

**A COMPUTERIZED INFORMATION SYSTEM
FOR A NURSING SCHOOL USING MS OFFICE AND VISUAL BASIC 6.0
CASE STUDY: KIBULI SCHOOL OF NURSING AND MIDWIFERY**

BY:

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A Project Proposal Submitted to the school of Computer Studies in partial
Fulfillment of the requirements for the
Award of the Diploma in Computer Science at
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DECLARATION

I Stephen Trosbich Kigongo [DCS/13117/61/DU] do hereby declare that this Project Proposal is the product of my own labor except where indicated in the text and has not been published or submitted for any award to Kampala International University or any other University before.

Signed:  Date: *05th July 2010*
STEPHEN TROSBICH KIGONGO

DEDICATION

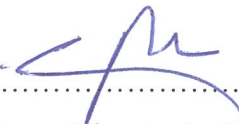
This project is dedicated to my dear parents, brothers, sisters and friends with special regards to Lukabwe Martin Luther, Muwumuza Justas and not forgetting my sister Babirye Elizabeth, supervisor professor Vicente A. Gonzalez for his illustrious criticisms that made my work the present proposal.

I treasure your contribution towards my education.

May God bless you all.

APPROVAL

This Project Proposal has been submitted for examination with the approval of the following supervisor.

Signed:  Date: 

Supervisor professor Vicente A. Gonzalez

Department of Computer Science

School of Computer Studies

ABBREVIATIONS

CD	Compact Disc
DA	Database Administrator
DBMS	Database Management Systems
DFD	Data Flow Diagrams
E-R	Entity Relationship
GB	Giga Byte
HD	Hard Disc
IS	Information System
IT	Information Technology
KSNM	Kibuli School of Nursing and Midwifery
MB	Megabytes
MHz	Mega Hertz
MS	Microsoft
NT	New Technology
RAM	Random Access Memory
V.B 6.0	Visual Basic 6.0
XP	Xtended Programming

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ABSTRACT

The main objective of this Project Proposal is to design and create an information system to help the receptionist who is also the cashier, librarian as well as a secretary to ensure timely, accurate communication flow for the queries she receives as she does her daily routine activities in the course of executing her duties.

Visual Basic 6.0, a programming platform will be used for developing this system. Data Flow Diagrams (DFD), entity relationship (E-R) diagrams as well as a sequential diagram will also be used in the design to the system.

CHAPTER ONE

INTRODUCTION

1.0 General Introduction

A system is an organized way to accomplish one or more goals. This can be natural or artificial. However the nature of the system that the school requires is *a computer system/information system*. The new system will be designed to mainly assist the receptionist about the frequent inquiries received by staff as well as the outsiders.

1.1 Background of the Study

The idea or vision of starting a nursing school was initiated by Dr. Mahmoud El Gazzar in 1995. It was not until 1999 that construction was started under the funding of International Islamic Charitable Organization (IICO). The School has a board of governors chaired by chairman and management committee chaired by the principal tutor and a student's guild. The school has 7 teaching staff and 6 non-teaching staff.

The first enrollment was done on 15th May 2005 where 22 students were admitted for the course of enrolled nursing, which takes 2½ years. They are all female young Muslim girls mainly from East Africa and the course is residential.

The school lacks a computer laboratory hence all its data is stored manually in books or papers that are kept in the files. The school supports all nationalities, tribes and religions. They are after accommodating all those interested and cannot join university straight away. With the increasing advancement in information technology the world has become a global village and almost everything is running on the current trend of technology driven by computerized services. It is better for the school to change the system by using computers, which provide the quickest means at just a click of a button other than the current way where the current receptionist has to shuffle several files for information queried by the staff and any other party.

1.2 Problem Statement

Kibuli School of nursing and midwifery currently has no computerized system which therefore leads to time wastage in storing, retrieving of the already manually manipulated data so as to answer the several queries which are just the additions to the normal current routine of handling phone calls and ensuring of proper communication flow for this new school.

The current system comprises of handling data manually where information passes from one person to another before reaching the recipient, this results into time wastage and probably data loss hence inefficiency.

It uses a manual system of keeping files which leads to lack of integrity and convenience about the information mainly concerned with students and the staff.

It has a problem of keeping tracks of students financial details because payments are recorded in books which have no back-ups and are regularly moved to several offices.

It lacks the best way of storing data which is done by writing in black books or papers manually done by receptionist who has a lot of responsibilities like working as a librarian, cashier as well as a school secretary

Due to these problems, designing a computerized system for the school was seen the best option rather than buying several books, papers, pens etc., although the option seems to be costly in the short run but its better in the long run.

1.3 General Objective of the Study

According to our study the proposed solution to overcome the problems identified is to create, design, test and implement the new system from the existing system being used manually to a new computerized system for better recording, access and retrieval of the stored data.

1.4 Specific objectives of the study

The goal of this study is to analyze the real system in order to acquire the information so as to create a new computerized system with ability to access data for the queries in a much faster way as compared to the current system that is in place.

To create and develop a new computerized database system with a user friendly interface to make easy the work of the individuals who are handling data queries.

To implement, test the new system and obtain the feedback from the system that has been created by giving error-free, timely and reliable answers to the queries.

1.5. Scope of the Study

The project is to take place at Kibuli School of Nursing and Midwifery (KSNM) and the information system is intended to incorporate a few details at for the beginning for students and the staff for the front desk services.

In case all limitations are to be overcome as well as realizing sufficient funds, then a well networked system will be implemented and more fields will be introduced and more fields will be introduced.

1.6. Significance of Study

An information system offers great advantages i.e. giving a high level of consistent, updated, timely data storage, manipulation and retrieval.

Improved provision of timely data queries both internally and externally will help the school to attain its objectives and goals.

