

**COMPUTERISING SAVING ACCOUNTING  
SYSTEM IN A FINANCIAL INSTITUTION  
(A CASE STUDY OF AFRIBANK PLC, MINNA BRANCH).**

**BY**

**JAMES ADESOKAN OJEBODE**

**PGD/MCS/97/98/604.**

**DEPARTMENT OF MATHEMATICS/COMPUTER SCIENCE  
FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA.**

**SEPTEMBER, 2000**

**COMPUTERISING SAVING ACCOUNTING  
SYSTEM IN A FINANCIAL INSTITUTION  
(A CASE STUDY OF AFRIBANK PLC, MINNA BRANCH).**

**BY**

**JAMES ADESOKAN OJEBODE  
PGD/MCS/97/98/604.**

**A PROJECT SUBMITTED TO THE DEPARTMENT OF  
MATHEMATICS/COMPUTER SCIENCE, FEDERAL UNIVERSITY  
OF TECHNOLOGY, MINNA. IN PARTIAL FULFILMENT OF THE  
REQUIREMENTS FOR THE AWARD OF THE POSTGRADUATE  
DIPLOMA IN COMPUTER SCIENCE.**

**SEPTEMBER, 2000**

## **DEDICATION**

Dedicated to my younger brother's children, who lost their mother at their tender age,

They are:

-Segue Egbeyemi

-Funmilayo Egbeyemi

- Olanrewaju Egbeyemi

And my daughter Oyepeju Oyebode.

## **ACKNOWLEDGEMENT**

A special note of appreciation goes to PRINCE R.O.BADUMUS my very good friend and supervisor for his close supervision, invaluable advice and constructive criticism without which this work would have not been a success. My sincere regard to the current Head of department –DR.S. A. Reju.

I am also grateful to professor K.R Adeboye the Dean of School of Science & Science Education who encouraged me to undertake this course. I must also not forget other lecturers in this department who assisted in one way or the other in school.

Also my special appreciation goes to Miss KEHINDE OSIDANRO who typed all the manuscripts.

In addition my special gratitude goes to my immediate boss in the office MR. I. A. Ishola who co-operated throughout the period of my study. To others you have been very wonderful and cooperative. May God bless you all. Bisi Jimoh and Adeshina you have all been very wonderful. You all started it all

Finally I should not undermine the contribution of my colleagues in the class, to everybody however God has used that in one way or the other, I say God's blessing.

## CERTIFICATION

This is to certify that this project work has been successfully carried out under the undersigned individuals

-----

PRINCE R.O.BADUMUS

Project supervisor

-----

Date

-----

DR.S.A.REJU

Head of Dept.

-----

Date

-----

EXTERNAL EXAMINER

-----

## **ABSTRACT**

Here has been a great need for efficient, effective and fast processing of data in all areas of human endeavour today. This has made the use of computer desirable especially in most of our financial institutions and Banks in particular.

It is therefore imperative to develop systems to enable the Banks transact business with less computer usage problems and also to ameliorate fatigues and mistakes on the part of the workers as well as reducing the long time customers usually spend in the banking hall.

No wonder then why Banks remained thoroughly to have invested so heavily in computing and, today is almost totally dependent on the computer.

The computer is necessary because, there is no any other better way today of dealing with large volume of data and information processing. In most instances the computer is sited centrally with terminals, giving them on-line accounting facility and enabling them to interrogate the central system of information on such things as current balances, deposits, overdrafts, interest charges etc. under computer control, customer statements are prepared and printed out onto a specially design hardcopy stationery.

To achieve the stated needs, a Database IV computer program will be developed.

# TABLE OF CONTENTS

Cover page .....	i
Title page .....	ii
Dedication .....	iii
Acknowledgement .....	iv
Certification .....	v
Abstract .....	vi
Table of Contents .....	vii

## CHAPTER ONE

### INTRODUCTION

1.0 Statement of the problems .....	1
1.1 Purpose of the study .....	1
1.2 Limitation .....	1
1.3 General overview of Commercial Banking Section .....	2
1.4 Government Regulation and the Banking Sector.....	2

## CHAPTER TWO

### FEASIBILITY STUDY

2.1 purpose of Feasibility Study .....	4
2.2 Method of Investigation .....	5
2.3 Main Findings .....	5
2.4 Hardware Specification .....	5
2.5 Software Specification .....	6
2.6 Savings Account Operations .....	7
2.7 Cost Versus Benefits, Analysis.....	7

## **CHAPTER THREE**

### **STATEMENT ANALYSIS AND DESIGN**

3.0 Introduction .....	9
3.1 Main Findings .....	9
3.2 Steps for Opening a new account .....	10
3.3 Procedures for withdrawals.....	11
3.4 Interest Calculation .....	13
3.5 Balancing the ledger .....	14
3.6 Closing of savings account .....	15

## **CHAPTER FOUR**

### **SYSTEM DESIGN AND DEVELOPMENT**

4.0 Introduction .....	18
4.1 Updating files and Documents .....	18
4.2 Choice of Programming Language .....	18
4.3 Formats of Documents used .....	19
4.4 Designed System.....	20

## **CHAPTER FIVE**

5.0 Introduction.....	21
5.1 The Programme .....	21
5.2 Training .....	22
5.3 Installation .....	22
5.3.1 Conversions.....	22
5.4 System Maintenance .....	23
5.6 Cost Estimate .....	23

Conclusion .....	23
APP-ENDIX A- AFRIBANK Saving D/base file.....	24
References .....	25

# **CHAPTER ONE**

## **INTRODUCTION**

### **1.0 STATEMENT OF THE PROBLEM**

This project is to design and system using system approach where various sub-systems can be connected for easy access of information. A software (program) using Database Management system is presented for receiving inputs and give output various services, to fulfil the objective of the organisation.

There have existing innovation in computer Technology, Particularly with respect Database Management System and Mini computer technology.

### **1.1 THE PURPOSE OF THE STUDY**

The project is one of most important areas of human endeavour, that is banking where monetary, financial and economic activities of the country is centred focus of all economic activities both for within and outside the country. The writer is of the view that computer application is heavily depended upon in most of our financial institutions efforts are therefore made to ensure that hardware components and software's are made available in term of their trends and cost for the realisation of objective

### **1.2 LIMITATION**

There are various saving account operations available in AfriBank. These are individual or personal savings account, minor or junior Account, Club/unions and society Account.

There are two types of individual accounts i.e. literate and illiterate individual accounts.

The project is therefore limited to the saving Account procedure for the literate persons.

### **1.3 GENERAL OVERVIEW OF COMMERCIAL BANKING IN NIGERIA**

#### **PREAMBLE**

Banking Business started in Nigeria in the year 1894 the British Bank for West Africa (BBWA) was established which took over the African Banking Corporation. In 1912, Barclays Bank was set up and in 1946 the British and French Bank Joined the race. The National Bank of Nigeria was established in 1933.

