COMPUTERIZED SCHOOL FEES COLLECTION AND MANAGEMENT SYSTEM

(A CASE STUDY OF NIGER STATE MINISTRY OF EDUCATION MINNA)

By

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PGD/MCS/2000/2001/1058

A PROJECT SUBMITTED TO THE DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF POST GRADUATE DIPLOMA IN COMPUTER SCIENCE OF THE FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA, NIGER STATE. NIGERIA.

APRIL, 2002

APPROVAL PAGE

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ACKNOWLEDGEMENT

My sincere appreciation goes to the Heavenly God who infinite mercies, divine direction, protection and provision enriched me with wisdom to pursue this noble course of study and also accomplish it successfully.

I also appreciate the assistance given to me by my project supervisor Prince Badmos and the attention given to me in ensuring the completion of this project. My immeasurable thanks goes to Mal. Hakimi for his wonderful assistance, assurance and encouragements. Other lecturers in the Department are not left out for they have contributed in one way or the other to see to the completion of this course.

My special appreciation goes to the HOD Mr. L. N. Ezeako. May God in his infinite mercies continue to enrich you all in wisdom, knowledge and understanding. Amen.

DEDICATION

This project work is dedicated to God almighty and to the entire members of the Obi family for their financial and Spiritual support towards the completion of this project.

ABSTRACT

The problem that has been facing the Niger State Ministry of Education since the introduction of School Fees in Post-primary institutions is the problem of proper collection and management of the school fees. For the purpose of improving record keeping of the school fees, this project works is being designed and developed.

The system is designed for easy, effective and efficient record keeping of the school fees. With the proposed system, it is easy to add new record, retrieve and have access to record by authorized users. It also enhances speedy production of monthly and termly report on school fees.

Database program language was used to develop the user's software and the program can run on both Dbase III plus and Dbase IV program environment.

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CHAPTER ONE

INTRODUCTION

1.0 BACKGROUND OF THE STUDY

The ministry of education is one of the Ministries established in February 1976 when Niger State was created by the Late General Murtala Ramat Muhammad's Military Regime. Among the Educational functions that were performed by the Ministry includes the over-seeing of all public schools in the state

Before Niger State was created in 1976, with the exception of Borgu and Agwara Local Governments, there were only twelve post-primary schools, with student population of only 5,200 in the remaining areas that made up Niger State today.

However, with the creation of state, which has 42 local government areas today, and the new Federal Capital of Nigeria very close to it, there has been continuous migration of people from other areas of the country to Niger State. This consequently has also resulted in the continuous rapid growth in both pupils and students population in our primary and post-primary schools respectively. As at September 1982 there were 70 post-primary schools, with a population of 7,961 students. Today, the state has 146 post-primary schools comprising both Secondary, Science colleges, Technical, commercial and Vocational Schools, with a population of about 103,888 students.

Formerly, the state Government was solely responsible for the financing of post-primary education both capital and recurrent. That is, the Government was responsible for the provision of basic educational infrastructures, payment of teachers/staff salaries/allowances and instructional materials without any fee charged. However, in 1982, with increase in students' population, educational infrastructures staff strength and other instructional materials, the Government introduced subsistence fee of (N30.00) thirty Naira per student per session for boarding students only.

As time went on, this has changed to up- keep fee covering both day and boarding students. However, with sharp and rapid growth in our students population, due to mass in flux of people from other areas of the country to the federal capital and its environs in the late 1980s to early 1990s and with precarious financial position of the government, the government felt it necessary to introduce to introduce school fees in our post- primary schools in 1995

The school fees charge are as follows:

1. **Day Schools**: Indigenes are to pay five hundred and fifty Naira per student per term and the Non- Indigenes are to pay the sum of five hundred Naira per student per term.
2. **Boarding Schools**: Indigenes are to pay five hundred and fifty Naira per student per term and the Non- indigenes, one thousand Naira per student per term.

Unfortunately, since the introduction of these fees, there have been problems confronting proper collection and management of the school fees. Various methods have been adopted for the collection and management but none has proved satisfactory. It is in the light of the above problems that the researcher decided to work on this topic.

1.1 OBJECTIVES OF THE STUDY

The objectives of this project can be outline as follows.

i. To investigate the various problems associated with the present system of collecting and maintaining school fees record in post-primary institutions in Niger State.

ii. To propose a more reliable system of collecting and maintaining the school fees records

iii. To carry out the analysis and design of the proposed system

vi. To develop software that will be used if the proposed system is to be accepted and implemented by the authority

v. To give recommendations of both material and human resources requirements of the new system.

1.2 SIGNIFICANCE OF THE STUDY

With the emphasis on accountability and transparency in all sectors of our economy today, the significance and usefulness of studies of this nature cannot be over- emphasized

It is hoped that if the out come of this project is eventually adopted and implemented by the Ministry of Education, most of the problems associated with the present system of collecting and maintaining school fees record will be a thing of the past. Problems such as improper keeping of the account records, imbalance of the individual school Account, manipulation of figures on bank tellers by changing the amount or date by students and parents, shortage in payment due to improper record of number of students in each school. Lost of vital documents and lack of easy access to information by the user.

The proposed system will also reduced if not completely eliminates fraudulent practices by all those that are involved in collection and keeping of school fees in the state.

1.3 SCOPE OF THE STUDY

This project work is aimed at "Computerizing school fees management for Ministry of Education, Niger State ". Hence, the work has nothing to do with other types of revenue that are being generated in the Ministry of Education or any other Ministries in the state.

In the same vein, the programme to be . Written will serve the school fees record only. However, it will be of great assistance to other state Ministry of Education who might wish to computerize their school fees management system.

1.4 METHODOLOGY

Researcher methodology has to do with the methods and techniques used to collect data and information used for this project work.

There are various techniques that could be employed to collect project data. Among them are;

a. **Questionnaires**: When detailed information, about the nature and volume of work in an office is needed, questionnaires can provide uniform responses to standard questions.

b. **Interviews**: Interviews are by far the most common and most satisfactory way of obtaining information, particularly king facts that have already been noted and generally apply a " to obtain information about objectives, constraints, allocation of duties and problems and failures in the existing system.

c. **Observation**: This involves the watching of an operation for a period to see for oneself exactly what happens. This technique is particularly good for training bottlenecks. Checking facts that have already been noted and generally apply a "seeing eye to job".

d. **Record Searching**: The main purpose of a record search is to establish quantitative information - volumes, frequencies, trends, rations. It will also help to establish how much reliance can be put on the estimates given by the staff or the management of a department.

The choice of one or combination of these techniques for a particular project work depends on certain criteria.

These are:

i. The native of the data to be gathered

ii. The sample population; and

iii. The area.

Having put the above criteria into consideration, the following techniques were found to be most suitable for this project work.

a. Interview and

b. Record search

1.5 DEFINITION OF TERMS

For a study of this nature, it is pertinent to define some words that were used in the work. These are:

1. **Computer**: Is an electronic devices that is capable of accepting data (input), store, process and produce information (output) faster, accurately and this thus more efficiently than any other machine or human efforts.
2. **System**: Is a set of elements or components that are formed and interact to accomplish goals or objectives.
3. **Computer System**: This is made up of the user, the hardware (computer) and the software (programs) and has a goal of solving problems for the user.
4. **System Analysis**: Is the method of determine how best computer and other resources could be used to perform task which will meet the information needs of the organisation.