This will help in reports and forms being submitted in time to enable timely and tactical decisions for management committee.

CHAPTER TWO

LITERATURE REVIEW

2.0 General Introduction

This chapter concerns with the review of related existing literature of the school information systems. We intend to handle information basically about staff and students issues as related to payments as well as registration details.

2.1 Overview

A system is a collection of related components that interact with one another to and operates to achieve a goal or a purpose. The components of a system include; input, output, process, and feedback where:

Input refers to startup components on which the system operates which largely determine the nature of output especially in Information Systems e.g. Kibuli School of Nursing and Midwifery inputs student data like names, addresses, date, etc.

Process refers to these are activities performed on the input data to transform it into meaningful information e.g. design system; the processes include editing, sorting, updating, deleting, and general maintenance. These processes are facilitated by assets of steps as programs

Outputs are the results of an operation and as mentioned previously, results depend on the inputs. Feedback is the recycling of information concerning plans, decision action, and progress at different stages of the process.

Systems may be manual systems or artificial systems.

2.1.1 Manual Systems

Manual systems are those systems that involve that involve physical transfer of files from one place to another. The manual system does not make use of computers to keep data or information for future reference. Information is stored on papers or compiled to books by use of tools like pens, pencils or markers to produce fairly related copies. The institute management department should be computerized for purpose of accuracy, and security. This kind of change is supported

by many authors like Davis (1982) who says “The manual file system will not really solve the office management problems but will just reduce their magnitude”

Advantages of Manual Systems

- File system is cheaper than computerized information systems which involve development and maintenance of computers systems.
- It does not fail like computer systems where stand still occurs due to failures of a single component which may be essential to many inter-linked and interconnected functionalities.
- No problems of power failures for file processing as compared to computers where even frequent power fluctuations are enough to interrupt the basic operations.
- Information in file is not much reliable to attacks by unauthorized personnel as whoever handles the file can access the data contained in it.
- Manual file handling system does not need expertise to operate files say to transfer it from one user to another provided the file is available and the recipient is known.

Disadvantages of Manual Systems

- Data redundancy which usually lead to loss of data integrity and also wastes space just like the case at Kibuli school of nursing and midwifery where payment details are duplicated in another counter book that is kept away in a different location other than the usual one accessed for queries.
- Data processing is very slow and in most cases inaccurate reports may be generated for example in Kibuli school of nursing and midwifery where payment updates are updated only in the evenings at the close of the days operations or in the morning before the day activities begin.
- Manual storage systems can easily be altered as evidenced by the counter books where alterations are very visible almost on every page.
- A lot of time is required to create, organize and update the files and get information from the filing cabinets or other offices. The case of Kibuli School of nursing and midwifery requires the receptionist to come an hour earlier to her official reporting time to update the counter books so as to provide more accurate information as compared to the previous days' queries.

- Chances of losing information as a result of misplacing files during their transfer are high that is why at Kibuli school of nursing and midwifery, usually a copy is duplicated and secured regularly because of instances where books are expected at some locations and they are not there yet.
- A lot of space is consumed by filing cabinets which grow into rooms and then buildings within years of operation.
- Manual file system cannot be programmed to minimize the time spent on the daily repetitive cores and respond to updates.

Clifton (1990) insists that “considering the involved costs in manual file system, computerized one is more effective”

Kanalwa (1998) emphasizes that the computerized system creates a database which renders data security and integrity enhancement. Data will be collected, stored in database and implemented by use of visual basic programming code of easy analysis which is the choice we are to consider.

2.1.2 Computerized system

This is a system that uses computer systems interconnected and interlinked to one another operate. It is quicker to use once it is fully understandable and is the new technology running all over the world. The differences between a manual system and a computerized system are almost limited by ones knowledge and the functionalities.

Advantages of Computerized Systems

- With a computerized system, a query that may seem complex can be accomplished by just a few clicks of a mouse unlike with the existing manual system where information needed consumes time when collecting several manual files.
- Computerized systems are easier to update since data is entered once and updates are made in several files which are interlinked and are interconnected.
- Computerized Systems have data backups such that when data crushes or if a particular data processing component is damaged, the replacement can be done and all the data recovered unlike the manual system where a file or counter book is stolen or damaged say by fire, all the data is lost.

- Very little space is needed by computers as compared to that of filing cabinets of the manual system.

Disadvantages of Computerized Systems

- Computerised Systems have electronic components which are not functional when power is not enough, unstable or unavailable.
- Though a properly planned system ensures proper running of all the functionalities, there is always at least a point of failure for these interlinked and interconnected systems.
- Computerised Systems need well trained and qualified users since with computers there is always a Garbage In Garbage Out case implying that if wrong data is entered, wrong results will be processed.
- With Computerised Systems, it is always costly to hire the qualified and well trained personnel who are efficient enough to utilize the system to run the necessary reports, maintain and provide support the system to ensure that it is running all the time.
- Computerised systems are all costly in a way that all the equipments used are costly to buy especially when the company is being started.
- Usually, interacting different technologies do not function to give the same functionalities and upgrading a full system all at once is not that easy.

2.2 Information Technology and Information Systems

2.2.1 Information Technology (IT)

It includes all matters concerned with of computer studies, technology, design, development, installation and implementation of Information Systems and applications. Information Technology architecture is an integrated framework for acquiring and evolving Information Technology to achieve strategic goals.

Information Technology advantages as in this case include:

- IT ensures efficiency of data storage, manipulation and retrieval.
- IT brings changes in organizations where simultaneous data handling takes place.
- For security purposes, data is not easily altered when vital information is handled.
- IT can be for easier access of data for queries that may require several files.

- There is increased productivity when volumes of work can be accomplished easily.

