COMPUTERISED SAVINGS ACCOUNT IN ACOMMERCIAL BANKING INSTITUTIONS

(A CASE STUDY OF UBA PLC MINNA)

BY

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PGD/MCS/049/96

A PROJECT SUBMITTED TO THE DEPARTMENT OF MATHEMATICS/STATISTICS/COMPUTER SCIENCE FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA IN PARTIAL FULFILLMENT FOR THE AWARD OF POST GRADUATE DIPLOMA IN COMPUTER SCIENCE

DECEMBER, 1999

DEDICATION

This project is dedicated to my family and indeed the manager of UBA Plc Minna, Alhaji M. M. Lawal who has made it possible for me to attend the course. It is also dedicated to my wife Mrs Alice Dayo Àkande for her inspiration, motivation and encouragement to undertake the course.

CERTIFICATION

This project **"Computerised Savings Account in a Commercial Banking Institution** *(A case study of UBA PLC Minna)*," IS THE WORK OF SUNDAY AKANDE, to fulfill the requirement for the award of post Graduate Diploma in Computer Science. It has been never submitted elsewhere for the same or similar purpose.

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ACKNOWLEDGEMENT

My Appreciation goes to my supervisor Mr. L. N. Ezeakor a lecturer in Computer Department, FUT Minna and also the Head of the Department of Mathematics/Statistics/Computer Science Federal University of Technology Minna. I also appreciate the assistance of Mr. Kola Raheem and Prince R.O. Badmosi whose valuable contributions are too numerous to mention.

DECLARATION

I, Sunday Akande hereby declare that this project is entirely my personal efforts and has never been submitted elsewhere for the award of a certificate or degree.

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ABSTRACT

There has been a great use for efficient effective and first 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 them (BANKS) transact business with little problems and also to ameliorate fatigues and mistakes in the part of the workers as well as reducing the long time customer would have to stay in waiting for attention.

The proliferation of banks in the country has led to a lot of competition among them and computer usage is always to draw the attention of customers which is their paramount desire, hence it is given enormous priority.

Banks were among the first large organisations to invest heavily in computing and today banking is almost totally dependent on the computer. The computer is necessary because, there is no other better way 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 balance deposits, overdrafts, interest charges etc.Under computer control, customer statement are prepared and printed out into a specially design hard copy stationery.

CHAPTER ONE

1.0 INTRODUCTION

1.1 AIMS, OBJECTIVES AND PROJECT INITIATION

This project is aimed at studying the existing saving in the banking sector using UBA Plc. Minna; a Commercial Bank as a case study with the aim of improving it through better procedures and methods. This project is geared towards establishing the fact that improvement can be made on some services offered by the banking sector through the use of computer as a means of speeding up transactions. The fact that a project must be done to fulfill the requirements for obtaining a post graduate diploma in computer science.

Also during the course of the lecture, exposure of System Analysis and Design was taken. How system can be developed to complement or change existing system for better performance.

It is evidence that some banks still experience a lot of delay and congestion in the baking hall.

The introduction of computer will drastically reduce time wasting in the bank and enhance better result oriented performance.

1.2 HISTORICAL OVERVIEW OF UBA PLC MINNA

Minna branch of the bank commenced operation in March 1981 and with its Head Office in Broad Street Lagos. The bank offers full range of commercial banking transactions ranging from accepting deposits, accepting safe keeping, opening of fixed deposit account with negotiable interest rate. The bank also gives valuable advice to would be investors.

1.3 ORGANISATION CHARTS

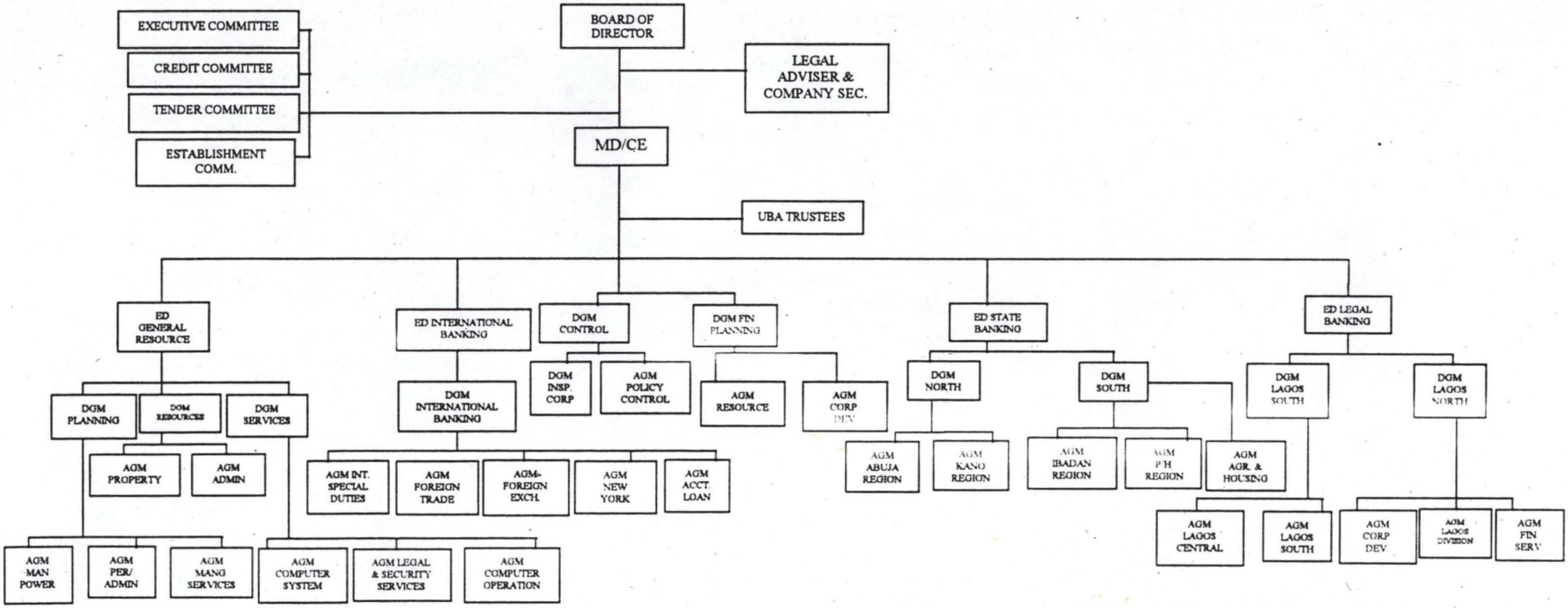
Before March 1980, the bank's General Management responsible for policy formulation was made up of the Executive Vice Chairman, the Managing Director, the deputy General Manager Commercial, the Deputy General Manager Administration and the Company Secretary and Legal Adviser.

This structure shows that the General Management was loosely defined. There were departments within departments without a standardisation of the category of staff who should head them. For example, there was a time the personnel department was head by an Assistance General Manager and the Legal Department by a staff who was not his hierarchical peer.

The General Management was reconstituted. It was made up of the Managing Director and Chief Executive, Executive Director, Commercial Division, Executive International Division, Executive Director, Personnel and Administration Division and Executive Director, Management Services Division. The re-structuring saw the creation of division headed by

Executive Directors. Following the deliberation and recommendations of this re-organistion committee, the General Management has now approved the new organisational structure which has sought to also decentralised some functions hitherto to concentrated in certain head office divisions. A key feature of the new structure is the creation of sub-sector headed by the Deputy General Managers and Regional Offices headed by Assistant General Managers with increased power. All these new facilities in the recently adopted structure are aimed at quicking decision making and improving efficiency in the bank's operations.

UBA ORGANISATION CHART



1.4 PROBLEMS CONFRONTING SAVINGS ACCOUNT

Operations in a commercial banking system and the imperative to computerised such operations. The manual system is currently used in the savings department which causes a lot of congestion in the banking hall. A lot of branch were to be provided to enable consumer sit down for endless hours waiting for their turn.

It is also not easy for the paying and receiving cashier during the salary period, the cashier get tensed up this leading to mistakes of overpayment. There are times when the salary will not enter their ledger card based on previous salary thus creating overdrawing of account.

There is also the problem of lack of adequate privacy and security for customers accounts because individual ledger cards stored in trays can easily be tampered with by members of staff since they can easily assess them.

It also takes time to find signature cards for reference purpose. At times the signature cards are misplaced thus leading to delay of customers. There are times when the passport size photograph peel off from the card.

It also takes some times to update the ledger cards, passport to compare balance and add interest. It does the deny the customer of getting first hand information about their account.

There is also problems of machining the balances on the ledger cards and compare it with the control ledger card, during the interest application and after.

There is also delay in withdrawing from savings account, ledger cards, signature cards must be found and this will pass through four officers before it finally gets to the paying cashier.

From the above, it seem that current system is facing some problem of speed, storage inaccuracy, security, data duplication, which computer will go a long way to ease thus the computerisation of the savings department is recommended because it has a lot of benefits it can offer like the ability to calculate and process data more quickly with high degree of accuracy if properly programmed. Its reliability, storage facilities, volume of transaction it can process wide applicability.

1.5 SIGNIFICANCE OF THE STUDY

This enables to review the manual operations carried out in the banking system which seems to delay the customer and waste their time by queuing up for hours. The impact and benefits of computerisation ca be viewed from two dimensions. To the customer, it has provided him quality and prompt services while management of the bank has better decision tools and improved internal control system. Management efficiency is improved with the provision of better prompt and accurate report.