5. **Up-keep Fee**: This is fee paid by both day and boarding students to support the government in maintaining the school.
6. **Enrichment Fee**: This is fee paid by student at the time of admission into a school.
7. **Subsistence Fee**: Is fee paid by boarding students to support the government in maintaining the boarding schools.
8. **Registration Fee**: This replaces the enrollment fee though, there are still the same.
9. **School**: Institution for acquiring formal education
10. **Collection**: A process of gathering together or putting together
11. **Management**: A process of controlling any available resources both human and materials to achieve a given goal.

CHAPTER TWO

LITERATURE REVIEW

2.0 INTRODUCTION

The importance of education in any society cannot be over emphasized. Education has been identified as the most important instrument of change as no meaningful social, economic or political reforms are possible without it. It is in the realization of this fact that made both federal, state government and local government always take issue of education very serious. In fact, in most cases, Government commits substantial percentage of its budget to education and health.

In Niger State, in the 60s and 70s, the government was solely responsible for the funding of Education. At that time, due to good financial prosecution of government and less number of schools and students in the state, government was able to fund education alone. However, with sharp increase in the number of our students in early 80s, government realized that she alone could no longer fund education successfully. Therefore the need to introduce school fees.

2.1 HISTORY OF NIGER STATE MINISTRY OF EDUCATION

In 1976, the Niger State Ministry of Education was created from the defunct North Western State.

The Honourable commissioner was the head and responsible for educational policy decision. The permanent secretary was the administrative

head and chief executive with a deputy permanent secretary assisting him, and all professional and administrative actions were executed in his official title "for permanent secretary".

When the civilian administration came to power in 1979; the commissioner became the policy and Executive Head of the Ministry and all professional and administrative actions were executed in the official title of the commissioner "for commissioner". The functions of the permanent secretary were reduced to that of coordinating officer and the post of the deputy permanent secretary was abolished.

Between 1985 – 1997 the permanent secretaries were changed to Director-General and the commissioners still remain the policy and administrative head of the ministries. However, with the implementation of civil service reform 1997, the Directors General regained their position as the accounting officers of their ministries, and the post converted back to permanent secretary.

The administrative structures of the ministry in 1976 – 1978 and the present one are shown in figures 1, 2, and 3 respectively.

2.1 FUNCTION OF MINISTRY OF EDUCATION BEFORE THE ESTABLISHEMENT OF NIGER STATE PRIMARY MANAGEMENT BOARD AND SECONDARY BOARD

Prior to the establishment of the Niger State primary management Board and Secondary Education Board, Niger State Ministry of Education and local Government Education authority were solely responsible for policy formulation and implementation.

Then, the following were the major functions of the ministry.

a. Admission of pupils into state post-primary institutions and model primary schools.

b. To formulate educational policy

c. Establishment and management of public schools

d. To sponsor students to tertiary and federal post-primary institutions.

e. Compilation of educational statistics

f. To approve or disapprove establishment of community or voluntary agency schools.

g. Sitting and establishment of new post-primary institution and model primary schools

h. Compilation of educational statistics

i. Closure of educational institutions on the recommendations of officials of ministry of Education.

j. To control, approve and develop educational curricula to be used in primary and post-primary institutions.

k. Inspections of all institution, including inspections for recognition by National Examination bodies such as; The National Examinations Council (NECO) and the West African Examinations Council (WAEC).

l. To held or arrange for conduct of examinations for the award of diplomas or certificates of any National or international body recognized by an organ of federal government.

m. Fixing school fees for the students with the approval of the Governor

n. Preparation of annual estimates for budget for sub-mission to the governor.

o. Training and development of all grades of teaching staff.

p. Research and publication in cooperation with tertiary institutions in the country etc.

2.1.2 FUNCTIONS OF THE MINISTRY OF EDUCATION WITH THE ESTABLISHMENT OF NIGER STATE PRIMARY MANAGEMENT BOARD AND SEONDARY EDUCATION BOARD

With the establishment of primary management board and secondary education board in Niger State, the functions of the ministry of Education was reduced drastically. Today, the National primary commission is fully in of primary education in all the states of the federation for effective management and control of the primary schools, each state has primary schools' management board, which is answered to the National Commission while each Local Government Council has Local Education Authority, which is answerable to state management board.

At the secondary level, secondary board was established in November, 1996. The Board manages and controls all conventional secondary schools, science colleges and technical colleges learning the ministry with vocational schools, unity colleges and primary/secondary schools.

Presently, the detailed functions of the ministry are as follows:

a. To formulate educational policy

b. To approve and reject the establishment of private schools.

c. Compilation of educational statistics.

d. Research and publication in conjunction with the tertiary institutions in the country.

e. Appointment, transfer, posting, promotion, dismissal and disciplinary control of teachers and other staff of the ministry.

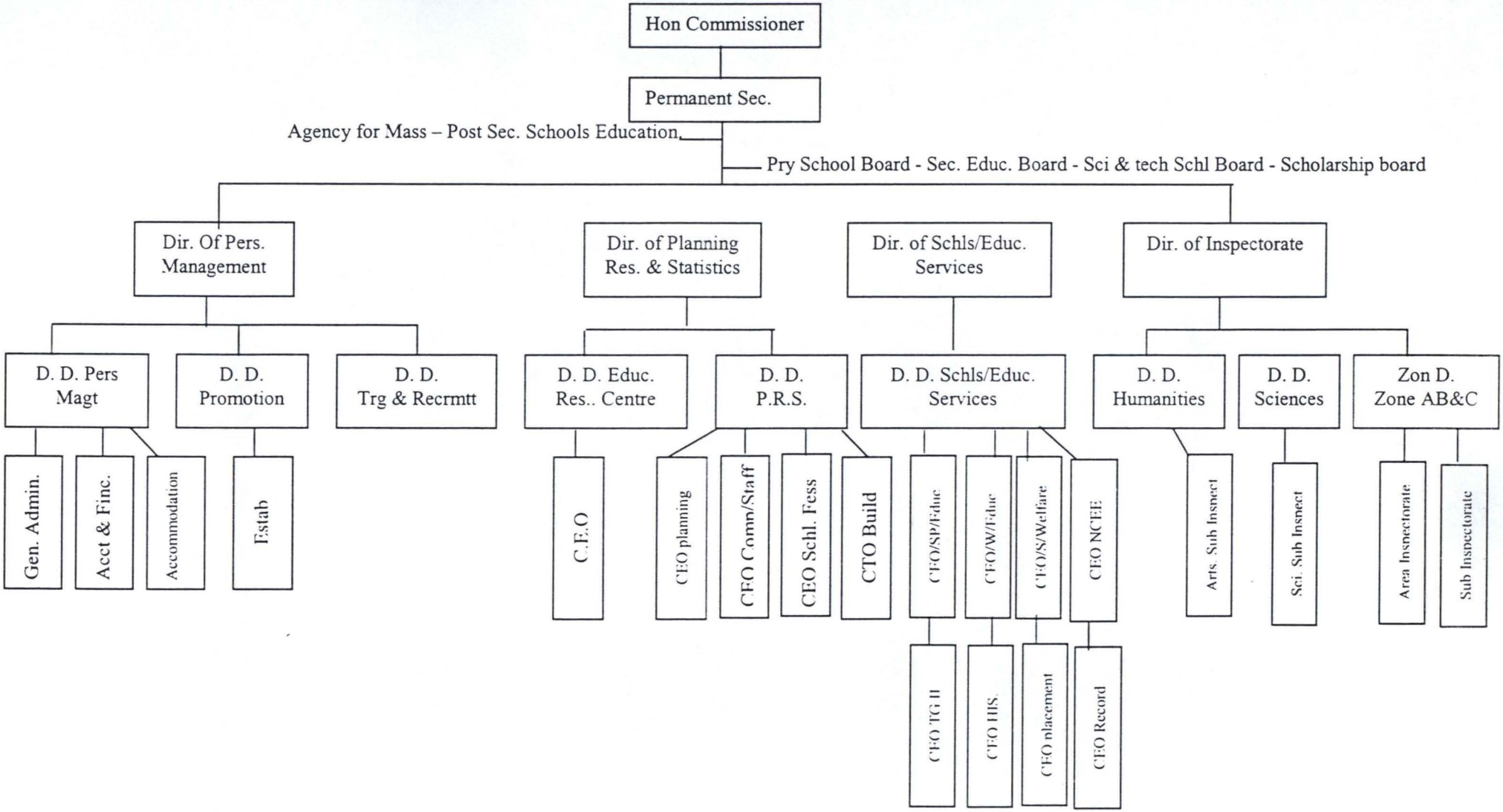
f. In conjunction with the secondary education board admit students into state post-primary institutions and model primary/secondary schools.

