COMPUTERISATION OF FIXED DEPOSIT ACCOUNTS

(A Case Study of Afribank Nig. Plc., Minna Branch)

BY

BELLO AMINU DUKKU PGD/MCS/98/99/758

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CERTIFICATION

Having read through this project carried out by Mr. Bello Aminu Dukku, I certify that this project work is originally written by me and has met the standard of the requirement for both he Department and Institution in general.

MR. L. N. EZEAKO PROJECT SUPERVISOR DATE

DATE

DR. S. A. REJU HEAD OF DEPARTMENT

EXTERNAL EXAMINER

DATE

DEDICATION

This project is dedicated to my mother; Aishatu Loddo and my late father; Alh. Bello Dukku.

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I wish to direct my sincere gratitude to Almighty Allah who have been keeping me in grace, not only in my academic pursuit, but in all aspects of life.

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ABSTRACT

Today, businessmen no longer depend on hunches. Instead, they rely on systematically organized information as a basis for controlling their organisations. This statement, in other words referred to the application of computers in the operations of an organisation.

Afribank Nigeria Plc., Minna Branch in particular embarked upon computerisation of its operations since establishment of the branch. To date, it has not achieved 100% computerisation of all its products. Current, Savings and Fixed Deposits accounts are the principal sources of funds to the bank.

Fixed deposit accounts however, remained one of the sources that is yet to be computerised.

The researcher was moved with the inherent problems associated to fixed deposit accounts due to lack of computerisation in comparison to the smoothly operated current and savings account as that have been fully computerised.

Therefore, a system is designed to accommodate the problems and the operations of this account for the benefit of the Branch and the Bank in general. Few of these benefits include:-

- * Efficient and accurate computation of interest and taxes without lost of hours or fractions in monetary terms of the manual calculations.
- * Organised customer data storage

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- Reduction of operating cost in terms of overtime payments, stationeries and space of the manual system.
- Enhance report generation on any customer account at any given time.

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CHAPTER ONE

AN INTRODUCTION

1.0 INTRODUCTION

One of the strongest pillar holding every bank is the Customers' deposits. These deposits could be in form of cash or valuables. Almost all banking services are made possible by the savings of many people. Customers deposits are divided into three(3) categories, namely :-

- 1. Current account
- 2. Savings account
- 3. Fixed deposit account

The current account is operated by the use of cheques. It is an active account on which cheques are drawn and into which money is paid. Banks do not usually pay interest on current account but charge customers on services rendered.

Savings account is an account into which a customer's money is put in order to earn interest. The interest is calculated on monthly basis, subject to satisfying the banks conditions on savings. Withdrawal on savings account is personalised and on presentation of a pass book given to the depositor by the bank. It is updated on every transaction.

The third (3rd) type of deposit as listed above, fixed deposit account constitute the main topic of writing this project.

Fixed deposit account is a type deposit which a customer saves money for a specified period of time and on agreed fixed interest rate. The specified period of time may be between Three (3) to nine (9) months, or one year and above. A receipt or certificate of deposit is issued and will be surrendered at the expiration of the period.

Computerisation in banking industry today has come as a revolution in all aspects of its operations. Computer may have a significant role in all aspects of bank work. The level of computerisation in some Nigerian Banks, today has even extended beyond the banks premises. It led to the situation that customer's presence in the bank is not even necessary. Bank queue have gone, time wastage has been reduced, statements are produced every time one needs them, not until months ends.

Afribank Nigeria Plc, which is one of the big four (4) banks in Nigeria is not left behind. It has achieved a greater level of computerisation. A lot of its operational aspects have been computerised. Savings and current Accounts have been fully computerised. The computation of interests due and against customers, statement production, customers personal data etc. on these two accounts have all been computerised.

One of the major aspect of deposit that remained manually operated is the fixed deposit account.

Computerisation of fixed deposit Accounts in Afribank Nigeria Plc is the subject matter of this write - up. This project will look at the manual way of operating fixed deposit accounts in Afribank, identify problems and design a good program for computerisation

1.1 OBJECTIVE OF THE STUDY

It is a fact that the degree of success of any organisation today, is dependent on the level of automation (computerisation) applied. The objective of this project is to :

- Study the manual way of operating fixed deposit Accounts, identify associated problems and design a software package for the smooth operation of this type of deposit in Afribank Nigeria Plc, Minna.
- It is also the objective of this study, that the automation of fixed deposit account will reduce the present manual much paper work, inaccurate calculation of interest and time waste.

1.2 IMPORTANCE OF THE STUDY

The importance of this study cannot be overemphasised as it will help in simplifying the existing manually operation of fixed deposit accounts. It is expected that the result of this study will help to :-

- Ease the operation of fixed deposit account through the use of standard computer input forms.
- 2. Accurately compute interests due for or against the customer on maturity.
- Compute and determine the exact period of tenure agreed upon with the customer.
- 4. Reduce time wastage and too much paper work of the manual system.
- Make supervision and decision making on fixed deposit accounts easier for the management.

1.3 SCOPE AND METHODOLOGY

The scope of this project is limited to the computerisation of fixed deposit accounts in Afribank Nigeria Plc., Minna. This encompass studying the present system of its operation, finding its associated problems and coming out with a designed programme that will simplifying its operation.

The methodology used in writing this project is through the use of the two (2) forms of data.

- The primary data collected through searching, observation and interviews.
- Secondary data collected from published literatures, manuals, and records of previous work.

1.4 DEFINITION OF TERMS USED IN THIS CHAPTER

This section attempt to throw more light on some important key words used in this chapter. The terms are defined with their proper meaning as it relates to this project work.

DEPOSITS

These are funds that customers leave in their accounts. These may come into the customers account in form of cash or cheque lodgements.

CURRENT ACCOUNTS

These are account for current money, i.e. money that is not intended to be saved. These type of accounts are business oriented accounts in which demand is made through cheque.

SAVING ACCOUNTS:

These are accounts for extra income or money that cannot be spend immediately. Interest is usually given by the bank to the holders of such accounts.

FIXED DEPOSITS ACCOUNT

These are type of accounts where money is saved for a fixed period of time and on a fixed interest. It is at times called Term deposit. This is because it has a fixed period of maturity.

STATEMENT OF ACCOUNT

This is a computer generated report which displays the name of the the customer, the account number, date of transaction and description of Transaction, it also display all debit and credit entries as well as the net balance for a particular period of operation.

CERTIFICATE OF DEPOSIT

This is a form of receipt given to a holder of fixed Deposit Account. The certificate indicates the holder's name, amount logged, date of lodgement and maturity, rate of interest and the account number of the customer. It must be surrendered by the customer on maturity.

WITH HOLDING TAX

This is a tax on interest earned. It is usually 10% of the interest earned on Fixed deposit. This goes to the Board of inland revenue and a receipt is issued to the customer.

CHAPTER TWO

LITERATURE REVIEW

2.0 HISTORICAL BACKGROUND OF AFRIBANK

Afribank Nigeria PLC, on whose the topic of write-up is focused was granted license to operate as a commercial bank in October, 1959. the Bank commenced business in 1960 when it opened its first operational Branch in Sabongari Kano. At inception the bank was called **BANK INTERNATIONAL POUR L' AFRIQUE OCCIDENTALE (BIAO).**

The Bank was earlier on, in Senegal acting as its Central Bank. The Bank was brought to Senegal by its French colonial masters. On discovering the economic potentials of Nigeria, they obtained license and extended their services. the bank, however, is today known as Afirbank Nigeria Plc.

The bank has its head office presently at 51\55 Broad street Lagos and with 80 branches through out Nigeria. The ownership structure of the bank before the Obasanjo indigenisation decree which changes the structure such that the Federal Government of Nigeria acquired sixty percent (60%) and BIAO, forty percent (40%). The share capital of the Bank then, was N 3.6 million and was increased to N 6.0 million as a result of the indigenisation decree. The ownership of the bank was widely expanded, when in 1993, the Federal Government relinquished its holding through the commercialisation and

privatisation of public enterprise exercise.