CHAPTER TWO

2.0 AN OVERVIEW OF THE BANKING SECTOR

2.1 TYPES OF BANKING ESTABLISHMENTS

There are different types of bank established in Nigeria. Some of them operates on small scale while other mode of operations are on large scale.

2.2 TYPES OF BANK

i. Central Bank

ii. Commercial Bank

iii. Merchant Bank

iv. Development Bank

v. Mortgage Bank

vi. Peoples Bank

In Nigerian banking sector, series of banks exist with different aims and objectives. The following are the various types of banks and the first four will be discussed.

The Central Bank of Nigeria as the apex bank come to existence to break the monopoly on the commercial banks. The Central Bank of Nigeria was established by the ordinances of 1955 and it commenced business on 1st July, 1959. The main focus of Central Bank of Nigeria to issue legal tender currency in Nigeria. Initially it was West African Currency Board that was

established which metamorphose into Central Bank of Nigeria. The other functions of Central Bank of Nigeria is to maintain our external reserves in order to safe guard the international values of our currency; to promote monetary stability and values a sound financial structure in Nigeria and to act as a banker and financial adviser to the Federal Government.

The commercial Banks are retail bankers which mobilize the various deposits generated from savings. The Commercial Banks has a wide spread branches that accept deposits and also provide loanable funds to a wide variety of individual and institution. Their aim is to make profit.

Commercial Banks have broad based deposits consisting of mainly demand deposits, saving deposits, short and long term fixed deposits. it is from this funds that commercial banks provide a short term loan and overdrafts for their customers. They also generate and create funds.

The origin of Commercial banks started with the Black 'Gold Smith who accept deposits from their customer and give out same as loan to individual that needed money charge small interest on the loan and they undertake to repay on demand or as agreed.

The innovation is the realisation from the early days of banking that only a very small proportion of the deposits made by the customers were demanded or claimed from the back at any point in time.

Therefore, a small proportion was kept to satisfy depositors withdrawal requirements and provided the bank continue to enjoy the depositors confidence in his ability to honour his obligation, the bank feels free to lend the balance.

The structure of deposits has important implication for resources management. The current account deposit are repayable on demand, the higher its proportion to total deposits the less stable the total deposits are deemed to be a vice versa.

The structure of deposits also generally determines the loans profile i.e. the structure of banks assets. The more time deposits the better the bank is placed to undertake term lending.

The Merchant Bank engage in all activities carried on by the commercial banks except current account. Merchant banks are wholesale bankers and their deposits are usually very enormous. they accept a large deposit and give out long term loan different from commercial banks that give out short term loans.

Merchant Banks do not have widespread network. they collect their funds apart from their capital almost entirely from banks, public and private corporation. A substantial part of its business consists of accepting bills of exchange to finance trade.

However, this bills are eligible to be rediscounted at the Central Bank of Nigeria at the ruling rates. They also specialise in providing short term finances by means of acceptance of credits, covering both export and imports.

The Merchant banks offer facilities for establishing documentary letters of credit on behalf of Nigerian importers in favour of their suppliers overseas. They also offer bridging loans for short periods extending from as few days to several months usually for companies needing temporary finances.

Development Banks

Development banks came to being as a result of existence of gaps in the financial system and the need to plug such gaps. Commercial banks services industry rather than finance it and traditionally finance working capital and rarely concern themselves with the provision of long term capital.

The first official development bank in Nigeria was the Nigerian Loan Development Bank (1946-1949) and others follow suit. One of the earliest development bank is the Nigerian Industrial Development Company of Nigeria Limited before it was re-organised in 1964.

One of the reasons for its re-organisation was the need for an institution which had the full backing of all the government of Nigeria without being

under their direct control and commanded and enjoy full confidence of local and foreign investors. The objectives in a nutshell are to join foreign skills and experience and foreign capital with the Nigerian skills and capital in the development of new industries and the expansion of existing ones.

To evaluate proposals on commercial principles but stand ready to finance enterprise, that cannot get funds through regular commercial channels; create attractive opportunities for investment in Nigeria industry and provide outfits for productive investment in Nigerian savings and or with various state government and state development company.

The bank gives financial assistance by loans and debentures. It so undertakes promotional activities by assisting entrepreneurs both the Nigerian and foreign to prepare well articulated project of and to find technical staff and managerial assistance both in Nigeria and abroad.

It also encourages companies to seek at appropriate time stock exchange quotation for their share which has become more available to the public.

There is also Agricultural bank that gives loans for agricultural productions including horticulture, poultry farm.

2.3 OBJECTIVES OF THE BANK

The main objectives of the bank is to make profit. Towards this end it renders valuable services such as accepting deposits from customers in

which interest is paid. The banks also give out various loans at an interest rate determined by the free market economy. The banks also discharge social responsibilities. The banks make efforts to identify with the aspirations of the communities in which it is represented. The bank from time to time made charitable donations towards aiding homes for the handicapped and motherless babies. Banks also sponsor educational programmes as well as sporting activities in golf, polo, lawn tennis, table tennis, football.

2.4 MODE OF ACCOUNT OPERATION

The banks open current account for customers who are salary earners and of certain grade. The banks also open current account for enterprises and limited liability company. It also open account for associations.

The banks also open fixed and short term deposits for individual customers at the negotiable interest rates. The bank also open savings account for children, adult and associations.

2.5 COMPUTER APPLICATION IN BANKING OPERATION

The impact/benefit of computerization can be viewed from two dimensions. To the customer, it has provided him quality and prompt services while management of the bank has better decision tools and improved internal control system. Management efficiency is improved with the provision of better, prompt and accurate reports. Appreciable cost savings have been achieved through computerization with a reduction in overtime hours.

Computerization in United Bank for Africa has been influenced by several factors. Chief among these have been the desire for competitiveness in a growing industry; the level of awareness especially in the bank of the possible uses of computers and availability and affordability of the technological resources (e.g. hardware) to translate ideas into reality and the foresight of key individuals in management who have provided the impetus and dogged determination to computerize in the face of formidable obstacles

CHAPTER THREE

3.0 AIMS, OBJECTIVES OF FEASIBILITY STUDIES

This stage is the feasibility study referred to as preliminary investigation. The feasibility study ;enhances upon to determine whether or not the proposed project is desirable.

The objectives which the analyst working on project feasibility should accomplish includes the following:

- **Clarify and Understand the Project Request**

  i. What is being done?

  ii. What is required?

  iii. Why?

- **Determine the Size of the Project**

This is necessary so as to estimate the amount of time and number of people required to develop the project.

3 Access Cost and Benefit of the proposal and the alternative approaches: What is the cost of the project including the cost of training retraining end user of the information system.

Data for feasibility studies was therefore obtained through the two methods i.e. review of documents and operational manuals and direct participation.

3.1 FACT FINDING TECHNIQUE

The manual system is currently used in savings department. As a result of feasibility study carried out through direct observation it is clear that the present system is slow and needs the introduction of computer system to enhance its operational efficiency.

There is also time wasting in looking for ledger cards and signature cards in cabinet. Thus there is problem of storage and retrieval. The volume of transactions performed each day is much and the operations carried out are much. When one compares this to the slow speed of the manual system one sees the need for improvement through better methods so that the large volume of transactions can be accomplished in the shortest time possible.

The present system does not give the customer opportunity to obtain first hand information about their account e.g. current balances. As a result of congestion in the banking hall and many customers to attend to, the cashier can get tensed up thus leading to mistake occurring. It is also not too comfortable for the cashier during the salary period.

There is also the problem of lack of adequate privacy and security for customers account because individual ledger cards stored in trays can easily

be tampered with by members of staff since they can easily assess them. It also takes some time to update the ledger cards, passbook to compare balance and add interest. In the current system there is the problem of data duplication.

From the above therefore, it seems that current system is facing some problem of speed, storage, inaccuracy, security, data duplication which computer will go a long way to ease thus the computerisation of the savings department is recommended because it has lots of benefits it can offer like the ability to calculate and process data more quickly, high degree of accuracy if properly programmed. Its reliability, storage facility, volume of transactions. It can process wide applicability. The bank is interested in computerisation and has set in motion team of experts to work out the modalities of spreading computerisation to other branches.

3.2 TESTING PROJECT FEASIBILITY

In order for a project to be judged feasible, it must pass three test i.e. Operational Feasibility test, Technical Feasibility test and Financial (Economic) Feasibility test.

The operational feasibility is concerned with the workability of the proposed system when developed and installed in this case one considers the acceptability and support of the management for the project and the way

the new system will affect performance. The technical feasibility test considers if the project can be done with available equipment, software technology, personnel etc. While the financial feasibility test is carried out to assess the cost of implementing the new system viz-a-viz the benefit.

From the direct observation this Project is operationally feasible. This is because the management is very much interested in the computerisation of their banking operations to boost their efficiency.

CHAPTER FOUR

4.0 SYSTEM ANALYSIS AND DESIGN

4.1 SYSTEM STUDY AND ANALYSIS

System study and analysis are concern with man made system involving inputs and output interacting to produce an output.

System analysis converts the existing manual system into a computerised system. The system analysis is also dynamic.

A system needs to process to achieve a set goals or objectives. Each of the system also needs feedback as a form of control and continuing adjusting to ensure that the system achieve its goal.

4.2 RESULT FROM DETAILED STUDY

The detailed study focus on the deposit and withdrawal transaction of the savings account. It studies the process and data involved when a customer opens a new account, close an account, much attention was on the processes involved in depositing and withdrawing cash.