The African continental Bank, the Nigeria Famous Bank and commercial Bank limited joined race in 1947, 1947 and 1945 respective. Although the industrial and commercial Bank, the Nigeria Merchant Bank were establishment except Nigeria Merchant Bank which collapse after five year i.e. in 1936. This caused some losses to the depositors, which re-emphasised the need to enact legislation controlling the establishment and operation of Banking Business, which had hither-to demanded.

### **1.4 GOVERNMENT REGULATION AND THE BANKING SECTOR**

Although banking business began in Nigeria in the year 1892. there was not until, 1952 any prescribed law or regulation guiding the Banking business. For the initial period of sixty years a free banking era? The banking sector was characterised by domination of

foreign banks as well as establishment of very king and weaker domestic banks which normally collapse one year after establishment as pointed out earlier

The promulgation of central Bank ordinances in 1958 however ushered in the era of central banking, hence the stage was then set for an orderly and rapid development of the Nigeria financial system: the banking ordinance of 1952 was however amended in 1958, 1962 and 1969, respectively the banking act of 1969 remained till 1991 when the central Bank of Nigeria Decree 24 of 1991 were promulgated.

#### **i      BANKING SECTOR AND GOVERNMENT POLICIES**

The evolution of central Banking in 1958 has in particularly been a great tool of Economic development. Section 2? Of the central Bank of Nigeria Decree 24 of 1991 list as one of the objectives of the Central Bank as the promotion of monetary stability and sound financial system in Nigeria. The Central Bank can now act without the presence of other banks through which it applies its policies the monetary policies which, the central bank is charged with formulating are desired to ensure stability in prices, economic growth, and a stable balance of payments.

## **CHAPTER TWO**

### **FEASIBILITY STUDY**

#### **2.1 PURPOSE OF FEASIBILITY STUDY**

Some of the major reasons for embarking on a project are

- a) To solve problems
- b) To capitalise on an opportunity
- c) To respond to a directive or decree.

However, the aim of carrying out a feasibility study in any system development is

(1) to find out facts about an operations of the organisation especially as regard the officers involved, (2) the processes that take place, (3) the problems they face and (4) how the sections or department interact favourably to generate various information's for efficient for efficient and decision making. All the facts collected however, will aid in carrying out the detail investigation and plan how the system can be design for either manual operations with the use of computer.

OBJECTIVES of the study are:.

- a) To determine the cost and benefit of the project
- b) To minimise mistakes of computation
- c) To reduce figures on customers and workers
- d) To improve record keeping.

## **2.2 METHOD OF INVESTIGATION**

The following methods of investigation were used for the project..

- a) Interview: this is a question and answer session. This is an interactive session. This is an session between the writer and some of the officers of the Bank that specialise on savings account and computer operations.
- b) Review of existing documents especially the operational manuals on savings account as used by the bank.
- c) A study is made on the existing system itself by observation that is on both the computer systems available as well as the savings account operations.

## **2.3 MAIN FINDINGS OF THE FEASIBILITY STUDY**

**THE COMPUTER SECTION:** the Bank has already made attempt to computerise its system of transaction generally and savings account system in particular. •

**2.4 HARDWARE SPECIFICATION:** The entire Hardwiring is arranged in form of Local Area Network (LAN) with terminals positioned in various locations especially in the cages for cashiers as well as for saving account officers. The terminals are connected to one another by cables and also to a server located in a separate room. The terminals are at 386 Series while the server is of the 486 series on board but can be increased to a capacity of 586 by replacing some microchips.

The components are of ACER products, which is said to be 1000% IBM compatible with a life span of 15 years.

The two micro computers in the computer room that use 3.5 and 5 1/4 in floppy disk as well as hard disk. One of these connected to a printer, which is a product of output Technology corporation.

The printer is widely is used of for the production hardcopies of the banks daily analysis and periodical reports.

The component are connected to a stabilizer STAVOL MEDEL SVE 100000BS

## **2.5 SOFTWARE SPECIFICATION:**

The Bank proposes to use a software known as BANK ACT it was contracted to the Bank by Act incorporation limited based in Florida in the United state of America.

The software has been installed but an operational problem is encountered, this is probably due to light fluctuation. However a sister Branch in Lagos (Allen Avenue, Ikeja Branch) is currently using the Bank Act software successfully.

Because of the above problems, the computer specialists of the Bank have designed or written an in-house software based on clipper Database Management system.

The clipper is applied as a software for the ledger processes which is the only saving account transaction computerised with this, calculations which are complex in nature are carried out easily and on time.

Other types of softwares used in the Bank are Lotus especially for budgeting and also Wordperfect which is mostly used by secretaries.

## **2.6 SAVING ACCOUNT OPERATIONS**

The savings Account operation is at present done manually except the ledger analysis that is carried out via the software produced in house. The various transaction that takes place via savings operations include among other opening of account, Deposit, withdrawal procedures as well as closure of accounts, and interest charges on each of the accounts.

The documents used for the above transactions are ledger card, passbook signature card, withdrawal and deposit forms as well as Account opening and closer register.

The officer in-charge of the operations are the chasier reference clerks, savings account supervisors, Account and also manager as the case may be. Detail analysis of these are well explained in system analysis of this project.

## **2.7 COST VERSUS BENEFIT ANALYSIS**

The cost of installation of Hardware as well as the procurement of software, other devices and stationeries are all within the reach of the bank.

This is because fund is always made available for the section, moreover the organisation under review is a profit oriented one.

The benefit that can be derived as a result of the computerisation can not be overemphasised since the volume of work to be carried out manually would have been done autocratically, a lot of time is also save while mistakes of various types are minimized.

The training of the staff on the use of and operation of the computer is said to be done in-house, thereby minimising the cost as it had been carried out elsewhere.

From the above findings it could be concluded that the project is economically, technically, socially viable, it is also operationally feasible since there are qualified computer specialists who can operate the machines, write programs and even train others with little or no problems.

## **CHAPTER THREE**

### **SYSTEM ANALYSIS AND DETAIL INVESTIGATION**

#### **3.0 INTRODUCTION**

This chapter specially deals with the major findings as regard the operational procedures of savings accounts in the Bank. Discussions in this regard can be made on the processes that takes place, the documents used as well as the officers in charge of each process.

The project here intends to outline and explain in detail the pricesses involved and how it is been carried out, using data-flow diagrams to illustrate the flow of data for information generation and decision making.

Detail investigation is necessary to enable the project give or analyse the existing system and forward recommendation for system design.

#### **3.1 MAIN FINDINGS**

Account represents a favourable establishment of relationship between the bank and a customer. It is therefore important to obtain necessary document to open an account correctly completed by the customer.

Saving account is a form interest bearing deposits established for a customer, personalised in use and operated through the use of passbook.

Saving account is only limited to individual minors. That is children below the age of 18 years, joint account holders, clubs, union and societies.

This project only discusses the operational procedures for literate individual types of savings account.