2.2.2 Information system

This is an interconnected set of information resources under the same management control sharing common functionalities. It includes; hardware, software, information, data, applications, communication and people. It may consist of several subsystems, several levels of users, several standards of hardware and software. The purposes of Information Systems are to process input, maintain files of data and to produce information reports etc. It can also be defined as organized collection storage and presentation of data, other knowledge, for decision making, processing, planning and or evaluation of programs. It may be a combination of manual or computerized or both.

Anderson (1992) defines as IS as one that corrects records, stores and computes using transaction and presents the result of information. It involves four primary elements, input, output, processing and storage.

According to Kenneth C. Laudon (1998, p.231) defined IS technically as a set of inter-defined components that collect, process, store and distribute information to support decision making, coordination, control, analysis, and visualization in an organization. The purpose of an Information System is to fulfill the information needs of its end-users.

Kenneth C. and Jane P. Laudon (1998) defined information as data that has been shaped into a form that is meaningful and useful to human beings.

Data are streams of raw facts representing events occurring in organizations or the physical environment before they have been organized and arranged into a form that people can understand. Data may be classified into two broad categories of primary and secondary data.

2.3 Database

It is a collection of related records that are created, stored, retrieved and manipulated with flexibility. It is managed using a set of programs called database management system which acts as an interface between the Database (DB) and the user. Kibuli School of Nursing and Midwifery information system operates within an environment of software, hardware, data or information and users.

Kenneth C. and Jane P. Laudon (1998) defined a database as a collection of data organized to service many applications at the same time by storing and managing data so that they appear to be in one location.

Peter Bishop (1967, Red) talks of a Database as consisting of the stored data, the various model, a piece of software called a DBMS and a person called a database administrator

DBMS is a large and complex piece of software responsible for all aspects of the location, accessing and updating of the Database. Database administrator is a person in charge of the overall running of the Database system.

CHAPTER THREE

METHODOLOGY

3.0 General Introduction

This chapter contains the methods to be used to collect the data needed so as to fulfill the objectives as listed in the previous chapters.

3.1 Research Methodology

The methods to use to collect the data for the case of Kibuli School of Nursing and Midwifery will be obtained through;

- (a) Observation
- (b) Written documents
- (c) Interviewing

3.1.1 Observation

This will be done in order to see how the records will be treated or laid down in books and how reliable they will be to the school's future. Observation can bring in many facts and new ways to improve existing procedures. To do this we will use the following guidelines:

- Determine the what, and where of the observation.
- Obtain permission from appropriate personnel
- Communicate those who will be observed.
- Take notes during or immediately following the observations
- Ensure no workflow interruptions
- Not focusing heavily on petty activities
- Don't make assumptions

All the above will mainly focus on looking out for:

- (a) operation inefficiency,
- (b) interruption in the normal flow of work which wastes a lot of time,
- (c) uses of files as well as

(d) the time taken access required files

Observation technique has got some merits and demerits

Merits include:

- The method will be cheap
- We will be able to see exactly what is going on
- We hope not to interfere with work
- We will be getting first hand information

Demerits include:

- Time consuming i.e. a lot of time is needed for better results.
- Not many people enjoy being watched
- Not all the logical flow of information is got

3.1.2 Interview

This is a face to face talk with the interviewee with an aim of getting the needed or required information. Questions asked can be written down on a piece of paper or formed as the discussion goes on. This will give the researchers the opportunity to carry out both formal and informal interviews. The following are the problems usually faced when trying to access information using this technique.

- The problem of inconvenient results since the person being interviewed can defend what he says there and then
- There is need to understand exactly what you are looking for in the questions you are asking the interviewee
- It demanded lot of patience and persistence especially when the interviewee were so busy

However there are some advantages of interviewing which include:

- Some people are willing to communicate when there is hope for something better
- It is possible to carry out all the interviews on the same day thus time saving
- Communication can easily be switched to a more comfortable language for clearer understanding.
- More data can be got and collected if you get very comfortable with the interviewee

3.1.3 Written documents

A great deal of what the researchers needed was available in written documents

Data was analyzed using such tools as data flow diagrams, and system flow charts.

Documents provided the organizational chart [chapter one] that shows elements of management and formal lines of authority

3.2 Conceptual Framework

TIME IN DAYS															
	0	2	4	6	8	10	12	14	16	18	20	22	24	26	28
Observation															
Interviewing															
Data Collection															
System Analysis															
Implementation															
User Training															

Observation is almost throughout since it a very important from the very beginning and is to lasted intensively for 20 of the 28 days.

Interviewing is also the second important form of information source will be used which will last for 16 days together along with data collection.

Though system analysis is the most hectic part of the whole process, having organized data lessens the stress to lesser time than expected.

Implementation if done after proper utilization of the previously described activities in the first column will be more of trouble shooting.

Well as also user training is as important as the previous activities, being done along side observation and before fully implementing will make easy the implementation part.

CHAPTER FOUR

SYSTEM ANALYSIS, DESIGN AND IMPLEMENTATION

4.0 General Introduction

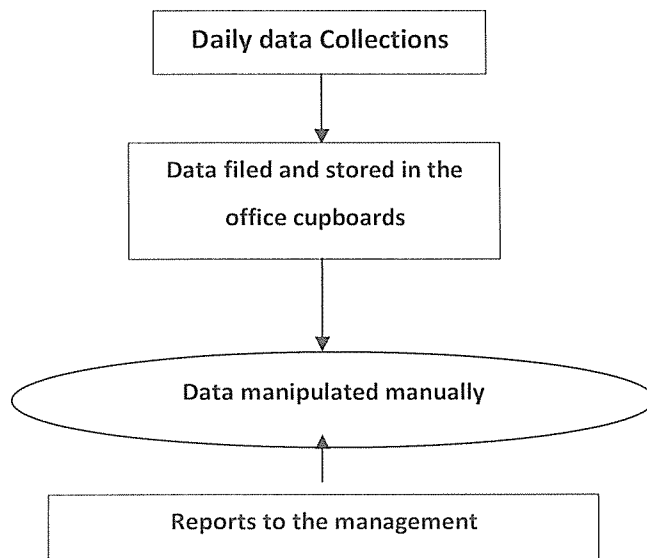
In this section, the current manual system will be studied and evaluated, information flows within the system and the weaknesses the existing system will be presented to help us to identify the basic requirements for the system. This will describe what a system should do to satisfy the needs of users. Its objective will be to gather, analyze data and write a report.