g. In conjunction with the board, promote JS students into SS1, Tech !, Voc !, and Sc1.

h. Closure of educational institutions, on the recommendation of officials of the ministry of Education.

i. Establishing new post-primary institution etc.

MINISTRY OF EDUCATION MINNA NIGER STATE



Functions of some Key officers in the Organisational Chart

In the Niger State Ministry of Education Minna, we have:

a. The Commissioner: The Commissioner is a political appointee whose appointment terminates as soon as that regime ends. He is also the chief executive of the ministry.

b. The Permanent Secretary: The permanent Secretary is the chief accounting officer of the ministry. He controls the account of the ministry.

c. The Directors: These are in charge of the various departments in the ministry. They are answerable to the permanent secretary.

d. Other Officers: Officers from the Deputy Directors of various department to the least officer which is the messenger are answerable to their seniors who in turn is answerable to the directors of the ministry.

2.4 APPROACHES TO SCHOOL FEES COLLECTION AND MANAGEMENT

The issue of school fees in our secondary schools can be traced to 1982 when the then civilian government felt it necessary to introduced subsistence fees of Thirty Naira (₦30.00) per student per session for boarding students only. This was increased to sixty Naira (₦60.00) per session in January, 1983.

Due to the increasing cost of providing education in the state, by 1984, the then military government felt that it will be difficult for government alone to fund education. It therefore found it imperative to introduce other fees in our post-primary schools.

These fees include:

i. School up-keep fee

ii. Enrolment fee

iii. Subsistence fee.

These fees though minimal were not satisfactory arranged in that, different schools pay different fees.

The Government in September 1995 reviewed all the fees mentioned above upward and also harmonized the school fees being charged in our post-primary institutions due to the following reasons:

a. School fees had not been reviewed in the state since. 1984 though our economic position has changed drastically and there is the need to align the fees with current economic reality of the country.

b. It has been discovered that principals charge many unrecognized fees such as practical examination fee, sports fees, health fees, stationary fees, identity card fees etc.

c. Niger State charges the least school fees in the country though it has become necessary to boost the state revenue sources.

The need to allow school principals to retain part of the school up-keep fees collected by them so that they can have fund to use at anytime the need arises.

From September, 1995 the following fees were approved by the State Government.

School Fees:

Day Student (indigenes)	-	₦150.00 per term till date
(non-indigenes)	-	₦350.00 per term – ₦500 presently
Boarding students (indigenes)	-	₦550.00 per term till date
(non-indigenes)	-	₦750.00 per term – ₦1000 presently

Registration Fees:

indigenes (boy)	-	₦50.00 once per subject
(girl)	-	₦25.00 once per subject
Non-indigenes (boy)	-	₦150.00 once per subject
(girl)	-	₦25.00 once per subject

For the day to day running of the school, the principals were allowed to retain ₦50.00 out of ₦150.00 to be collected from each day student and ₦100.00 to be collected from each boarding student.

However, from the time school fees were introduced in our schools in 1982 up till date, our problems have not been on the fees charged but on the modes of collection and management. Various methods have been adopted for collection and management but none has proved satisfactory.

When subsistence fees was introduced in 1982, principals were responsible for the collection and their pay the fees into the government treasury. Although the system was used for long period of time, it has never proved to be very satisfactory. There was no year that the Government realized up o half of the expected revenue from fees.

In 1995, when the fees were reviewed, the Government decided also to change the system of collection. This time, students were to pay fees to designated banks in the state. The banks will issue bank tellers to the students which they will in turn present to schools. The schools will collect the bank tellers and issue revenue collectors receipt to the students. Initially, the system proved effective however, after some time, both parents and students started using different method to defraud the government. The bank normally issues two tellers to either the student or parent that made the lodgment. One teller is sent to the school while the student or parent retains one copy. The two copies are tampered with or altered by the students before presentation to the school. As a result of this practice, it was very difficult for the planning, research and statistics department of the ministry to cross-check the total amount being collected by each school from the banks. In addition, it was difficult for the banks to provide figures of amount collected from each school per month since students from different schools could pay to the same bank without giving details of the amount collected from each school. In most cases, it was very difficult to reconcile the returns made by school principals and the amount collected by the various banks.

Due to this reconciliation problems, the ministry always send its monitoring staff to the various designated banks not only to collect the bank draft on the amount paid by the students but also to verify the actual amount paid too.

As a result of fraudulent practices by students or parents, the bank method was modified in January 1997. in this case, students are to pay to their school principals and they will turn pay to the banks. This is the system currently obtainable.

2.5 WHY COMPUTERIZATION

The computer is a workhouse, it is generally capable of labouring 24 hours a day and will do ten-thousandth task exactly the same way it did the first one. Below are of the reasons why we have to computerize the mode of school fees collection and management;

i. **Speed**: A computer carry out its task with great speed usually measured in micro seconds (0ne millionth of a second). The speed of the computer makes it ideal for processing large amounts of data, as in accounting systems and scientific application.

ii. **Reliability**: Computers are extremely reliable. Any error in the output of a computer system, is as a result of human error in input.

iii. **Storage Capability**: Computer systems are able to store tremendous amounts of data, which can then be retrieved quickly and efficiently.

iv. **Productivity**: Computers are able to perform boring, dangerous, or highly sensitive jobs that people should not perform or in some cases, cannot perform.

v. **Reduction in Cost**: Finally, for all these reasons, the computer helps reduce waste and hold down the cost of labor, energy, and paperwork. Thus, computers increase productivity and reduce the cots of goods and services.

With these reasons for computerizing our mode of school fees collection and management, the purpose of this project write-up will only be a dream but a dream-come-true.

CHAPTER THREE

SYSTEM ANALYSIS AND DESIGN

3.1 INTODUCTION

Analysis is the process of gathering facts, interpreting it and using the information obtained to recommend improvement to existing method. With system analysis, both the strength and weakness of the present system are determined and used to establish the need for computerization of the system. System analysis consist of several steps, among which are:

a. Problem definition and identification

b. Feasibility study

c. Testing project feasibility

d. Analysis.