### **3.2 STEPS/PROCEDURES FOR OPENING A NEW ACCOUNT**

The reference clerk of the bank interviews the new customer and issue out signature and index card (form 4B) to the customer. This is to make sure that he/she has the minimum amount i.e. 2,000 (two thousand naira) for opening the account.

The clerk collects back the documents and make sure the customers signature on the signature card corresponds with that on the index card. The Clark also collects two recent passports from the customer and attaches each to the reverse side of the two cards.

The clerks pass on all the received documents to the savings account officer who examines and pas on same to the Accountant for permission to open the account. If the approval is granted, the clerk obtains a new passbook and a blank ledger card from the officer in charge of savings and complete the ledger card heading either through typing or manually by neatly written full names address and occupation of the customer with signature first. The clerk also complete the OPEN and CLOSE REGISTER by using the information on the signature card, index card and the passbook and then give a number to the account opened.

The clerk writes the new account number on the spaces provided for savings bank account number of

- (a) Signature/index card
- (b) Ledger card
- (c) Passbook

He writes the passbook number on both the ledger card as well as the signature/index card.

The clerk then passes the passbook, signature/index card to the cashier and informs the customer to make payment of the initial deposit to the cashier after filling the DEPOSIT SLIPFORM.

The cashier receives the money from the customer, record same in the passbook, after which he passes the passbook, deposit form together with the signature/index card to the ledger keeper/machinist.

Using the information on the savings deposit form, the ledger keeper confirms the records of deposits made by the cashier in the passbook and initial the deposit form in the space provided term "Ledger keeper initials"

He passes the passbook, ledger card together with the signature/index card and deposit form to the savings account officer for authentication in the open and close account register.

The savings account officer ensures to authenticate the passport photographs attached to the reverse of the signature card by assigning across over the official stamp.

The ledger card keeper receives back the above-mentioned documents from the officer-in-charge of the savings account after authentication

### **3.3 PROCEDURES FOR WITHDRAWAL OF CASH BY SAVINGS ACCOUNT HOLDERS**

The cashier issue out form 13A (savings account withdrawal form) to the customer for completion of both the amount to withdraw and the signature.

The cashier receive back the completed withdrawal form (form 13A) and passbook from the customer and records the amount required as per withdrawal from on the SAVING BANK BOOK Form 26.

The cashier passes the withdrawal form and passbook to the ledger for processing, who then takes out the signature card and the withdrawal form to ensure that the signature on the withdrawal form agrees with the specimen signature on the signature card.

The ledger keeper applied the signature verified stamp on the withdrawal form and append signature on the space provided on the stamp. In situation where the signature of the customer is not quite in line with the specimen on the signature card, the customer is identified by his/her photograph on the signature card while the officer append "identified by photo" stamp and sign the signature on the column provided on the stamp. The customer is also required to sign again. Using the information provided in the withdrawal form from the ledger keeper brings out the ledger card and compare the balance with the passbook, he ensures that the two are in agreement, and if there is any difference the cause is identified. He records the amount required as on the withdrawal form into the passbook and sign against the posting using the letter 'W' for withdrawal.

He also confirms that the passbook balance recorded after the withdrawal as indicated on the withdrawal form agrees with the ledger and sign the space provided on the withdrawal form. He then passes on the passbook and the withdrawal form to customer, if it is within the limit of the ledger keeper.

For withdrawal beyond the limit of the ledger keeper, he passes the necessary documents to the Senior Officer concern i.e. the Supervisor Accountant or even the Manager as the case may be who has the power to make approval for payments.

The reference Clerk has the power or authority to sign vouchers or forms not exceeding one hundred naira, Saving Account Supervisor ₦5,000.00 while the manager has no limit provided the account is not in debit.

### **3.4 INTEREST CALCULATION AND APPLICATION ON SAVINGS ACCOUNTS**

Afribank give 20% interest rate per annum to its customer, however the Federal Government in the 1994 budget peg the interest rate to 15%. The rate is normally added to the customers balance on the 15<sup>th</sup> of every month provided he/she has not withdraw more than three in the previous month. The interest rate is made applicable as advised by the management.

Procedures for applying interest is as follows:

Using the Ewether 33 Numeric accounting machine, the officer feed the machine with interest program as per operation manual of the machine.

He picks the balance on the account as the 15<sup>th</sup> of the month after inserting the ledger card and the proof sheet.

Truch the interest knob as per operation manual of the machine.

Runs down the machine by touching other correct knobs as indicated by the operation manual.

Repeat the above steps for every account provided withdrawal made on the account by the customer do not exceed three times from the 16<sup>th</sup> day of the previous month.

Cast the ledger with the new balance and obtain a new total to be compared with the control.

He also takes the previous balance of the control for the ledger concerned and adds the new total 9ofg the interest due to ledger as shown on the proof sheet. The figures should agree with the cast figures in step (b).

He then passes the proof sheet together with the ledger for call overrun, call over officer should ensure that the arithmetic accuracy of interest calculation and that interest paid to customer, withdrawal were no more than during the month.

He raises entries as follows:

Debit interest account (passbook and ledger)

Credit the respective ledger control with the total interest figures.

Passes the entries raised to the saving account officers and the accountant for signing and to cashier after signing.

The cashier raises deposit form for the total figure of the interest and treats debit voucher raised in (i) above as cash in cash book.

### **3.5 BALANCING THE LEDGER**

It is expected that savings account ledgers are balanced every month.

Twice in the month at any date savings officer assessing letters to all clerks indicating ledgers to be balanced against their name.

At close of businesses the balancing data clerk take ledger assign to them and carry out the following activities.

Using adding machine, cast the balance on each card in the ledger tray to be blanced .

On finishing the casting the ledger card balances in a tray compare the grand total with the control cards. If the control card have not been posted with the day' transaction, a recoinciliatio0n of the position is made in order to agree with the figures as follows:

Add total of all credit operation of the balancing day from the grand total obtained above, the balance 30 arrived at will now agree with what is obtained on the machine cast and write at the reverse ?ledger? (insert number)?Balance? As At (Insert date) and sign.

The clerk then hand over the machine cast to the saving officer any officer assigned to supervise the balancing exercise.

### **CLOSING OF SAVINGS ACCOUNT**

To close an individual account, the customer needs to write the Manager indicating his/her intention to close the saving account

The procedures for doing this are:-

Verify the signature on the letter and pass to the manager who will interview the customer before approval.

The ledger keeper collects the passbook from the customer and updates the balance so as to agree with the ledger account. He then passes the passbook to the customer and directs him/her to the cashier.

The cashier issues out withdrawal form, for completion and signature of the customer. The total balance on the passbook is to be written on the withdrawal form.

Cashier passes the passbook and duly completed withdrawal form to the ledger keeper for processing.

The ledger keeper brings out the signature card to verify the signature on the withdrawal form and per signature verified stamp on the withdrawal form, and signed on the space provided. In case of the different between the specimen and the one on withdrawal form, use customers photograph on the signature card for identification and put identified by photo on same. then sign on the column provided.

He records the entry in the passbook and initial column marked on the withdrawal form; he ensures a nil balance on the passbook after entry.