Even though the forty percent (40%) holding of BIAO are still held in trust. The ownership of the remaining sixty (60%) percent include staff 10% and the general public fifty (50) percent the Bank has grown both in strength (Asset base) and in size (branch network). It has changed its name from BIAO to international Bank of West Africa (IBWA) in 1977 and later the name Afribank Nigeria Limited. All the name changes was in a bid to fully indigenise the bank. The name was changed again in 1991 with its quotation in the Nigeria stock exchange, from Afribank Nigeria Limited to Afribank Nigeria Plc.

The authorised share capital of the bank as at December 1998 was N575 million. This is well above the minimum of N500 million stipulated by the Central Bank of Nigeria. The bank is well diversified with investments in insurance brokerage, merchant banking, security investment brokerage, discounting and international banking with a financial, company in Dublin. These services are provided by the bank in addition to its traditional role of commercial banking.

However, the branch used as a case study, which is Afribank Nigeria Plc., Minna branch was established in 1990. It was started as a full fledged branch. The branch started operation in its present premises, Commercial Area Complex, Bosso Road, Minna.

The branch started operation with six (6) departments namely:-

- 1. Cash;
- 2. Credit;
- 3. Transfers;
- 4. Clearing;
- 5. Accounts;
- 6. Computer.

From inception, most of the branch operations were computerised. Even that the computerisation was on an aspect of operation basis. Cash was the first to be computerised. That is current and savings accounts of cash department were the earliest.

The management of the branch consists of the branch manager, deputy manager and internal controller. Then various departments are headed by head of departments. The branch organisation chart is shown in the next page (pg.11).

ORGANISATIONAL CHART OF AFRIBANK NIGERIA PLC., MINNA BRANCH



2.1 FIXED DEPOSIT: AN OVERVIEW

Fixed or Term deposit are two common names used in referring to a kind of savings Account that has a terminal life. In other words it is an account that has a fixed period of operation and at a fixed rate of interest. With this explanation therefore, fixed or term deposit can be defined as money saves for a specified (fixed) period of time and on agreed fixed rate of interest.

Usually money is save in this type of account for a period of 3,6 or 9 months. it can also be for up to a year or more. The sum involved is usually large. In Afribank Nigeria Plc, the minimum amount for opening fixed deposit account is N 50,000.00. Interest rate is usually negotiable. Negotiation starts from 8%, upward, depending on the amount and the period.

Interest agreed upon is paid on the expiration or maturity of the account. It is taxable usually referred to as with holding tax. In Afribank Nigeria Plc the rate of with-holding tax on interest earned from fixed deposit account is 10%.

Government receipt for the taxes is issued to the customer. The customer may decide to withdraw the sum deposited before maturity. This can be done by writing a letter of notice to do so. withdrawal of deposit before maturity terminates the contract on deposit and therefore, the customer forfeit the interest.

On the maturity, the certificate of deposit must be released before the amount is reversed and paid to the customer. At the same time the customer has the option to roll-over or to extend the period. This must be communicated to the bank in writing. The old certificate of deposit must be surrendered. A certificate bearing new period is then issued.

2.2 OPENING OF FIXED DEPOSIT ACCOUNT

Unlike the opening of current and savings accounts, fixed deposit account is not opened by accounts opening department. It is opened by credit or Finance/Accounts department, depending on the branch. In Minna branch of Afribank Nigeria Plc, it is handled by finance/accounts department. The reason why it is not open by account opening department is that fixed deposit account is not transactionery like current and savings accounts with frequent withdrawals and depositing. In addition, the finance department that opens it bear the responsibility of handling all its aspects of operation.

The procedure and requirements for opening fixed deposit account are similar to that of savings account. To open a fixed deposit account, the customer must:-

 Apply in writing or declare intention verbally stating sum to be deposited and length of period for deposit. It should be noted that the minimum amount in Afribank, Minna branch is N 50,000:00.

- 2. Submit 2 recent passports photographs.
- 3. The customer and the bank must agree on fixed rate of interest.

- 4. The customer append his signataries on the signature cards.
- 5. The customer fills in all his personal data in fixed deposit customer "Data Form".
- 6. Cash or cheque teller is used and the sum deposited is paid to the cashier.
- 7. A certificate of deposit is issued to the customer.
- Details of the certificate are entered into the fixed deposit
 Account register which the customer must sign.

Finally, a file is created for the customer. The file should contains customer personal data form, duplicate of certificate of deposit, signature card with passport attached, interest calculation form and all correspondences by customer.

2.4 DEFINITION OF SOME IMPORTANT TERMS

MATURITY DATE:-

This is the terminal or expiry date of a fixed deposit account.

FIXED DEPOSIT ACCOUNT REGISTER:-

This is a register where summary details on fixed deposit account are recorded for all customers. It starts with serial number, customer name address, account number, certificate number and customer's signature.

INTEREST CALCULATION SHEET:-

This is a form where computation of interest on fixed deposit and withholding tax is done. Computation of every month interest is done on a separate sheet.

LEDGER CARD:-

This is a card where entries derived from the computation are posted in form of record. Every ledger card bears an account name and appropriate account number.

WITHHOLDING TAX:-

This is tax earned from interest on fixed deposit account that is due to a customer. It goes to the government. It is usually 10% of whatever income earned.

SIGNATURE CARD:

This is a card with customers name and account number where his signature is appended to serve as spacement.

FIXED DEPOSIT ACCOUNT "CUSTOMER PERSONAL DATE FORM":-

This is a form which records personal information about the customer.

CUSTOMER FILE:-

This is a folder which contains all records of a customer operating fixed deposit account.

CHAPTER THREE

SYSTEM ANALYSIS AND DESIGN

3.0 INTRODUCTION

A system can be regarded as a set of interacting elements responding to input in order to generate output. It can also be defined as a collection of components, either physical or non physical in nature which interact with one another towards a common objectives.

The system design stage is perhaps the most important and it outlines and defines the set of rules required for the solution to a problem. Infact it involves the listing and ordering of successive steps and activities to be undertaken to achieve the desired goals

However, in this chapter a detailed study of the manual system and operational procedure have been highlighted. It also focused attention on identifying problems of the existing system and a feasibility study towards the design of a new program. The chapter as well attempt to formulate specifications both system input and output requirements. at the sametime, it analysed the costs and benefits of the new system.

3.1 THE MANUAL SYSTEM OF FIXED DEPOSIT ACCOUNTS

The manual system is the direct operation of all aspects of fixed deposit account done mentally and physically by the staff. The opening process entails taking customers signatures on a signature spacement card. The card carries the customer's name, address, account number, date account opened and recent passport photographs of the customer.

The customer's personal data form is also filled in the process of opening the account. Information required in this form include customer's full names, contact and home address, occupation, account number, next of kin, amount deposited, agreed interest rate and signature.

Equally important in the manual process of opening fixed deposit account is the recording of all details of the account in a register. It is divided into columns of, date, name, amount, account number, certificate number and customer's signature on collection of certificate.

The operational aspects of fixed deposit, which are repeatedly carried out manually are calculation of interest and posting of entries. This 2 aspects are done on every individual customer file, monthly. The computation is done on interest calculation form and kept in the customer's file. Calculation of withholding tax is also done on this form. The resulting balance of the computation is then posted to appropriate Account/ledger cards. On maturity of the Account, the total interest due and the principal are reversed and paid to the customer.

3.2 PROBLEM IDENTIFICATION

There is no system that can claim 100% perfection. No matter what kind of system is being studied, there will always be one problem or the other. development or an improvement on the existing system is always based on the problems identified.

The problems identified as per the discussions on the manual system dealt with at the beginning of this chapter include :-

- a) Updating of personal record will call for completion of a new personal data form. Whenever there are changes, such as in names, address, next of kin etc. in other words, the manual system does not provide enough room for changes on customer's personal data.
- b) Since customers's files are treated on individual basis, it will be time consuming. A lot of time is wasted by treating files on one by one basis.
- c) Calculation on interest and withholding tax manually will not be accurate as hours, minutes or fractions in monetary terms may be lost or ignored.