A savings account is a form of interest yielding deposit established for customers, personalised in use and operated through the use of passbook. Saving accounts are limited only to individuals, minors, joint account holders, club/union and societies. It is of importance to know how savings account is opened.

To open saving account in UBA Plc the clerk or officer assist the customer.

1. Interview customer to ensure that he or she has the minimum cash required to operate an account.
2. Provide a signature card to be completed by the customer on the counter.
3 Verification of signature on the signature card.
4. Collection of 2 recent passport size photograph of the customer.
5. Send those documents to savings account officer who exams the genuiness of the passport photograph and passes on to the branch accountant or branch manager for permission to open the account.
6. If approved a new passbook and bank ledger card is obtained from savings officer.
7. The ledger card is headed.
8. The open and close register is completed using information on the signature card
9. The account number is written on spaces provided for saving bank
10. Direct customer to make the first lodgement to the cashier.

TO CLOSE SAVINGS ACCOUNTS

The customer will write a letter addressed to the manager requesting to close his account stating reasons for the closure. The customer will attach his/her passbook and the letter will be passed to the Manager of the branch and in turn pass to the Savings Account Officer for action.

The Savings Account Officer will pick the customer's signature card with the ledger card to see his/her balance. The savings officer will verify the signature card on the letter and check the balance on the ledger card. He then request the customer to complete the withdrawal form for his balance on the account. The clerk will reflect this closure as a reduction in the number of savings account holder in the open and close register.

The customer will then be requested to withdraw his balance and the savings officer will endorse the withdrawal and customer collects its money from the paying cashier.

TO WITHDRAW FROM THE SAVINGS ACCOUNT

The clerk or officer will issue out withdrawal form to the customer to withdraw with a minimum balance of ₦200 to be left in the account. The clerk will check the withdrawal slip if properly completed then the clerk will issue out a tally for the customer, the clerk then passes the withdrawal slip to the Savings Officer who will go through the withdrawal slip properly and sign against the amount. The savings account officers are given limited power to sign for withdrawal. However, if above his power of signing he then pass to the manager who will call the attention of the customer with the signature card and if found to be good he then authorizes the payment of the voucher. The withdrawal slip will then be passed to the paying cashier who will call the tally number and pay the customer. The customer

can only withdraw once in a transaction and thrice in a month. If however he/she withdraws more than three times in a month the customer will loose his interest on the balance of the savings account.

TO DEPOSIT IN SAVINGS ACCOUNT

The customer collects the savings deposit slip and complete the form stating his account Number, Name, Amount to be deposited according to the denomination. He/she then pass on to the receiving cashier who will check the deposit slip to make sure that the cash tally with the form filled. The cashier will then enter it in his ledger card and the passbook and initial passbook. He then pass it to the savings officer who will also initial the passport and the ledger card of the customer. The clerk will then give the passbook to the customer for his/her possession.

Application of Interest

(a) The EF neither numeric accounting machine is used by the one who feeds the machine with interest programme as for operation on the machine.

(b) Picks the balance on the account as at 15th of the month after inserting the ledger card and the proof sheet. Touch the interest knob as per operation manual of the machine and run down the machine by touching other correct knobs. The ledger cards are machined to make sure that it agrees with the control card.

4.3 ANALYSIS

When we have obtained information about the current system and documenting such facts; the analysis of the data collected follows suit. From the thorough fact findings efforts, the profile of the customer is described below:

I. Major Processes

(a) Completing saving banks cash book

(b) Verifying signatory/identification through passport photo

(c) Updating ledger cards/passbook

(d) Signing

(e) Balance/Interest

II. Personnel

Between the range of 2 to 6 persons handle all withdrawal or deposit processes (signing power taken into consideration) i.e. Cashier, Reference Clerk/Ledger keeper, Saving Account Officer, Accountant and the Branch Manager.

III. Processing Details

(a) Processing is on daily basis and this depends on the number of customer that come around each day

(b) Processing is heaviest towards the end of the month and on Mondays and Fridays.

(c) Delay in processing due to manual process and continuous arrival of customers.

ASSESSMENT OF PROCESSING

(1) Time of process for one customer transaction ranges between 30 minutes to 2 hours.

(2) There are duplication of data.

(3) Tendency for mismatch of account number.

(4) Lack of adequate privacy and security for customers' account ledger cards

(5) Large volume of transaction.

(6) Excess paper usage.

(7) Lack of adequate information to customer.

From the above, it is evidence that there is the problem of capacity in that the expected performance level is not met hence there is the need for the use of computer to speed up operations and the source of data is to be automated rather than other manually entered. The other alternatives which is employing none personnel might not be too suitable because the whole banking hall will be congested and since the operation will be performed manually it will still be slow.

Quick accessibility of information is also lacking because searching through the ledger card tray or cabinet for ledger card takes some time and since

this is done for each customer it makes it boring tedious and slow hence and automative power will ease the access to information by organising data into files. These files can have parameters i.e. key fields to link them together. Details often needed can be pre-stored in the computer memory hence improving easy availability and accessibility of data.

In terms of complexity, there is the need for complication of the processes whereby unnecessary steps are removed and the recording of information not needed will be eliminated hence duplication of data is corrected. There is also the need to sequence the process i.e. changing the order in which the process occurs.

4.4 FILES SPECIFICATION

The proposed computerised savings accounts in United Bank For Africa PLC. Minna will require five database files namely, Master.dbf, Status.dbf, Class.dbf, Daily.dbf and Moved.dbf.

However, the description of the contents and structures of each of the data base files are stated as follows:

i. MASTER.DBF:- This is a file that contains the details of individual customers and their balances at any point in time. The structure of this file is as shown below:

S/NO	FIELD NAME	FIELD TYPE	WIDTH	DEC.	INDEX
1.	ANUMB	CHARACTER	7		N
2.	CNAME	CHARACTER	35		N
3.	ADDR.1	CHARACTER	40		N
4.	ADDR.2	CHARACTER	40		N
5.	DOB	DATE	8		N
6.	SEX	CHARACTER	1		N
7.	OCC.	CHARACTER	15		N
8.	DAC.	DATE	15		N
9.	ASC	CHARACTER	1		N
10.	ACC	CHARACTER	1		N
11.	IDEP	NUMERIC	10	2	N
12.	PB	CHARACTER	9		N
13.	BAL	NUMERIC	13	2	N
14.	SBAL	NUMERIC	13	2	N
15.	DLO	DATE	8		N

ii. STATUS.DBF:- This is a reference file which contain the various accounts status that a customer may have and their respective codes. The structure of this file is as stated below:

S/NO	FIELD NAME	DESCRIPTION	FIELD TYPE	WIDTH	DEC.	INDEX
1.	Code	Status Code	Character	1		N
2.	Desc	Status Desc	Character	17		N

iii. CLASS.DBF: This is a file that contains the various account classes such as personal, joint, society, e.t.c that an account could be and their respective codes. The format of this file are described below:

S/No.	FIELD NAME	DESCRIPTION	FIELD TYPE	WIDTH
1.	Code	Class Code	Character	1
2.	Desc.	Class Desc.	Character	17

iv. DAILY DBF:- This is a file that will contain the daily transactions of customers. That is all the transactions that occur within a particular date be it a deposit or withdrawal will be entered in the file The structure of this file is as shown below:

S/No	FIELD NAME	DESCRIPTION	FIELD TYPE	WIDTH
1.	Date	Daily Date	Date	8
2.	Anum	Account number	Character	7
3.	Cname	Customer Name	Character	30
4.	Cbal.	Current Balance	Numeric	13/2

5.	Dr	Debit	Numeric	13/2
6.	Cr	Credit	Numeric	13/2
7.	Nbal.	New balance	Numeric	13/2

v. MOVED DBF:- This is a file that that contain transactions which occur within a week. The daily transactions are being entered into this file at the end of the day throughout the week. The structure of the file is as shown below.

S/No.	FIELD NAME	DESCRIPTION	FIELD TYPE	WIDTH
1.	Date	Daily Date	Date	8
2.	ANum.	Account Number	Character	7
3.	CName	Customer Name	Character	30
4.	CBal	Current Balance	Numeric	13/2
5.	DR	Debit	Numeric	13/2
6.	CR	Credit	Numeric	13/2
7.	NBal	New balance	Numeric	13/2

4.5 IDENTIFICATION OF SYSTEM REQUIREMENT

From the analysis above design requirement are formulated and these are features that must be incorporated to produce the desired improvement in the system. The requirements that will be included in the new system to

make the deposit and withdrawal transaction of the savings account more effective are:-

(i) Increased speed

(ii Large and secured storage facilities

(iii) Need for accuracy

(iv) Quick accessibility of information

(v) Means for large volume of transactions to be carried out on the shortest time possible.

(vi) Automation

The above named feature will be adequately required by the use of computer. There is need for:

(i) A powerful central processing unit (CPU) which allows for the fast processing of data.

(ii) Terminals i.e. visual display units which will allow information to be displayed.

(iii) A large memory for storing data and information.

(iv) Keyboards for entering data into the computer.

(v) Diskettes both ½ and 5¼ as secondary storage facilities and cassettes to serve as backups.

(vi) Disk drive both for ½ and 5¼ diskettes.

(vii) Hard disk

(viii) Powerful printer for making hard copies.

(ix) The new system has to be users friendly

(x) There is need for Local Area Network

4.6 BENEFIT OF THE PROPOSED SYSTEM

A lot of benefit will be derived from the proposed system and some of them are enumerated below:

(1) **SPEED:-** When a computer is properly programmed, it will do the intended work with a very high degree of accuracy. Also since computer did not get bored or fatigued, errors that human beings might easily make will be avoided. However it should be noted that computers does what the programme tells it to do.