He cancels the signature card index card using the cancelling stamp and then stamps same with the account closed stamp. He also records the passbook particulars in the open and close account registry.

The ledger keeper put the signature/index card ledger and passbook and withdrawal slip in the open and close registry and hand over to the saving officer for his signature.

He collects back the same item as above and distribute as follows:

Return the passbook and form to the cashier.

Put aside the signature card/index card and ledger sheet after the day's posting.

He receives the passbook from the cashier after payment has been effected to the customer, staples the signature card, index card together and put them in the passbook.

At the end of the business each day, the ledger keeper hands over all closed account passbooks, signature and index cards to the officer in charge for vetting.

Ledger keeper collects back the same for filling in the close account file and the raise the following entries and pass to the cashier.

Cry Commission account and mark same ?cash? with account closing charge s, cash is to be paid to the cashier by the customer.

## **CHAPTER FOUR**

### **SYSTEM DESIGN AND DEVELOPMENT**

#### **4.0 INTRODUCTION**

From the information about current operations, the next issue is the identification of system requirement which is followed by the formulation of design alternative, that is, recommendation of strategies for designing a new system, the analysis of data collected to consider the capability, control, complexity and information accessibility in the organisation.

Information system design is necessary to specify the logical design for system by describing features such as inputs, outputs, procedures files databases to meet system requirement.

#### **4.1 UPDATING FILE AND DOCUMENTS**

The documents that need updating at intervals in saving account section are the passbook ledger card, cashbook and open/close register. All the documents need to be presented in separate file for easy updating, the interest is normally calculated from a machine, this is used for updating the passbook as well as the ledger card.

#### **4.2 CHOICE OF PROGRAMMING LANGUAGE**

For the Database management system Dbase III+ is chosen for the development because -:

1. The features has the facility for storage and retrieval better than other programming languages

2. It is users friendly: - It is possible to design a program so that even those who know little about the software can operate or use it with no less difficult.
3. Debugging is also very easy as errors are easily shown and can be corrected by the user.
4. It also has the facility for report generating and giving out the hard copy of what is intended for further decision making of the organisation.

#### 4.3 FORMATING OF DOCUMENTS USED IN SAVINGS SECTION

##### CASH REGISTER

ACCOUNT NUMBER	AMOUNT	BROUGHT	AMOUNT
	WITHDRAWAL	FORWARD	DEPOSITED
PASSBOOK FORMAT			

DATE CODES WITHDRAWAL INITIAL DEPOSITED/INTEREST BALANCE

##### LEDGER CARD

CODE	DATE	DEBIT	CREDIT	CD	ACCOUNTNO
------	------	-------	--------	----	-----------

##### OPEN/CLOSE REGISTER FORM

DATE	NAME	PASSBOOK	ACCT	CLOSE	NEW	DORMANT	CLERK	OFFICER
REMARK								

REMARK	NO.	NO	ACCT	ACCT	ACCT	Initial	Initial
--------	-----	----	------	------	------	---------	---------

#### **4.4 DESIGN SYSTEM**

The system is presented in modular form with the main menu consisting of options for programs on account creation, credit and debit account as well as interest. The accounts maintenance submenu also has options. For programs such as ADD a new Account, Delete an Account Edit an account, print a list of Account, the sort and view program as well as statement of account program to present how the transaction are made for an individual savings account holder.

The structure and format file are also presented to take care of the program.

## **CHAPTER FIVE**

### **SYSTEM IMPLEMENTATION AND MAINTENANCE**

#### **5.0 INTRODUCTION**

Successful systems spend the majority of their lives in the hand of their users. After the relative period of development, system are then first implemented and subsequently operated by users who obtain support and guidance from data processing department as required. The task of the management is then to see a smooth transition of the system into operational state and thereafter to maximize the benefits from the implemented system by working with the users to monitor and adjust its performance. Implementation refers to the transition of a system from construction stage to live use.

#### **5.1 THE PROGRAMME**

The program for the project is generally in modules that are; there is an opening menu with options that can be selected to perform the task desired by the user. The opening menu consists of Account creation program as well as Debit, credit and interest. The Account program further has the submenus as programs Adding Records or Account, Editing, Deleting programs and also printing. The actual program is in appendix 4.

## **5.2    TRAINING**

Training of personnel to make use of the installed software can be done in house since the Bank has qualified computer scientist for this purpose.

The in-house training enable the bank to minimize the cost had it been undertaken somewhere else. The category of staff trains as such are the data entry clerk's computer operators as well as librarians.

## **5.3    INSTALLATION**

The terminals are well positioned and connected to the system unit and fast printers via cables, which are of enough lengths.

The computer room is well furnished with carpets, air-conditioned befitting a well-recognised computer centre. There are also stabilizers connected to the computer to regulate the flow of electricity and control its fluctuations.

It is already known that the desire software to be used has some operational problems after installation. This could be due to low current of electricity, quality of the cables or even the Hardware component purchased.

### **5.3.1    CONVERSION**

As mentioned earlier in chapter two of this project the user of the BANK ACT Software constitutes a problem operation. It is therefore necessary to recommend a parallel conversion technique where the manual system of operation can be use side by side with the software (program) developed for this project in Appendix A.

#### **5.4    SYSTEMS MAINTENANCE**

In many Data Processing departments the efforts spend on maintaining a system exceeds all the efforts spent in the earlier phases of developing the system. Maintenance gradually becomes more important as an organization becomes more mature in its use of computers and begins to proliferate information system within its various functions.

#### **5.6    COST ESTIMATE**

Although the Bank is said to have spent over eleven million Naira on both the software and Hardware components. The believe of the writer of this project is that there are possibilities for reducing the above cost by using the qualified computer scientists around in the country especially for writing, developing the software for them at a lower cost of down to two million naira, while the Hardware components can be procured from outside the country at the same cost giving a total of over million naira including delivery, transportation and other expenses.

#### **CONCLUSION**

The need for and important of computer usage can not be over emphasised concerted efforts made by financial institutions especially banks has to go along with data security, maintenance of machinery especially the Hardware, making backups for the software and regular training of personnel and their welfare.

Extra efforts and expenses has to be made because of trends in Hardware configurations and also changes that are likely to be made on software and the used of input and output materials to meet up the desired objectives.