For the purpose of this work, the above steps will be strictly adhered to. The system design has to do with the full description of the expert system (proposed system). Here, effort will be made to discuss the system requirement and specification.

3.2 PROBLEMS DEFINITION AND IDENTIFICATION

From the time school fees was introduced in our secondary schools I 1982 up till today, our problems have not been on the fees charged but on the mode of collection and management. Specifically, among the problems are:

a. Inaccurate figure of students population, school by school;

b. Improper updating of students population, school by school;

c. Inability to realize up to half of the expected revenue from the school fees yearly;

d. Discrepancies between the figures submitted by principals and the actual amount in the banks;

e. Fraudulent practices by the principals, parents and students;

f. Delay by bank official in submission of monthly returns to the ministry of finance.

3.3 FEASIBILITY STUDY

The purpose of feasibility study is to analyze the current system of collection and management of school fees in our secondary schools in order to determine whether it should be enhanced or an entirely new system is developed.

The facts finding methods employed for this research are: Interview and Record inspection.

In an effort to discuss the strength and weakness of the present system, the principle procedures shall be adopted.

These principles are:

a. **Purpose**: One of the main criteria used in adopting any method for carrying out a giving task is the achievement of the purpose. However, judging from the problems enumerated under the problem definition, it is clear that all the various methods adopted do far have not met the purpose for which they were used.

b. **Economical**: To adopt any method for a task, the economic aspect has to be considered. Also from the problems enumerated above, one can say that none of the methods enumerated above, one can say that none of the methods adopted so far has proved to be valuable, for it will be over-emphasised to mention that apart from the fact that all the methods give room for fraudulent practices there was no any fiscal year that the government has realized half of the estimated revenue from the school fees.

c. **Workflow**: The workflow is net satisfactory. As indicated in the problem definition, the submission of monthly returns to the ministry of finance is always delayed.

d. **Flexibility**: Going by the problem of the present system, there is noway one can say that it is flexible. Certainly, additional volume of work will compound the problem.

e. **Reliability**: The study also confirmed that it creates loop holes for fraudulent practices, there are always discrepancies between the figures submitted by the principals and the actual amount in the banks.

f. **Time**: With regards to time, the current system is far from being satisfactory. Due to problem of reconciliation of the returns made by the school principals and the amount collected by the various banks, the ministry has to wait until its monitoring staff comes back from the designated banks before it can work on the monthly returns. There is always delay in the submission of the monthly returns to the ministry of finance.

Testing project feasibility

For testing project feasibility, the following were undertaken:

a. **Operational Feasibility**: this relates with workability and the acceptability of the proposed computerized system of school fees management in the ministry of education, Niger state. The result of the feasibility study carried out through interviews, clearly indicated that ministry authority welcome the project and are ready and willing to support it. They all agreed that if the recommendations of the researcher are implemented, it will reduce, if not completely eliminate the problem of fraudulent practices of all those concerned with the collection and management of school fees in the state

b. **Technical Feasibility**: the result of the technical feasibility shows that there are adequate equipment and software in the market to be used for the proposed system. However, there is need to train some of the account personnel that are concerned with the collection and management of school fees.

c. **Economical Feasibility**: The test for financial feasibility is undertaken to asses the cost of implementing the proposed new computerized system of school fees management in the state. From the cost and benefit analysis carried out, it can be seen that apart from the initial cost of equipment which might seem to be high, the ministry stand gain financially from the implementation of the new system.

3.5 REQUIREMENT SPECIFICATION FOR THE PROPOSED NEW SYSTEM

The requirement specification for the proposed new system will be divided into two. These are:

i. Hardware requirement; and

ii. Software requirement

Hardware Requirement: For the hardware, the following equipment are required to set up computer unit for school fees processing.

i. i. Two personal computer (Pentium 2000 compliant)

ii. Stabilizer/ups

iii. One mouse; and

iv. Diskettes

Software Requirement:

i. Disk Operating System (window 95 o r98)

ii. Word processing software (Microsoft word)

iii. DBMS package (DBASEIV)

Cost and benefit analysis of the proposed system

Cost analysis: Although the initial cost of the proposed system may seem to be high, the system has lots of both short and long term benefits. The estimated cost of the new system will be discussed under two headings. These are:

1. Operating cost; and
2. Development cost

Operating Cost: The operating cost is the same as the running cost. This has to do with the stationary, labour, equipment, maintenance and miscellaneous expenses

i.	Supply of stationary (diskettes, printing papers, printing ribbon) per month	₦20,000.00
ii.	Labour cost (one programmer and two operators per month)	₦30,000.00
iii.	Equipment maintenance	₦5000.00
iv.	Miscellaneous expenses	₦55,000.00
	Total Cost	₦110,000.00

Development cost: this consist of the cost system analysis and design, software development and implementation, cost of computers, printers, stabilizers, and installation

i.	System analysis and design (analysis for four weeks)	₦30,000.00
ii.	Software development and implementation	₦100,000.00
iii.	Two PC computers	₦300,000.00
iv.	One printer	₦70,000.00
v.	Two stabilizers	₦50,000.00
vi.	Installation	₦10,000.00
vii.	Training of two staff for four weeks	₦24,000.00
	Total	₦584,000.00
	Grand Total	₦694,000.00

Benefit to be derived

The proposed new system has both short and long term benefit. These benefits will be discussed under the following headings:

1. Time and accurate students population: with the introduction of computer system, the issue of inaccurate number of students population will be a thing of the past. The computer will enhance the easy computation of the number of students.
2. Easy updating of student population, school by school: with the introduction of computer system, the problem of updating students population, school by school will be to an extend eliminated. This will enable the ministry and the board to have up to date record of students at any given time.
3. Reduce or eliminate fraud: with the introduction of computer, the fraudulent practices by all those concerned with collection and management of school fees will be reduced if not completely eliminated. These will enable the government to realize more revenue from school fees.
4. Allowed payment to government treasury or ministry direct payment to the designated revenue bank account or to the ministry head quarters. This will save the money being paid to the bank for commission. One of the important purposes of using the banks is to check the fraudulent practices of those concerned in the collection and management of school fees, unfortunately, the bank have not been able to meet this requirement, therefore it will be unnecessary to continue using the banks.

5. Increase revenue base: since the computer' the ministry and the board will always have accurate number of students, school by school, they will be able to know the actual amount to be collected per term by each school. Also, schools that unable to collect the actual will be known and necessary action will be taken. With this system, government will be able to collect more revenue from school fees.

6. Timely submission of monthly returns to the ministry of finance will be a thing of past.

3.7 INPUT AND OUTPUT SPECIFICATION

Output Specification: It is necessary to consider the output from the system before deciding on how to go about producing it. For the purpose of determining the output requirements, consideration will need to be made on the form, types, volume and frequency of reports and documents. Since the main concern of this work is on school fees management, emphasis will be on updating of students population on termly basis, computing the amount collected by monthly by each school and preparing monthly returns to be submitted to the ministry of finance. Therefore, for the purpose of this work, there will be three output files, will generate report monthly returns, quarterly student's population by school and total amount realize from school fees yearly.