- d) Where there are so many fixed deposit account customer's, calculation of interest and monitoring of expiry dates will be difficult and cumbersome.
- e) There is great possibility for missing and misplacement of documents.
- f) Space problem is bound as large number of files are kept.
- g) It is costly due to high consumption of stationeries, purchase of filing cabinets and more personnel are required.

3.3 FEASIBILITY STUDY

To design a new system, the programmer/designer must first of all carry out a reasonable study and analysis of the proposed system. Analysis of equipment and materials needed, personnel and viability of the proposal system has to be done. For this project the feasibility studies have been classified into three (3) namely:-

- i) Operational feasibility
- ii) Technical feasibility
- iii) Economic feasibility

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- ii) Technical feasibility
- iii) Economic feasibility

i) The operational Feasibility

This is the study of the physical execution of work in the new system. The operation entails the use of human resources and machines.

The personnel sources for data from the potential customers and convert it into the machine acceptable language and feed it into the system for an output. For this project two (2) staff are required for the collection of data and system operation.

ii) Technical feasibility

The technical feasibility deals with the sourcing of computers and their maintenance. It also involves the training of personnel on minor repairs and regular checks. For this project a set of computer is required. A UPS is also necessary to check the interruption of electricity supply. The two (2) personnel earmarked for the operation will be sent for training in computer maintenance and operation.

iii) The Economic feasibility

The economic feasibility of the system is a function of the costbenefit analysis or ratio of the project. That is the associated costs and benefits, The economic feasibility is concerned with the total requirements of the system, in terms of money,

materials and human resources.

3.4 THE PHYSICAL DESIGN

The physical design has to do with the creation of the system specifications for input, database files and output. The system specification provides detailed documentation procedure of the entire system.

It would be realised that the optimum objective of the design is to improve the operation of Fixed Deposit Account System in order to ease fasten operations and decision. The design is therefore focused towards full automation of fixed deposit accounts operation.

In this design stage, the concept is transformed into actual implementation. The various design specifications will be made in terms of input, output and procedures.

3.5 THE SYSTEM INPUT SPECIFICATION

The system input specification states the sources and type of data that needs to be supplied into the system. Data processing using computer requires feeding of raw information (data) into the computer as an ingredient for output.

The data required as input for this system consist of the following :-

- 1. CURRENT DATE
- 2. ACCOUNT NUMBER
- 3. SURNAME
- 4. OTHER NAMES
- 5. CONTACT ADDRESS (NOT P. O. BOX)
- 6. CUSTOMER OCCUPATION
- 7. NEXT OF KIN
- 8. AMOUNT OF DEPOSIT №
- 9. PERIOD (IN MONTHS)
- 10. COMMENCEMENT DATE
- 11. MATURITY DATE
- 12. INTEREST RATE (IN %)
- 13. WITHHOLDING TAX (IN %)

The data on the above are gathered when a customer comes to open the fixed deposit account. Aspect like the rate of interest are negotiated with the customer at the beginning.

3.6 THE SYSTEM OUTPUT SPECIFICATION

The system output is the result or information arising from processing of data inputted to and those generated by the computer. The output from computer system is necessary and primarily to communicate the result of data processing, to the end user. There are two forms of output obtained from a computer, namely:- 1. Hard copy 2. Soft copy.

However the proposed system is design to generate output in form of reports on withdrawal which shows the computation of interest on fixed deposit account as it is due. The system designed is also expected to produce reports on LIST OF CUSTOMERS (General) as well as a report LIST OF MATURED ACCOUNTS. All these reports can be produce in form of hard copies that is printed on paper or soft copies printed on the screen or recorded in a diskette.

The report on the general listing of customers will come under the following headings.

- 1. SERIAL NUMBER
- 2. CUSTOMER NAME
- 3. ACCOUNT NUMBER
- 4. AMOUNT N
- 5. DEPOSIT DURATION
- 6. RATE OF INTEREST
- 7. REMARK

The matured Account reports shows the result of the computation on individual customer Accounts. The following shows the sub - headings of the report :-

- 1. SERIAL NUMBER
- 2. CUSTOMER NAME
- 3. FIXED DEPOSIT ACCOUNT NUMBER
- 4. COMMENCEMENT DATE
- 5. MATURITY DATE
- 6. AMOUNT DEPOSITED
- 7. INTEREST EARNED
- 8. WITHHOLDING TAX

3.7 DATABASE FILES DESIGN

The database files define the contents and structures of the data storage. The structure shows the fieldnames, field type and field width associated with each of the files. The proposed system is designed and developed to specifically operate with database files in database management system environment. However, the field contents and structure of files is shown in the following table.

MASTER.DBF

This is a file that contain the details of all the customers that have fixed deposit account with the bank. The structure of the file is as shown below:-

FIELD	FIELD NAME	ТҮРЕ	WIDTH	DEC	INDEX
1	ACCTNO	Character	9		N
2	TODAY	Date	8		N
3	SURNAME	Charater	20		N
4	ONAMES	Character	30		N
5	CADDR	Character	46		N
6	OCCUP	Character	40		N
7	NOK	Character	65		N
8	AMOUNT	Numeric	15		N
9	PERIOD	Numeric	3		N
10	DATE1	Date	8		N
11	DATE2	Date	8		N
12	INT	Numeric	4	1	N .
13	TAX	Numeric	4	1	N
14	STATUS	Character	5		N

MATURED.DBF

A file that contains all the accounts that are matured with all the necessary details as per the account. The structure of the file is as shown below:

FIELD	FIELD NAME	ТҮРЕ	WIDTH	DEC	INDEX
1	ACCTNO	Character	9		N
2	SURNAME	Character	20		N
3	ONAMES	Character	30		N
4	AMOUNT	Numeric	15		N
5	PERIOD	Numeric	3		N
6	DATE1	Date	8		N
7	DATE2	Date	8		N
8	DATE3	Date	8		N
9	INTAMT	Numeric	15	2	N
10	INTAMT2	Numeric	15	2	N
11	ΤΟΤΑΜΤ	Numeric	15	2	N

3.8 COST AND BENEFIT ANALYSIS

Computerisation in Afribank Nigeria Plc is not entirely new as already many operational areas have been computerised.

One of the area that remained uncomputerised is the fixed deposit Account for which this project is done. Therefore, cost of computerising this design is very minimal.

This is because there are computers, existing in the system, except that an additional personal computer is required. In addition no additional employees are required. the most important thing to be done is then training of two staff in finance and account department to handle the operations. However, the cost of the proposed system is analysed under two categories, namely :-

- a) System development cost
- b) System operating cost

1) System Development Cost

- a.) Computer hardware
- i) One personal computer 8.4GB Hard Disk, 64MB SDRAM
 computer system fully multimedia at №145000 = 00
- ii) UPS Uninterrupted power supply

1 mercury UPS - 850VA at №42000 = 00

- iii) One 2Hp window airconditioner \$50000 = 00
- iv) Installation cost:-

Installation of the system plus some electrical fittings.

v) Personnel training cost:

Two staff (operators) from finance and accounts department system operation training at $\aleph 20000.00$ each for a period of two months - totalling $\aleph 40,000.00 = \aleph 327000.00$

ii) System Operating Cost:-

- i) Stationary and other consumables per month $\aleph 25000 = 00$ per month
- ii) Additional cost of electricity $\aleph 2500 = 00$ per month
| iii) Miscellaneous Expenses | ₦ 10000 = 00 |
|-----------------------------|--------------|
|-----------------------------|--------------|

SYSTEM BENEFITS

The associated benefits of the proposed system are :-

- 1. Enhance accuracy in interest and withholding tax computation.
- Eliminating time wastage, misplacement and missing of files in the manual system of operating fixed deposit accounts.
- 3. Ensure adequate monitoring and checking by daily production of reports to see which accounts matured.
- 4. Reduction in stationary expenses and manual paperwork.
- 5. Permission of future expansion of the branch.