## APPENDIX A

### AFRIBANK

#### SAVING

#### DATABASE FILE

NAME	TYPE	WIDTH	DEC
ACC-NO	NUMERIC	10	0
L-NAME	CHARACTER	12	-
M-NAME	CHARACTER	12	-
F-NAME	CHARACTER	16	-
CONT-ADD	CHARACTER	16	-
AGE	NUMERIC	2	0
SEX	CHARACTER	6	-
DATE	DATE	8	-
WIDE	NUMERIC	9	2
DEPOSIT	NUMERIC	9	2
BAL	NUMERIC	9	2
INT	NUMERIC	9	2

## REFERENCES

- CHANDLER and L.V. (1973 ), The Economics of Money and Banking, 6<sup>th</sup> Edition,  
New York: Harper and Row Publication.
- GUILET B. E. (1976) Operation Research: “A Computer Algorithm approach,”  
Mcgraw Hill, New York.
- HANSON D. G. (1979) Service Banking: A compentary of Bank services in the U.K.  
Institute of Bankers, London.
- HARDLEY G. “Linear Programming” Addison Wesley Publishing Company  
Incorporated London.
- HOLDEN and MILNES, J. (1982) Law and Practice of Banking Vol. 1, 3<sup>rd</sup> Edition,  
English Language Book Society & Pitman
- NESTON and FRED J., (1978) Personnel Management Illinois: The Dyden Press
- OSUALA E. C. (1985) Introduction to Research Methodology, Onitsha:  
Africana FEP Publishers.
- PERRY, F. E. (1977) The Elements of Banking, 2<sup>nd</sup> Edition, London: Methuen and Co.,
- SAMUELSON and PAUL A. (1980) Economics, 11<sup>th</sup> Edition, New York  
Mcgraw-hill International book Company,
- VALENTINE, et al (1981) Business and Management Studies: Banking, Great Britain:  
Hodder and Stoughton,

```

*PROGRAMME      :   AFRIBANK SAVING ACCOUNTING SYSTEM
*AUTHOR         :   OJEBODE JAMES ADESOKAN
*SCHOOL         :   SCHOOL OF SCIENCE AND SCIENCE EDUCATION
*               :   FEDERAL UNIVERSITY OF TECHNOLOGY MINNA

```

```

* * * PROGRAM      :   MAIN MENU .PRG
*MAIN PROGRAMM DISPLAY MAIN MENU

```

```

=====

```

```

SET TALK OFF
SET ECHO OFF
MT = 0
DO WHILE .T.
SET COLOR TO

```

```

        STORE SPACE (4) TO PASSWORD
        @9, 10 TO 11, 35 DOUBLE
        @10, 13 SAY "ENTER PASSWORD"
        SET COLOR TO N.N.W.W.
        @10, 29 GET PASSWORD PICT "@!"
            read
            set color to
            IF PASSWORD = "CITY"
                EXIT
            ENDIF
        IF MT = 3
            QUIT
            MT = MT + 1

```

```

    ENDDO

```

```

*CHOICE - SPACE (1)
* DO WHILE .T.
* @

```

```

        DO WHILE .T.
            STORE SPACE (1) TO CHOICE
            CLEAR
            @1, 0 TO 18,56 DOUBLE
            SET COLOR TO
            SET COLOR TO GR+/R,W/R,GR

```

```

@1,2 SAY "*****"
@2,2 SAY "*****  MAIN MENU PROGRAMME
@3,2 SAY "*****"
@4,2
@5,2 SAY "          TASK CODE          TASK
@6,2
@7,2 SAY "          A          CREAT A NEW ACCOUNT
@8,2
@9,2 SAY "          B          DEPOSIT ACCOUNT
@10,2 SAY

```

```

@11,2 SAY "          C          WITHDRAWALE
@12,2 SAY
@13,2 SAY "          D          CALCULATE AND ADD INTEREST
@14,2          @15,2 SAY "          E          STATEMENTS
@16,2
@17,2 SAY "          F          QUIT"

WAIT "ENTER YOUR CHOICE [A..E]  [TYPE IN TASK CODE]" TO CHOICE

      *      IF CHOICE <> " "
      *          EXIT
      *      ENDIF
* ELSE
  DO CASE
    CASE UPPER (CHOICE) = "A"
      DO NEW
    CASE UPPER [CHOICE] = "B"
      DO DEPOSIT
    CASE UPPER [CHOICE] = "C"
      DO WIDR
    CASE UPPER [CHOICE] = "D"
      DO INT
    CASE UPPER [CHOICE] = "E"
      DO SMT
  CASE UPPER [CHOICE] = "F"
    RETURN
  OTHERWISE
    LOOP
ENDCASE
ENDDO
      SET ECHO ON
      SET TALK ON
RETURN
***** ENDO OF MAIN MENU PROGRAM *****
=====

```

```

* * * PROGRAM      :      NEW.PRG
* PROGRAM TO OPEN A NEW ACCOUNT TO A CUSTOMER
*   AUTHOR   :      OJEBODE JAMES ADESOKAN
* DATE WRITTEN   :      11/02/2000
      SET TALK OFF
          SET ECHO OFF
              USE SAVING

DO WHILE .T.
      STORE TO MAMT
      CLEAR
@10,10 TO 12,45 DOUBLE
      SET COLOR TO W/B+
@3,11 SAY "IS THE OPENING BALANCE UPTO ONE THOUSAND NAIRA?(Y/N)"
@3,63 GET PROMPT PICT "Y"
READ
      IF PROMPT
CLEAR
@2,3 TO 16,66 DOUBLE
SET COLOR TO W/G+
@3,19 SAY "NEW ACCOUNT ENTRY FORM"
@4,18 SAY REPL ("=",25)
*WAIT
*@4,3 TO 16,66 DOUBLE
*SET COLOR TO W/G+

@5,4 SAY "ENTER CUSTOMERS FIRST NAME"
@5,50 GET MF_NAME PICT "@"!
@7,4 SAY "ENTER CUSTOMERS MIDDLE NAME"
7,50 GET MM_NAME PICT "@"!
@9,4 SAY "ENTER CUSTOMERS LAST NAME"
@9,50 GET ML_NAME PICT "@"!
@11,4 SAY "ENTER CURRENT DATE"
@11,50 GET MDATE PICT "99/99/99"
@13,4 SAY "ENTER THE OPENING BALANCE"
@13,55 GET MAMT PICT "9999.99"
@15,4 SAY "ENTER THE NEW ACCOUNT NUMBER"
@15,50 GET MACCT_NO
READ
@ENDIF
@ELSE
@CLEAR
@11,15 TO 13,55 DOUBLE
@SET COLOR TO W/B+
@12,16 SAY "THE CUSTOMER CAN NOT OPEN THE ACCOUNT"

@16,6 SAY "ARE ALL ENTERIES CORRECT: (Y/N)?"
@16,39 GET PICT "Y"
READ

```

```

IF ANS
@CLEAR
@18,5 SAY "YOU HAVE OPEN A NEW ACCOUNT"
ENDIF
ENDIF
ELSE
CLEAR
    @10,5 to 12,48 double
    @11,6 SAY "THE CUSTOMER CAN NOT OPEN THE ACCOUNT"
    WAIT
    MORE = .t.
    @10,8 SAY "OPEN MORE ACCOUNTS :(Y/N)"
    @10,31 GET MORE PICT "Y"
    IF MORE
        LOOP
    APPEND BLANK
    REPL F_NAME WITH MF_NAME,M_NAME WITH MM_NAME,L_NAME WITH
    ML_NAME,AMT WITH MAMT
    REPL ACCT_NO WITH MACCT_NO,DATE WITH MDATE
    @10,30 TO 12,58 DOUBLE
        *SET COLOR TO W/G+
        *@10,31 SAY "YOU HAVE OPENED AN ACCOUNT"
    ELSE
        EXIT
    ENDIF
ELSE
ENDDO
    SET TALK OFF
    SET ECHO OFF
    SET STATUS OFF
    RETURN