(2) **ACCURACY:** When a computer is properly programmed. It will do the intended work with a very high degree of accuracy.

(3) **RELIABILITY:-** Computer can work for almost 24 hours in a day except for a little time out for equipment checkouts and maintenance

(4) **RETENTION AND STORAGE:-** Computer can store and search massive files of data and programme and the contents of these files do not fade away or get lost. They are used time and again

(5) **WIDE APPLICABILITY**

Computer can be used to solve a wide range of problems and can be used to do a lot of things that seem impossible manually.

(6) **HARDCOPIES:-** Hard copies of information required can easily be printed using powerful and fact printers.

(7) **SECURITY:-** Security measure can be incorporated so that unauthorized person cannot have access to data and information

4.7 CHOICE OF PROGRAMMING LANGUAGE

For the database management system Dbase IV is chosen for the development because:

(i) The features has the facility for storage and retrieval better than other business programming language.

(ii) The dBASE IV program contains English words such as if do. The programming language is easy to use. However computer cannot read English words, so the Dbase IV translates and reads the command lines in order and translate them into language that the computer understands before executing the instruction.

(iii) It is users friendly. It is possible to design a program so that even those who knows little about the software can operate or use it with no or less difficulty.

(iv) Debugging is also very easy as errors are easily shown and can be connected by the user.

(vi) It also has the facility for report generation and giving out the hard copy of what is intended for further decision making of the organisation.

4.8 DOCUMENTATION

The new system is made up of a main menu, which consists of four options. Namely:

- Account Update
- Transaction Update
- Reports Production
- Quit

At this main menu, the system will prompt you to enter the code of any of the available options to pick choice. The screen format of this menu is as shown in figure 1. However, each of the four options are discussed in turn as follows:

i. ACCOUNT UPDATE:- This allows the user to update the customer's record or entry of new customer. At this menu another level of option appears on the screen as shown in figure 2 in which the user is expected to pick a choice. These options are Account Opening for a new customer, Account Editing for changes needed for existing customers, Account Viewing to have a view of a customers account details, Account Closing to remove a customers account from the file and finally Quit to take the user out of the submenu. The screen for each of these are as represented by figures 3 to 6.

ii. TRANSACTION UPDATE:- This option contains three suboptions as displayed in Figure 7 allows you to update a customers account balance. The suboptions include - Deposit for updating customers account in terms money lodging, Withdrawal used to update customer's account who has come withdrawal, Interest Application for the purpose calculating interest on customers' account while the Quit takes the user out of the suboption. These are represented by figures 8-9.

iii. REPORTS PRODUCTION:- The report production option is used to generate the hard copy of whatever processing that must have taken place within the system. This new system is designed to generate four reports as shown in figure 10 with samples of the reports in figures 11-13.

iv. QUIT:- This is an option that closes down the system and takes the user back to the Operating System prompt.

CHAPTER FIVE

5.0 CONCLUSION

There are urgent need for the system modification and design as technological development social, economic and internal charges, organisation establishment and institution are bound to employ systematic means of heiraching the way their information systems perform.

On the whole computer system for saving transaction was developed to alleviate the problems of slow processing and persistent complaints of customers who spend endless hours in the bank to deposit or withdraw their money.

The new system allow for efficiency and accuracy on the part of the bank, there is storage for large volume of data and information which can be quickly accessed speedy calculation are easily carried out in term of balance total amount deposited or withdrawn interest etc because the computer lack facilities for this. Also reports that would have taken hours days or weeks to generate are generated within the shortest time possible because files are easily accessed and information easily returned. Security measure is also provided with the use of the password.

The system allows for the use of Local Area Network, whereby general workstation exist. The system developed is users friendly and is on line.

The new system will go a long way to ameliorate the problems on services to the customer.

5.1 COST ESTIMATE

Although the bank is said to have spent millions of naira on both the software and hardware components. The believe if the written of this project is done there are possibilities for reducing the cost by using the qualified computer scientist around in the country especially for writing developing the software for them at a lower cost.

5.2 IMPORTANCE OF COMPUTER USAGE

The need for and importance of computer usage cannot 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.

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APPENDIX I

DEFINITION OF TERMS

SYSTEM

This is a complete of Elements componency directly or indirectly related in a casual network such that each component is related to at least other in a more or less stable way within are particular period of time.

SYSTEM ANALYSIS

This is a process of finding out facts from an established company or organisation by usually a team of person or a single person

HARDWARE

This is the electronic mechanical and wiring components that make up the entire computer

SOFTWARE

These are written documents, materials used on the computer to solve particular problem e.g. application packages, that is the program developed by software companies or programs written by individual computer user to accomplish a particular task.

DORMANT ACCOUNT

An account not used for at least more than twelve calendar months.

BACKUP

This is a copy of program or information stored in a cassette or disk. They are kept i a safe place and used if programs develops on the original.

DATABASE MANAGEMENT SYSTEM

This is a comprehensive software (programs) to build maintain and access database.

DATABASE

An integrated collection of stored operational data used but the application programs of an Enterprise

APPENDIX 2 - PROGRAM OUTPUT

```
UNITED BANK FOR AFRICA PLC, MINNA

COMPUTERISED SAVINGS ACCOUNT - MAIN MENU

        1           ACCOUNT UPDATE

        2           TRANSACTION UPDATE

        3           REPORTS PRODUCTION

        4           Q U I T

        SELECT YOUR CHOICE:
```

Figure 1

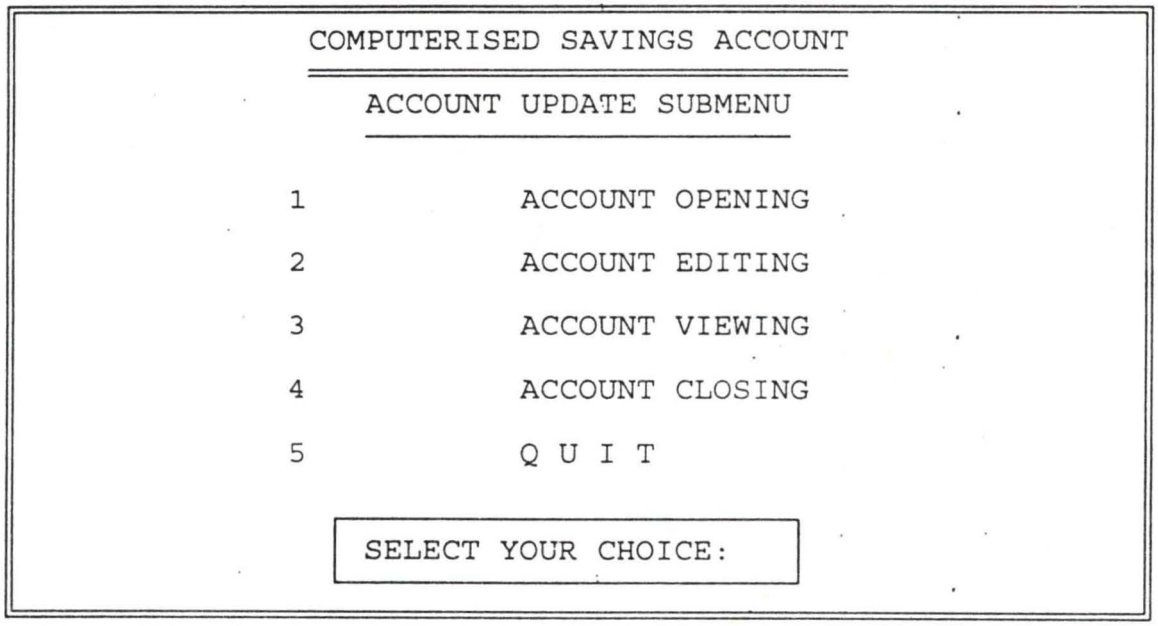
COMPUTERISED SAVINGS ACCOUNT
ACCOUNT UPDATE SUBMENU
1 ACCOUNT OPENING
2 ACCOUNT EDITING
3 ACCOUNT VIEWING
4 ACCOUNT CLOSING
5 Q U I T
SELECT YOUR CHOICE:

Figure 2

COMPUTERISED SAVINGS ACCOUNT

SAVINGS ACCOUNT INPUT FORM

ACCOUNT NUMBER (OR PRESS "9999999" TO EXIT): 4321239

CUSTOMER'S NAME: SUNDAY AKANDE

OFFICE ADDRESS: UBA PLC, BANK ROAD, MINNA

HOUSE ADDRESS: NO 2, ROAD 19, BOSSO ESTATE, MINNA

DATE OF BIRTH: 21/02/50 SEX: M OCCUPATION: CIVIL SERVANT

DATE ACCOUNT OPENED	ACCOUNT STATUS CODE	ACCOUNT CLASS CODE
12/04/99	1 ACTIVE	1 PERSONAL

INITIAL DEPOSIT: # 20,000.00 PASSBOOK NO.: 55227123

[S]AVE, [R]EPEAT, [A]BANDON - Pick choice:

Figure 3

COMPUTERISED SAVINGS ACCOUNT

SAVINGS ACCOUNT EDITING FORM

ACCOUNT NUMBER (OR PRESS "9999999" TO EXIT): 4321239

CUSTOMER'S NAME: SUNDAY AKANDE

OFFICE ADDRESS: UBA PLC, BANK ROAD, MINNA

HOUSE ADDRESS: NO 2, ROAD 19, BOSSO ESTATE, MINNA

DATE OF BIRTH: 21/02/50 SEX: M OCCUPATION: CIVIL SERVANT

DATE ACCOUNT OPENED	ACCOUNT STATUS CODE	ACCOUNT CLASS CODE
12/04/99	1 ACTIVE	1 PERSONAL

INITIAL DEPOSIT: # 20,000.00 PASSBOOK NO.: 55227123

[S]AVE, [R]EPEAT, [A]BANDON - Pick choice:

Figure 4

COMPUTERISED SAVINGS ACCOUNT

SAVINGS ACCOUNT VIEWING FORM

ACCOUNT NUMBER (OR PRESS "9999999" TO EXIT): 4321239

CUSTOMER'S NAME: SUNDAY AKANDE

OFFICE ADDRESS: UBA PLC, BANK ROAD, MINNA

HOUSE ADDRESS: NO 2, ROAD 19, BOSSO ESTATE, MINNA

DATE OF BIRTH: 21/02/50 SEX: M OCCUPATION: CIVIL SERVANT

DATE ACCOUNT OPENED	ACCOUNT STATUS CODE	ACCOUNT CLASS CODE
12/04/99	1 ACTIVE	1 PERSONAL

INITIAL DEPOSIT	PASSBOOK NO.	CURRENT BALANCE
# 20,000.00	55227123	# 20,000.00

VIEWING CUSTOMER'S DETAILS - PRESS ANY KEY

Figure 5

COMPUTERISED SAVINGS ACCOUNT

SAVINGS ACCOUNT DELETING FORM

ACCOUNT NUMBER (OR PRESS "9999999" TO EXIT): 4321239

CUSTOMER'S NAME: SUNDAY AKANDE

OFFICE ADDRESS: UBA PLC, BANK ROAD, MINNA

HOUSE ADDRESS: NO 2, ROAD 19, BOSSO ESTATE, MINNA

DATE OF BIRTH: 21/02/50 SEX: M OCCUPATION: CIVIL SERVANT

DATE ACCOUNT OPENED	ACCOUNT STATUS CODE	ACCOUNT CLASS CODE
12/04/99	1 ACTIVE	1 PERSONAL

INITIAL DEPOSIT	PASSBOOK NO.	CURRENT BALANCE
# 20,000.00	55227123	# 20,000.00

DO YOU WANT TO DELETE THIS RECORD (Y/N):

Figure 6

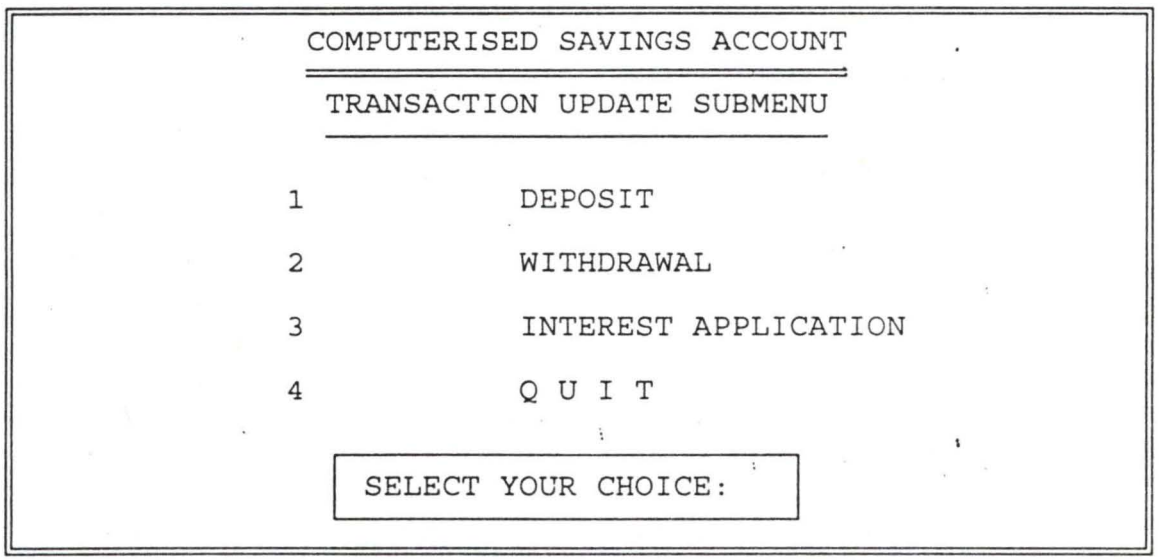
COMPUTERISED SAVINGS ACCOUNT
TRANSACTION UPDATE SUBMENU
1 DEPOSIT
2 WITHDRAWAL
3 INTEREST APPLICATION
4 Q U I T
SELECT YOUR CHOICE:

Figure 7

COMPUTERISED SAVINGS ACCOUNT

DEPOSIT FORM

ACCOUNT NUMBER (OR PRESS "9999999" TO EXIT): 4321239

CUSTOMER'S NAME: SUNDAY AKANDE

CURRENT BALANCE: # 20,000.00

AMOUNT DEPOSITED: # 10,000.00

NEW BALANCE: # 30,000.00

[S]AVE, [R]EPEAT, [A]BANDON - Pick choice:

Figure 8

COMPUTERISED SAVINGS ACCOUNT

WITHDRAWAL FORM

ACCOUNT NUMBER (OR PRESS "9999999" TO EXIT): 4321239

CUSTOMER'S NAME: SUNDAY AKANDE

CURRENT BALANCE: # 30,000.00

AMOUNT WITHDRAWN: # 5,000.00

NEW BALANCE: # 25,000.00

[S]AVE, [R]EPEAT, [A]BANDON - Pick choice:

Figure 9

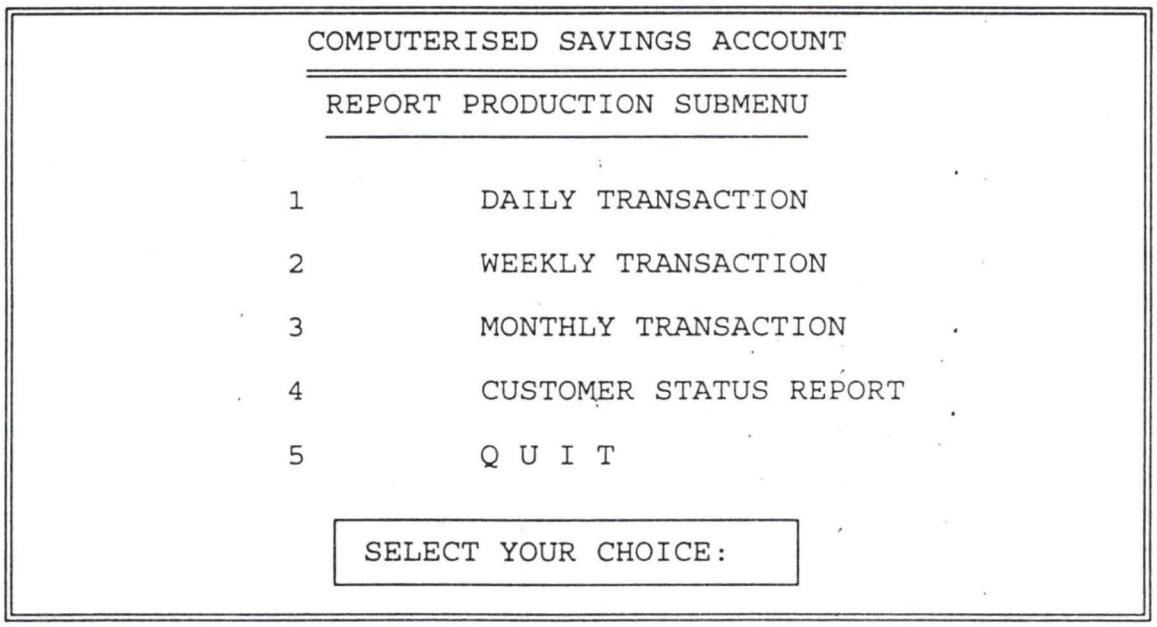
COMPUTERISED SAVINGS ACCOUNT
REPORT PRODUCTION SUBMENU
1 DAILY TRANSACTION
2 WEEKLY TRANSACTION
3 MONTHLY TRANSACTION
4 CUSTOMER STATUS REPORT
5 Q U I T
SELECT YOUR CHOICE:

Figure 10

UNITED BANK FOR AFRICA PLC, MINNA

TRANSACTIONS LIST AS AT 14/04/99

ACCT NO	CUSTOMER'S NAME	TRANS TYPE	DEBIT	CREDIT
1234	TANKO AYUBA	DEPOSIT	0.00	200,000.
1234	TANKO AYUBA	WITHDRAWAL	100,000.00	0.
12345	MIKE AUTA	DEPOSIT	0.00	5,000.
2345	TANKO GARBA	WITHDRAWAL	5,000.00	0.
4321239	SUNDAY AKANDE	DEPOSIT	0.00	10,000.
4321239	SUNDAY AKANDE	WITHDRAWAL	5,000.00	0.

Figure 11

UNITED BANK FOR AFRICA PLC, MINNA

WEEKLY TRANSACTION REPORT

ACCT NO	CUSTOMER'S NAME	TRANS TYPE	DEBIT	CREDIT
1234	TANKO AYUBA	DEPOSIT	0.00	200,000.
1234	TANKO AYUBA	WITHDRAWAL	100,000.00	0.
12345	MIKE AUTA	DEPOSIT	0.00	5,000.
2345	TANKO GARBA	WITHDRAWAL	5,000.00	0.
4321239	SUNDAY AKANDE	DEPOSIT	0.00	10,000.
4321239	SUNDAY AKANDE	WITHDRAWAL	5,000.00	0.