4.1 System Study

4.1.1 The Existing System

In this section, a full analysis of the existing system will be made. We hope to take a thorough study of the full functionality on the existing system. Data will be recorded on papers and later filed for our records.

A flow diagram as one below will be constructed.



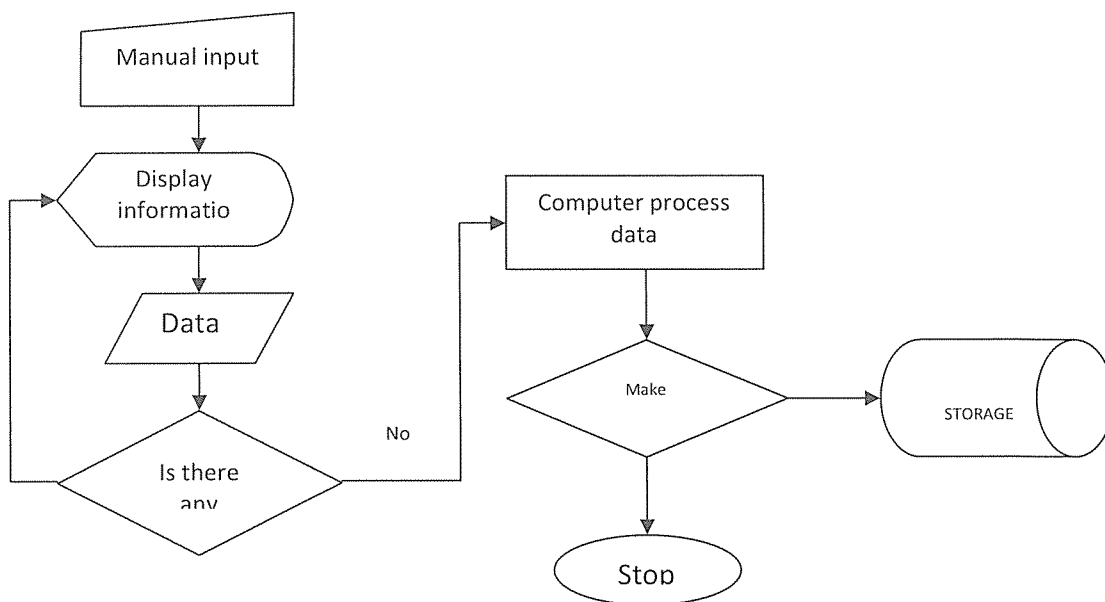
4.1.2 Evaluation of the existing system

The evaluation of the existing system includes both the current flow of information and weaknesses involved in the existing system. The main aim of this evaluation is to get a

summarized, structural perspective of the existing system and find out the loopholes, which are the basis of the study.

4.2 The New Computerized System

The new computerized system will bring into the Kibuli School Nursing and Midwifery a new era of functionality. In other words data capturing, processing and output will all be computerized. Data will be stored on hard discs, floppies and compact discs to limit the amount of space used. Besides the data or information stored can be easily retrieved by using queries and can be easily manipulated. As compared to the old system, a computerized system is far better in the fact it posses a number of classic properties such as speed, accuracy, storage and convenience.



The flow chart of the new computerized system

All data to be input into the system that will have to first be validated and processed before it will be output or sent to the database for storage. Whenever erroneous data is input into the system, it will prompt you with an error message asking you whether to continue or cancel the entry. Data capturing will be done using the keyboard and the system will prompt you with a login window that requires you to input a valid username and password. This will prompt you to

enter a correct username and password. With access to the system, a new entry can be made by filling the form or you can retrieve already existing data. All fields should be filled.

This is where all the data is stored after being validated and processed. This data can be retrieved through the use of access controls, edited and saved again or out put. It can also be deleted whenever need be.

4.2.1 Functional requirements

These describe the desired functionality of the new system. It details out what will expected of the system in behavior terms such as outputs and inputs of the system. They will include:

- Create new records
- Save these new created records
- Display any of the records in the system
- Generate a report which should be previewed before being printed

4.2.3 Hardware requirements

There should be enough hard disk space for the developed software and storage of the data to be processed and the information generated. Hardware of a full set of computer systems with at least:

- 128MB of RAM,
- 10GB hard disk,
- 500Mhz of processor speed,
- at least Pentium 3 or higher,
- a scanner and printer.

4.2.4 Software Requirements

Windows 2000, NT, XP, Vista, Windows 7 would be appropriate, Visual Basic 6.0 can be used since it is the main basic tool for designing a system and is an object oriented programming language that is user friendly. Microsoft Office suite 2003, 2007 or the current 2010 has to be

installed since it contains access that will also be used to provide a background for the database manipulation. An anti virus program to detect and remove viruses that may affect stored records.

4.2.5 Human Resource Requirements

These are individuals or specialists needed to design and operate the system. They may be application programmers, system users, database administrators, computer trainers and systems analysts. Depending upon their job descriptions and duty roles or responsibilities, they should all have good hands on experience of the Microsoft Office suite knowledge and an understanding of data and databases.

4.3 Database Design

Below is the Students table properties, it will be used to capture students details as per the respective fields they are pertained to.