```

\* \* \* \* \* THIS IS THE END OF ACCOUNT PROGRAM \* \* \* \* \*

\* \* \* \* \* THIS IS THE END OF NEW ACCOUNT PROGRAM \* \* \* \* \*

```

* * * PROGRAM WIDR.PRG * * *
* THIS PROGRAM IS TO DEBIT THE ACCOUNT OF A CUSTOMER *
* AUTHOR : OJEBODE JAMES ADESOKAN
* DATE WRITTEN : 18/02/2000
    SET TALK OFF
    SET ECHO OFF
    SET STATUS OFF
    STORE SPACE (7) TO AMT
    STORE SPACE (12) TO FNAME,MNAME,LNAME
    STORE SPACE (4) TO ACCT_NO
    STORE SPACE (1) TO RESP
    BAL = 000.00
    STORE SPACE (8) TO UPDATE
    USE SAVING
    DO WHILE .NOT. EOF()
        CLEAR
    @12,10 TO 14,48 DOUBLE
        SET COLOR TO W/R*
    @13,11 SAY "DO YOU KNOW THE ACCOUNT NUMBER OF THE CUSTOMER: (Y/N)"
    @13,60 GET RESP PICT "9"
    READ
        IF UPPER (RESP) + "N"
            CLEAR
    GO TOP
        ACCEPT "ENTER CUSTOMERS L_NAME..." TO LNAME
        ACCEPT "ENTER CUSTOMERS F_NAME..." TO FNAME
        SKIP
        IF FOUND()
            CLEAR
    @12,9 TO 14,23 DOUBLE
        SET COLOR TO
        SET COLOR TO G/W+
    @13,10 SAY " * * * * RECORD FOUND * * * * "
        ENDIF
        END IF
        ELSE
    @14,10 SAY " * * * * RECORD FOUND * * * * "
        CLEAR
    @12,10 TO 14,42 DOUBLE
        SET COLOR TO
        SET COLOR TO W/G+
    @13,11 SAY " ENTER THE ACCOUNT NUMBER:"
    @13,36 GET ACCT_NO PICT "999"
        WAIT
    CLEAR
        @13,15 TO 15,53 DOUBLE
        SET COLOR TO
    SET COLOR TO R/W+
    @14,16 SAY " WHAT IS THE AMOUNT TO DEBIT:"
    @14,45 GET AMT PICT "9999.99"
        READ

```

```

BAL = OPEN - AMT
  REPLACE BAL WITH VAL(BAL)
  REPLACE DATE WITH CTOD DATE ()
  REPLACE F_NAME WITH FNAME
  REPLACE L_NAME WITH LNAME
CLEAR
@7,10 TO 23,70 DOUBLE
  SET COLOR TO B/W+
  USE SAVING
@8,12 SAY " FIRST NAME : "
@8,30 GET F_NAME
@10,12 SAY " MIDDLE NAME : "
@10,30 GET M_NAME
@14,12 SAY "CONTACT ADDRESS : "
@14,30 GET CONT_ADD
@16,12 SAY " HOME ADDRESS: "
@16,30 SAY GET HM_ADD
@18,12 SAY " OPENING BALANCE: "
@18,30 GET OPEN PICT "9999.99"
@20,12 SAY " DATE LAST UPDATE : "
@20,30 GET UPDATE PICT CTOD DATE()
@22,30 GET BAL PICT "9999.99"
  WAIT
CLEAR
@14,3 TO 16,50 DOUBLE
  SET COLOR TO
  SET COLOR TO B/W+
@15,4 SAY " DO YOU WANT TO DEBIT MORE ACCOUNTS :(Y/N)?"
@15,48 GET RESP PICT "9"
  IF UPPER (RESP) = "N"
    EXIT
  END IF
  ELSE
    LOOP
SET TALK OFF
  SET STATUS OFF
RETURN
***** THIS IS THE END OF DEBIT PROGRAM *****

```

\* \* \* PROGRAM INT.PRG \* \* \*

\* THIS PROGRAM CALCULATES INTEREST FROM DATABASE FILE

\* AUTHOR : OJEBODE JAMES ADESOKAN

\* DATE WRITTEN : 13/03/2000

DLEAR  
SET TALK OFF  
SET ECHO OFF  
SET STATUS OFF  
STORE SPACE (7) TO BAL  
ANS = SPACE (1)

TEXT

THIS PROGRAM CALCULATES THE INTEREST OF AN INDIVIDUAL  
ACCOUNT HOLDER ON THE 15TH OF EVERY MONTH AND ON  
CONDITION THAT THE ACCOUNT IT NOT DOMANT AND THAT  
HE/SHE HAS NOT TAKEN FROM THE ACCOUNT UP TO THREE  
TIMES WITHIN THE MONTH.

ENDTEXT

DO WHILE .T.  
CLEAR  
@9,5 TO 11,34 DOUBLE  
SET COLOR TO R/W\*  
@10,6 SAY "IS THE ACCOUNT DORMANT:(Y/N)?"  
@10,32 GET ANS PICT "9"  
READ  
IF UPPER (ANS) = "N"  
EXIT  
ENDIF  
ELSE  
CLEAR  
@20,5 SAY "HAS THE CUSTOMER WITHDRAWN UP TO THREE TIME THIS MONTH:(Y/N)"  
@20,75 GET ANS PICT "9"  
READ  
IF UPPER (ANS) = "Y"  
CLEAR  
@14,5 TO 16,43 DOUBLE  
SET COLOR TO  
SET COLOR W/G\*  
@15,6 SAY "THE CUSTOMER CAN NOT CALIM INTEREST"  
ENDIF  
ELSE  
WAIT  
CLEAR  
RATE = 0.017  
@14,3 SAY "ENTER CUSTOMERS BALANCE"  
@14,28 GET BAL  
READ  
INT=ROUND(RTAE \* BAL ,2)  
WAIT "DO YOU WANT TO UPDATE THE ACCOUNT : " TO ANS  
IF UPPER (ANS) = "Y"

```

CLEAR
@12,5 TO 14,35 DOUBLE
    SET COLOR TO G/W*
@12,6 SAY "THIS IS WORKING AREA"
    SELECT A
    USE SAVINGS INDEX ON BAL
    SELECT B
    USE INT
    BAL = -> BAL + INT,
    APPEND TO SAVING
CLOSE DATABASE
CLOSE ALL
ENDIF
ENDDO
    SET ECHO ON
    SET TALK ON
    SET STATUS ON
RETURN
***** THIS IS THE END OF INTEREST PROGRAM *****