The output files will bear the following names

i. Monthly returns output file named MON DBF

ii. Termly students population files named TERM DBF

iii. Session total amount realized from school fees file named YEAR DBF

1 **Input Specification**: considering of input specification will be influenced greatly by the need of the output. In determining the input consideration will be given to:

a. Data collection method and validation

b. Volume of input document

c. Design of input layout

In designing the input layout, for convenience and better understanding, the input files will be grouped as follows

a. Day student population input file named DSP.DBF

b. Boarding students population input file named BSP.DBF

c. Day student monthly collection input file named DSMC.DBF

d. Boarding student monthly collection input file named BSMC.DBF

e. Indigene student population input file named NSP.DBF

Finally, detailed descriptions and functions of these files will be be discussed under files in the next chapter.

CHAPTER FOUR

SOFTWARE DEVELOPMENT AND IMPLEMENTATION

4.0 INTRODUCTION

This chapter concentrates on software development and implementation. Here, discussion is based on programming languages, features of languages chosen, choice of programming language, file design, operational manual, change over procedure and hardware/software configuration.

4.1 PROGRAMMING LANGUAGE

A programming language is a set of instructions, in the form of an artificially defined set of characters, symbols and words together with the rules of association among them, for the purpose of writing computer programs. For the purpose of this project work, a high level language is used i.e. (Database programming language). This was used to develop the user's software and the programs can run on both Dbase III plus and Dbase IV program environments.

4.2 FEATURES OF LANGUAGE CHOSEN

Some features of the language chosen are as follows:

i. It is problem specific rather than machine specific

ii. It is easy to learn and use

iii. It provides the programme with neat and efficient ways of solving problems without having to know what goes on in the internal workings of the machine.

iv. It is English-like language

4.3 CHOICE OF PROGRAMMING LANGUAGE

For any software package to be chosen, certain criteria have to be considered, among these are:

1. The effectiveness and efficiency of the package with regard to the functions of the user's programs;
2. The facilities for different types of files processing
3. The security of the records in the file
4. The facilities for maintaining the files such as adding new record, modifying and easy retrieval of the records.
5. The flexibility of the package; and
6. User's friendly quality of the package.

Based on the above outlined criteria and the types of files that will be required for processing, Dbase IV software package is found to be most suitable for this work and the users program will be written in Dbase programming language.

4.4 FILE DESIGN

As soon as data design is completed, the next thing is to make the final organisation of the data into files because once you enter data into a database and decide to add field, you must go through all the existing records and enter the new file values.

The method adopted in this design is to group the data into logical classes. These data have been grouped into population and financial files. The following criteria are considered when designing all the databse files used in the package.

1. Accessing the file: Name of the file is indexed or sorted file.
2. Data redundancy in file design for the database is minimized.
3. Complex relationship between the fields in each file is avoided
4. Too many fields in each file are avoided;
5. The main objective of integration of database file is strictly pursued.

The following are the files created and the data structure are written below:

i. Day students population file. DSP.DBF

This contains information about the population of day students in each school. It is a master file updated on termly basis and its is referred to when there is need to obtain day students population. Amount expected to be collected and actual amount collected per term.

4.5 OPERATIONAL MANUAL

This is part of the documentation aspect of the software development. It serves as a guide for user who intends to use the software developed.

As already stated, the database management system software that is used for the development of the user's program is Dbase IV and the programming language is Dbase programming.

Below are the steps to be followed by any user who intends to run the software.

Step 1: Booting the system from the hard disk, a successful booting will lead the user to C: prompt.

Step 2: At the C: prompt, type Cd\Dbase IV and press "Enter Key". This will lead the user to control panel.

Step 3: At Control panel, press Esc Key and you are at the dot prompt.

Step 4: At this point, insert the floppy diskette that contains the project programs into A: Drive of the system and type SET DEFAULT to A: and press ENTER key.

Step 5: At this point, simply type, DO Amaka and on your screen will be displayed the title of the project and from here, you press the back slash to display the main menu.

This lists of functions that can be performed by the software developed are displayed on the main menu. The functions are arranged similar to that of Dbase III. And the user need to press the first letter of the function he/she intends to use to run the program.

4.6 CHANGE-OVER PROCEDURE

Among the major functions of a system analysis is to suggest to an organisation that intend to computerized some or all its functions on the most suitable change-over procedure.

There are three methods of changing over from old system to new system. These are:

i. **Parallel Running**: This method involves the concurrent running of both the old and new systems using the same inputs. Outputs from the old system continue to be distributed until the new system has proved satisfactory before the old one is finally discarded.

Although this method might seem to be costly and also need the employment extra staff because of the duplication involved, it does give the management the facility of fully testing the new system.

ii. **Direct Change-over**: In the case of the direct change-over, the old system is discontinued immediately the new system is introduced. Therefore, with the change-over, there must be complete confidence in the new system reliability and accuracy.

iii. **Pilot running**: This is similar in concept to parallel running. Data from one or previous periods for the whole or part of the system is run on the new system after results have been obtained from the old system and the new results are compared with the old. It is not as disruptive as parallel operations since timing is criteria.

Going by this description of the three change-over methods, the direct change-over will be most suitable for this work.

Day Student Population Files.Dsp.Dbf

Data Structure For Dsp.Dbf

S/No.	DESCRIPTION	F/NAME	TYPE	WIDTH	DEC
1	School	SCHOOL	C	30	-
2	Year	YEAR	N	4	-
3	Type of Adm.	T_ADM	C	3	-
4	1st Term Ind Pop	FTDIND	N	5	-
5	1st Tern Nonin Pop	FTDNONIND	N	5	-
6	1st Term Total Pop	FTDTOTAL	N	5	-
7	1st Term amount Exp	FTDTOTAL	N	8	-
8	1st Term amount Coll.	FTBAEXP	N	8	-
9	2nd Term Ind Pop	FTBACOLL	N	5	-
10	2nd Term Non Ind Pop	STDIND	N	5	-
11	2nd Term Total Pop	STDNONING	N	5	-
12	2nd Term amount Exp	STDTOTAL	N	8	-
13	3rd Term amount Coll.	STDAEX	N	8	-
14	3rd Term Ind Pop	STDACOLL	N	5	-
15	3rd Term Non Ind Pop	STDIND	N	5	-
16	3rd Term Total Pop	STDNONIND	N	5	-
17	3rd Term amount Exp	TTDTOTAL	N	8	2
18	3rd Term amount Coll.	TTDAEX	N	8	2
19	Total amount Coll.	TTDACOLL	N		
20	For the session	TDACS	N	8	2

2. Boarding Students File.DSP.DBF

This file contains information about the population of boarding students in each school. It is a master file updated on termly basis and it is referred to in order to obtain the boarding student's population, amount expected to be collected and actual amount collected per term.

