owing, date of invoices sent etc.

**A system:** Codd, E. (1971) defined a system as a set of elements interacting with each other to achieve predetermined objectives or goal (the computer receives input and processes then produces output). The linkages between the tables in a database are defined in terms of the above relationships. By linking one table(s) to work with and whether to use or alter data in the selected table(s).



## **2.2 Information system.**

According to Hutchinson, et al, (2000), an information system is a system that uses information technology to capture, transmit, store, retrieve, manipulate or display information as used in one or more business processes, however Codd and Earl, (1987), define information systems as any organized combination of people, hardware, software communications network and data resources that collect, transform and disseminate information in an organization. However the literature of the two authors explains the original view for the intended study as conceptualized by the researchers.

## **2.3 Computerization**

Karl bed nark (2001) quotes that computerization in project context refers to the process of creating a computer based information system that relies on the computer hardware and software for processing and disseminating information.

## **2.4 Manual System**

According to Nisan, et. Al, (1997), a manual system is a process of keeping data by writing down or typing using a typewriter every information/data and keeping it somewhere for further reference and also with an aim of achieving a common goal.

### **2.4.1 Advantages of manual systems**

According to Stair and Reynolds, (2003), the advantages of manual systems include the following: File processing is not interrupted by power failures, file operation depends much on the person doing it other than a computer which is inflexible in its ability to reason, they are cheaper to maintain compared to computer files and also they are available all the time

### **2.4.2 Disadvantages of manual systems**

The disadvantages include;

Higher chances of losing information or misplacing files during their transfer, lack of integrity i.e. unauthorized users can easily access files; Data redundancy is common, data retrieval and processing is very slow hence time consuming.; Data inconsistency due to many files which are not linked, etc.

## **2.5 Computerized System**

According to Masaba (2000), a computer is a sole tool used to keep, process, and retrieve information. Computerized information storage system stores information using the concepts of database and the information is organized for easy and quick access whenever needed.

### **2.5.1 Advantages of a computerized system**

According to Caldelli and Parmigiani, et al, (2004), the advantages of computerized system include;

- ❖ Data can be easily accessed, for example several computers located at different places can be interconnected by a communication link to facilitate information exchange.
- ❖ Data processing is easy as compared to other filing system
- ❖ Easy retrieval of data
- ❖ Data redundancy is minimized hence the computer provides consistent information.

### **2.5.2 Disadvantages of computerized system**

The disadvantages include; the dependency on electricity or power requires computer skills and the information is vulnerable to computer viruses and hardware problems.

- ❖ Basic computer knowledge is required to access and perform any operation on computer stored information.
- ❖ In a situation where there is no bypass process procedure, once a computer system fails, then there will be business transaction at all

## **2.6 Systems Development Lifecycles**

Caldelli and Parmigiani, (2004), go ahead to describe the stages a system moves through from inception until it is replaced. In the context of information systems, project distinction can be made between the project life cycle and the system development lifecycle. As a project has a definite end, it is unlikely that ongoing maintenance would be included in the scope of the project but falls within the definition of the system

development lifecycle. This disciplined approach to the systems development has several stages of development and these can be listed as below:

- Identification of a problem.
- Feasibility study-involves a review of the existing system and identification of a range of possible alternative solutions.
- System investigation- A fact finding exercise which investigates the system access its problem s and requirements.
- Systems analysis- This process examines why current methods are used, what alternatives might achieve the same or better results and what performance criteria are required from the system.
- System design-This is a technical phase, which considers both computerized and manual procedures, addressing in particular, inputs, outputs, program design, file design and security. A detailed specification for the system is produced.
- System implementation: it involves writing of software, program testing, file conversion or setup and installation of the hardware and starting to use the system.
- Review and maintenance: this is an ongoing process, which ensures that the system meets the objectives set, however system development methodology is a collection of procedures, techniques, tools and documentation aids which help systems developers in their efforts to implement new information.

## **2.7 Databases in Information Systems**

Williams, sawyer, Hutchinson, 1999, V.Rajaraman, (1989), refers to a database as an organized collection of integrated files collection of related data necessary to manage an organization. It excludes transient data such as input document, reports and intermediate results obtained during processing. On the other hand, a data models are the data resources of an organization using the relationships between different data items. The model is independent of any application program.

A data base management system is a set of procedures that manage the database and provide access to the data base in form required by an application program the DBMS

aims to allow writing application programs independent of the physical organization of files in secondary storage.

Because it can access several files at once, A DBMS is much better than flat-file management system that used to dictate computing. A file manager is a software manager that can access one file at a time. (Hutchinson Sawyer; 2000) Database resulted into minimizing space wasted for storage of data for example traditionally the same data (such as address of an individual) would be found in different files heading to confusion.

Database, has made it possible for the National park to perform sample sequencing and selection tasks with great power and accuracy. Sharing of data has become possible in databases because data is considered as an important source of the national park to be shared by the number of administrators.

### **2.7.1 Effects of Database and DBMS**

The introduction of database had a great impact, some of which include the following;

- With the design of databases it has become possible to incorporate not only data but also relationships between items using the data resource of a National park.
- Reduced application development time: DBMS supports important functions that facilitate quick development of application
- Databases eliminate data redundancies therefore reducing the risk of inconsistencies and ensuring improved data integrity in addition to security.

### **2.7.2 Disadvantages related with Databases and Database management system**

- It requires much time to develop a database information system.
- Initial cost are high – that is to say it is expensive to employ database administrators and data entry clerks
- Data bases are vulnerable to power fluctuations and disasters
- Need an expertise to manage and computer skills to utilize it.

## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.0 Introduction**

This chapter describes the steps and procedures that is taken to conduct the research to achieve the objectives of the study and it includes: research design, population, sampling techniques, reliability and validity, research instruments and data analysis procedures.

#### **3.1 Research design**

The methods chosen for data collection of this project are a combination and quantitative methods which is often the best and most efficient approach to collecting in depth and complete information and qualitative methods are for conducting researches that rely on open ended exploration of people's words, thoughts, actions and intentions basing on a survey design. They supply detailed and in depth information to provide outside audience with an understanding of what a target population may think or feel about a specific issue or environment. Purely qualitative methods include observation, focus groups and case studies. The quantitative methods the researcher intends to use are interviews, questionnaires and review of document chosen methods out of the above combination of techniques because of the advantages that each have.

#### **3.2 Target population**

Target, this is refers to the aim of doing the project/on something.

Population, this is the totality of elements of interests such as all the people in a country et.al. The purpose of target population is to know what the wildlife tourist monitoring management system is going to organize to the number of tourists in KVNPN.

#### **3.3 Sampling techniques**

Sampling is that part of statistical practice concerned with the selection of a subset of individuals from within a population to yield some knowledge about the whole population, especially for the purposes of making predictions based on inference. And for this case random sampling techniques were used to get the required samples of

respondents in the population from which few people or tourist were information or data was collected.

### **3.4 Sample size**

Sizes of 25 peoples were selected in every group targeted as the number of elements in the sample. This helps to know the number of people used /number of tourists in the wildlife tourist monitoring system for K.V.N.P in Uganda.

### **3.5 Reliability and Validity**

Reliability, this is refers to time one is to spend in any place and validity is when to get expired This helps to know the time tourists are going to spend within the K.V.N.P and to know such information it captures first hand guides who interact with the visitors.

The various methodologies used to correct data are interview, questionnaire and observation.

### **3.6 Fact find Methodologies**

These are various steps used to correct accurate data in the field from different respondents and these include:

#### **3.6.1 Interviews**

This method involves my physical interaction with the respondents about my topic “Wildlife Tourist Database Management System” where I visited KVNP and interviewed respondent’s questions from the questionnaire /interview guides about the topic as the respondent answer questions I filled the answer in the questionnaire. Also it involve the users, identify ideas and requirements thus allowing me to discover areas of understanding, unrealistic expectation and expressions of the interviewee hence a collection of rich and detailed data, Face to face contact with the participant in order to get information from them that is useful and on addition the opportunity to clarify question and to follow-up questions and probes, increasing the likelihood of useful responses.

### **3.6.2 Questionnaires**

This method helped me to set up question schedules called questionnaires to the respondent to answer at their specified time .i.e. how is tourist records stored at KVNP? What type of system used to capture tourist record at KVNP? Thus allow collection of data from a large number of people, ensures that some things remain anonymous leading to more honest answers. Which favored good method of crosschecking information that can be gathered by other researchers?

### **3.6.3 Observations**

This method observation I carried it out using my naked eyes, to make record and reports about what actually happened in the field without relying on verbal or written response. This gives me an opportunity to gather data while capturing a variety of interaction. It's also a way to learn about things the participants or the evaluators are unaware of or unable to discuss in focus group or interview. However the techniques are of two kinds. Direct Observations and Participant observations: This makes me to be a participant in the culture or content being observed and may require months to years of intensive work. Thus becoming engaged in the lives of the people being studied. What is seen heard and observes red is recorded as field notes and written largely from memory. The field notes are then studied to identify recurring events, themes and explanations. This makes the observation techniques advantageous in the way that it Permit evaluator to enter into and understand situations, Exist in natural, unstructured and flexible setting, Provides direct information about behavior of individual and groups and lastly Provide good opportunities for identifying unanticipated outcomes.