```

```

* * * * STATEMENT OF ACCOUNT PROGRAM * * * *
* THIS PROGRAM GIVE THE CUSTOMERS STATEMENT OF ACCOUNT
* AUTHOR : OJEBODE JAMES ADESOKAN
* DATE WRITTEN : 17/02/2000
  SET TALK OFF
  SET ECHO OFF
  SET STATUS OFF
  DO WHILE .T.
    clea
    ACT = 0
    @10,16 TO 12,72 DOUBLE
    @11,22 SAY "ENTER THE CUSTOMERS ACCOUNT NUMBER" FET ACT
    READ
    USE TRANS
    LOCATE FOR ACCT_NO = ACT
    IF .NOT. FOUND()
      @14,25 SAY "NO SUCH ACCOUNT"
      WAIT " "
    LOOP
  ENDIF
  A=0
  @4,15 SAY "AFRIBANK INDIVIDUAL STATEMENT OF ACCOUNT"
  @5,15 SAY REPLI('=',46)
  @6,4 SAY "DATE"
  @6,14 SAY "ACCT/NUMBER"
  @6,29 SAY "WITHDRAWALS"
  @6,45 SAY "INTEREST"
  @6,59 SAY "DEPOSIT"
  @6,67 SAY "BALANCE"
  @7,4 SAY REPLI("=",70)
  A = A+8
  GO TOP
  DO WHILE .NOT. EOF()
    @A,4 SAY DATE
    @A,14 SAY ACCT_NO
    @A,29 SAY WIDR
    @A,41 SAY INTEREST
    @A,57 SAY DEPOSIT
    @A,65 SAY BAL
    A=A+1
  SKIP
  ENDDO
  WAIT
  EXIT
  ENDDO
  SET TALK ON
  SET ECHO ON
  SET STATUS ON
  RETURN

```

TEXT THE ACCOUNT MAINTENANCE SUBMENU PROGRAM

```
=====
TASK CODE                                TASK
=====                                =====
A                                       TRANSACTION
D                                       DELETE AN ACCOUNT
E                                       EDIT AN ACCOUNT
P                                       PRINT A LIST OF ACCOUNTS
S                                       SORT ACCOUNTS
V                                       VIEW ACCOUNTS
Q                                       QUIT,RETURN TO MAIN MENU
```

ENTER YOUR CHOICE [ TYPE IN TASK CODE ]

=====

ENDTEXT

\* \* \* \* PROGRAM : ACCTMENU.PRG \* \* \* \* \*

\* PROGRAM TO DISPLAY ACCOUNT MAINTENANCE SUBMENU

\* AUTHOR : OJEBODE JAMES ADESOKAN

\* DATE WRITTEN : 12/02/2000

SET TALK OFF

SET ECHO OFF

STORE " " TO CHOICE

DO WHILE .T.

CLEAR

@2,5 TO 22.56 DOUBLE

SET COLOR TO W/R+

@3,10 SAY" =====

@4,10 SAY" ACCOUNT MAINTENANCE SUBMENU

@5,10 SAY" =====

@6,10 SAY" TASK CODE TASK

@7,10

@8,10 SAY" A TRANSACTIONS

@9,10

@10,10 SAY" D DELETE AN ACCOUNT

@11,10

@12,10 SAY" E EDIT AN ACCOUNT

@13,10

@14,10 SAY" P PRINT A LIST OF ACCOUNT

@15,10

@16,10 SAY" S SORT ACCOUNTS

@17,10

@18,10 SAY" V VIEW ACCOUNTS

@19,10  
@20,10 SAY" Q  
WAIT

QUIT, RETURN TO MAIN MENU

WAIT "ENTER YOUR CHOICE (TYPE IN TASK CODE))" TO CHOICE  
DO CASE  
CASE UPPER (CHOICE) = "A"  
DO ADDACCT  
CASE UPPER (CHOICE) = "D"  
DO DELTACCT  
CASE UPPER (CHOICE) = "E"  
  
CASE UPPER (CHOICE) = "P"  
DO PRINTACCT  
CASE UPPER (CHOICE) = "S"  
DO SORTACCT  
CASE UPPER (CHOICE) = "V"  
DO VIEWACCT  
CASE UPPER (CHOICE) = "Q"  
RETURN  
OTHERWISE  
LOOP  
ENDCASE  
ENDDO  
SET TALK ON  
SET ECHO ON  
RETURN  
\*\*\*\*\* THIS IS THE END OF ACCOUNT SUBMENU PROGRAM \*\*\*\*\*  
=====

```

* * * PROGRAM EDITACCT.PRG
* THIS PROGRAM EDIT AN ACCOUNT IN THE DATABASE FILE
* AUTHOR : OJEBODE JAMES ADESOKAN
* DATE WRITTEN : 17/02/2000

    SET TALK OFF
    SET ECHO OFF
    SET STATUS PFF
USE SAVINGS INDEX ON ACCT_NO ,L_NAME
    SAVENTER =.T.
DO WHILE SAVENTER
    CLEAR
    @4,20 TO 6,50 DOUBLE
        SET COLOR TO G/W*
    @5,21 SAY "RETRIEVE AN ACCOUNT BY ACCT_NO"
        KEY = SPACE (4)
    @10,10 TO 12,25 DOUBLE
    @11,11 SAY "ENTER ACCT_NO"
    11,24 GET KEY PICT "9999"
        READ
        IF KEY = SPACE (4)
            EXIT
        ENDIF
    SEEK TRIM(KEY)
        IF FOUND()
            SET FORMAT TO SAVINGS
            READ
        CLOSE FORMAT
        ELSE
            WAIT " * * * * * NOT FOUND * * * PRESS ANY KEY TO CONTINUE"
        ENDIF
ENDDO
    CLOSE DATABASE
    CLOSE ALL
SET TALK ON
    SET ECHO ON
SET STATUS ON
RETURN
* * * * * THIS IS THE END OF EDIT PROGRAM * * * * *

```

```

* * * * PROGRAM : DELTACCT.PRG
* THIS PROGRAM IS TO DELETE AN ACCOUNT IN THE DATABASE FILE
* AUTHOR OJEBODE JAMES ADESOKAN
    SET TALK OF
    SET ECHO OFF
    SET STATUS OFF
PUBLIC ACCTFOUND
    ACCTFOUND = .T.
    CLEAR
@10,0
    ACCEPT "ENTER THE ACCOUNT NUMBER :" TO ACCTNO
    * FIND THE ACCOUNT NUMBER
USE SAVING
    DO WHILE .NOT. EOF()
    MORE = SPACE (1)
    LOCATE FOR ACCT-NO = ACCTNO
    IF FOUND()
    CLEAR
    @12,5 TO 14,23 DOUBLE
    @13,6 SAY "THE ACCOUNT EXIST"
    ACCTFOUND = .F.
    ELSE
    *DELETE THE ACCOUNT
    DELETE
    PACK
    @10,2 TO 12,30 DOUBLE
    @11,3 SAY "THE ACCOUNT HAS BEEN DELETED"
    CLEAR
    13,6 TO 15 15,41 DOUBLE
    SET COLOR TO B/W+
    @14,7 SAY "DO YOU WANT TO DELETE MORE ACCOUNT:(Y/N)?"
    @14,48 GET MORE PICT "9"
    IF UPPER (MORE) = "N"
    EXIT
    ENDIF
    ELSE
    LOOP
    ENDDO
    SET TALK ON
    SET ECHO ON
    SET STATUS ON
    RETURN
* * * THIS IS THE END DELTACCT PROGRAM * * *