Boarding student population File.DSP.DBF

Data Structure for DSP.DBF

S/No.	DESCRIPTION	F/NAME	TYPE	WIDTH	DEC
1	School	SCHOOL	C	30	-
2	Year	YEAR	N	4	-
3	Type of Adm.	T_ADM	C	18	-
4	1st Term Ind Pop	FTB	N	5	-
5	1st Tern Non_ind Pop	FTBNONIND	N	5	-
6	1st Term Total Pop	FTTOTAL	N	5	-
7	1st Term amount Exp	FTTOTAL	N	5	-
8	1st Term amount Coll.	FTACOLL	N	8	8
9	2nd Term Ind Pop	STEIND	N	5	-
10	2nd Term Non_Ind Pop	STBNONING	N	5	-
11	2nd Term Total Pop	STTOTAL	N	5	-
12	2nd Term amount Exp	STAEX	N	8	2
13	3rd Term amount Coll.	STACOLL	N	8	2
14	3rd Term Ind Pop	TTBIND	N	5	-
15	3rd Term Non Ind Pop	TTBNOIND	N	5	-
16	3rd Term Total Pop	TTTOTAL	N	5	-
17	3rd Term amount Exp	TTAEX	N	8	2
18	3rd Term amount Coll.	TTACOLL	N	8	2
19	Total amount Coll For the session	TACS	N	8	2

3. Day students monthly school fess collection file DSMC.DBF

This file contains the monthly school fees collected. It is a transaction file, which always be used to update Day student population file on termly basis. It will also serve as a monthly report generating file.

S/No.	DESCRIPTION	F/NAME	TYPE	WIDTH	DEC
1	School	SCHOOL	C	30	-
2	Year	YEAR	N	4	-
3	Type of Adm.	T_ADM	C	3	-
4	1st Term Ind Pop	FTDIND	N	5	-
5	1st Tern Non_ind Pop	FTDNONIND	N	5	-
6	1st Term Total Pop	FTDTOTAL	N	5	-
7	1st Term amount Exp	FTBAEXP	N	8	-
8	1st Term amount Coll.	FTDACOLL	N	8	8
9	2nd Term Ind Pop	STDIND	N	5	-
10	2nd Term Non_Ind Pop	STDNONING	N	5	-
11	2nd Term Total Pop	STDTOTA	N	5	-
12	2nd Term amount Exp	STDAEX	N	8	2
13	3rd Term amount Coll.	STDACOLL	N	8	2
14	3rd Term Ind Pop	TTDIND	N	5	-
15	3rd Term Non Ind Pop	TTDNONIND	N	5	-
16	3rd Term Total Pop	TTDTOTAL	N	5	-
17	3rd Term amount Exp	TTDAEX	N	8	2
18	3rd Term amount Coll.	TTDACOLL	N	8	2
19	Total amount Coll For the session	TDACS	N	8	2

4. Boarding students monthly school fees collection file BSMC.DBF

This file contains the monthly school fees collected. It is a transactional file, which will always be used to update boarding students population file on termly basis. It will also serve as a monthly generating report file.

S/No.	DESCRIPTION	F/NAME	TYPE	WIDTH	DEC
1	School	SCHOOL	C	30	-
2	Year		N	40	-
3	Type of Adm.	T_ADM	C	3	-
4	1st Term Ind Pop	FTBIND	N	5	-
5	1st Tern Non_ind Pop	FTBNONIND	N	5	-
6	1st Term Total Pop	FTBTOTAL	N	5	-
7	1st Term amount Exp	FTBAEXP	N	8	-
8	1st Term amount Coll.	FTBACOLL	N	8	-
9	2nd Term Ind Pop	STBIND	N	5	-
10	2nd Term Non_Ind Pop	STBNONING	N	5	-
11	2nd Term Total Pop	STBTOTAL	N	5	-
12	2nd Term amount Exp	STBAEX	N	8	-
13	3rd Term amount Coll.	STACOLL	N	8	-
14	3rd Term Ind Pop	TTBIND	N	5	-
15	3rd Term Non Ind Pop	TTBNONIND	N	5	-
16	3rd Term Total Pop	TTBTOTAL	N	5	-
17	3rd Term amount Exp	TTBAEX	N	8	2
18	3rd Term amount Coll.	TTBACOLL	N	8	2
19	Total amount Coll For the session	TBACS	N	8	2

5. Day Students monthly school fees collection file DSMC.DBF

This file contains the monthly school fees collected. It is a transactional file which always be used to update Day students population file on termly basis. It will also serve a monthly generating report file.

S/No.	DESCRIPTION	F/NAME	TYPE	WIDTH	DEC
1	School	SCHOOL	C	30	-
2	Year	YEAR	N	4	-
3	January	D_JAN	C	8	2
4	February	DFEB	N	8	2
5	March	DMAR	N	8	2
6	April	DAPR	N	8	2
7	First Total	FDTOTAL	N	8	2
8	May	DMAY	N	8	2
9	June	DJUNE	N	8	2
10	July	DJUL	N	8	2
11	August	DAUG	N	8	2
12	Second Total	SDTOTAL	N	8	2
13	September	DSEP	N	8	2
14	October	DOCT	N	8	2
15	November	DNOV	N	8	2
16	December	DDEC	N	8	2
17	Third TOT	TOTOTAL	N	8	2
18	Grand TOT	GOTOTAL	N	8	2

6. Boarding Students monthly school collection file BSM.DBF

This file contains the monthly school collected. It is a transactional file which always is used to update boarding student population file on termly basis. It will always serve as a monthly generating report file.

Data Structure for BSMC.DBF

S/No.	DESCRIPTION	F/NAME	TYPE	WIDTH	DEC
1	School	SCHOOL	C	30	-
2	Year	YEAR	N	4	-
3	January	BJAN	N	8	2
4	February	BFEB	N	8	2
5	March	BMAR	N	8	2
6	April	BAPR	N	8	2
7	First Total	FBTOTAL	N	8	2
8	May	BMAY	N	8	2
9	June	BJUNE	N	8	2
10	July	BJUL	N	8	2
11	August	BAUG	N	8	2
12	Second Total	SBTOTAL	N	8	2
13	September	BSEP	N	8	2
14	October	BOCT	N	8	2
15	November	BNOV	N	8	2
16	December	BDEC	N	8	2
17	Third TOT	TBTOTAL	N	8	2
18	Grand TOT	GBTOTAL	N	8	2

7. Yearly total school fees collection file YEAR.DBF

This is a master file, which will also serve as a output file for yearly report for school fees collection. It will be update on termly basis by the DSMC.DSF and BSMC.files.

Data Structure for year DBF

S/No.	DESCRIPTION	F/NAME	TYPE	WIDTH	DEC
1	School	SCHOOL	C	30	-
2	Year	YEAR	N	4	-
3	1st Term Amount Exp.	FTDAEX	N	8	2
4	1st Term Day St.Amount Coll	FDTOTAL	N	8	2
5	1st Term Boarding St.Amount Coll	FBTOTAL	N	8	2
6	1st Term Total	FTTOTAL	N	8	2
7	2nd Term Amount Exp.	STAER	N	8	2
8	2nd Term Day ST.Amount Coll	SDTOTAL	N	8	2
9	2nd Term Boarding ST.Amount Coll	SBTOTAL	N	8	2
10	2nd Term Total	STTOTAL	N	8	2
11	3rd Term Amount Exp.	TTAEX	N	8	2
12	3rd Term Day ST.Amount Coll	TDTOTAL	N	8	2
13	3rd Term Boarding ST.Amount Coll	TBTOTAL	N	8	2
14	3rd Term Total	TTTOTAL	N	8	2
15	3rd Year Total	YTOYAL	N	8	2

1. Monthly school fees collected (Day students, boarding student, indigene, non-indigene)
2. Quarterly or termly students population
3. Total amount collected from school fees yearly

CHAPTER FIVE

5.0 SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 SUMMARY/CONCLUSION

The general objective of this project work is to develop a better method of keeping and managing school fees records in Niger State. The result of the system feasibility clearly shows that the proposed new system is highly accepted by the authority. It also indicated that there is lot of benefits to be derived from the new system.