Figure 12

UNITED BANK FOR AFRICA PLC, MINNA

CUSTOMER STATUS REPORT AS AT 30/04/99

S/NO	ACCT NO	CUSTOMER'S NAME	CURRENT BALANCE
1	1234	TANKO AYUBA	600,000.00
2	12345	JOHN MICHEAL	7,000.00
3	2345	TANKO GARBA	8,000.00
4	4321239	SUNDAY AKANDE	25,000.00

Figure 13

APPENDIX 3 - SOURCE PROGRAM

UBA.PRG

```
set talk off
set stat off
set safe off
set scor off
do whil .t.
 clea
 @ 3,21 to 5,57 doub
 @ 4,23 say 'UNITED BANK FOR AFRICA PLC, MINNA'
 @ 3,10 to 21,69 doub
 @ 6,19 to 8,60 doub
 @ 7,20 say 'COMPUTERISED SAVINGS ACCOUNT - MAIN MENU'
 @ 10,25 say '1'+spac(11)+'ACCOUNT UPDATE'
 @ 12,25 say '2'+spac(11)+'TRANSACTION UPDATE'
 @ 14,25 say '3'+spac(11)+'REPORTS PRODUCTION'
 @ 16,25 say '4'+spac(11)+'Q U I T'
 @ 18,27 to 20,51
 @ 19,29 say 'SELECT YOUR CHOICE:'
 do whil .t.
  ch=' '
  @ 19,49 get ch pict '!'
  read
  set colo to w+/b
  if ch $ '1234'
   exit
  else
   loop
  endi
 endd
 do case
  case ch='1'
   do cmenu
  case ch='2'
   do tmenu
  case ch='3'
   do rmenu
```

```
 othe
   exit
 endc
endd
clea
retu
```

CMENU.PRG

```
do whil .t.
  clea
  @ 3,10 to 22,69 doub
  @ 4,26 say 'COMPUTERISED SAVINGS ACCOUNT'
  @ 5,26 to 5,53 doub
  @ 6,29 say 'ACCOUNT UPDATE SUBMENU'
  @ 7,29 to 7,50
  @ 9,25 say '1'+spac(11)+'ACCOUNT OPENING'
  @ 11,25 say '2'+spac(11)+'ACCOUNT EDITING'
  @ 13,25 say '3'+spac(11)+'ACCOUNT VIEWING'
  @ 15,25 say '4'+spac(11)+'ACCOUNT CLOSING'
  @ 17,25 say '5'+spac(11)+'Q U I T'
  @ 19,27 to 21,51
  @ 20,29 say 'SELECT YOUR CHOICE:'
  do whil .t.
   ch=' '
   @ 20,49 get ch pict '!'
   read
   set colo to w+/b
   if ch $ '12345'
    exit
   else
    loop
   endi
 endd
 do case
  case ch='1'
   do add
 case ch='2'
```

```
  if .not. found()
    @ 23,18 say 'ACCOUNT CLASS CODE NOT EXIST - Press any key'

    set cons off
    wait
    set cons on
    @ 23,17 clea to 23,64
    loop
  endi
  mdesc2 = desc
  exit
endd
@ 18,53 get macc
@ 18,55 get mdesc2
clea gets
@ 20,24 get midep pict '9,999,999.99'
@ 20,57 get mpb pict '@!'
read
@ 23,18 say '[S]AVE, [R]EPEAT, [A]BANDON - Pick choice:'
do whil .t.
  ch = ' '
  @ 23,61 get ch pict '!'
  read
  if ch $ 'SRA'
    exit
  else
    loop
  endi
endd
@ 23,15 clea to 23,65
if ch $ 'SA'
  if ch = 'S'
    sele 1
    repl addr1 with maddr1,addr2 with maddr2,sex with msex
    repl asc with masc,acc with macc,dob with mdob
    repl dac with mdac,idep with midep,bal with mbal
    repl cname with mcname,occ with mocc,dlo with mdate
    repl pb with mpb
  endi
```

```
    manumb = spac(7)
    clea
  else
    n = 1
  endi
  sele 1
endd
clos all
clea
retu
```

VIEW.PRG

```
sele 1
  use master
sele 2
  use status
sele 3
  use class
sele 4
  use daily
mdate = date()
n = 0
sele 1
do whil .t.
  clea
  manumb = spac(7)
  @ 0,25 to 2,54 doub
  @ 1,26 say 'COMPUTERISED SAVINGS ACCOUNT'
  @ 0,3 to 24,76 doub
  @ 22,4 to 22,75
  @ 3,25 to 5,54 doub
  @ 4,26 say 'SAVINGS ACCOUNT VIEWING FORM'
  @ 7,6 say 'ACCOUNT NUMBER (OR PRESS "9999999" TO EXIT):' get
manumb pict '@!'
  if n = 1
    n = 0
    clea gets
  else
```

```
  read
 endi
 if manumb='9999999'
  exit
 endi
 go top
 loca for anumb=manumb
 if .not. found()
  @ 23,17 say 'ACCOUNT NUMBER DOES NOT EXIST - PRESS ANY
KEY'
  set cons off
  wait
  set cons on
  @ 23,17 clea to 23,65
  loop
 endi
 maddr1=addr1
 maddr2=addr2
 msex=sex
 masc=asc
 macc=acc
 mdob=dob
 mdac=dac
 midep=idep
 mbal=bal
 mcname=cname
 mocc=occ
 mpb=pb
 mbal=bal
 sele b
 go top
 loca for masc=code
 mdesc1=desc
 sele c
 go top
 loca for macc=code
 mdesc2=desc
 @ 9,6 say "CUSTOMER'S NAME:" get mcname pict '@!'
 @ 11,6 say 'OFFICE ADDRESS:' get maddr1 pict '@!'
```

```
 @ 13,6 say 'HOUSE ADDRESS: ' get maddr2 pict '@!'
 @ 15,6 say 'DATE OF BIRTH:' get mdob
 @ 15,35 say 'SEX:' get msex pict '!'
 @ 15,47 say 'OCCUPATION:' get mocc pict '@!'
 @ 17,6 say 'DATE ACCOUNT OPENED'
 @ 17,30 say 'ACCOUNT STATUS CODE'
 @ 17,53 say 'ACCOUNT CLASS CODE'
 @ 18,11 get mdac
 @ 18,30 get masc
 @ 18,32 get mdesc1
 @ 18,53 get macc
 @ 18,55 get mdesc2
 @ 20,6 say 'INITIAL DEPOSIT'
 @ 20,29 say 'PASSBOOK NO.'
 @ 20,48 say 'CURRENT BALANCE'
 @ 21,7 say '#'
 @ 21,8 get midep pict '9,999,999.99'
 @ 21,30 get mpb pict '@!'
 @ 21,47 say '#'
 @ 21,48 get mbal pict '9,999,999,999.99'
 clea gets
 @ 23,19 say "VIEWING CUSTOMER'S DETAILS - PRESS ANY KEY"
 set cons off
 wait
 set cons on
endd
clos all
clea
retu
```

DELETE.PRG

```
sele 1
 use master
sele 2
 use status
sele 3
 use class
sele 4
```

```
  use daily
mdate = date()
n = 0
sele 1
clea
do whil .t.
  clea
  manumb = spac(7)
  @ 0,25 to 2,54 doub
  @ 1,26 say 'COMPUTERISED SAVINGS ACCOUNT'
  @ 0,3 to 24,76 doub
  @ 22,4 to 22,75
  @ 3,24 to 5,54 doub
  @ 4,25 say 'SAVINGS ACCOUNT DELETING FORM'
  @ 7,6 say 'ACCOUNT NUMBER (OR PRESS "9999999" TO EXIT):' get
manumb pict '@!'
  if n = 1
    n = 0
    clea gets
  else
    read
  endi
  if manumb = '9999999'
    exit
  endi
  go top
  loca for anumb = manumb
  if .not. found()
    @ 23,17 say 'ACCOUNT NUMBER DOES NOT EXIST - PRESS ANY
KEY'
    set cons off
    wait
    set cons on
    @ 23,17 clea to 23,65
    loop
  endi
  maddr1 = addr1
  maddr2 = addr2
  msex = sex
```

```
masc = asc
macc = acc
mdob = dob
mdac = dac
midep = idep
mbal = bal
mcname = cname
mocc = occ
mpb = pb
mbal = bal
sele b
go top
loca for masc = code
mdesc1 = desc
sele c
go top
loca for macc = code
mdesc2 = desc
@ 9,6 say "CUSTOMER'S NAME:" get mcname pict '@!'
@ 11,6 say 'OFFICE ADDRESS:' get maddr1 pict '@!'
@ 13,6 say 'HOUSE ADDRESS: ' get maddr2 pict '@!'
@ 15,6 say 'DATE OF BIRTH:' get mdob
@ 15,35 say 'SEX:' get msex pict '!'
@ 15,47 say 'OCCUPATION:' get mocc pict '@!'
@ 17,6 say 'DATE ACCOUNT OPENED'
@ 17,30 say 'ACCOUNT STATUS CODE'
@ 17,53 say 'ACCOUNT CLASS CODE'
@ 18,11 get mdac
@ 18,30 get masc
@ 18,32 get mdesc1
@ 18,53 get macc
@ 18,55 get mdesc2
@ 20,6 say 'INITIAL DEPOSIT'
@ 20,29 say 'PASSBOOK NO.'
@ 20,48 say 'CURRENT BALANCE'
@ 21,7 say '#'
@ 21,8 get midep pict '9,999,999.99'
@ 21,30 get mpb pict '@!'
@ 21,47 say '#'
```

```
 @ 21,48 get mbal pict '9,999,999,999.99'
 clea gets
 @ 23,19 say "DO YOU WANT TO DELETE THIS RECORD (Y/N):"
 do whil .t.
  ch=' '
  @ 23,60 get ch pict '!'
  read
  if ch $ 'YN'
   exit
  endi
 endd
 @ 23,15 clea to 23,65
 if ch='Y'
  dele
  pack
  @ 23,18 say 'THE RECORD HAS BEEN DELETED - PRESS ANY KEY'
  set cons off
  wait
  set cons on
 endi
endd
clos all
clea
retu
```