### **3.6.4 Review of Documents**

Clear decision on which documents, scope and depth of analysis required are appropriate. Documents may store individual, group or organization performance records. Therefore the researcher will gather daily proceedings of the manual system by reviewing the available documents.

### **3.7 Data analysis**

This is a practice in which raw data is ordered and organized so that useful information can be extracted from it. The process of organizing and thinking about data is key to understanding what the data does and does not contain. This involves the use; histogram Gantt chart, pie chart, Excel and table among the data analysis tools to provide visual and graphical/pictorial representation of the data collected using the methods described in the methodology. This is because of ease, simplicity and clarity of these data analysis tools among others.

### **3.8 System Designs and Analysis**

The purpose of the database is to provide a suitable way of tracking information about tourist's data. It is meant to output information about each tourist who visited the KVNPN, identify defaulters without passwords and to show the particulars for each tourists, reduce fraud and create reports for the administration.

### **3.9 Development tools**

A programming tool or software development tool is a program or application that software developers use to create, debug, maintain, or otherwise support other programs and applications. The purpose of development tools is to help in the designing and removing of errors in the programs such languages like visual basic 6.0 and Access

### **3.10 Modeling**

This is the act of drawing one or more graphical (picture oriented) representation of a system. The purpose of this is to help us researchers to present data, process, and interfaces with in the wildlife tourist monitoring management system for K.V.N.P in Uganda. Different models are going to be used in representing different data.

It's another purpose is to help we researchers in drawing entity relationship diagrams (ERDs) to model the system's raw data.



### **3.11 Design**

This helps us in modeling the Unified Modeling Languages (UML), ERDs and others

UML is a set of modeling convention that is used to specify or describe a software system in terms of objects.

### **3.12 Interfaces**

User interface design or user interface engineering is the design of computers, appliances, machines, mobile communication devices, software applications, and websites with the focus on the user's experience and interaction. Its purpose is to design interfaces of wildlife tourist monitoring management system for Kipedo Valley National Park in Uganda using Visual Basic application.

### **3.13 Data Stores**

Data these are facts about people, places, events and things that are of importance in an organization. Stores, is where data can be kept. Data stores, this is where people, places information can be kept, an example of data stores is access. The purpose of this is to store visitor's information in the wildlife tourist monitoring management system in K.V.N.P in Uganda where by access is used as the backend.

## CHAPTER FOUR

### FINDINGS, DESIGN AND IMPLEMENTATION

#### 4.0 Overview

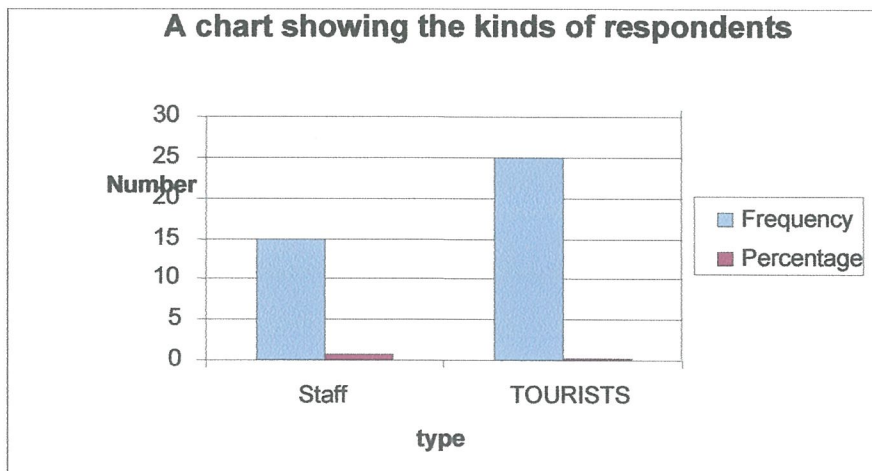
This chapter focuses on the presentations of the data generated during the course of the field study. The field results have been achieved by descriptive statistics and presented using computer based statistical programmer for social scientists (SPSS)

#### 4.1 Data presentation

The respondent's comprised of both staff and tourists as illustrated in the table below

**Table 1:** showing the kinds of respondents

Respondents	frequency	Percentage
Staff	25	62%
Tourists	15	38%
<b>Total</b>	<b>40</b>	<b>100%</b>



**Figure 1:** Showing the kinds of respondents

From the Above chart and the table shows that 62% of staff members of KVNP suggested that a new system be put in place when selected randomly while 38% tourists

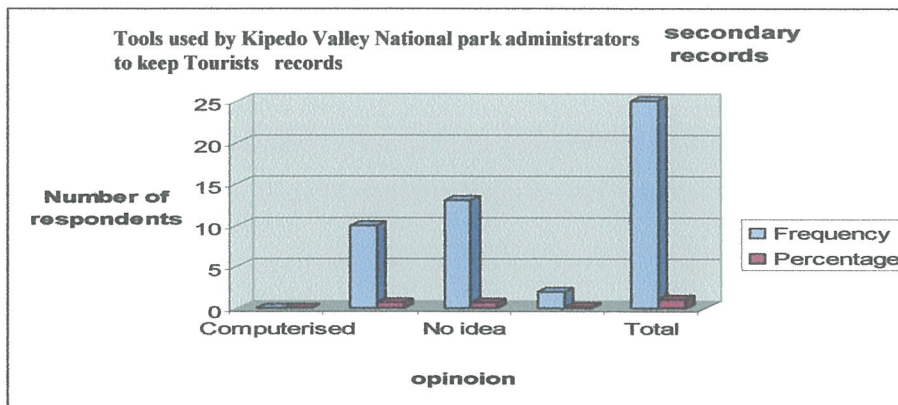
were also in agreement with the staff which in turn helped us in designing the new system that responded positively to words the betterment of the National park itself and the wellbeing of the tourists.

#### 4.2 Data Storage.

**Table 2**

System	Frequency	percentage
Computerized	0	0
Manual	10	60%
No idea	13	67%
Not existing	2	8%
Total	25	100%

**Figure 2:**



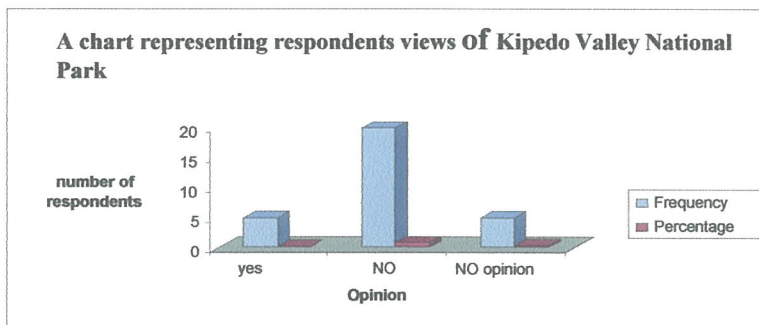
The table and the graph above shows that 67% of the respondents had no idea and this was particularly the new Tourists who had no idea on the method used by the KVNP administrators in keeping records. 60% gave it out that it was the manual system used which manual system is cumbersome and more vulnerable to misappropriation and fraud. It was found out that there is nothing like computerized means of record keeping and this was found out that it was because, they lack proper skills to use the modern computerized system which is being introduced to the National Park eight percent shows that there is no tool or method in place used for Tourists' record.

#### 4.3. Data Capturing From Respondents'

Table 3:

Opinion	Frequency(Registration)	Percentage
Yes	5	16.6%
No	20	67%
No opinion	5	16.6%
Total	30	100%

Figure 3



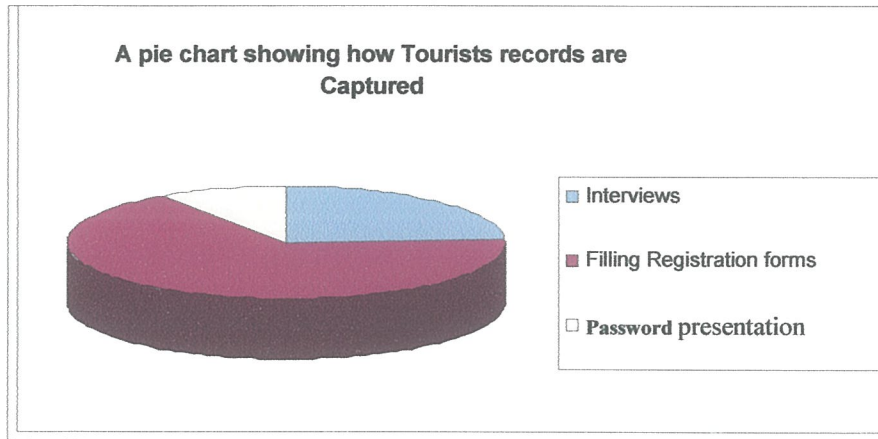
According to the research we conducted 67% of the respondents or Tourists said that they do not register direct to the KVNPA Administrators after reaching at the Park. 16.6% had no opinion on how the Tourists are treated and only 16.6% of the Tourists or respondents said that yes Tourists first register before they enter the National park.

#### 4.4. Data Capture from Administrators

Table 4

Respondents	Frequency	Percentage
Interviews	5	23.8%
Filling Registration forms	14	66.7%
Password presentation	2	9.5%
Total	21	100%

**Figure 4**



According to the pie chart we conducted, tourists' details are captured by both interviewing, filling Registration forms and password presentation but the most means of capturing their details it is proved to be filling of forms with a percentage of 66.7% followed by the interview method with 23% and only a very limited rate, password presentation is used.