Among these benefits are:

1. Effective and efficient record keeping of the school fees accounts.
2. Reduction in the fraudulent practices by all those concerned with the collection and management of school fees.
3. Easy update of records.
4. Fast and accurate means of processing of school fees data.
5. Provide means of producing timely and accurate report on monthly return to ministry of finance.

Finally, although the design and testing of the new system were done on Amstrad personal computer, while the programming environment is DBASE IV, the user's program developed for new system will work in any other DABSE management system-programming environment.

5.1 RECOMMENDATIONS

Considering the number of advantages that will be derived from the computerization of school fees management in Niger State, the following suggestions are hereby recommended.

1. That the ministry of Education should endeavour to set up a computer section within the account department, that will take care of proper keeping of school fees account and any other job which can be performed.
2. Computer Scientist should head the section
3. Encourage staff of the department to undergo training in computer, particularly those that might be directly concerned with the management of school fees account.

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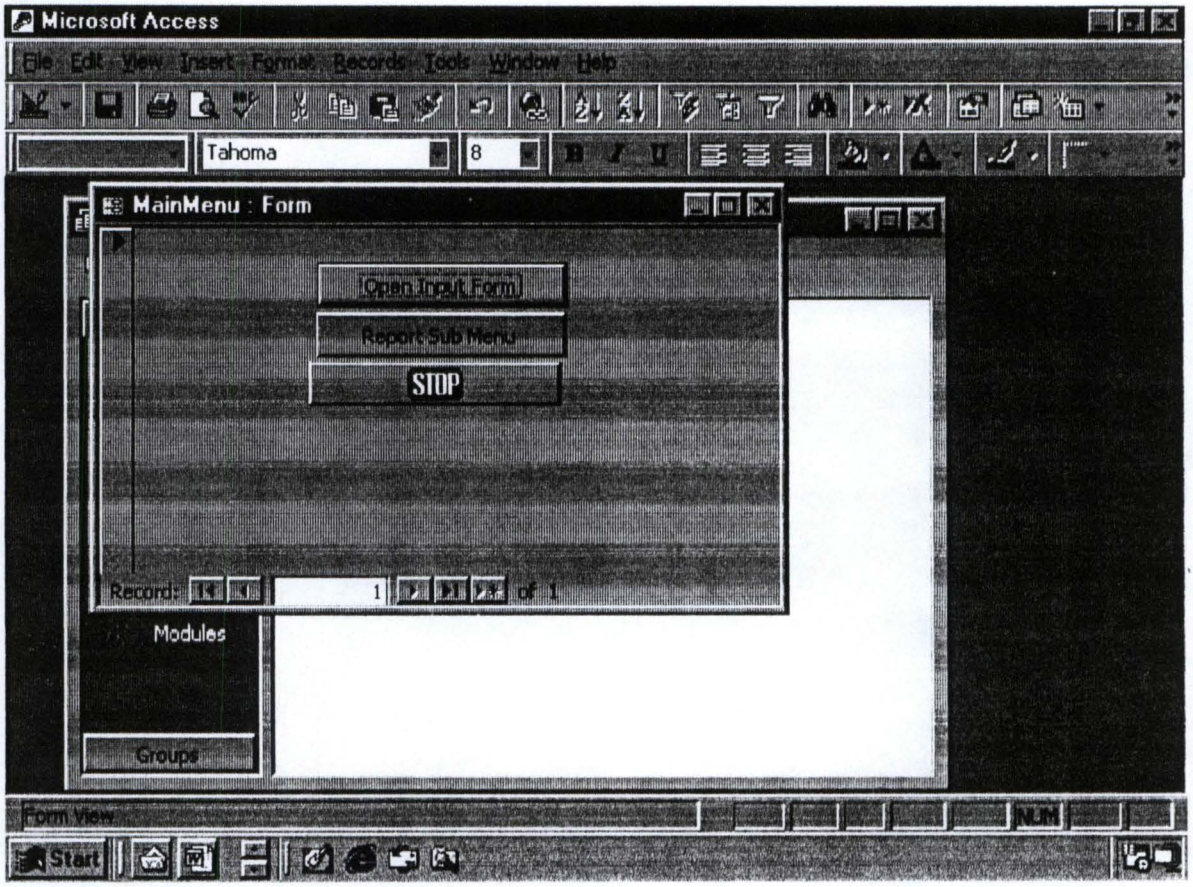
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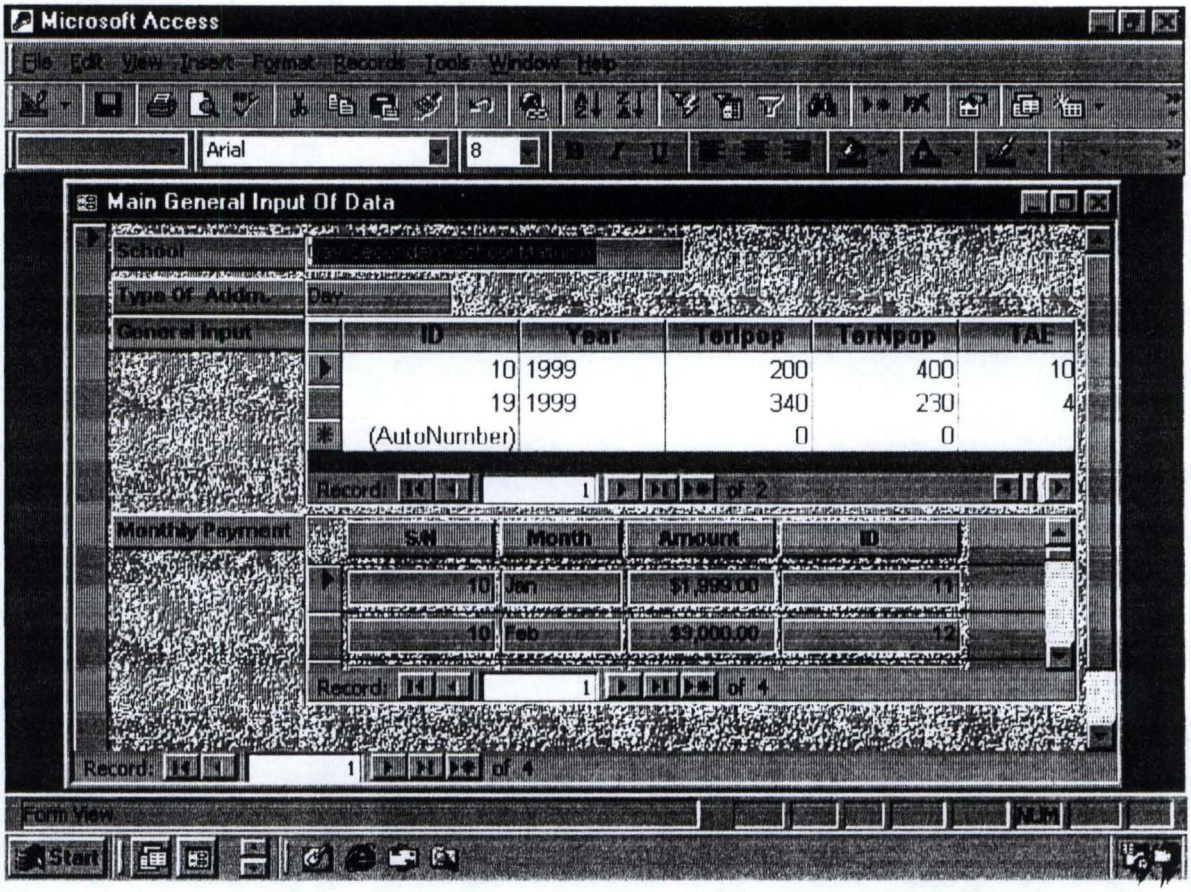
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School
Type Of Addmc
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ID
Year
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TAE
10
1999
200
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10
19
1999
340
230
4
(AutoNumber)
0
0
Record:
1
of 2
Monthly Payment
S/N
Month
Amount
ID
10
Jan
$1,999.00
11
10
Feb
$9,000.00
12
Record:
1
of 4
Record:
1
of 4
Form View
Start