Other benefit may not be quantifiable but the changes will impart positively on the overall performance in the operation of fixed deposit Accounts.

CHAPTER FOUR

4.0 INTRODUCTION

System development is a program procedure or rules and any associated documentation pertaining to the operation of a computer system. The software development begins with the laid down structure in general design and detail design of the automated system.

The system implementation level of system development level is the level in which the conceptual requirements and the overall objectives are turned into physical reality. The system implementation starts with the description of the software chosen and database system feature which is immediately followed by system testing. The mode of system change-over and system documentation is then described. Finally, the post implementation preview is done to consider the procedures required in carrying out amendment on the system.

4.1 CHOICE OF SOFTWARE

Computer programming language is a means through which a user communicates to the computer without the need to know in detail the internal structure of the computer. Computer languages are chosen taking into consideration the kind of tasks the user intends to make. The languages are design to be machine built in independent languages.

The propose system is design to be a complete database management system. Therefore, the language of choice for this design is database IV.

Database Management System uses logical relationship to link integrated data of different types. It also serves as a connector between the user and the data in such a way that the user is able to record, organise, select, summarise and extract data contained in database.

4.2 THE DATABASE MANAGEMENT SYSTEM

The term database and data base are often used interchangeably. Data base is a collection of pertinent data about an organisation with minimum duplication, serving of a pool of information for many users. The term database on its own refers to the software that manages the data base. This software is generally called Database Management System (DBMS), which is high in speed filing system that manages the database. Database management is a computer program used for maintaining, and creating the database to extract Information from it. All database software have the capabilities to:-

- i) Add, delete and revise records in database.
- ii) Extract and list all records or some that meet a specified criterion

- iii) Query the database (Make enquiries)
- iv) Sort records.
- v) Generate Information reports

4:3 SYSTEM TESTING

This is the most Important aspects of system Implementation. It serves as the confirmation for the correctness and proof of efficiency of the designed system.

The system testing involves the Introduction of raw data on the new system to observe the accuracy of the system prior to commencement of operations. The test was conducted by using some live data on the system and the correctness and efficiency was thus confirmed. the results of some part of the Testing is shown in the appendix.

4.4 CHANGE OVER PROCEDURE

This is the process of switching from the manual system to the use of machine (computer) in the operation of fixed Deposit Account. The changeover procedure entails fact finding analysis, data capture, design of clerical methods and computer processes. Other activities involved, are form design, and provision of special training courses. For the system under consideration however, the number of files to be converted are relatively few. This is because currently the number of existing Fixed Deposit account customers are one hundred and seventy-three (173).The Minna branch of Afribank introduction of this system means capturing of the 173 files into the system and hence any other new customer will be directly captured into the new system.

The following are different methods of change over:-

- 1. Parallel
- 2. Direct
- 3. Pilot
- 1) The Parallel:- This is the process of running the old and new system concurrently using the same input. The outputs compared and differences established are resolved. Once the new system proves satisfactory, the distribution of the old system output is discontinued.
- 2) Direct:- The new system is Immediately put into use and the old system discontinued. This method is usually, for research work because it is less expensive both financially and in manpower training. It is also more reliable and effective.
- 3) Pilot:- This system recognises the changing over of part of the system at a time using either parallel or direct. It is a hybrid of the two methods.

For the purpose of this study, the direct method was adopted due to the few number of existing customers (173). At the same time it will be easy to convert back in the event of system failure.

4.5 DOCUMENTATION

Documentation is a form of system's software description. It serves as a guide to users on how to set up, use and maintain the software. Documentation gives a detail description of how the system operates. It ensures better understanding of the system as well as solves any problem that might be encountered while, using the software. Therefore in documenting the system, the mode of starting the operation, the menu structure and linkages and its disruption are discussed below:-

1) STARTING THE SYSTEM

- a) Boot the computer
- b) At C:> prompt type **dbase** and press enter key.
- c) At the dot prompt, type do **FIXE** and press enter key

At this juncture, an Introductory appears after which the system prompts the user for entering his password. On entering the pass word, the main menu appears on the screen as shown in FIG.1 in the appendix.

2) RUNNING THE SYSTEM

The system is composed of the MAIN MENU which consist of five options namely:

- A. Customer Detail
- B. Withdrawal Option
- C. Rollover Option
- D. Report Generation
- E. Quit

At the main menu, the system prompts the user to enter the task code i.e. A, B, C, D or E for any of the available operation options to the selection of the alternatives. The Format of display is Illustrated by Fig I in the appendix. At any time the user quits any of the options, the prompt returns to the MAIN MENU.

The description of each option in the MAIN MENU is given below:

* CUSTOMER DETAIL

This is an option in the main menu which enables the user to take detailed Information about the customer when opening Fixed Deposit account. Records from the files of the existing customers can also be carefully transferred through this option as it is the replica of customer personal data form of the manual system.

Immediately the user pick option 'A' which is the code for customer

detail, the system will bring the user to an environment with five options.

These options are also coded and named as follows:-

- i) Add New Detail
- ii) View Detail
- iii) Change Detail
- iv) Delete Detail
- v) Exit

The user can pick any of the options depending on what he wants to do at that particular time. The screen format of the option is shown on fig. 2 of the appendix.

Brief explanation of each of these options is given as follows:-

i. ADD NEW DETAIL

This option enables the user to enter the record of a new fixed deposit. Once this option is selected one can make entries for as many new customers records as possible before exiting the section.

ii. VIEW DETAIL

This option is used to display Fixed Deposit Accounts records on the screen for reference. The Account number is supplied by the user for tracing of detail of any record.

iii. CHANGE DETAIL

Selection of this option enables the user to change customer data. The purpose of this option is to handle customer change of Name, address, occupation or next of kin. All these are bound to occur.

iv DELETE DETAIL

This is an option which enables the user to delete unwanted data from the file of a customer. This area due to security reasons is only effected on the approval of the Branch Manager. Deletion of any information, such as in change of name, address next of kin or occupation require the customer to notify the Bank in writing of which the manager must approved before the user delete the former for effecting a change.

v. EXIT

This option enables the user to quit out of customer detail option. As soon as he pick E the system will return to the main menu.

* WITHDRAWAL OPTION

This is an option which permit the withdrawal of Fixed deposit sum. where the customer wishes to withdraw his money before maturity. The system is designed not to calculate interest. The agreement on withdrawal before maturity in fixed deposit account is that the customer forfeits interest where as withdrawal is done at maturity the system compute interest earned and withholding tax on the interest and show the results. This level is seen only when the customer account number is punched.

* ROLLOVER OPTION

This is an option which Instruct the system for continuity of an Account after maturity where the customer is not willing to with draw his deposit. This must be indicated by the customer in writing.

* **REPORT GENERATION**

On daily basis the system will give in form of output the report of maturing Accounts. The option gives two form of reports, namely

* GENERAL LISTING REPORT

This option gives a list of all the customers operating fixed deposit account.

* MATURED ACCOUNT REPORT

This option gives only the list of matured Accounts. This is produced on daily basis where there is no maturing Account today, the system will give zero report.

* EXIT

EXIT coded E is a choice which quit the report option and return to the MAIN MENU.

* QUIT

Quit option in the main menu is a choice which get the user out of the COMPUTERISED FIXED DEPOSIT ACCOUNT environment. The screen formats of all the options are shown in the appendix.

CHAPTER FIVE

5.0 SUMMARY

The Introduction of system analysis and design into the operation of fixed deposit Account in Afirbank Nigeria Plc., Minna branch is entirely new. This project emphasises on the need to automate the operations of Fixed Deposit Accounts in Afirbank Nigeria Plc., Minna branch in particular. The manual system was reviewed and automated system capable of reducing the difficulties and problems encountered by the bank, with a view to enhancing accuracy, efficiency security and productivity while meeting up with the set objectives of the bank.