## **CHAPTER FIVE**

### **SYSTEM REQUIREMENTS, DESIGN AND MODELLING**

#### **5.0 Introduction**

This chapter highlights system investigation, weaknesses, and requirements of the new system, modeling and design including the implementation.

#### **5.1 Weakness of the current system**

- The entry of tourist's records and other information in the receipt book takes a long time since its manual.
- Moreover information must again be transferred to the KVNPN tourist's ledgers again. This is a difficult task since each tourist has his/her own page and information like names, contacts, locations, emails, and others and must be repeated on every page.
- There is a lot of data redundancy thus causing update anomalies.

#### **5.2 Requirements Analysis**

This concerns the functionality of the system. It helps one foresee the picture of the information system to be developed involving both functional and non functional fulfilled by the proposed system.

##### **5.2.1. Functional Requirements inputs / expectation of the new system**

- Should maintain a database of all tourists' particulars. Users should add data for new tourists.
- Should input record concerning tourists' classes and related information.
- Should facilitate updating of various reports.
- Apart from the above, the new system is expected to run on any PC or laptop computer so long as Microsoft visual basic 6.0 exists.
- The system is also expected to accommodate over a thousand records such that it can be used for many years while storing the records of the previous years.

As output, the system is supposed to generate the following reports on screen or send to printer.

- Report showing those who have registered in a particular class.
- Report defaulter with particular names and classes.
- Report of fully registered up tourist.

However, in summary, the system should meet all the objectives stated earlier on in chapter one

### **5.2.2 Non-Functional Requirements**

The system will be run on a PC. It will be implemented in Microsoft visual studio 6.0 programming languages and Microsoft excel. The system is expected to be:

- User friendly.
- Easy and cheap to maintain.
- Able to withstand abuse and false information fed into it.
- And it should also be able to withstand illegal access by unauthorized users.

### **5.2.3. Minimum Hardware and Software Requirements.**

- Any PC/Laptop loaded with MS Windows 2000 or higher versions.
- A hard disk with at least 256MB free space and 512MB of RAM

A key board terminal, A monitor or screen. A printer, Microsoft visual studio, Microsoft office 2003/2007

### **5.2.4. System and requirement Analysis for new system**

This involves both hardware and software ,where by the system can run on different hardware such as Random access memory (RAM) ranging from 512megabytes and above, processor speed from 126 megabytes and above.

#### **5.2.5. Hard ware requirement**

The general hard ware requirements to the system includes processor such Intel Pentium (IV) AMD that help to carry out different operation both arithmetic and logical, RAM starting from 512mega byte.

#### **5.2.6 Software Requirement**

The system is able to run operating system such as windows XP, NT, VISTA and Data management system on Microsoft access,

#### **5.2.7 User requirements for new system**

Through the data gathering process the researcher found out that users wanted a system with the following attributes.

- i. A user friendly system, one that is easy to learn and use
- ii. A secure system where the rights of the administrator and the clients are clearly defined
- iii. A consistent system. consistency to a clear step by step navigation through the system
- iv. A system that can generate report for the administrator review.

#### **5.2.8. Functional requirements for new system**

The system shall perform the following functional requirements

Generate reports for the administrator and allow administrator to insert, update data and delete data from the database containing tourist's records. And Storage of all the tourists records concerning KVNP.

#### **5.3. Architectural design**

This gives a high level of the review of the system with the main system and services they provide and how they communicate to the system. At this stage of the system development, the focus is put on the definition of central architecture of the system. One of the major interests was the identified with their respective interface. The product at this stage is the architectural model identifying the different components of the system. The figure shows the design



## FLOW CHART

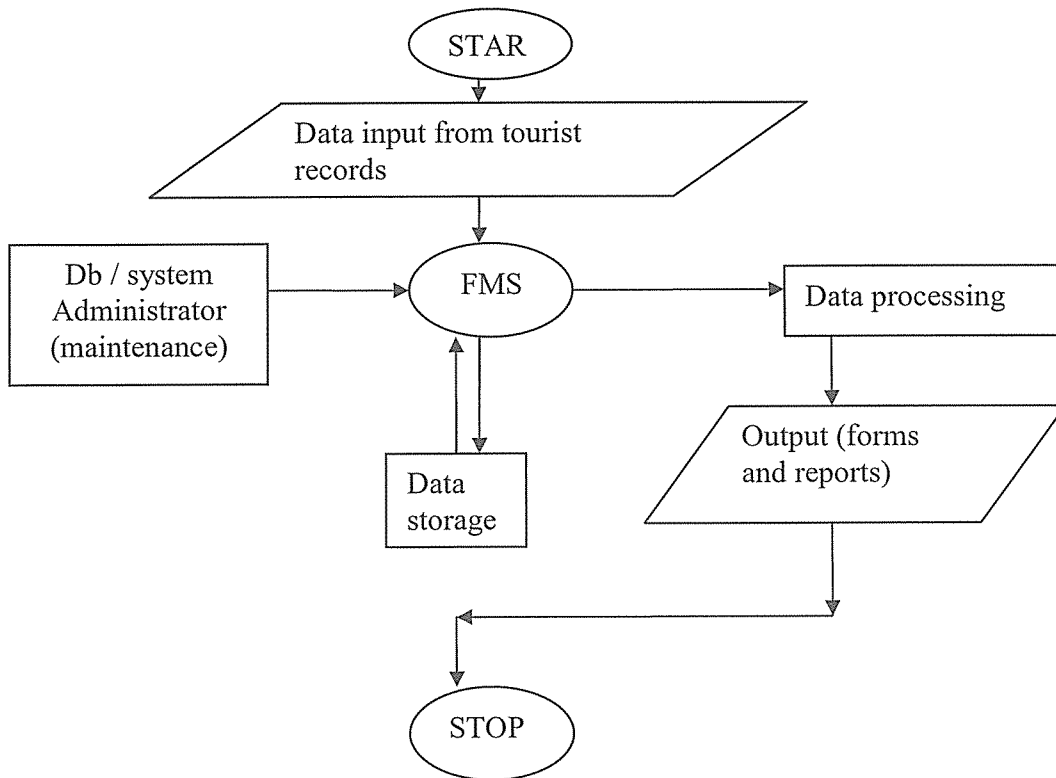


Figure 4.5 Architectural design of the proposed system

### 5.3.1 Input

Data to be processed into information must first be collected and communicated from external environment into the system by the help of a keyboard.

### 5.3.2 Data processing and manipulation

Data processing and manipulation is in different forms for example updating and editing to make it legible to the management. Data is changed into information and saved awaiting retrieval for any purpose.

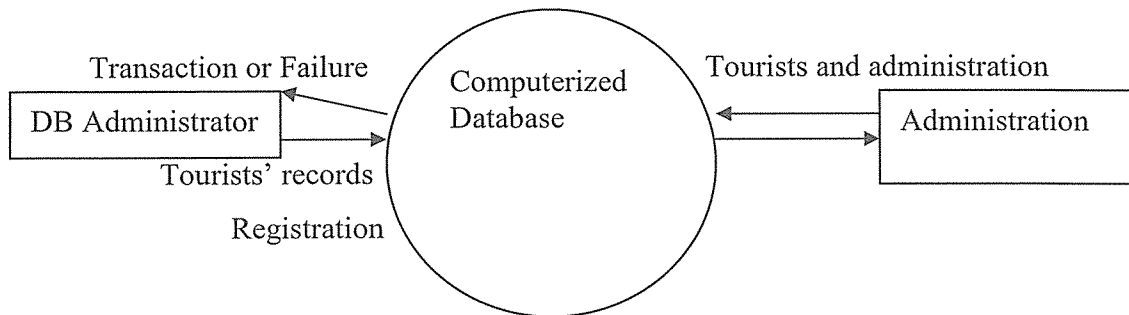
### 5.3.3 Output

Processed data or information is output in forms and reports. Specific data can also be output depending on the request given for example balance of a given student. This is done by creating queries.

#### 5.3.4 Storage

Data that is input is automatically stored in the hard disk. It can be updated or edited and these changes are stored into the system. Data can also be transferred using external storage devices like flash disks.