```

```

* * * PROGRAM SORT.PRG * * *
* THIS PROGRAM IS TO SORT DATA BY A GIVEN KEY FIELD
* AUTHOR : OJEBODE JAMES ADESOKAN
* DATE WRITTEN : 12/02/2000
    SET TALK OFF
    SET ECHO OFF
    SET STATUS OFF
    DO WHILE .T.
CLEAR
@2,15 TO 17,50 DOUBLE
SET COLOR TO
SET COLOR TO W/R+
PROMPT = 0
@3,20 SAY "SORT ACCOUNT PROGRAMME"
@4,19 REPL ("=",25)
@5,20 SAY "1: ACCOUNT NUMBER"
@6,20
@7,20 SAY "2: LAST NAME"
@8,20
@9,20 SAY "3: MIDDLE NAME"
@10,20
@11,20 SAY "4: SEX"
@12,20
@13,20 SAY "SELECT YOUR OPTIONS..."
@13,44 GET PROMPT PICT "9"
    READ
        DO CASE
            CASE PROMPT = "1"
                USE SAVING
                SORT ON ACCT_NO TO CAT.DBF
                USE
                ERASE SAVING.DBF
                RENAME CAT.DBF TO SAVING.DBF
                USE
                CASE PROMPT = "2"
                    SORT ON L_NAME TO CAT.DBF
                    ERASE SAVING.DBF
                    RENAME CAT.DBF TO SAVING CAT.DBF
                    CASE PROMPT = "3"
                        SORT ON M_NAME TO CAT.DBF
                        USE
                        ERASE SAVING.DBF
                        RENAME CAT.DBF TO SAVING.DBF
                        USE
                        CASE PROMPT = "4"
                            USE SAVING
                            SORT ON SEX TO CAT.DBF
                            USE
                            ERASE ON SEX TO CAT.DBF
                            USE
                            ERASE SAVING.DBF

```

```
RENAME CAT.DBF TO SAVING.DBF
  USE
  CLEAR
  ENDCASE
ENDDO
  SET TALK ON
  SET ECHO ON
  SET STATUS ON
RETURN
```

```

* * * PROGRAM VIEW.PRG * * *
* THIS PROGRAM IS TO VIEW AN EXISTING ACCOUNT
* AUTHOR : OJEBODE JAMES ADESOKAN
* DATE WRITTEN : 11/02/2000
CLEAR
SET TALK OFF
SET ECHO OFF
SET STATUS OFF
SET EXACT ON
  USE SAVING
    STORE SPACE (4) TO ACCT
    STORE SPACE (1) TO ANS
* ASK FOR THE ACCOUNT NUMBER OF THE CUSTOMER
  DO WHILE UPPER (ANS) = "Y"
    CLEAR
    @2,5 TO 4,62 DOUBLE
    SET COLOR TO W/B+
    @3,6 SAY "DO YOU KNOW THE CUSTOMERS ACCOUNT NUMBER: (Y/N)?"
    @3,60 GET ANS PICT "9"
    CLEAR
    @6,3 TO 8,38 DOUBLE
    SET COLOR TO G/W+
    @7,4 SAY "ENTER THE CUSTOMERS ACCOUNT NUMBER:"
    @7,37 GET ANS PICT "9"
    ENDIF
  ELSE
    CLEAR
*ASK FOR NAMES TO VIEW AS APPROPRIATE
    ACCEPT 'VIEW WHOM ?(L_NAME)" TO WHOM
    CONT FOR UPPER (L_NAME) = UPPER (WHOM) TO WHOMS
* IF NO SUCH PERSON, WARN
    IF WHOMS = 0
      @5,0
      @6,1 SAY "THERE IS NO &WHOM IN THE DATABASE"
      ENDIF
* IF THERE IS ONE PERSON WITH THAT NAME. EDIT
      IF WHOMS = 1
        LOCATE FOR UPPER (L-NAME) = UPPER (WHOM)
        EDIT RECNO()
        ENDIF
* IF THERE IS MORE THAN ONE PERSON WITH THAT LAST NAME
* DISPLAY AND GET THE RECORD NUMBER
      IF WHOMS > 1
        @7,2
        LIST FOR UPPER (L_NAME) = UPPER(WHOM) L_NAME ,H_ADD
        ACCEPT "WHICH ONE BY (RECORD NUMBER):" TO RECNO
        EDIT &RECNO
        ENDIF
* * * * ASK MORE NAMES TO VIEW
      @10,0
      ACCEPT "VIEW MORE NAMES ?:(Y/N) TO ANS

```

```
CLEAR
  IF UPPER (ANS) = "N"
    EXIT
  ENDIF
ENDDO
SET EXACT OFF
SET TALK ON
  SET ECHO ON
  SET STATUS ON
RETURN
```

```

*** PROGRAM PRINT.PRG ***
* THIS PROGRAM PRINT A LIST OF ACCOUNTS IN THE DATABASE FILE
* AUTHOR : OJEBODE JAMES ADESOKAN
8 DATE WRITTEN : 16/02/2000

SET TALK OFF
SET ECHO OFF
SET STATUS OFF
CLEAR
  @8,1 SAY
WAIT "ENTER THE RANGE OF THE ACCOUNT NUMBER TO PRINT"
  DO WHILE .NOT.EOF()
    CLEAR
  @10,2 SAY "BEGINING ACCT_NB MUST BELONG TO AN EXISTING ACCOUNT"
  @11,1 SAY " "
  ACCEPT "ENTER : BEGINING ACCT_NB ..." TO BCODE
  @12,1
  ACCEPT "ENTER: ENDING ACCT_NB ..." TO ECODE
  @14,1 SAY " "
  WAIT "TURN ON AND ALIGN THE PRINTER,STRIKE ANY KEY BEGIN PRINTING"
    USE SAVING
    INDEX ON ACCT_NO TO KEYCODE
  SEEK BCODE
  SET PRINT ON
  DO WHILE ACCT_NO >= BCODE .AND. ACCT_NO <= ECODE
    ? SPACE ( ) + ACCT_NO
    ? SPACE ( ) + CONT_ADD
    ? SPACE ( ) + TRIM(L_NAME)+ "," +F_NAME, +" " M_NAME
    SKIP
  ENDDO
  ENDDO
  ENDDO
  SET PRINT OFF
  CLOSE INDEX
  ERASE KEYCODE_INDEX
  SET ECHO ON
  SET STATUS ON
  RETURN
***** THIS IS THE END OF THE PRINT PROGRAM *****

```