In the early chapters of this project historical background of Afribank Nigeria Plc was discussed. The operation of fixed deposits in relation to current and savings accounts that have been computerised have been equally discussed. The project went further to observe the under mentioned problems existing in manual operation of fixed deposit accounts, namely :-

- a) Inaccuracy in computation of interest, as hours, minutes and fractions in monetary terms are ignored or lost.
- b) Difficulty in updating of customers personal records in the event of change of name, address, occupation or next of kin.
- c) Misplacement and missing of files and some relevant records.
- d) Space problem which is bound in keeping of large number of files

- e) The manual system is found to be costly as large amount of money is spent on stationery and filing cabinets.
- f) Monitoring of accounts maturing is difficult where large number of customers is maintained.
- g) A lot of time is wasted on treating customers files on one by one basis.

The need for a computer-based system as against the current manual handling of information was recognised in order to tackle these problems. The 3rd and 4th chapters make up the main body of the project. The description of the proposed system as well as the input and output specifications, the file design, choice of language, system documentation and Implementation, system testing and changeover, were all treated.

5.1 LIMITATIONS

There is no research works without hinderance or limitation. Therefore, this project work is no exception. The Limitations include that of time, logistics and finance.

There is no adequate time for the researcher to carry out an in-depth analysis of the system and make, comparisons with other designs before making a choice.

Constant power failure and mobility added to the limitations of this project. Above all the computerisation of fixed deposit accounts in Afribank Nigeria Plc is not the end of it at all but a means to an end.

5.2 RECOMMENDATION

Afribank being one of the earliest bank to introduce computer in its operations, still has few vital areas yet to be computerised. Fixed deposit accounts is one of such areas. Its manual way of operation is associated with number of problems due to lack of updating for quite sometime.

In view of this observation, the introduction of a package that will eliminate or reduce inherent problems associated with the manual operation hitherto in use is highly necessary.

The new system has a lot of advantages associated with it. It is therefore, my recommendation on the basis of the above project work that Afribank Nigeria Plc. should embrace the design system for automation of fixed deposit account operations. It is high time a bank like Afribank Nigeria Plc should not only focus its attention on profits alone but also to research work in the area of computer. This will help it to complete its products automation thereby enhance service delivery and make better results in terms of profits.

5.3 CONCLUSION

The news everywhere nowadays is computerisation. Virtually, every facet of human endeavour is computerised. This interest is however, intensified by the capability of computers to do a given accuracy. It also has the capacity to keep any amount of record and accomplish any given task with high speed.

However, the design of the new system is necessitated to help the bank automated one of the areas that remained uncomputerised. It is therefore expected the new system will yield the bank the following benefits:-

- 1. Accurate computation of interest and withholding tax.
- 2. Reduce time wastage in treatment of customers' files.
- Reduction of labour and stationery cost/expenses as a result of less paperwork.
- 4. Enhance efficiency and monitoring of maturity dates.
- 5. Make operation of fixed deposits accounts easier and faster.
- 6. Provide reports at any given time. Therefore, the achievements of the new system will highly improve the efficiency of the bank thereby elevating its status in particular.

REFERENCE

Afribank Quarterly Newsletter AFRIBANK NEWS (1999) : Vol. 4 NO. ISSN116 - 1965. **AFRIBANK FINANCIAL STATEMENTS:** 1999 Financial **Statements** Designed and Produced by Tanus Communications Ltd., Lagos. AYO; C. K. (1994) Computer Literacy to Banking : **Collins Academic and Professional** Texts. 8 Graffon Street, London WIX 3LA. KINDRED; ALFRON R. (1976) : Introduction to Computers Printice Hall, Inc. Eaglewood Cliffs, N. I. pp. (120 - 150). Afribank Manual of Procedure MANUAL OF PROCEDURE : Volume II. OMOLAJA; A. ADENIJI (1984) Law Relating to Banking Collins : Academic and Professional Texts. 8 Graffon Street London, WIX 3LA. VAN NOSTRAND REINHOLD (1976): Encyclopedia of Computer Science 135 West 50th Str. New York, 1976. pp. 233-280.

APPENDIX 'I (SCREEN DESIGN/PROGRAM OUTPUT)







AFRIBANK NIGE	RIA PLC			
WITHDRAWAL FORM				
ACCOUNT NO: 70100002A	CURRENT DATE: 16/08/2000			
CUSTOMER'S NAME: GARBA USMAN BALA				
AMOUNT OF DEPOSIT: # 1,000	,000 PERIOD: 10 Months			
COMMENCEMENT DATE: 12/10/1999	MATURITY DATE: 13/08/2000			
INTEREST RATE: 10.0%	WITH-HOLDING TAX: 2.0%			
DATE OF COLLECTION: 15/08/2000				
AMOUNT DEPOSITED: # 1, INTEREST ATTRACTED: # WITH-HOLDING TAX: # TOTAL AMOUNT DUE: # 1,	000,000.00 83,835.62 1,676.71 082,158.91 ========			
Press 'S' to SAVE or	'A' to ABANDON:			

-

	AFRIBANK	NIGERIA	PLC			
	ROPPO	VER FORM				
ACCOUNT NO: 70100002A	7		CURI	RENT DATE:	16/08	8/2000
CUSTOMER'S NAME: GARBA USMAN BALA						
AMOUNT OF DEPOSIT: #		1,000,000	C	PERIOD:	10 I	Months
COMMENCEMENT DATE: 12	2/10/1999	Г	MATUR	ITY DATE:	13/08	/2000
INTEREST RATE: 10.0%			WIT	H-HOLDING	TAX:	2.0%
ROLLOVER ITEMS						
AMOUNT OF DEPOSIT: #		800,00	0	PERIOD:	8	Months
COMMENCEMENT DATE: 20	0/08/2000	I	MATUR	ITY DATE:	22/04	/2001
INTEREST RATE: 12.0%			WIT	H-HOLDING	TAX:	2.0%
Press 'S	' to SAVE	or 'A'	to A	BANDON:		

Ŷ,

CUSTOMER DETAIL OPTION - ADD NEW DETAIL

COUNT NO: 70100002ACURRENT DATE: 16/08/2000RNAME: GARBAOTHER NAMES: USMAN BALAVTACT ADDRESS (not P.O. Box): ROAD 19, FLAT 4, BOSSO ESTATE, MINNASTOMER'S OCCUPATION: CIVIL SERVANT(T OF KIN: ALHAJI TANKO BELLO, FLAT 201, TUNGA ESTATE, MINNAJUNT OF DEPOSIT: #1,000,000PERIOD (in Month):104MENCEMENT DATE: 12/10/1999MATURITY DATE: 13/08/2000FEREST RATE (in %):10.0WITH-HOLDING TAX (in %):2.0Press 'S' to SAVE or 'A' to ABANDON:

AFRIBANK NIGERIA PLC

CUSTOMER DETAIL OPTION - VIEW DETAIL

COUNT NO: 70100002ACURRENT DATE: 16/08/2000RNAME: GARBAOTHER NAMES: USMAN BALANTACT ADDRESS (not P.O. Box): ROAD 19, FLAT 4, BOSSO ESTATE, MINNASTOMER'S OCCUPATION: CIVIL SERVANTXT OF KIN: ALHAJI TANKO BELLO, FLAT 201, TUNGA ESTATE, MINNAOUNT OF DEPOSIT: #1,000,000PERIOD (in Month):10MMENCEMENT DATE: 12/10/1999MATURITY DATE: 13/08/2000TEREST RATE (in %):10.0WITH-HOLDING TAX (in %):2.0VIEWING DETAILS - Press any key to continue