#### 5.4. Conceptual diagram of the system

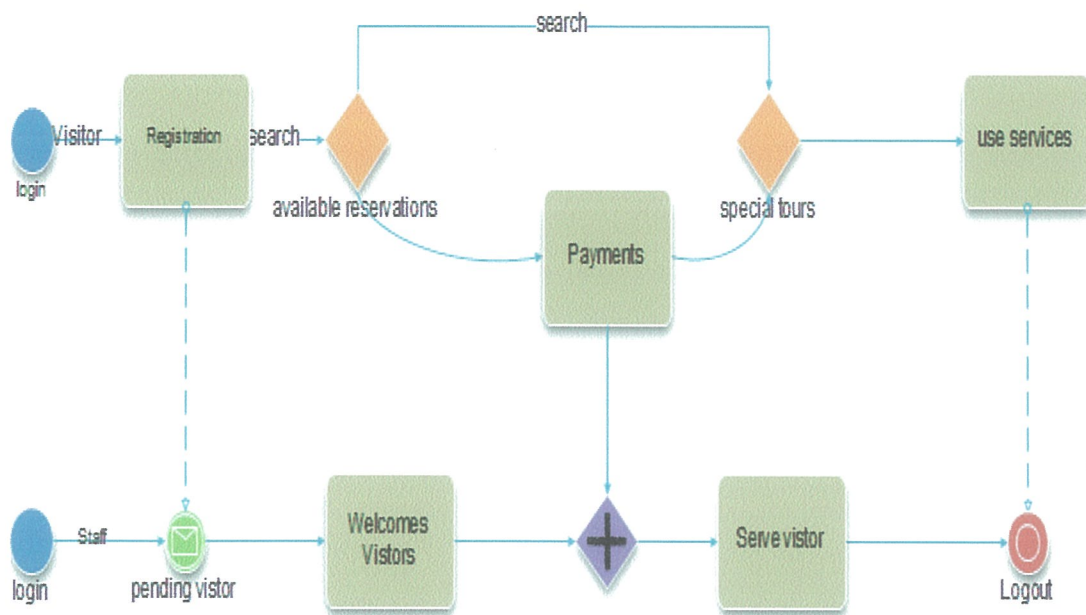


**Figure 4.7** Context diagram of the system

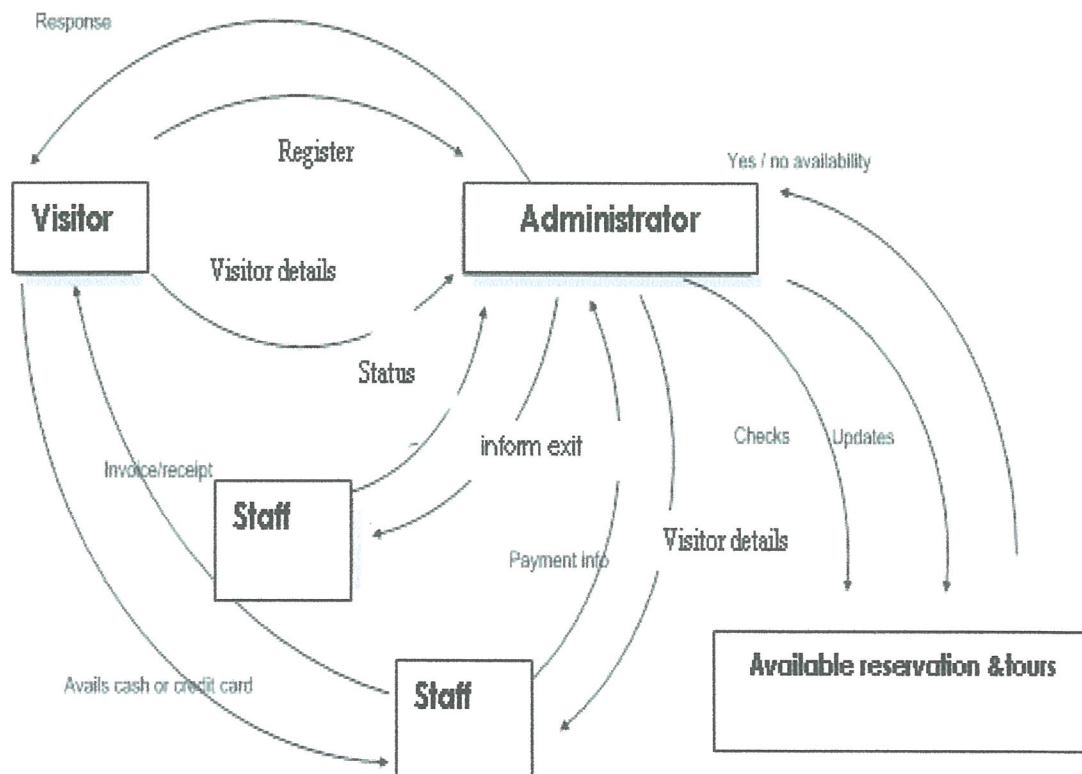
#### 5.5 .Conceptual data model

The conceptual data model provides for developing a structure from the top to down to the low level. In this section various entities, their attributes and relationship are identified as well as the relationship among entities. These help the researcher build the data model for each user

### 5.5.1 State Diagram



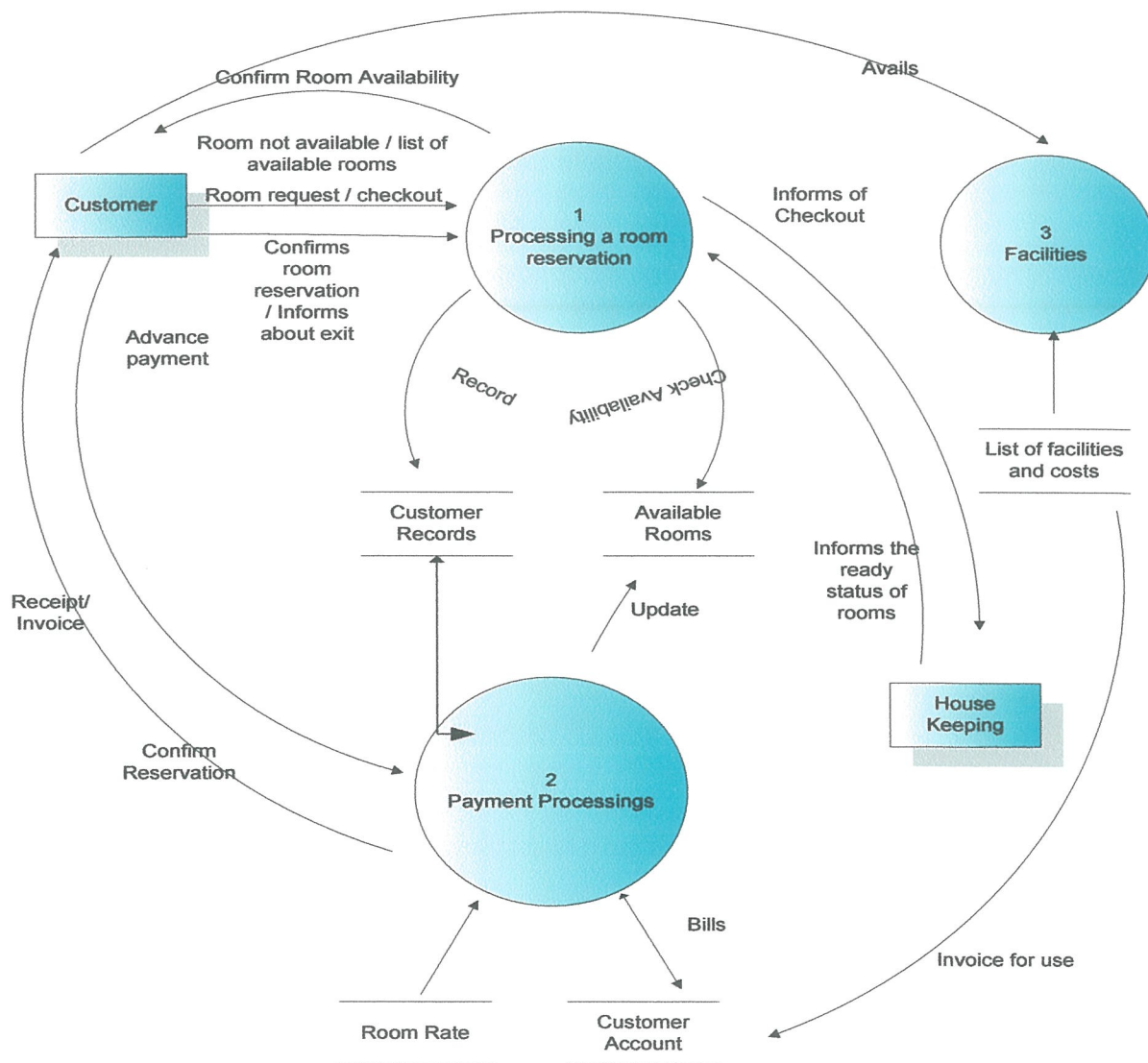
### 5.5.2 Data Flow Diagram



The outputs of the Data flow diagram:

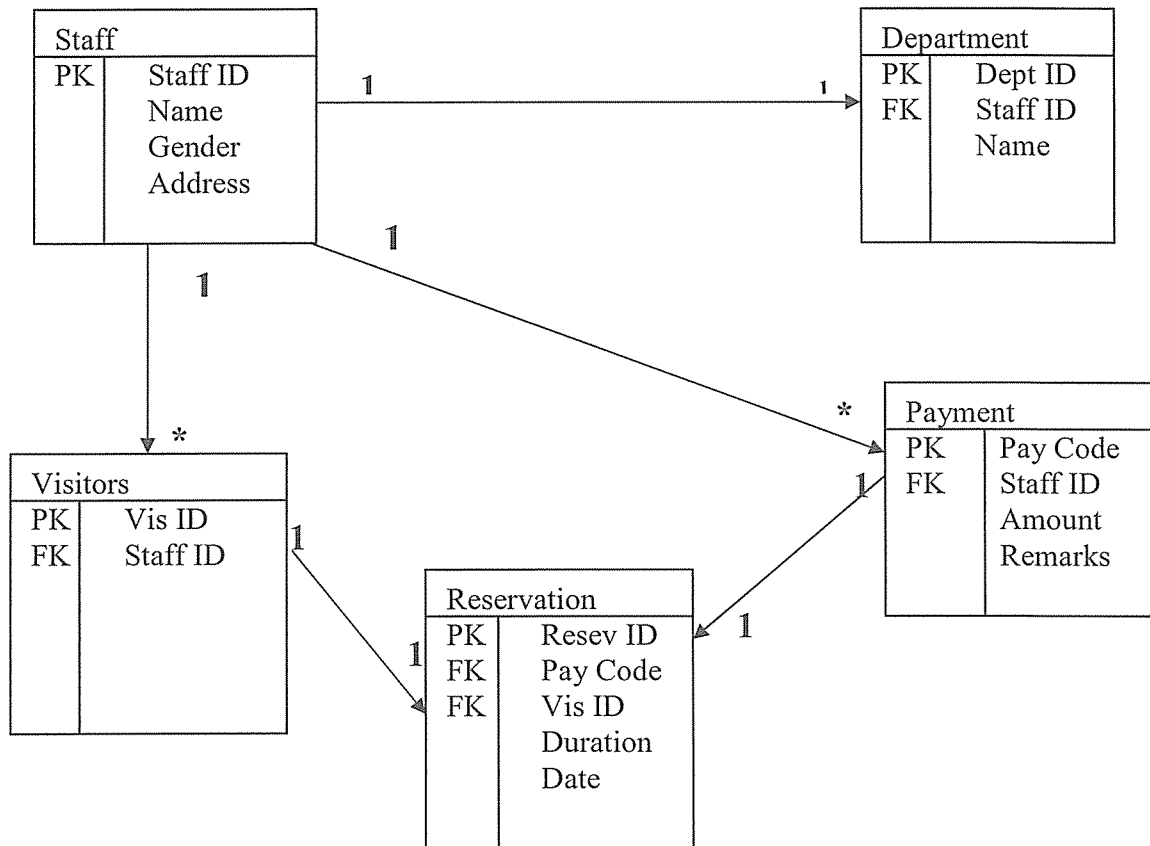
- a) List of available Reservation & tours
- b) Generation of payments.
- c) Updating of the available Reservation & tours after a customer vacates.

### 5.5.3 Detailed Data Flow Diagram for Reservations (Guest house, Hotels and Motels)



Source: we used MsAccess. Database to design the table, show the relationships of tables. After we used view in access to get the Dataflow diagrams.

#### 5.5.4 Entity Relationship Model (ERM)



#### 5.5.5 Program flow

The tourists register his particulars in the registration form and then a form is submitted in Microsoft access database files. After he/she login as administrator with a password as select the features to be visited and on addition his/her give a comment visit experience. The administrator use the database to see the user account ,user profile ,user comment and the make the view/edit the administration account and also delete where necessary.

## 5.6. LOGICAL DESIGN

### 5.6.1. Registration Table

FIELD NAME	DATA TYPE	SIZE	DATA DISCRIPTION
First Name	TEXT/ CHARACTER	15	First Name
Last Name	TEXT/ CHARACTER	15	Last Name
Country	TEXT/ CHARACTER	20	Country
Address	TEXT/ CHARACTER	15	Address
City/State	TEXT/ CHARACTER	10	City/State
Tel. No	NUMBER	15	Tel. No
E-Mail	MEMO	20	e-mail

### 5.6.2 Staff Table Form

The visitor's table form involves the text box where the user enters his/her comment out of his visit experience the park.

FIELD NAME	DATA TYPE	SIZE	DESCRIPTIONS
Staff Task	TEXT	15	Staff Task
Staff Registration	TEXT	20	Staff Registration
Department Information	TEXT	50	Department Information
Post News/Events	TEXT	20	Post News/Events
Administration Use	TEXT	50	Post News/Events
Login	TEXT	50	Login

#### 5.6.2.1. Reports

From the reports menu clicking each report can access the following reports.

- The visitor's profiles report generates a list of tourist with their particulars.
- The registration report generates a list of tourists with their corresponding user ID.

#### 5.6.2.2. Forms

Forms were made to facilitate entry of data as well as control the user's actions. The following forms are made

- Registration form which enables entry of each tourist particulars.
- Login form for entry of user ID and password.

### 5.6.3. Staff Registration Table

FIELD NAME	DATA TYPE	SIZE	DESCRIPTION
Staff_ID	TEXT	15	Staff Identification
First Name	TEXT	15	First Name
Last Name	TEXT	15	Last name
Gender	TEXT	10	Gender
D.O.B	TEXT	15	Date Of Birth
Month	TEXT	10	Month
Day	TEXT	10	Day
Year	NUMBER	10	Year
Address	TEXT	15	Address
Tel.No	NUMBER	15	Telephone Number
Photo	OLE	20	Photo
Departmental Id	TEXT	15	Departmental ID
E-Mail	MEMO	20	E-Mail



#### 5.6.4. Data Entry Operations

Data entry is carried out in the form menu option. On clicking any form option the form opens. The following operations are carried out.

- Navigating through the database, each data entry screen has a button for navigating through the database using the find button.
- Next button takes you to the next record.
- Previous button takes you to the preceding record.
- The logout/close button closes the form
- The exit button closes the entire application program

### 5.7. PHYSICAL DESIGN

#### 5.7.1. Login Table Form.

This displays the login form which gives the choice to the user to enter his/her user name and the password as “**pass**” in order to comment on the features visited as shown below.



The image shows a screenshot of a software window titled "Kipedo WildLife Park, registration". The window has a blue title bar and a tan-colored main area. Inside the main area, there are three text input fields arranged vertically. The first field is labeled "User Name", the second is labeled "PassWord", and the third is labeled "Re-enter PassWord". At the bottom right of the form area, there are two buttons: "Register" and "Cancel".

### 5.7.2. Registration form for Staff

Staff Registration

*Wild Life Registration Form*


Loge: staff

Please complete the registration

StaffID

ST0001

Photo



First Name

NAMUKASA

Last Name

DOREEN

Gender

Male

Month

Day

Year

Address

KASEESE

Date Of Birth

3

3

1971

Tel. No

075634353

DepartmentID

INFORM.TECHNOLOGY

E-mail

namukasa@yahoo.com

Profession

TECHNICIAN

Back

Submit

Clear

Close

### 5.7.3 System Features/User Views

These are sometimes referred to as database objects. In this case they include tables, queries, forms and reports

### 5.7.4. Tables over view

The database is based on the following tables which were produced indicating the description, data type and size of the field of the data to be used in the program.


### 5.7.5. Registration' Table (WELCOME TO KVNP TABLE FORM)

This table prompt user to select the different option basing on task the user aim to perform such registering, login e.t.c and then he/she enters the password and retype it again password in order to gain access to the registration form as shown below;

Form15

*Welcome to Kipedo Valley National park*

Logged in as MUKASA



**Reservations**

- Hotels
- Guest Houses
- Motels

**Special Tours**

- Birds
- Animals
- Nature Walks and Leisure Parks

**Events**

- News And Events
- Share your Visit Experience

Close

```
Private Sub Command3_Click()  
Form6.Show  
Unload Me  
End Sub  
Private Sub Command4_Click()  
Unload Me  
End  
End Sub  
Private Sub Label1_Click()  
End Sub  
Private Sub Picture1_Click()  
End Sub
```

FORM 2

Option Explicit

Private mynconn As ADODB.Connection

Private mynrkdset As ADODB.Recordset

Private Sub Command1\_Click()

Dim num As Integer

On Error Resume Next

Adodc3.Recordset.MoveFirst

Adodc3.Recordset.Find "userName\_ like " & Text1.Text & ""

If Text1.Text = "" Or Text2.Text = "" Or Text3.Text = "" Then

MsgBox ("Some fields are missing. Please fill all fields to complete registration"),  
vbExclamation, "Kipedo Park, Visitor Registration"

Text1.SetFocus

Else

If Text2.Text <> Text3.Text Then

MsgBox ("The passwords do not match. Please check your passwords and try again.  
Thankyou"), vbExclamation, "Kipedo Park, Visitor Registration"

mynRefresha

Else

If Text1.Text <> "" And Text2.Text <> "" Then

Adodc3.Recordset.MoveFirst

Do While Adodc3.Recordset.EOF = False

If Adodc3.Recordset.Fields("userName\_") = Text1.Text Then

num = num + 1

End If

Adodc3.Recordset.MoveNext

Loop

If num = 0 And Adodc3.Recordset.EOF = True Then

Form3.Label9.Caption = Text1.Text

Me.Visible = False

Form3.Show

Else

MsgBox "UserName already registred,please chose a diferent username. Thankyou!",  
vbExclamation, "Kipedo Park, Visitor Registration"

mynRefresha2

End If

Else

MsgBox ("Parameters too big. Please use shorter text characters to register. Thankyou"),  
vbCritical, "Kipedo Park, Visitor Registration"

mynRefresha2

End If

End If

End If

End Sub



LOGIN TABLE (FORM1.SHOW)

```
Private Sub Command2_Click()
```

```
Form1.Show
```

```
Unload Me
```

```
End Sub
```

```
Private Sub mynRefresha()
```

```
Text2.Text = ""
```

```
Text3.Text = ""
```

```
Text2.SetFocus
```

```
End Sub
```

```
Private Sub mynRefresha2()
```

```
Text1.Text = ""
```

```
Text2.Text = ""
```

```
Text3.Text = ""
```

```
Text1.SetFocus
```

```
End Sub
```

```
Private Sub Form_Load()
```

```
Text1.Text = ""
```

```
Text2.Text = ""
```

```
Text3.Text = ""
```

```
On Error Resume Next
```

```
Adodc3.ConnectionString = "Provider=Microsoft.Jet.OLEDB.4.0;Data Source=" &  
App.Path & "\kipedoDataBase.mdb;Persist Security Info=False;Jet OLEDB:Database  
Password=semakula"
```

```
Adodc3.RecordSource = "select * from userAccounts"
```

```
Set DataGrid1.DataSource = Adodc3
```

```
Adodc3.Visible = False
```

```
DataGrid1.Visible = False
```

```
End Sub
```

```
Private Sub Label1_Click()
```

```
End Sub
```