	Field Name	Data Type	Description
1	sid	Text	Students ID
2	fname	Text	First Name
3	onames	Text	Other Name
4	Mstatus	Text	Marital Status
5	Age	Number	Age
6	Sex	Text	Gender
7	County/district	Text	Area of Residence
8	S4slip	Text	O level results slip
9	S6slip	Text	A level results slip
10	Contact	Text	Telephone Number
11	Year/term	Text	Year Term
12	AccID	Text	Account ID

	Field Name	Data Type	Description
13	SerialNo	Text	Serial Number
14	TTAmount	Text	Total Tuition Amount

Below is the academic results table properties, it will be used to capture accounts' details as per the respective fields they are pertained to.

	Field Name	Data Type	Description
1	Aid	Text	Account identification number
2	fname	Text	First Name
3	onames	Text	Other Name
4	Yr/term	Text	Year/term
5	Performance	Text	Semester Performance
6	Grade	Text	Semesters Grade
7	Subname	Text	Subject Name
8	Tt	Text	Marks awarded
9	Stid	Text	Student Identification Number

Below is the staff table properties, it will be used to capture staff details as per the respective fields they are pertained to.

	Field Name	Data Type	Description
1	sid	Text	Staff ID
2	sname	Text	Surname
3	onames	Text	Other Name
4	Telephone	Text	Contact
5	Gender	Text	Gender

	Field Name	Data Type	Description
6	DOJ	Date/Time	Date Of Joinery
7	Resident	Text	Residential area
8	Designation	Text	Job description
9	Rank	Text	Rank
10	Contract	Text	Time of service

4.4 Interface Design

Design will show what the system will be able to output and also how the system will technically implemented transforming the logical design material into real computer work.

4.4.1 Staff Form

Below is the staff form that will be presented when data is to be input or updated. The form will be simple for the users as the aim is to create a user friendly environment that is easy to interact with. With the form, all commands necessary for the Staff update and retrieval will be available here.

KIBULI NURSING SCHOOL

KIBULI SCHOOL OF NURSING AND MIDWIFERY

STAFF

STUDENTS

ACADEMIC RESULTS

Personal Credentials

STAFF ID

SURNAME

OTHER NAMES

RESIDENT

TELEPHONE

GENDER

DATE OF JOINERY

DESIGNATION

RANK

CONTRACT PERIOD

Add New

Print

View Report

Save

Delete

Navigation

Move First

Next

Previous

Move Last

Close

Initiated by: International Islamic Charitable Organization (IICO)

Associated to: Kibuli Hospital

Following: Uganda Muslim Education Council-UMEA

Licensed by: Ministry of Education

Recognized by: Uganda National Council For Higher Education

Kibuli school of nursing and midwifery

P.o.box 2671

kampala

Monday

June

21

2010

2:16:14 PM

DESIGNED BY STEPHEN T. KIGONGO

4.4.2 Student Form

Below is the student form that will be presented when data is to be input or updated. The form will be simple for the users as the aim is to create a user friendly environment that is easy to interact with. With the form, all commands necessary for the Student update and retrieval will be available here.

KIBULI NURSING SCHOOL
X

KIBULI SCHOOL OF NURSING AND MIDWIFERY

STAFF	STUDENTS	ACADEMIC RESULTS
STUDENT ID <input style="width: 100%;" type="text"/> FIRST NAME <input style="width: 100%;" type="text"/> OTHER NAMES <input style="width: 100%;" type="text"/>	AGE <input style="width: 100%;" type="text"/> SEX <input style="width: 100%;" type="text"/> MARITAL STATUS <input style="width: 100%;" type="text"/>	DISTRICT <input style="width: 100%;" type="text"/> TEL NUMBER <input style="width: 100%;" type="text"/> S4 RESULT SLIP <input style="width: 100%;" type="text"/> S6 RESULT SLIP <input style="width: 100%;" type="text"/> YEAR/TEAM <input style="width: 100%;" type="text"/>

Navigation

NEW
SAVE
SEARCH
DELETE
MOVE FIRST
NEXT
PREVIOUS
MOVE LAST


STUDENT FEES PAYMENT INFORMATION
DATE
ACCOUNT ID
SERIAL NUMBER
TOTAL AMOUNT
AMOUNT PAID
BALANCE
CLEARED 100 %

Jun 2010

Jun

2010

Sun	Mon	Tue	Wed	Thu	Fri	Sat
5	6	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	1	2	3
4	5	6	7	8	9	10



DESIGNED BY STEPHEN T. KIGUNGO

4.4.3 Academic Results Form

Below is the academic results form that will be presented when data is to be input or updated. The form will be simple for the users as the aim is to create a user friendly environment that is easy to interact with. With the form, all commands necessary for the academic results update and retrieval will be available here.

KIBULI NURSING SCHOOL X

KIBULI SCHOOL OF NURSING AND MIDWIFERY

STAFF
STUDENTS
ACADEMIC RESULTS

ACADEMIC RESULTS FOR KIBULI SCHOOL OF NURSING AND MIDWIFERY

STUDENT ID

FIRST NAME

OTHER NAMES

YEAR/TERM

ACADEMIC ID

SUBJECT

MARK

GRADE

PERFORMANCE

Aid	fname	othernames	Yr/term	performance	grade	subname	marks	studentid
08	aminah	abas	2/1	v.good	B+	pharmacology	78	107
10	kawere	mark	1/2	Good	E	Pharmacology	0	104
01	Kigongo	swithin	2/1	good	B	pharmacology	70	100
02	banomu	irene	2/1	excelle	A	pharmacology	81	101
03	malinga	joy	2/1	Good	B	pharmacology	73	102
04	NAMBI	amina	2/1	good	B	pharmacology		103

SHOW FIRST
NEXT
PREVIOUS
MOVE LAST
DELETE
ADD RECORD
SAVE

CLOSE
PRINT REPORT
VIEW REPORT

DESIGNED BY STEPHEN J. KIGONGO

4.4 System Implementation

To implement the system, acquiring the installation requirements for example hardware and software is needed. Implementation will be done and the users will be trained. This will be done because the user interfaces will provide a short learning curve to ensure that it will perform as it will be designed to perform.