Microsoft Access
File Edit View Insert Format Records Tools Window Help
Tahoma
8
MainMenu : Form
REpMenu : Form
Report Menu
Report For Day Student
REport On Monthly Payment
General Report For School
Report On Boarding
Report On Day School
Report On Boarding
Record:
1
of 1
Modules
Groups
Form View
NUM
Start

Report For Day Schools

School	Tyad	Term	ID	Year	T. I. P	T. N. P.	T. A. E	T. A. C
Day Secondary School Maitumbi	Day							
		2nd	19	1999	340	230	440	3430
					Term Tot Coll		**570**	
		1st	10	1999	200	400	1000	2000
					Term Tot Coll		**600**	
Day Secondary School Minna	Day							
		2nd	20	1999	456	450	3330	3120
					Term Tot Coll		**906**	
		3rd	12	1999	134	456	3400	2300
					Term Tot Coll		**590**	
		3rd	11	1999	245	456	9000	2000
					Term Tot Coll		**701**	

Report On Boarding Schools

School	Tyad	ID	Term	Year	T.I.P.	T.N.P.	T.A.E.	Tac
Govt. Girl Secondary Sch. M	Boarding							
		15	3rd	1999	435	234	6700	4500
					Term Amt. Coll.		669	
		14	2nd	1999	332	765	9000	8900
					Term Amt. Coll.		1097	
		13	1st	1999	343	565	5666	7888
					Term Amt. Coll.		908	
Moh'd Kobo Secondary Scho	Boarding							
		18	3rd	1999	111	222	5200	2340
					Term Amt. Coll.		333	
		17	2nd	1999	213	433	5600	7890
					Term Amt. Coll.		646	
		16	1st	1999	433	322	7000	7500
					Term Amt. Coll.		755	

General Report For Schools

School Day Secondary School Maitumbi

Tyad Day

ID	Year	Term Ind Pop	Ter. Non Pop	T. Amt. Exp	T. Amt. Coll.	Term
19	1999	340	230	440	3430	2nd
			570			
10	1999	200	400	1000	2000	1st
			600			

School Day Secondary School Minna

Tyad Day

ID	Year	Term Ind Pop	Ter. Non Pop	T. Amt. Exp	T. Amt. Coll.	Term
20	1999	456	450	3330	3120	2nd
			906			
12	1999	134	456	3400	2300	3rd
			590			
11	1999	245	456	9000	2000	3rd
			701			

School Govt. Girl Secondary Sch. Mx

Tyad Boarding

ID	Year	Term Ind Pop	Ter. Non Pop	T. Amt. Exp	T. Amt. Coll.	Term

15	1999	435	234	6700	4500	3rd
				669		
14	1999	332	765	9000	8900	2nd
				1097		
13	1999	343	565	5666	7888	1st
				908		

School Moh'd Kobo Secondary School Bida

Tyad Boarding

ID	Year	Term	Ind Pop	Ter. Non Pop	T. Amt. Exp	T. Amt. Coll.	Term
18	1999	111	222	5200	2340	3rd	
				333			
17	1999	213	433	5600	7890	2nd	
				646			
16	1999	433	322	7000	7500	1st	
				755			

Report On Day School

School Day Secondary School Maitumbi

Tyad Day

ID	TAE	Tac	Term	Year
19	440	3430	2nd	1999
10	1000	2000	1st	1999

School Day Secondary School Minna

Tyad Day

ID	TAE	Tac	Term	Year
20	3330	3120	2nd	1999
12	3400	2300	3rd	1999
11	9000	2000	3rd	1999

Report For Boarding Schools

School Govt. Girl Secondary Sch. Mx

Tyad Boarding

ID	T.A.E.	T.AC.	Term	Year
15	6700	4500	3rd	1999
14	9000	8900	2nd	1999
13	5666	7888	1st	1999

School Moh'd Kobo Secondary School Bida

Tyad Boarding

ID	T.A.E.	T.AC.	Term	Year
18	5200	2340	3rd	1999
17	5600	7890	2nd	1999
16	7000	7500	1st	1999

```
Option Compare Database
Private Sub Command0_Click()
On Error GoTo Err_Command0_Click
    Dim stDocName As String
    stDocName = "AllDayRE"
    DoCmd.OpenReport stDocName, acPreview
Exit_Command0_Click:
    Exit Sub
Err_Command0_Click:
    MsgBox Err.Description
    Resume Exit_Command0_Click

End Sub
Private Sub Command1_Click()
On Error GoTo Err_Command1_Click

    Dim stDocName As String

    stDocName = "Month"
    DoCmd.OpenReport stDocName, acPreview

Exit_Command1_Click:
    Exit Sub

Err_Command1_Click:
    MsgBox Err.Description
    Resume Exit_Command1_Click

End Sub
Private Sub Command2_Click()
On Error GoTo Err_Command2_Click

    Dim stDocName As String

    stDocName = "Q2B1"
    DoCmd.OpenReport stDocName, acPreview

Exit_Command2_Click:
    Exit Sub

Err_Command2_Click:
    MsgBox Err.Description
    Resume Exit_Command2_Click

End Sub
Private Sub Command3_Click()
On Error GoTo Err_Command3_Click

    Dim stDocName As String

    stDocName = "TblFee"
    DoCmd.OpenReport stDocName, acPreview

Exit_Command3_Click:
    Exit Sub
```

```
Err_Command3_Click:
   MsgBox Err.Description
   Resume Exit_Command3_Click

End Sub
Private Sub Command4_Click()
On Error GoTo Err_Command4_Click

   Dim stDocName As String

   stDocName = "TblFee1"
   DoCmd.SendObject acReport, stDocName

Exit_Command4_Click:
   Exit Sub

Err_Command4_Click:
   MsgBox Err.Description
   Resume Exit_Command4_Click

End Sub
Private Sub Command5_Click()
On Error GoTo Err_Command5_Click

   Dim stDocName As String

   stDocName = "TblFee2"
   DoCmd.OpenReport stDocName, acPreview

Exit_Command5_Click:
   Exit Sub

Err_Command5_Click:
   MsgBox Err.Description
   Resume Exit_Command5_Click

End Sub
Private Sub Command6_Click()
On Error GoTo Err_Command6_Click

   Dim stDocName As String

   stDocName = "TblFee1"
   DoCmd.OpenReport stDocName, acPreview

Exit_Command6_Click:
   Exit Sub
Err_Command6_Click:
   MsgBox Err.Description
   Resume Exit_Command6_Click

End Sub
```