FORM 3 CODE

```
Private Sub Command1_Click()
```

```
On Error Resume Next
```

```
Adodc2.Recordset.MoveFirst
```

```
Adodc2.Recordset.Find "fName like " & Text1.Text & ""
```

```
If Text1.Text = "" Or Text2.Text = "" Or Text3.Text = "" Or Text4.Text = "" Or  
Text5.Text = "" Or Text6.Text = "" Or Text7.Text = "" Then
```

```
MsgBox ("Some fields are missing, Please fill all the fields to complete your registration.  
Thankyou"), vbExclamation, "Kipedo Registration Error!"
```

```
Text1.SetFocus
```

```
Else
```

```
If Adodc2.Recordset.EOF = True And Form2.Adodc3.Recordset.EOF = True Then
```

```
Form2.Adodc3.Recordset.AddNew
```

```

Form2.Adodc3.Recordset!userName_ = Form2.Text1
Form2.Adodc3.Recordset!passWord_ = Form2.Text2
Form2.Adodc3.Recordset.Update
Adodc2.Recordset.AddNew
Adodc2.Recordset!userName_ = Form2.Text1
Adodc2.Recordset!fName = Text1
Adodc2.Recordset!lName = Text2
Adodc2.Recordset!country = Text3
Adodc2.Recordset!address = Text4
Adodc2.Recordset!city_state = Text5
Adodc2.Recordset!tel_no = Text6
Adodc2.Recordset!email = Text7
Adodc2.Recordset.Update
Unload Form2
Unload Me
MsgBox ("Congratulations! You have successfully registered.You may go a head to login"),
vbInformation, "Kipedo Park, Visitor Registration"
Form1.Show
Else
MsgBox ("Parameters too big. Please use shorter text characters to register. Thankyou"),
vbCritical, "Kipedo Park, Visitor Registration"
mynRefresha
End If
End If
End Sub

Private Sub Command2_Click()
mynRefresha
End Sub

Private Sub Command3_Click()
Form1.Show
Unload Me
End Sub

Private Sub Form_Load()
On Error Resume Next
Adodc2.ConnectionString = "Provider=Microsoft.Jet.OLEDB.4.0;Data Source=" &
App.Path & "\kidepoDataBase.mdb;Persist Security Info=False;Jet OLEDB:Database
Password=semakula"
Adodc2.RecordSource = "select * from userProfile"
Set DataGrid1.DataSource = Adodc2
Adodc2.Visible = False
DataGrid1.Visible = False
End Sub
Private Sub mynRefresha()

```

```

Text1.Text = ""
Text2.Text = ""
Text3.Text = ""
Text4.Text = ""
Text5.Text = ""
Text6.Text = ""
Text7.Text = ""
Text1.SetFocus
End Sub
Private Sub Label1_Click()
End Sub

```

#### FORM 4 CODES

```

Option Explicit
Private mynconn As ADODB.Connection
Private mynrkdst As ADODB.Recordset
Private Sub Command1_Click()
If Text1.Text = "" Or Text2.Text = "" Then
MsgBox ("Login Details not complete! Plese fill all the Fields then continue, thankyuo."),
vbInformation, "Kipedo Park Admin Login"
Text1.SetFocus
Else
Dim num As Integer
num = 0
Set mynconn = New ADODB.Connection
mynconn.ConnectionString = "Provider=Microsoft.Jet.OLEDB.4.0;" & _
"Data Source=" & App.Path & "\kipedoDatabase.mdb;Persist Security Info=False;Jet
OLEDB:Database Password=semakula"
mynconn.Open
Set mynrkdst = New ADODB.Recordset
With mynrkdst
.Open "userAccounts", mynconn, adOpenKeyset, adLockPessimistic, adCmdTable

Do While Not .EOF
If mynrkdst.Fields("userName_") = Text1.Text And mynrkdst.Fields("passWord_") =
Text2.Text Then
num = num + 1
End If
mynrkdst.MoveNext
Loop
If num = 0 Then
MsgBox ("Wrong UserName and/or PassWord! Please check your UserName and
password then try again, thankyou."), vbExclamation, "Kidepo Park Login "
mynRefresh3
Text1.SetFocus
Else

```



```

Form5.Label2.Caption = Text1.Text
Form5.Show
Me.Visible = False
End If
End With
End If
End Sub
Private Sub Command2_Click()
Form1.Show
Unload Me
End Sub
Private Sub mynRefresh3()
Text1.Text = ""
Text2.Text = ""
End Sub
Private Sub Form_Load()
Text1.Text = ""
Text2.Text = ""
End Sub
Private Sub Label1_Click()
End Sub

```

#### FORM 5 CODE

```

Private Sub Command1_Click()
If Text1.Text = "" Or Text2.Text = "" Then
MsgBox ("Please fill all the fields to complete the visitor's comment. Thankyou"),
vbExclamation, "Kipedo visitor comments, Error!"
Text1.SetFocus
Else
If Text1.Text <> "" And Text2.Text <> "" Then
On Error Resume Next
Adodc4.Recordset.AddNew
Adodc4.Recordset!userName_ = Form4.Text1
Adodc4.Recordset!vistedFeatures = Text1
Adodc4.Recordset!visitExperience = Text2
Adodc4.Recordset!Status = 1
Adodc4.Recordset.Update
MsgBox ("Thankyou for sharing your comments with us"), vbInformation, "Kipedo
visitor comments"
Unload Form4
Form1.Show
Unload Me
Else
MsgBox ("Memory not enough, Please reduce on the characters in you text. Thankyou. "),
vbInformation, "Kipedo Park Vistor Comments"
Text1.SetFocus

```

```

End If
End If
End Sub
Private Sub Command2_Click()
Form1.Show
Unload Me
End Sub
Private Sub Command3_Click()
Form1.Show
Unload Me
End Sub
Private Sub Form_Load()
Adodc4.Visible = False
On Error Resume Next
Adodc4.ConnectionString = "Provider=Microsoft.Jet.OLEDB.4.0;Data Source=" &
App.Path & "\kipedoDataBase.mdb;Persist Security Info=False;Jet OLEDB:Database
Password=semakula"
Adodc4.RecordSource = "select * from userComments"
Set DataGrid1.DataSource = Adodc4
DataGrid1.Visible = False
Text3.Visible = False
End Sub
Private Sub Label5_Click()
End Sub

```

## 5.9. Testing

After developing the system the phase was conducted. The phase comprises of testing usability and security of the system. To make sure that the computerized system functions well.

### 5.9.1 User Testing

A number of system users were randomly asked to test the interface of the computerized system and comment on its usability. The developers made adjustments where they were required

### 5.9.2. Functional testing

The system was tested using simulated data and later some actual data gained from the Kipedo national valley park. The computerized system was installed on the server tested for compatibility and functionality.

## **CHAPTER SIX**

### **DISCUSSION, RECOMMENDATIONS AND CONCLUSION**

#### **6.0. Overview**

In this part of the study researcher has summarized the field discoveries, drawn a conclusion and provided recommendations before ending with areas he is convinced deserved further research. The objectives of the study were established causes of fees payment which are a manual system of data entry, update and storage of data of fees payment which is riddled with problems.

#### **6.1 Discussion**

From Fig.1 shows that 62% of staff members of KVNP suggested that a new system be put in place when selected randomly while 38% tourists were also in agreement with the staff which in turn helped us in designing the new system that responded positively to words the betterment of the National park itself and the wellbeing of the tourists.

However, Fig.2 suggest that, 60% of the respondents pointed it out that it was the manual system, cumbersome and more vulnerable to misappropriation and fraud, nothing like computerized means of record keeping and this was found out that it was because, they lack proper skills to use the modern computerized system which is being introduced to the National Park eight percent shows that there is no tool or method in place used for Tourists' record

Fig.3 shows 67% of the respondents or Tourists who didn't register direct to the KVNP Administrators after reaching at the Park. 16.6 % had no opinion on how the Tourists are treated and only 16.6% of the Tourists or respondents said that yes Tourists first register before they enter the National park. This suggests that the system is unavailable and this describes the reason why data is either not captured or lost.

The new system is computerized from entry of data processing, to generating of reports. The system reduces on the amount of work done when entering data. The system has speed, validation routines and is reliable. It is secure through a password.

## **6.2 Limitation of the Study**

During the project formation and development, some of the problems encountered include the following:

- The case study was far from the university that led to the project being costly in terms of finance accrued from transport fare and hence resulting in time wastage.
- The designer had no full knowledge of the software program for designing the application
- Power fluctuation frequently interfered with my project especially during the design phase
- Unavailability of resources such as computers since the laboratories at the compass were ever occupied, virus infected and inconveniencing too because of the closer times.