	AFRIBANK NIGERIA PLC		
CUSTOMER DETAIL OPTION - CHANGE DETAIL			
ACCOUNT NO: 70100002A	CU	JRRENT DATE: 16/08/2000	
SURNAME: GARBA	OTHER NAMES: USMAN	I BALA	
CONTACT ADDRESS (not P.O. Box): ROAD 19, FLAT 4, BOSSO ESTATE, MINNA			
CUSTOMER'S OCCUPATION: CIVIL SERVANT			
NEXT OF KIN: ALHAJI TANKO BELLO, FLAT 201, TUNGA ESTATE, MINNA			
AMOUNT OF DEPOSIT: #	1,000,000	PERIOD (in Month): 10	
COMMENCEMENT DATE: 12/10/199	9	MATURITY DATE: 13/08/2000	
INTEREST RATE (in %): 10.0	WITH-H	HOLDING TAX (in %): 2.0	
Press 'S' to SAVE CHANGES or 'A' to ABANDON CHANGES:			

ıİ

AFRIBANK NIGERIA PLC

CUSTOMER DETAIL OPTION - DELETE DETAIL

ACCOUNT NO: 70100002A	CURRENT DATE: 16/08/2000	
SURNAME: GARBA	OTHER NAMES: USMAN BALA	
CONTACT ADDRESS (not P.O. Box):	ROAD 19, FLAT 4, BOSSO ESTATE, MINNA	
CUSTOMER'S OCCUPATION: CIVIL SE	RVANT	
NEXT OF KIN: ALHAJI TANKO BELLO	, FLAT 201, TUNGA ESTATE, MINNA	
AMOUNT OF DEPOSIT: # 1	,000,000 PERIOD (in Month): 10	
COMMENCEMENT DATE: 12/10/1999	MATURITY DATE: 13/08/2000	
INTEREST RATE (in %): 10.0	WITH-HOLDING TAX (in %): 2.0	
TO DELETE THIS RECORD (Y/N):		

APPENDIX 2 (SOURCE PROGRAM LISTING)

FIXED.PRG set talk off set stat off set scor off set bell off set safe off set cent on set date brit do whil.t. clea @ 2,15 to 22,64 doub @ 1,28 to 3,51 doub @ 2,29 say ' AFRIBANK NIGERIA PLC ' @ 5,19 say 'COMPUTERISED FIXED DEPOSIT ACCOUNT SYSTEM' @ 6,19 to 6,59 doub @ 8,32 say 'MAIN MENU' @ 9,25 to 19,54 @ 10,27 say 'A' + spac(8) + 'CUSTOMER DETAIL' @ 12,27 say 'B' + spac(8) + 'WITHDRAWAL OPTION' @ 14,27 say 'C' + spac(8) + 'ROLLOVER OPTION' @ 16,27 say 'D' + spac(8) + 'REPORT GENERATION' @ 18,27 say 'E' + spac(8) + 'Q U I T' @ 21,24 say 'PICK CHOICE [A, B, C, D or E]:' do whil .t. choice = ' '@ 21,55 get choice pict '!' read if choice \$ 'ABCDE'

exit

endi

endd

do case

case choice = 'A'

do customer

case choice = 'B'

do withdraw

case choice = 'C'

do rollover

case choice = 'D'

do report

othe

exit

endc

endd

clea

retu

CUSTOMER.PRG

do whil .t.

clea

@ 2,15 to 22,64 doub

@ 1,28 to 3,51 doub

@ 2,29 say ' AFRIBANK NIGERIA PLC '

@ 5,19 say 'COMPUTERISED FIXED DEPOSIT ACCOUNT SYSTEM'

@ 6,19 to 6,59 doub

@ 8,29 say 'CUSTOMER DETAIL OPTION'

@ 9,25 to 19,54

```
@ 10,27 say 'A' + spac(9) + 'ADD NEW DETAIL'
@ 12,27 say 'B' + spac(9) + 'VIEW DETAIL'
@ 14,27 say 'C' + spac(9) + 'CHANGE DETAIL'
@ 16,27 say 'D' + spac(9) + 'DELETE DETAIL'
@ 18,27 say 'E' + spac(9) + 'E X I T'
@ 21,24 say 'PICK CHOICE [A, B, C, D or E]:'
do whil .t.
 choice = ' '
  @ 21,55 get choice pict '!'
  read
  if choice $ 'ABCDE'
   exit
  endi
endd
do case
  case choice = 'A'
   do add
  case choice = 'B'
   do view
  case choice = 'C'
   do change
  case choice = 'D'
    do delete
  othe
    exit
 endc
endd
clea
```

retu

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L.

.

ADD.PRG

use master

do whil .t.

clea

@ 1,0 to 24,79 doub

@ 0,28 to 2,51 doub

@ 1,29 say ' AFRIBANK NIGERIA PLC '

@ 4,20 say 'CUSTOMER DETAIL OPTION - ADD NEW DETAIL'

@ 5,20 to 5,58

@ 22,1 to 22,78 doub

macctno = spac(9)

@ 7,2 say "ACCOUNT NO (Press ENTER key to Exit):" get macctno pict '99999999!'

read

```
if macctno = spac(9)
```

exit

endi

go top

loca for macctno = acctno

if foun()

```
@ 23,16 say 'Duplicate ACCOUNT NO - Press any key to continue' set cons off
```

wait

set cons on

```
@ 23,15 clea to 23,65
```

loop

endi

```
mtoday = date()
```

```
msurname = spac(20)
```

```
monames = spac(30)
mcaddr = spac(43)
moccup = spac(50)
mnok = spac(62)
mamount = 0
mperiod = 0
mdate1 = ctod(' / / ')
```

```
mdate2 = ctod(' / / ')
```

mint = 0

mtax = 0

@ 7,2 clea to 7,70

```
@ 7,2 say 'ACCOUNT NO:' get macctno
```

@ 7,50 say 'CURRENT DATE:' get mtoday

@ 9,2 say 'SURNAME:' get msurname pict '@!'

@ 9,34 say 'OTHER NAMES:' get monames pict '@!'

- @ 11,2 say 'CONTACT ADDRESS (not P.O. Box):' get mcaddr pict '@!'
- @ 13,2 say "CUSTOMER'S OCCUPATION:" get moccup pict '@!'

@ 15,2 say 'NEXT OF KIN:' get mnok pict '@!'

- @ 17,2 say 'AMOUNT OF DEPOSIT: #'
- @ 17,22 get mamount pict '999,999,999,999,999'

@ 17,53 say 'PERIOD (in Month):' get mperiod pict '999'

- @ 19,2 say 'COMMENCEMENT DATE:' get mdate1
- @ 19,53 say 'MATURITY DATE:' get mdate2
- @ 21,2 say 'INTEREST RATE (in %):' get mint pict '99.9'

@ 21,46 say 'WITH-HOLDING TAX (in %):' get mtax pict '99.9'

clea gets

@ 9,2 say 'SURNAME:' get msurname pict '@!'

@ 9,34 say 'OTHER NAMES:' get monames pict '@!'

11,2 say 'CONTACT ADDRESS (not P.O. Box):' get mcaddr pict '@!'
 say "CUSTOMER'S OCCUPATION:" get moccup pict '@!'

14.04

@ 9,34 say 'OTHER NAMES:' get monames pict '@!'

@ 11,2 say 'CONTACT ADDRESS (not P.O. Box):' get mcaddr pict '@!'

@ 13,2 say "CUSTOMER'S OCCUPATION:" get moccup pict '@!'

@ 15,2 say 'NEXT OF KIN:' get mnok pict '@!'