4.4.1 User Training

The trainees to work with the new system will be selected and trained. These are system users and training involved teaching and guiding the users on how to operate and manage the system program plus interfaces.

The goal of the interface design is to provide the best way for people to interface with the computers, or what is commonly known as human computer Interface. Provision of good interface is more important because of its impact on organizations. This impact is increasing, because most people in organization are spending more time with computers as part of their normal work – they enter transactions retrieve data in the organizations. Their work and satisfaction are improved with better interface, leading to an improvement in their quality of the work and the effectiveness of the organization.

Since the system design is for people who are answering queries and updating data as well, the user interface is very friendly in a way that as long as you open the application, data is entered for the query you are attending to say a telephone call.

CHAPTER FIVE

CONCLUSION AND RECOMMENDATIONS

5.0 General Introduction

This chapter includes the recommendations and conclusions as the system was developed, data for the new system collected from the existing system using various tools like interviews, observations and written documents analyzed and later used to design and implement the system that was tested successfully.

5.1 Conclusion

The following conclusions were drawn:

- The new system will bring about increased efficiency in carrying out the process of most of the tasks of the front office.
- The process of answering queries will greatly be reduced and hence increased productivity of the front office personnel i.e. the receptionist.
- The system will allow people who have a preview of their reports of their queries prior to the final printing.

5.2 System Challenges and Limitations

- a) There can be better software to design this system
- b) They are expensive to create and maintain
- c) Solves only a few queries at the front desk

5.3 Recommendations

We recommend that:

- future developers use a better software other than Visual Basic 6.0 to enhance functionality

- the new system should always be updated this means that insertion or deletion of records in a database should always be made to reflect the current situation. This is important because new information can be incorporated into a database and outdated information removed.
- a special backup system is setup to cater for any eventualities such as software or hardware failures that may lead to massive data loss

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APPENDIX A

Project codes.

Option Explicit

```
Private Sub cmdAdd_Click()
'add data to a database
cmdAdd.Enabled = False
cmdSave.Enabled = True
cmdDelete.Enabled = False
Command7.Enabled = False
Command8.Enabled = False
Command6.Enabled = False
Command9.Enabled = False
Adodc1.Recordset.AddNew
Text3.SetFocus
End Sub

Private Sub cmdDelete_Click()
'delete data from the database
Dim Response As Integer
    Response = MsgBox("Are you sure, you want to delete the record?", vbYesNo
+ vbCritical, "No Name Deleted")
    If Response = vbNo Then
        Exit Sub
    Else
        Adodc1.Recordset.Delete
        Adodc1.Recordset.MoveNext
        If Adodc1.Recordset.EOF = True Then
            Adodc1.Refresh
            If Adodc1.Recordset.BOF = True Then
                MsgBox "You must add a record.", vbOKOnly + vbInformation, "Empty
file"
                Call cmdAdd_Click
            Else
                Adodc1.Recordset.MoveFirst
            End If
        End If
        End If
        'position the cursor to the editable region
        Text3.SetFocus
    End Sub

Private Sub cmdPrint_Click()
'prints the report
DataReport1.PrintReport
End Sub

Private Sub cmdSave_Click()
'command saves contents to the database
'Check to make sure id entered
If Text3.Text = "" Then
```

```

        MsgBox "The profile requires a staff ID.", vbOKOnly + vbCritical, "No
ID Entered"
        Text3.SetFocus
        Exit Sub
    End If
    'Check to make sure name entered
    If Text1.Text = "" Then
        MsgBox "The SurName is required.", vbOKOnly + vbCritical, "No Name
Entered"
        Text1.SetFocus
        Exit Sub
    End If
    'Check to make sure name entered
    If Text2.Text = "" Then
        MsgBox "The other Name is required.", vbOKOnly + vbCritical, "No Name
Entered"
        Text2.SetFocus
        Exit Sub
    End If
    'Check to make sure resident entered
    If Text5.Text = "" Then
        MsgBox "The Resident is required.", vbOKOnly + vbCritical, "No Resident
Entered"
        Text5.SetFocus
        Exit Sub
    End If
    'Check to make sure phone number is entered
    If Text4.Text = "" Then
        MsgBox "The Phone Number is required.", vbOKOnly + vbCritical, "No
Number Entered"
        Text4.SetFocus
        Exit Sub
    End If
    'Check to make sure gender entered
    If Text6.Text = "" Then
        MsgBox "gender is required.", vbOKOnly + vbCritical, "No Gender
Entered"
        Text6.SetFocus
        Exit Sub
    End If
    'Check to make sure DOJ entered
    If Text7.Text = "" Then
        MsgBox "Date of Joinery is required.", vbOKOnly + vbCritical, "No DOJ
Entered"
        Text7.SetFocus
        Exit Sub
    End If
    'Check to make sure Designation entered
    If Text8.Text = "" Then
        MsgBox "The Designation is required.", vbOKOnly + vbCritical, "No
Designation Entered"
        Text8.SetFocus
        Exit Sub
    End If
    'Check to make sure Rank entered
    If Text27.Text = "" Then