## **6.3 Future works**

The system should be further developed to allow tourists to go to their profiles/administrator accounts through the database of the park. This is the way of solving the lining up of the tourists.

Provision should be made for the continuous upgrading of System in order to do away with fraud and also changing of password should be done

## **6.4. Recommendation**

1. It is highly recommended that a new system be put in place in order to solve the problem of lost and transferring data from ledgers and manual files to computer systems.
2. Since it was discovered that the workers lacked skill in managing computerized records, there is a need for training them so that they can handle and effective manage the tourist's records /data ably and professionally.

3. Sensitization workshops for the staff should be done in order enlight on the importance of data as key tool for decision making aspect intended for the development of KVNP in the day to day operation.

## **6.5 Conclusion**

According to the findings therefore, is very clear in that a computerized system should be operationalised for the easy tracking and monitoring the tourists information visiting KVNP in order to be able to take record of data and information for the use in the park intended for development to the required state.

## REFERENCES

Alsbery P.A (1976), Principle For Resilient Sharing Of Distributed Resources.

Codd E and Earl M (1987), Database Systems. a simplified guide to SQL and PL/SQL, Prentice Hall

Connolly M, Begg E and Strachan D (2007), Database systems Practical Approach to Design, implementation and management. Published by Addison Wesley Company

Hutchinson Sawyer and Stacey Sarah E (2000) Database Processing, Prentice Hall

Oleary J.T Microsoft Access 2000 – Brief Version

Masaba N.J (2008), a Project report on Application Package to Manage Students' Records Makerere University.

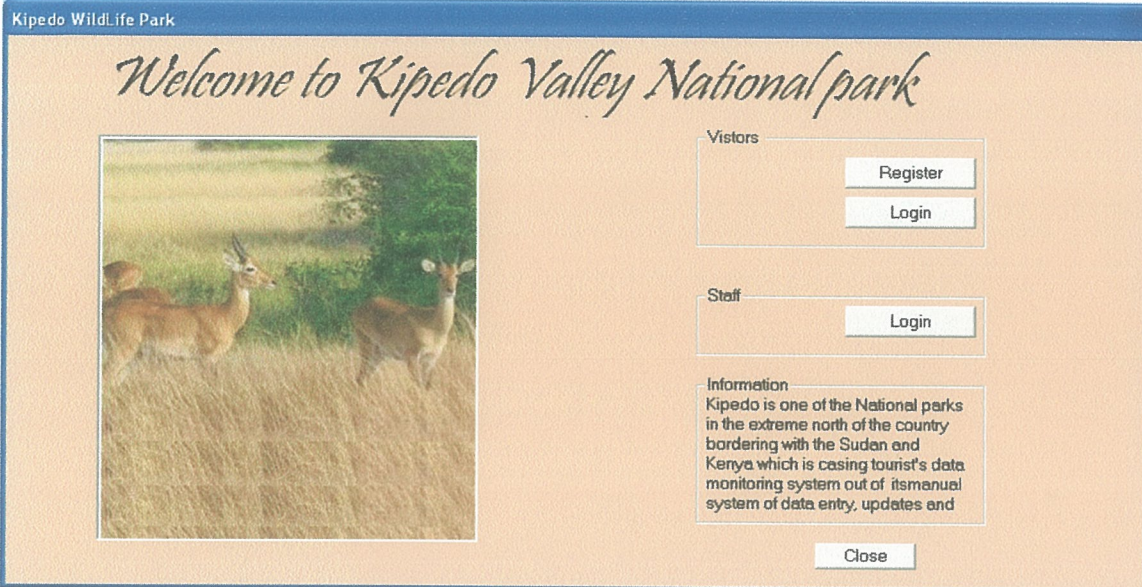
Secondary School Places Allocation (SSPA) System (2007); A system used to allocate school places to senior one students. Retrieved September 16, 2010 from <http://www.edb.gov.hk/index.aspx>

Hex T.G and Beacons H (2005): The Registration System National Health Service (NHS) retrieved September 20<sup>th</sup>, 2010 from <http://www.toefi.etest.net.cn/en/enformation>

National park registration System: a Case Study in Building a High-Availability Distributed Application Using General Purpose Components retrieved on august 15<sup>th</sup>, 2010 from [http:// www.fujitsu.com/casestudy/allocation](http://www.fujitsu.com/casestudy/allocation)


## APPENDIX A

### WELCOME FORM



Kipedo Wildlife Park

*Welcome to Kipedo Valley National park*



Visitors

Register

Login

Staff

Login

Information

Kipedo is one of the National parks in the extreme north of the country bordering with the Sudan and Kenya which is casing tourist's data monitoring system out of its manual system of data entry, updates and

Close

This figure displays the registration and login form where the user enters the password to access the data base. With user name as staff and pass for STAFF LOGIN

## APPENDIX B

### REGISTRATION FORM

Staff Registration

*Wild Life Registration Form*

Logon staff      Please complete the registration

StaffID	<input type="text" value="ST0001"/>	Photo	
First Name	<input type="text" value="NAMUKASA"/>		
Last Name	<input type="text" value="DOREEN"/>		
Gender	<input type="text" value="Male"/>		
Date Of Birth	Month <input type="text" value="3"/> Day <input type="text" value="3"/> Year <input type="text" value="1971"/>	Address	<input type="text" value="KASEESE"/>
		Tel. No	<input type="text" value="075634353"/>
DepartmentID	<input type="text" value="INFORM.TECHNOLOGY"/>	E-mail	<input type="text" value="namukasa@yahoo.com"/>
Profession	<input type="text" value="TECHNICIAN"/>	<input type="button" value="Back"/>	<input type="button" value="Submit"/>
		<input type="button" value="Clear"/>	<input type="button" value="Close"/>

### MICROSOFT STUDIO 6.0 CODES

#### REGISTRATION TABLE (FORM 1)

```
Private Sub Command1_Click()  
Form2.Show  
Unload Me  
End Sub  
Private Sub Command2_Click()  
Form4.Show  
Form4.Text1.Text = ""  
Form4.Text2.Text = ""  
Form4.Text1.SetFocus  
Me.Visible = False  
End Sub  
Private Sub Command3_Click()  
Form6.Show  
Unload Me  
End Sub  
Private Sub Command4_Click()  
Unload Me  
End
```



```

End Sub
Private Sub Label1_Click()
End Sub
Private Sub Picture1_Click()
End Sub

```

## FORM 2

```

Option Explicit
Private mynconn As ADODB.Connection
Private mynrkdst As ADODB.Recordset
Private Sub Command1_Click()
Dim num As Integer
On Error Resume Next
Adodc3.Recordset.MoveFirst
Adodc3.Recordset.Find "userName_ like '" & Text1.Text & "'"
If Text1.Text = "" Or Text2.Text = "" Or Text3.Text = "" Then
MsgBox ("Some fields are missing. Please fill all fields to complete registration"),
vbExclamation, "Kipedo Park, Visitor Registration"
Text1.SetFocus
Else
If Text2.Text <> Text3.Text Then
MsgBox ("The passwords do not match. Please check your passwords and try again.
Thankyou"), vbExclamation, "Kipedo Park, Visitor Registration"
mynRefresha
Else
If Text1.Text <> "" And Text2.Text <> "" Then
Adodc3.Recordset.MoveFirst
Do While Adodc3.Recordset.EOF = False
If Adodc3.Recordset.Fields("userName_") = Text1.Text Then
num = num + 1
End If
Adodc3.Recordset.MoveNext
Loop

If num = 0 And Adodc3.Recordset.EOF = True Then
Form3.Label9.Caption = Text1.Text
Me.Visible = False
Form3.Show
Else
MsgBox "UserName already registred,please chose a diferent username. Thankyou!",
vbExclamation, "Kipedo Park, Visitor Registration"
mynRefresha2
End If
Else

```

```

MsgBox ("Parameters too big. Please use shorter text characters to register. Thankyou"),
vbCritical, "Kipedo Park, Visitor Registration"
mynRefresha2
End If
End If
End If
End Sub

```

```

Private Sub Command2_Click()
Form1.Show
Unload Me
End Sub
Private Sub mynRefresha()
Text2.Text = ""
Text3.Text = ""
Text2.SetFocus
End Sub

```

```

Private Sub inynRefresha2()
Text1.Text = ""
Text2.Text = ""
Text3.Text = ""
Text1.SetFocus
End Sub
Private Sub Form_Load()
Text1.Text = ""
Text2.Text = ""
Text3.Text = ""
On Error Resume Next
Adodc3.ConnectionString = "Provider=Microsoft.Jet.OLEDB.4.0;Data Source=" &
App.Path & "kipedoDataBase.mdb;Persist Security Info=False;Jet OLEDB:Database
Password=semakula"
Adodc3.RecordSource = "select * from userAccounts"
Set DataGrid1.DataSource = Adodc3
Adodc3.Visible = False
DataGrid1.Visible = False
End Sub
Private Sub Label1_Click()
End Sub

```

### FORM 3 CODE

```

Private Sub Command1_Click()
On Error Resume Next
Adodc2.Recordset.MoveFirst
Adodc2.Recordset.Find "fName like " & Text1.Text & ""