@ 17,2 say 'AMOUNT OF DEPOSIT: #'

@ 17,22 get mamount pict '999,999,999,999,999'

@ 17,53 say 'PERIOD (in Month):' get mperiod pict '999'

@ 19,2 say 'COMMENCEMENT DATE:' get mdate1

@ 19,53 say 'MATURITY DATE:' get mdate2

@ 21,2 say 'INTEREST RATE (in %):' get mint pict '99.9'

@ 21,46 say 'WITH-HOLDING TAX (in %):' get mtax pict '99.9' clea gets

@ 23,18 say 'VIEWING DETAILS - Press any key to continue' set cons off

wait

set cons on

endd

clos all

clea

retu

CHANGE.PRG

use master

do whil .t.

clea

@ 1,0 to 24,79 doub

@ 0,28 to 2,51 doub

@ 1,29 say ' AFRIBANK NIGERIA PLC '

@ 4,21 say 'CUSTOMER DETAIL OPTION - CHANGE DETAIL'

```
@ 5,21 to 5,58 doub
 @ 22,1 to 22,78 doub
macctno = spac(9)
 @ 7,2 say "ACCOUNT NO (Press ENTER key to Exit):" get macctno pict
'999999999!'
 read
 if macctno = spac(9)
  exit
 endi
 go top
 loca for macctno = acctno
 if .not. foun()
   @ 23,17 say 'Invalid ACCOUNT NO - Press any key to continue'
   set cons off
   wait
   set cons on
   @ 23,15 clea to 23 65
   loop
 endi
 mtoday = today
  msurname = surname
  monames = onames
  mcaddr = caddr
  moccup = occup
  mnok = nok
  mamount = amount
  mperiod = period
  mdate1 = date1
  mdate2 = date2
  mint = int
```

Section and the second section and the second section and the

Sec. Sec. May 16 S

....

```
diff1 = 12 - mm
do whil .t.
 if mperiod > diff1
  if mperiod > = 12
    if mperiod = 12
      yy = yy + 1
      exit
    else
      times = int(mperiod/12)
      diff2 = mperiod-times * 12
      yy = yy + times
      if diff2 > 0
       mm = mm + diff_2
       if mm > 12
         mm = mm - 12
         yy = yy + 1
       endi
      endi
      exit
    endi
   endi
   mm = mm + mperiod
   exit
 endi
 exit
endd
dd = ltri(str(dd))
mm = ltri(str(mm))
yy = ltri(str(yy))
mdate 2 = dd + '/' + mm + '/' + yy
```

```
64
```

المراجع والمعادية والمعاد المعاد ا

Section of Sugar

```
1
```

```
mdate2 = ctod(mdate2)
@ 19,53 say 'MATURITY DATE:' get mdate2
clea gets
@ 21,2 say 'INTEREST RATE (in %):' get mint pict '99.9'
@ 21,46 say 'WITH-HOLDING TAX (in %):' get mtax pict '99.9'
 read
 @ 23,12 say "Press 'S' to SAVE CHANGES or 'A' to ABANDON
CHANGES:"
 do whil.t.
  choice = ' '
  @ 23,67 get choice pict '!'
  read
  if choice $ 'SA'
    exit
   endi
 endd
 if choice = 'S'
   repl today with mtoday
   repl surname with msurname
   repl onames with monames
   repl caddr with mcaddr
   repl occup with moccup
   repl nok with mnok
   repl amount with mamount
   repl period with mperiod
   repl date1 with mdate1
    repl date2 with mdate2
    repl int with mint
    repl tax with mtax
   endi
```

endd

clos all

clea

retu

DELETE.PRG

use master

do whil .t.

clea

@ 1,0 to 24,79 doub

@ 0,28 to 2,51 doub

@ 1,29 say ' AFRIBANK NIGERIA PLC '

@ 4,21 say 'CUSTOMER DETAIL OPTION - DELETE DETAIL'

@ 5,21 to 5,58 doub

@ 22,1 to 22,78 doub

macctno = spac(9)

@ 7,2 say "ACCOUNT NO (Press ENTER key to Exit):" get macctno pict '999999999!'

المريم بالمراجر جزر

read

```
if macctno = spac(9)
```

exit

endi

go top

7

loca for macctno = acctno

if .not. foun()

@ 23,17 say 'Invalid ACCOUNT NO - Press any key to continue'

set cons off

wait

set cons on

67

@ 11,2 say 'CONTACT ADDRESS (not P.O. Box):' get mcaddr pict '@!'

@ 13,2 say "CUSTOMER'S OCCUPATION:" get moccup pict '@!'

@ 21,2 say 'INTEREST RATE (in %):' get mint pict '99.9'

@ 17,53 say 'PERIOD (in Month):' get mperiod pict '999'

@ 19,53 say 'MATURITY DATE:' get mdate2

@ 7,2 say 'ACCOUNT NO:' get macctno

@ 7,50 say 'CURRENT DATE:' get mtoday

@ 9,2 say 'SURNAME:' get msurname pict '@!'

@ 15,2 say 'NEXT OF KIN:' get mnok pict '@!'

@ 17,2 say 'AMOUNT OF DEPOSIT: #'

@ 9,34 say 'OTHER NAMES:' get monames pict '@!'

@ 17,22 get mamount pict '999,999,999,999,999'

@ 19,2 say 'COMMENCEMENT DATE:' get mdate1

@ 21,46 say 'WITH-HOLDING TAX (in %):' get mtax pict '99.9'

@ 23,15 clea to 23,65 loop

endi

mtoday = today

mcaddr = caddr

moccup = occup

mnok = nok

msurname = surname

monames = onames

mamount = amount

mperiod = period

mdate1 = date1

mdate2 = date2

@ 7,2 clea to 7,70

mint = int

mtax = tax

en en la

```
clea gets
     @ 23,25 say "TO DELETE THIS RECORD (Y/N):"
     do whil .t.
      choice = ' '
      @ 23,54 get choice pict '!'
      read
      if choice $ 'YN'
       exit
     endi
                              .
    endd
    @ 23,20 clea to 23,60
   if choice = 'Y'
     dele
    pack
    @ 23,17 say 'RECORD IS DELETED - Press any key to continue'
   else
    @ 23,15 say 'RECORD IS NOT DELETED - Press any key to continue'
  endi
  set cons off
  wait
  set cons on
 endd
clos all
clea
retu
WITHDRAW.PRG
sele 1
 use master
```

and the second standard and the second standard and the second standard standard standard standard standard sta

.
```
sele 2
 use matured
do whil .t.
 clea
 @ 1,6 to 24,73 doub
 @ 0,28 to 2,51 doub
 @ 1,29 say ' AFRIBANK NIGERIA PLC '
 @ 3,32 say 'WITHDRAWAL FORM'
 @ 4,32 to 4,46
 @ 22,7 to 22,72 doub
 macetno = spac(9)
 @ 5,8 say "ACCOUNT NO (Press ENTER key to Exit):" get macctno pict
'99999999<u>9</u>!'
 read
if macctno = spac(9)
  exit
endi
sele 1
go top
loca for macctno = acctno
if .not. foun()
  @ 23,17 say 'Invalid ACCOUNT NO - Press any key to continue'
  set cons off
 wait
 set cons on
 @ 23,15 clea to 23,65
 loop
endi
mtoday = date()
msurname = surname
```

```
monames - onames
 name = rtrim(msurname) + ' ' + rtrim(monames)
 manaorat amount
 and service and service and
 mdate1 = date1
 mdate2 = date2
 mint mit
 Infan Tan
 @ 5,8 clea to 5,69
 @ 5,8 say 'ACCOUNT NO:' get macctno
 @ 5,4B may 'CURRENT DATE' got intoday
 (n. VirzuA., CEPTOMER,2 DVML., Orthono bet .(n).
 @ 9,8 say 'AMOUNT OF DEPOSIT: #'
@ 9,28 get mamount pict '999,999,999,999,999'
@ 9,54 say 'PERIOD:' get mperiod pict '999'
(a) 9 GG any 'Months'
@ 11,8 say 'COMMENCEMENT DATE:' get indate f
@ 11,46 say 'MATURITY DATE:' get mdate2
@ 13,8 say 'INTEREST RATE:' get mint pict '99.9'
60 11 27 may that
@ 13,48 say 'WITH HOLDING TAX;' get mtax pict '99,9'
@ 13,70 say '%'
clea gets
00 14,710 14,72
mdate3 -- ctod(' | / ')
@ 15,8 say 'DATE OF COLLECTION:' get mdate3
read
nodays = mdate2-mdate1
minimit ()
II milato E
            undato 2
```

وفيقعه الدراب

and the and an and the state free to the state of the sta

```
mintamt = mint/100 * mamount * nodays/365
```