TMENU.PRG

```
do whil .t.
 clea
 @ 4,10 to 21,69 doub
 @ 5,26 say 'COMPUTERISED SAVINGS ACCOUNT'
 @ 6,26 to 6,53 doub
 @ 7,27 say 'TRANSACTION UPDATE SUBMENU'
 @ 8,27 to 8,52
 @ 10,25 say '1'+spac(11)+'DEPOSIT'
 @ 12,25 say '2'+spac(11)+'WITHDRAWAL'
 @ 14,25 say '3'+spac(11)+'INTEREST APPLICATION'
 @ 16,25 say '4'+spac(11)+'Q U I T'
 @ 18,27 to 20,51
```

```
  @ 19,29 say 'SELECT YOUR CHOICE:'
  do whil .t.
   ch=' '
   @ 19,49 get ch pict '!'
   read
   set colo to w+/b
   if ch $ '1234'
    exit
   else
    loop
   endi
  endd
  do case
   case ch='1'
    do dep
   case ch='2'
    do with
   case ch='3'
    do interest
   othe
    exit
  endc
endd
clea
retu

DEP.PRG

sele 1
 use master
sele 2
 use daily
mdate=date()
clea
n=0
manumb=spac(7)
amount=0
do whil .t.
 sele 1
```

```
 @ 3,25 to 5,54 doub
 @ 4,26 say 'COMPUTERISED SAVINGS ACCOUNT'
 @ 3,10 to 22,69 doub
 @ 20,11 to 20,68
 @ 6,33 to 8,46 doub
 @ 7,34 say 'DEPOSIT FORM'
 @ 10,13 say 'ACCOUNT NUMBER (OR PRESS "9999999" TO EXIT):'
get manumb pict '@!'
 if n=1
  n=0
  clea gets
 else
  read
 endi
 if manumb='9999999'
  exit
 endi
 go top
 loca for anumb=manumb
 if .not. found()
  @ 21,17 say 'ACCOUNT NUMBER DOES NOT EXIST - PRESS ANY
KEY'
  set cons off
  wait
  set cons on
  macnumb=spac(7)
  @ 21,17 clea to 21,65
  loop
 endi
 mcname=cname
 mbal=bal
 oldbal=bal
 @ 12,13 say "CUSTOMER'S NAME:" get mcname pict '@!'
 @ 14,13 say 'CURRENT BALANCE: #'
 @ 14,31 get mbal pict '9,999,999,999.99'
 @ 16,13 say 'AMOUNT DEPOSITED: #'
 @ 18,13 say 'NEW BALANCE: #'
 clea gets
 @ 16,32 get amount pict '9,999,999,999.99'
```

```
  read
  mbal=mbal+amount
  @ 18,27 get mbal pict '9,999,999,999.99'
  clea gets
  @ 21,18 say '[S]AVE, [R]EPEAT, [A]BANDON - Pick choice:'
  do whil .t.
    ch=' '
    @ 21,61 get ch pict '!'
    read
    if ch $ 'SRA'
      exit
    else
      loop
    endi
  endd
  @ 21,15 clea to 21,65
  if ch $ 'SA'
    if ch='S'
      sele 1
      repl bal with mbal
      sele 2
      appe blan
      repl anumb with manumb,dr with 0,cr with amount,cbal with oldbal
      repl cname with mcname,nbal with mbal,date with mdate
    endi
    clea
    manumb=spac(7)
    amount=0
  else
    n=1
  endi
  sele 1
endd
clos all
clea
retu
```

WITH.PRG

```
sele 1
  use master
sele 2
  use daily
mdate = date()
clea
n = 0
manumb = spac(7)
amount = 0
do whil .t.
  sele 1
  @ 3,25 to 5,54 doub
  @ 4,26 say 'COMPUTERISED SAVINGS ACCOUNT'
  @ 3,10 to 22,69 doub
  @ 20,11 to 20,68
  @ 6,31 to 8,47 doub
  @ 7,32 say 'WITHDRAWAL FORM'
  @ 10,13 say 'ACCOUNT NUMBER (OR PRESS "9999999" TO EXIT):'
get manumb pict '@!'
  if n = 1
    n = 0
    clea gets
  else
    read
  endi
  if manumb = '9999999'
    exit
  endi
  go top
  loca for anumb = manumb
  if .not. found()
    @ 21,17 say 'ACCOUNT NUMBER DOES NOT EXIST - PRESS ANY
KEY'
    set cons off
    wait
    set cons on
    macnumb = spac(7)
    @ 21,17 clea to 21,65
    loop
```

```
endi
mcname = cname
mbal = bal
oldbal = bal
@ 12,13 say "CUSTOMER'S NAME:" get mcname pict '@!'
@ 14,13 say 'CURRENT BALANCE: #'
@ 14,31 get mbal pict '9,999,999,999.99'
@ 16,13 say 'AMOUNT WITHDRAWN: #'
@ 18,13 say 'NEW BALANCE: #'
clea gets
@ 16,32 get amount pict '9,999,999,999.99'
read
mbal = mbal-amount
@ 18,27 get mbal pict '9,999,999,999.99'
clea gets
@ 21,18 say '[S]AVE, [R]EPEAT, [A]BANDON - Pick choice:'
do whil .t.
  ch = ' '
  @ 21,61 get ch pict '!'
  read
  if ch $ 'SRA'
    exit
  else
    loop
  endi
endd
@ 21,15 clea to 21,65
if ch $ 'SA'
  if ch = 'S'
    sele 1
    repl bal with mbal
    sele 2
    appe blan
    repl anumb with manumb,dr with amount,cr with 0,cbal with oldbal
    repl cname with mcname,nbal with mbal,date with mdate
  endi
  clea
  manumb = spac(7)
  amount = 0
```

```
  else
    n=1
  endi
  sele 1
endd
clos all
clea
retu
```

RMENU.PRG

```
do whil .t.
  clea
  @ 3,10 to 22,69 doub
  @ 4,26 say 'COMPUTERISED SAVINGS ACCOUNT'
  @ 5,26 to 5,53 doub
  @ 6,27 say 'REPORT PRODUCTION SUBMENU'
  @ 7,27 to 7,51
  @ 9,25 say '1'+spac(9)+'DAILY TRANSACTION'
  @ 11,25 say '2'+spac(9)+'WEEKLY TRANSACTION'
  @ 13,25 say '3'+spac(9)+'MONTHLY TRANSACTION'
  @ 15,25 say '4'+spac(9)+'CUSTOMER STATUS REPORT'
  @ 17,25 say '5'+spac(9)+'Q U I T'
  @ 19,27 to 21,51
  @ 20,29 say 'SELECT YOUR CHOICE:'
  do whil .t.
    ch=' '
    @ 20,49 get ch pict '!'
    read
    set colo to w+/b
    if ch $ '12345'
      exit
    else
      loop
    endi
  endd
  do case
    case ch='1'
      do list1
```

```
    case ch='2'
      do list2
    case ch='3'
      do list3
    case ch='4'
      do list4
    othe
      exit
  endc
endd
clea
retu
```

LIST1.PRG

```
clea
use daily
go bott
mdate=date
go top
@ 12,14 say 'Printing TRANSACTION LIST in progress - PLEASE WAIT'
set devi to prin
@ 1,23 say 'UNITED BANK FOR AFRICA PLC, MINNA'
@ 2,23 say repl('=',33)
@ 4,24 say 'TRANSACTIONS LIST AS AT '+dtoc(mdate)
@ 5,24 say repl('=',32)
@ 7,0 say repl('-',96)
@ 8,0 say "S/NO¦ACCT NO¦  CUSTOMER'S NAME"
@ 8,43 say '¦TRANS TYPE¦'
@ 8,57 say 'DEBIT'
@ 8,67 say '¦'
@ 8,70 say 'CREDIT'
*@ 8,80 say '¦'
*@ 8,81 say 'CURRENT BALANCE'
*@ 9,0 say repl('-',96)
@ 9,0 say repl('-',79)
sno=0
r=9
do whil .not. eof()
```

```
  sno = sno + 1
  r = r + 1
  manumb = anumb
  mcname = cname
  mdr = dr
  mcr = cr
  mcbal = cbal
  mnbal = nbal
  if mdr = 0
    mtrans = 'DEPOSIT'
  else
    mtrans = 'WITHDRAWAL'
  endi
  @ r,0 say sno pict '9999'
  @ r,4 say '¦'
  @ r,5 say manumb
  @ r,12 say '¦'
  @ r,13 say mcname
  @ r,43 say '¦'
  @ r,44 say mtrans
  @ r,54 say '¦'
  @ r,55 say mdr pict '9,999,999.99'
  @ r,67 say '¦'
  @ r,68 say mcr pict '9,999,999.99'
*   @ r,80 say '¦'
*   @ r,81 say 'mnbal pict '9,999,999,999.99'
  skip
endd
ejec
set devi to scre
wait
clos all
clea
retu
```