```

```

If Text1.Text = "" Or Text2.Text = "" Or Text3.Text = "" Or Text4.Text = "" Or
Text5.Text = "" Or Text6.Text = "" Or Text7.Text = "" Then
MsgBox ("Some fields are missing, Please fill all the fields to complete your registration.
Thankyou"), vbExclamation, "Kipedo Registration Error!"
Text1.SetFocus
Else
If Adodc2.Recordset.EOF = True And Form2.Adodc3.Recordset.EOF = True Then
Form2.Adodc3.Recordset.AddNew
Form2.Adodc3.Recordset!userName_ = Form2.Text1
Form2.Adodc3.Recordset!passWord_ = Form2.Text2
Form2.Adodc3.Recordset.Update
Adodc2.Recordset.AddNew
Adodc2.Recordset!userName_ = Form2.Text1
Adodc2.Recordset!fName = Text1
Adodc2.Recordset!lName = Text2
Adodc2.Recordset!country = Text3
Adodc2.Recordset!address = Text4
Adodc2.Recordset!city_state = Text5
Adodc2.Recordset!tel_no = Text6
Adodc2.Recordset!email = Text7
Adodc2.Recordset.Update
Unload Form2
Unload Me
MsgBox ("Congratulations! You have successfully registerd.You may go a head to login"),
vbInformation, "Kipedo Park, Visitor Registration"
Form1.Show
Else
MsgBox ("Parameters too big. Please use shorter text characters to register. Thankyou"),
vbCritical, "Kipedo Park, Visitor Registration"
mynRefresha
End If
End If
End Sub

Private Sub Command2_Click()
mynRefresha
End Sub

Private Sub Command3_Click()
Form1.Show
Unload Me
End Sub

Private Sub Form_Load()
On Error Resume Next

```

```

Adodc2.ConnectionString = "Provider=Microsoft.Jet.OLEDB.4.0;Data Source=" &
App.Path & "\kidepoDataBase.mdb;Persist Security Info=False;Jet OLEDB:Database
Password=semakula"
Adodc2.RecordSource = "select * from userProfile"
Set DataGrid1.DataSource = Adodc2
Adodc2.Visible = False
DataGrid1.Visible = False
End Sub
Private Sub mynRefresha()
Text1.Text = ""
Text2.Text = ""
Text3.Text = ""
Text4.Text = ""
Text5.Text = ""
Text6.Text = ""
Text7.Text = ""
Text1.SetFocus
End Sub
Private Sub Label1_Click()
End Sub

```

#### FORM 4 CODES

```

Option Explicit
Private mynconn As ADODB.Connection
Private mynrkdst As ADODB.Recordset
Private Sub Command1_Click()
If Text1.Text = "" Or Text2.Text = "" Then
MsgBox ("Login Details not complete! Plese fill all the Fields then continue, thankyuo."),
vbInformation, "Kipedo Park Admin Login"
Text1.SetFocus
Else
Dim num As Integer
num = 0
Set mynconn = New ADODB.Connection
mynconn.ConnectionString = "Provider=Microsoft.Jet.OLEDB.4.0;" & _
"Data Source=" & App.Path & "\kipedoDatabase.mdb;Persist Security Info=False;Jet
OLEDB:Database Password=semakula"
mynconn.Open
Set mynrkdst = New ADODB.Recordset
With mynrkdst
.Open "userAccounts", mynconn, adOpenKeyset, adLockPessimistic, adCmdTable

Do While Not .EOF
If mynrkdst.Fields("userName_") = Text1.Text And mynrkdst.Fields("passWord_") =
Text2.Text Then
num = num + 1

```

```

End If
mynrkdst.MoveNext
Loop
If num = 0 Then
MsgBox ("Wrong UserName and/or PassWord! Please check your UserName and
password then try again, thankyou."), vbExclamation, "Kidepo Park Login "
mynRefresh3
Text1.SetFocus
Else
Form5.Label2.Caption = Text1.Text
Form5.Show
Me.Visible = False
End If
End With
End If
End Sub
Private Sub Command2_Click()
Form1.Show
Unload Me
End Sub
Private Sub mynRefresh3()
Text1.Text = ""
Text2.Text = ""
End Sub
Private Sub Form_Load()
Text1.Text = ""
Text2.Text = ""
End Sub
Private Sub Label1_Click()
End Sub

```

#### FORM 5 CODE

```

Private Sub Command1_Click()
If Text1.Text = "" Or Text2.Text = "" Then
MsgBox ("Please fill all the fields to complete the visitor's comment. Thankyou"),
vbExclamation, "Kipedo visitor comments, Error!"
Text1.SetFocus
Else
If Text1.Text <> "" And Text2.Text <> "" Then
On Error Resume Next
Adodc4.Recordset.AddNew
Adodc4.Recordset!userName_ = Form4.Text1
Adodc4.Recordset!vistedFeatures = Text1
Adodc4.Recordset!visitExperience = Text2
Adodc4.Recordset!Status = 1
Adodc4.Recordset.Update

```

```

MsgBox ("Thankyou for sharing your comments with us"), vbInformation, "Kipedo
visitor comments"
Unload Form4
Form1.Show
Unload Me
Else
MsgBox ("Memory not enough, Please reduce on the characters in you text. Thankyou. "),
vbInformation, "Kipedo Park Vistor Comments"
Text1.SetFocus
End If
End If
End Sub
Private Sub Command2_Click()
Form1.Show
Unload Me
End Sub
Private Sub Command3_Click()
Form1.Show
Unload Me
End Sub
Private Sub Form_Load()
Adodc4.Visible = False
On Error Resume Next
Adodc4.ConnectionString = "Provider=Microsoft.Jet.OLEDB.4.0;Data Source=" &
App.Path & "\kipedoDataBase.mdb;Persist Security Info=False;Jet OLEDB:Database
Password=semakula"
Adodc4.RecordSource = "select * from userComments"
Set DataGrid1.DataSource = Adodc4
DataGrid1.Visible = False
Text3.Visible = False
End Sub
Private Sub Label5_Click()
End Sub

```

## **APPENDIX C**

### **INTERVIEW GUIDE**

#### **Individuals to be interviewed**

1. Administrators/Staffs
2. Tourists

#### **Question to be asked**

1. What activities are carried out at the National park?
2. How registration system process scheduled or done?
3. Who is responsible for registering tourist?
4. Who is eligible to be registered?
5. What difficulties do tourists find in registering?
6. Are there reserved tourists who don't register? If yes, why?
7. Do tourists have equal opportunities register?
8. What categories of animal species do exist in the park?
9. How do you cater for tourists with disabilities?
10. Do you think there is a need to introduce a computerized system process?

## APPENDIX D

### QUESTIONNAIRE FOR ADMINISTRATORS

Dear Respondent,

I am researching on the tourist's wildlife database management system in a national park.

The questionnaire is designed to help in finding out how tourists records can be monitored using a computerized system.

The information needed is for this academic research only and will be treated with confidentiality and will be solely for the purpose of this research. Hence the researcher humbly requests you to put a tick on the answer you prefer and give your views where necessary in the spaces provided.

The project is entitled TOURIST WILDLIFE DATABASE MANAGEMENT SYSTEM:  
A CASE KIPEDO VALLEY NATIONAL PARK.

Thank you

#### SECTION A

##### BACKGROUND INFORMATION

1. Sex (tick in the box)

Female

☐

Male

☐

2. Age

19 – 25 years

☐

26 – 35 years

☐

above 35 years

☐

3. For how long have you been in this national park? .....years

#### SECTION B

##### REGISTRATION INFORMATION

4. How do tourists register in the national park?

AT RECEIPTION

☐

ONLINE

☐

5. What are the requirements for registration?

.....

7. Are tourists issued any document to confirm their registration? If NO skip this section, otherwise tick the ones applicable

Card

☐

receipt card

☐

other(s) .....



8. How do you keep your tourists records documents?

Box files ☐ Filing cabins ☐ other(s).....

9. How long does it take for a document to be processed?

Immediately ☐ After one day ☐

Others (specify).....

### SECTION C

#### COMPUTER INFORMATION

9. Are you computer literate?

YES ☐ NO ☐

10. Would you welcome the introduction of a computerized system for monitoring tourists records in your national park?

Yes ☐ No ☐ I don't know ☐

11. Give reason for your answer

i.....

ii.....

**Thank you for your contribution towards my research**

**APPENDIX E**  
**QUESTIONNAIRE FOR TOURISTS**

Dear Respondent,

I am researching on the tourist's wildlife database management system in a national park. The questionnaire is designed to help in finding out how fees payment can be monitored using a computerized system.

The information sought needed is for this academic research only and will be treated with confidentiality and will be solely for the purpose of this research. Hence the researcher humbly requests you to put a tick on the answer you prefer and give your views where necessary in the spaces provided.

The project is entitled TOURIST WILDLIFE DATABASE MANAGEMENT SYSTEM:  
A CASE KIPEDO VALLEY NATIONAL PARK.

Thank you

1. Sex (tick in the box)

Female ☐ Male ☐

2. Age

Below 18 ☐ 19 – 25 years ☐ above 25 years ☐

3. What level of education are you?

Ordinary level ☐ Advanced level ☐

4. What language do you understand and speak?

English ☐ Kiswahili ☐ others.....

5. What is your nationality?

Ugandan ☐ Foreigner ☐ others.....