......

endi

```
mintamt2 = mtax/100*mintamt
```

```
mintamt = round(mintamt, 2)
```

```
mintamt2 = round(mintamt2,2)
```

```
mtotamt = mamount + mintamt-mintamt2
```

```
@ 17,8 say 'AMOUNT DEPOSITED: #'
```

@ 17,31 get mamount pict '999,999,999,999,999.99'

and the second of the second
@ 18,8 say 'INTEREST ATTRACTED: #'

@ 18,31 get mintamt pict '999,999,999,999,999.99'

@ 19,8 say 'WITH-HOLDING TAX: #'

@ 19,31 get mintamt2 pict '999,999,999,999,999.99'

@ 20,8 say 'TOTAL AMOUNT DUE: #'

@ 20,31 get mtotamt pict '999,999,999,999,999.99'

```
@ 21,31 say repl(' = ',22)
```

clea gets

```
@ 23,20 say "Press 'S' to SAVE or 'A' to ABANDON:"
```

do whil .t.

choice = ' '

@ 23,59 get choice pict '!'

read

```
if choice $ 'SA'
```

exit

endi

endd

if choice = 'S'

repl status with 'CLOSE'

sele 2

appe blan

repl acctno with macctno

repl surname with msurname repl onames with monames repl amount with mamount repl period with mperiod repl date1 with mdate1 repl date2 with mdate2 repl date3 with mdate3 repl intamt with mintamt repl intamt2 with mintamt2 repl totamt with mtotamt endi endd clos all clea

retu

ROLLOVER.PRG

*sele 1

use master

*sele 2

* use rollover

do whil .t.

clea

@ 1,6 to 24,73 doub

@ 0,28 to 2,51 doub

@ 1,29 say ' AFRIBANK NIGERIA PLC '

@ 3,33 say 'ROLLOVER FORM'

@ 4,33 to 4,45

@ 22,7 to 22,72 doub

·····

```
macctno = spac(9)
 @ 5,8 say "ACCOUNT NO (Press ENTER key to Exit):" get macctno pict
'999999999!'
 read
 if macctno = spac(9)
  exit
 endi
* sele 1
go top
loca for macctno = acctno
if .not. foun()
  @ 23,17 say 'Invalid ACCOUNT NO - Press any key to continue'
  set cons off
  wait
  set cons on
  @ 23,15 clea to 23,65
  loop
endi
mtoday = date()
msurname = surname
monames = onames
name = rtrim(msurname) + ' ' + rtrim(monames)
mamount = amount
mperiod = period
mdate1 = date1
mdate2 = date2
mint = int
mtax = tax
mamount1 = 0
mperiod1 = 0
```

```
73
```

```
mdate11 = ctod(' / / ')
```

mdate21 = ctod(' / / ')

mint1 = 0

mtax1 = 0

@ 5,8 clea to 5,69

@ 5,8 say 'ACCOUNT NO:' get macctno

@ 5,48 say 'CURRENT DATE:' get mtoday

@ 7,8 say "CUSTOMER'S NAME:" get name pict '@!'

@ 9,8 say 'AMOUNT OF DEPOSIT: #'

@ 9,28 get mamount pict '999,999,999,999,999'

@ 9,54 say 'PERIOD:' get mperiod pict '999'

@ 9,66 say 'Months'

@ 11,8 say 'COMMENCEMENT DATE:' get mdate1

@ 11,46 say 'MATURITY DATE:' get mdate2

@ 13,8 say 'INTEREST RATE:' get mint pict '99.9'

@ 13,27 say '%'

@ 13,48 say 'WITH-HOLDING TAX:' get mtax pict '99.9'

@ 13,70 say '%'

clea gets

@ 14,7 to 14,72

```
nodays = mdate2-mdate1
```

mintamt = 0

mintamt = mint/100*inamount*nodays/365

mintamt2 = mtax/100*mintamt

mintamt = round(mintamt, 2)

mintamt2 = round(mintamt2,2)

mamount2 = mamount + mintamt-mintamt2

mdate3 = ctod(' / / ')

@ 15,7 say 'ROLLOVER ITEMS'

@ 16,7 to 16,20

```
@ 17,8 say 'AMOUNT OF DEPOSIT: #'
@ 17,28 get mamount1 pict '999,999,999,999,999'
@ 17,54 say 'PERIOD:' get mperiod1 pict '999'
@ 17,66 say 'Months'
@ 19,8 say 'COMMENCEMENT DATE:' get mdate11
@ 19,46 say 'MATURITY DATE:' get mdate21
@ 21,8 say 'INTEREST RATE:' get mint1 pict '99.9'
@ 21,27 say '%'
@ 21,48 say 'WITH-HOLDING TAX:' get mtax1 pict '99.9'
@ 21,70 say '%'
clea gets
@ 17,8 say 'AMOUNT OF DEPOSIT: #'
@ 17,28 get mamount1 pict '999,999,999,999,999'
@ 17,54 say 'PERIOD:' get mperiod1 pict '999'
@ 17,66 say 'Months'
@ 19,8 say 'COMMENCEMENT DATE:' get mdate11
read
dd = day(mdate11)
mm = month(mdate11)
yy = year(mdate11)
diff1 = 12 - mm
do whil .t.
  if mperiod1>diff1
   if mperiod 1 > = 12
    if mperiod 1 = 12
      yy = yy + 1
      exit
    else
      times = int(mperiod1/12)
      diff2 = mperiod1-times*12
```

and the second

```
yy = yy + times
          if diff2>0
            mm = mm + diff2
           if mm > 12
             mm = mm-12
            yy = yy + 1
           endi
         endi
         exit
        endi
      endi
      mm = mm + mperiod 1
      exit
    endi
    exit
  endd
  dd = ltri(str(dd))
  mm = ltri(str(mm))
  yy = ltri(str(yy))
  mdate 21 = dd + '/' + mm + '/' + yy
 mdate21 = ctod(mdate21)
 @ 19,46 say 'MATURITY DATE:' get mdate21
 clea gets
 @ 21,8 say 'INTEREST RATE:' get mint1 pict '99.9'
 @ 21,27 say '%'
@ 21,48 say 'WITH-HOLDING TAX:' get mtax1 pict '99.9'
@ 21,70 say '%'
read
@ 23,20 say "Press 'S' to SAVE or 'A' to ABANDON:"
do whil .t.
```

Methods and an

choice = ' ' @ 23,59 get choice pict '!' read if choice \$ 'SA' exit endi endd if choice = 'S'repl status with 'CLOSE' ¥ ¥ sele 2 appe blan repl acctno with macctno repl today with mtoday repl surname with msurname repl onames with monames repl caddr with mcaddr repl occup with moccup repl nok with mnok repl amount with mamount repl period with mperiod repl date1 with mdate1 repl date2 with mdate2 repl int with mint repl tax with mtax endi endd clos all clea retu

77

and the second stand with the second second second

REPORT.PRG

do whil .t.

clea

@ 2,15 to 22,64 doub

@ 1,28 to 3,51 doub

- @ 2,29 say ' AFRIBANK NIGERIA PLC '
- @ 5,19 say 'COMPUTERISED FIXED DEPOSIT ACCOUNT SYSTEM'

Second Second

- @ 6,19 to 6,59 doub
- @ 8,28 say 'REPORT GENERATION OPTION'
- @ 9,22 to 19,57
- @ 11,24 say 'A' + spac(9) + 'GENERAL LISTING REPORT'
- @ 14,24 say 'B' + spac(9) + 'MATURED ACCOUNT REPORT'
- @ 17,24 say 'E' + spac(9) + 'E X | T'
- @ 21,27 say 'PICK CHOICE [A, B or E]:'

do whil .t.

choice = ' '

@ 21,52 get choice pict '!'

read

if choice \$ 'ABE'

exit

endi

endd

do case

```
case choice = 'A'
```

do report1

case choice = 'B'

```
do report2
```

othe

exit

endc			
endd			
clea			
retu			