```

```

        MsgBox "The Rank is required.", vbOKOnly + vbCritical, "No Rank
Entered"
        Text27.SetFocus
        Exit Sub
    End If
    'Check to make sure name entered
    If Text28.Text = "" Then
        MsgBox "Contract period is required.", vbOKOnly + vbCritical, "No
contract period Entered"
        Text28.SetFocus
        Exit Sub
    End If
    Adodc1.Recordset.Update
    Adodc1.Refresh
    cmdAdd.Enabled = True
    cmdSave.Enabled = False
    cmdDelete.Enabled = True
    Command7.Enabled = True
    Command8.Enabled = True
    Text3.SetFocus

End Sub

Private Sub Command1_Click()
'moves to the first record in the database
Adodc3.Recordset.MoveFirst
End Sub

Private Sub Command10_Click()
'closes the program
Unload Me
End Sub

Private Sub Command11_Click()
'adds contents to the database
Command11.Enabled = False
Command25.Enabled = True
Command12.Enabled = False
Command13.Enabled = False
Command14.Enabled = False
Command15.Enabled = False
Command16.Enabled = False
Command17.Enabled = False
Adodc2.Recordset.AddNew
Text9.SetFocus
End Sub

Private Sub Command12_Click()
'finds the desired record from the database
Dim strsearch As String
strsearch = InputBox("enter stid")
Adodc2.Recordset.MoveFirst
While Not Adodc2.Recordset.EOF
If LCase(strsearch) = LCase(Adodc2.Recordset.Fields(0)) Then
MsgBox ("search successful")
Exit Sub

```

```

Else
Adodc2.Recordset.MoveNext
End If
Wend
MsgBox ("record does not exist")

End Sub

Private Sub Command13_Click()
'deletes data from the database
Dim Response As Integer
    Response = MsgBox("Are you sure, you want to delete the record?", vbYesNo
+ vbCritical, "No Name Deleted")
    If Response = vbNo Then
        Exit Sub
    Else
        Adodc2.Recordset.Delete
        Adodc2.Recordset.MoveNext
        If Adodc2.Recordset.EOF = True Then
            Adodc2.Refresh
            If Adodc2.Recordset.BOF = True Then
                MsgBox "You must add a record.", vbOKOnly + vbInformation, "Empty
file"
                Call cmdAdd_Click
            Else
                Adodc2.Recordset.MoveFirst
            End If
        End If
        End If
        Text9.SetFocus
    End Sub

Private Sub Command14_Click()
'moves to the first record in the database
Adodc2.Recordset.MoveFirst
End Sub

Private Sub Command15_Click()
'moves to the next record in the database
Adodc2.Recordset.MoveNext
    If Adodc2.Recordset.EOF Then
        Adodc2.Recordset.MoveFirst
    End If

End Sub

Private Sub Command16_Click()
'moves to the previous record in the database
Adodc2.Recordset.MovePrevious
    If Adodc2.Recordset.BOF Then
        Adodc2.Recordset.MoveLast
    End If
End Sub

Private Sub Command17_Click()

```

```
'moves to the last record in the database
Adodc2.Recordset.MoveLast
End Sub
```

```
Private Sub Command18_Click()
'moves to the last record in the database
Adodc3.Recordset.MoveLast
End Sub
```

```
Private Sub Command19_Click()
'deletes data from the database
Dim Response As Integer
    Response = MsgBox("Are you sure, you want to delete the record?", vbYesNo
+ vbCritical, "No Name Deleted")
    If Response = vbNo Then
        Exit Sub
    Else
        Adodc3.Recordset.Delete
        Adodc3.Recordset.MoveNext
        If Adodc3.Recordset.EOF = True Then
            Adodc3.Refresh
            If Adodc3.Recordset.BOF = True Then
                MsgBox "You must add a record.", vbOKOnly + vbInformation, "Empty
file"
                Call Command20_Click
            Else
                Adodc3.Recordset.MoveFirst
            End If
        End If
        End If
        Text29.SetFocus
    End Sub
```

```
Private Sub Command2_Click()
'finds a record from the database
Dim strsearch As String
strsearch = InputBox("enter stid")
Adodc1.Recordset.MoveFirst
While Not Adodc1.Recordset.EOF
If LCase(strsearch) = LCase(Adodc1.Recordset.Fields(0)) Then
MsgBox ("search successful")
Exit Sub
Else
Adodc1.Recordset.MoveNext
End If
Wend
MsgBox ("record does not exist")

End Sub
```

```
Private Sub Command20_Click()
'adds a new record to the database
Command20.Enabled = False
Command24.Enabled = True
Command19.Enabled = False
```



```

Command4.Enabled = False
Command5.Enabled = False
Command1.Enabled = False
Command18.Enabled = False
Adodc3.Recordset.AddNew
Text29.SetFocus
End Sub

Private Sub Command21_Click()
'closes the form
End
End Sub

Private Sub Command22_Click()
'prints the report
DataReport2.PrintReport
End Sub

Private Sub Command23_Click()
'displays the report
DataReport2.Show
End Sub

Private Sub Command24_Click()
'Check to make sure id entered
    If Text29.Text = "" Then
        MsgBox "The profile requires a student ID.", vbOKOnly + vbCritical, "No
ID Entered"
        Text29.SetFocus
        Exit Sub
    End If
    'Check to make sure name entered
    If Text30.Text = "" Then
        MsgBox "The FirstName is required.", vbOKOnly + vbCritical, "No Name
Entered"
        Text30.SetFocus
        Exit Sub
    End If
    'Check to make sure name entered
    If Text31.Text = "" Then
        MsgBox "The other Name is required.", vbOKOnly + vbCritical, "No Name
Entered"
        Text31.SetFocus
        Exit Sub
    End If
    'Check to make sure year or term is entered
    If Text32.Text = "" Then
        MsgBox "The Resident is required.", vbOKOnly + vbCritical, "No
year/term Entered"
        Text32.SetFocus
        Exit Sub
    End If
    'Check to make sure subject is entered
    If Text33.Text = "" Then
        MsgBox "The subject is required.", vbOKOnly + vbCritical, "No subject
Entered"

```

```

        Text33.SetFocus
    Exit Sub
End If
'Check to make sure mark entered
If Text34.Text = "" Then
    MsgBox "mark is required.", vbOKOnly + vbCritical, "No mark Entered"
    Text34.SetFocus
Exit Sub
End If
'Check to make sure grade entered
If Text35.Text = "" Then
    MsgBox "Grade is required.", vbOKOnly + vbCritical, "No Grade Entered"
    Text35.SetFocus
Exit Sub
End If
'Check to make sure Designation entered
If Text8.Text = "" Then
    MsgBox "The Designation is required.", vbOKOnly + vbCritical, "No
Designation Entered"
    Text8.SetFocus
Exit Sub
End If
'Check to make sure performance entered
If Text36.Text = "" Then
    MsgBox "The Rank is required.", vbOKOnly + vbCritical, "No performance
Entered"
    Text36.SetFocus
Exit Sub
End If
Adodc3.Recordset.Update
Adodc3.Refresh
Command20.Enabled = True
Command24.Enabled = False
Command19.Enabled = True
Command4.Enabled = True
Command5.Enabled = True
Command1.Enabled = True
Command18.Enabled = True
Text29.SetFocus

End Sub

Private Sub Command25_Click()
'Check to make sure id entered
If Text9.Text = "" Then
    MsgBox "The profile requires a student ID.", vbOKOnly + vbCritical, "No
ID Entered"
    Text9.SetFocus
Exit Sub
End If
'Check to make sure name entered
If Text10.Text = "" Then
    MsgBox "The First Name is required.", vbOKOnly + vbCritical, "No Name
Entered"
    Text10.SetFocus
Exit Sub

```

```

End If
'Check to make sure name entered
If Text11.Text = "" Then
    MsgBox "The other Name is required.", vbOKOnly + vbCritical, "No Name
Entered"
    Text11.SetFocus
    Exit Sub
End If
'Check to make sure Age entered
If Text12.Text = "" Then
    MsgBox "The Age is required.", vbOKOnly + vbCritical, "No Age Entered"
    Text12.SetFocus
    Exit Sub
End If
'Check to make sure sex is entered
If Text13.Text = "" Then
    MsgBox "field is blank.", vbOKOnly + vbCritical, "No sex Entered"
    Text13.SetFocus
    Exit Sub
End If
'Check to make sure marital status entered
If Text14.Text = "" Then
    MsgBox "mrital status required.", vbOKOnly + vbCritical, "No status
Entered"
    Text14.SetFocus
    Exit Sub
End If
'Check to make sure District entered
If Text15.Text = "" Then
    MsgBox "district is required.", vbOKOnly + vbCritical, "No District
Entered"
    Text15.SetFocus
    Exit Sub
End If
'Check to make sure Tel number entered
If Text16.Text = "" Then
    MsgBox "The phone number is required.", vbOKOnly + vbCritical, "No tel
Entered"
    Text16.SetFocus
    Exit Sub
End If
'Check to make sure s4 slip entered
If Text17.Text = "" Then
    MsgBox "The s4 slip is required.", vbOKOnly + vbCritical, "No slip
confermed"
    Text17.SetFocus
    Exit Sub
End If
'Check to make sure s6 slip entered
If Text18.Text = "" Then
    MsgBox "The s6 slip is required.", vbOKOnly + vbCritical, "No slip
confermed"
    Text18.SetFocus
    Exit Sub
End If
'Check to make sure year/term slip entered

```

```

        If Text19.Text = "" Then
            MsgBox "The year is required.", vbOKOnly + vbCritical, "No year
confermed"
            Text19.SetFocus
            Exit Sub
        End If
        Adodc1.Recordset.Update
        Adodc1.Refresh
        cmdAdd.Enabled = True
        cmdSave.Enabled = False
        cmdDelete.Enabled = True
        Command7.Enabled = True
        Command8.Enabled = True
        Text3.SetFocus
    End Sub

Private Sub Command4_Click()
'goes to the next record in the database
Adodc3.Recordset.MoveNext
    If Adodc3.Recordset.EOF Then
        Adodc3.Recordset.MoveFirst
    End If
End Sub

Private Sub Command3_Click()
'displays report
DataReport1.Show
End Sub

Private Sub Command5_Click()
'moves to previous record in the database
Adodc3.Recordset.MovePrevious
    If Adodc3.Recordset.BOF Then
        Adodc3.Recordset.MoveLast
    End If
End Sub

Private Sub Command6_Click()
'moves to the first record in the database
Adodc1.Recordset.MoveFirst
End Sub

Private Sub Command7_Click()
'moves to next record in the database
Adodc1.Recordset.MoveNext
    If Adodc1.Recordset.EOF Then
        Adodc1.Recordset.MoveFirst
    End If
End Sub

Private Sub Command8_Click()
'moves to previous record in the database
Adodc1.Recordset.MovePrevious
    If Adodc1.Recordset.BOF Then
        Adodc1.Recordset.MoveLast
    End If
End Sub

```

```

End If

End Sub

Private Sub Command9_Click()
'moves to last record in the database
Adodc1.Recordset.MoveLast
End Sub

Private Sub Form_Load()
'Enables and disables objects at run time
cmdSave.Enabled = False
cmdDelete.Enabled = True
Command25.Enabled = False
Command24.Enabled = False
End Sub

Private Sub Timer1_Timer()
'displays calender and time
Dim Today As Variant
Today = Now
lblDay.Caption = Format(Today, "dddd")
lblMonth.Caption = Format(Today, "mmmm")
lblYear.Caption = Format(Today, "yyyy")
lblNumber.Caption = Format(Today, "d")
lblTime.Caption = Format(Today, "h:mm:ss ampm")
End Sub

```