LIST2.PRG

```
clea
use daily
```

```
mdate = date
@ 12,17 say 'Printing WEEKLY REPORT in progress - PLEASE WAIT'
set devi to prin
@ 1,23 say 'UNITED BANK FOR AFRICA PLC, MINNA'
@ 2,23 say repl('=',33)
@ 4,27 say 'WEEKLY TRANSACTION REPORT'
@ 5,27 say repl('=',25)
@ 7,0 say repl('-',79)
@ 8,0 say "S/NO¦ACCT NO¦  CUSTOMER'S NAME"
@ 8,43 say '¦TRANS TYPE¦'
@ 8,57 say 'DEBIT'
@ 8,67 say '¦'
@ 8,70 say 'CREDIT'
@ 9,0 say repl('-',79)
sno = 0
r = 9
do whil .not. eof()
  sno = sno + 1
  r = r + 1
  manumb = anumb
  mcname = cname
  mdr = dr
  mcr = cr
  mcbal = cbal
  if mdr = 0
    mtrans = 'DEPOSIT'
  else
    mtrans = 'WITHDRAWAL'
  endi
  @ r,0 say sno pict '9999'
  @ r,4 say '¦'
  @ r,5 say manumb
  @ r,12 say '¦'
  @ r,13 say mcname
  @ r,43 say '¦'
  @ r,44 say mtrans
  @ r,54 say '¦'
  @ r,55 say mdr pict '9,999,999.99'
  @ r,67 say '¦'
```

```
  @ r,68 say mcr pict '9,999,999.99'
  skip
endd
set devi to scre
wait
clos all
clea
retu
```

LIST3.PRG

```
clea
use gen
go bott
mdate = date
copy stru to temp.dbf
use temp
*ndate = mdate-7
appe from gen.dbf for date > = ndate
go top
@ 12,17 say 'Printing MOVED LIST in progress - PLEASE WAIT'
set devi to prin
@ 1,23 say 'UNITED BANK FOR AFRICA PLC, MINNA'
@ 2,23 say repl(' = ',33)
@ 4,13 say 'MONTHLY TRANSACTION REPORT FOR THE MONTH OF
' + cmonth(mdate)
@ 5,13 say repl(' = ',54)
@ 7,7 say repl('-',66)
@ 8,7 say "S/NO ¦ ACCT NO ¦  CUSTOMER'S NAME"
@ 8,55 say '¦'
@ 8,57 say 'CURRENT BALANCE'
@ 9,7 say repl('-',66)
sno = 0
r = 9
do whil .not. eof()
  sno = sno + 1
  r = r + 1
  manumb = anumb
  mcname = cname
```

```
  mnbal = nbal
  @ r,7 say sno pict '9999'
  @ r,12 say '¦'
  @ r,14 say manumb
  @ r,22 say '¦'
  @ r,24 say mcname
  @ r,55 say '¦'
  @ r,57 say 'mnbal pict '9,999,999,999.99'
  skip
endd
set devi to scre
wait
clos all
clea
retu
```

LIST4.PRG

```
clea
use master
mdate = ('30/04/99')
@ 12,18 say 'Printing FULL LIST in progress - PLEASE WAIT'
set devi to prin
@ 1,23 say 'UNITED BANK FOR AFRICA PLC, MINNA'
@ 2,23 say repl(' = ',33)
@ 4,21 say 'CUSTOMER STATUS REPORT AS AT 30/04/99'
@ 5,21 say repl(' = ',37)
@ 7,7 say repl('-',66)
@ 8,7 say "S/NO ¦ ACCT NO ¦  CUSTOMER'S NAME"
@ 8,55 say '¦'
@ 8,57 say 'CURRENT BALANCE'
@ 9,7 say repl('-',66)
sno = 0
r = 9
do whil .not. eof()
  sno = sno + 1
  r = r + 1
  manumb = anumb
  mcname = cname
```

```
   mbal = bal
   @ r,7 say sno pict '9999'
   @ r,12 say '¦'
   @ r,14 say manumb
   @ r,22 say '¦'
   @ r,24 say mcname
   @ r,55 say '¦'
   @ r,57 say mbal pict '9,999,999,999.99'
   skip
endd
set devi to scre
wait
clos all
clea
retu
```

```
      do edit
    case ch='3'
      do view
    case ch='4'
      do delete
    othe
      exit
  endc
endd
clea
retu
```

ADD.PRG

```
sele 1
  use master
sele 2
  use status
sele 3
  use class
sele 4
  use daily
mdate=date()
stor spac(40) to maddr1,maddr2
stor spac(1) to msex,masc,macc
stor ctod('  /  /  ') to mdob,mdac
stor 0 to midep,mbal
manumb=spac(7)
mcname=spac(35)
mocc=spac(15)
mpb=spac(9)
sele 1
clea
do whil .t.
  @ 0,25 to 2,54 doub
  @ 1,26 say 'COMPUTERISED SAVINGS ACCOUNT'
  @ 0,3 to 24,76 doub
  @ 22,4 to 22,75
  @ 3,26 to 5,53 doub
```

```
 @ 4,27 say 'SAVINGS ACCOUNT INPUT FORM'
 @ 7,6 say 'ACCOUNT NUMBER (OR PRESS "9999999" TO EXIT):' get
manumb pict '@!'
 read
 if manumb = '9999999'
  exit
 endi
 go top
 loca for anumb = manumb
 if found()
  @ 23,17 say 'ACCOUNT NUMBER ALREADY EXIST - PRESS ANY
KEY'
  set cons off
  wait
  set cons on
  macnumb = spac(7)
  @ 23,17 clea to 23,65
  loop
 endi
 @ 9,6 say "CUSTOMER'S NAME:" get mcname pict '@!'
 @ 11,6 say 'OFFICE ADDRESS:' get maddr1 pict '@!'
 @ 13,6 say 'HOUSE ADDRESS: ' get maddr2 pict '@!'
 @ 15,6 say 'DATE OF BIRTH:' get mdob
 @ 15,35 say 'SEX:' get msex pict '!'
 @ 15,47 say 'OCCUPATION:' get mocc pict '@!'
 @ 17,6 say 'DATE ACCOUNT OPENED'
 @ 17,30 say 'ACCOUNT STATUS CODE'
 @ 17,53 say 'ACCOUNT CLASS CODE'
 @ 20,6 say 'INITIAL DEPOSIT: #'
 @ 20,43 say 'PASSBOOK NO.:'
 read
 @ 18,11 get mdac
 read
 do whil .t.
  @ 18,30 get masc
  read
  sele b
  go top
  loca for masc = code
```

```
   if .not. found()
     @ 23,17 say 'ACCOUNT STATUS CODE NOT EXIST - Press any
key'
     set cons off
     wait
     set cons on
     @ 23,17 clea to 23,64
     loop
   endi
   mdesc1 = desc
   exit
 endd
 @ 18,30 get masc
 @ 18,32 get mdesc1
 clea gets
 do whil .t.
   @ 18,53 get macc
   read
   sele c
   go top
   loca for macc = code
   if .not. found()
     @ 23,18 say 'ACCOUNT CLASS CODE NOT EXIST - Press any key'

     set cons off
     wait
     set cons on
     @ 23,17 clea to 23,64
     loop
   endi
   mdesc2 = desc
   exit
 endd
 @ 18,53 get macc
 @ 18,55 get mdesc2
 clea gets
 @ 20,24 get midep pict '9,999,999.99'
 @ 20,57 get mpb pict '@!'
 read
```

```
 @ 23,18 say '[S]AVE, [R]EPEAT, [A]BANDON - Pick choice:'
 do whil .t.
  ch=' '
  @ 23,61 get ch pict '!'
  read
  if ch $ 'SRA'
   exit
  else
   loop
  endi
 endd
 @ 23,15 clea to 23,65
 if ch $ 'SA'
  if ch='S'
   sele 1
   appe blan
   repl addr1 with maddr1,addr2 with maddr2,sex with msex
   repl asc with masc,acc with macc,dob with mdob
   repl dac with mdac,idep with midep,bal with mbal
   repl anumb with manumb,cname with mcname,occ with mocc
   repl dlo with mdac,pb with mpb,bal with idep
  endi
  stor spac(40) to maddr1,maddr2
  stor spac(1) to msex,masc,macc
  stor ctod('  /  /  ') to mdob,mdac
  stor 0 to midep,mbal
  manumb=spac(7)
  mcname=spac(35)
  mocc=spac(15)
  mpb=spac(9)
  clea
 endi
 sele 1
endd
clos all
clea
retu
```

EDIT.PRG

```
sele 1
  use master
sele 2
  use status
sele 3
  use class
sele 4
  use daily
mdate = date()
manumb = spac(7)
n = 0
sele 1
clea
do whil .t.
  @ 0,25 to 2,54 doub
  @ 1,26 say 'COMPUTERISED SAVINGS ACCOUNT'
  @ 0,3 to 24,76 doub
  @ 22,4 to 22,75
  @ 3,25 to 5,54 doub
  @ 4,26 say 'SAVINGS ACCOUNT EDITING FORM'
  @ 7,6 say 'ACCOUNT NUMBER (OR PRESS "9999999" TO EXIT):' get
manumb pict '@!'
  if n = 1
    n = 0
    clea gets
  else
    read
  endi
  if manumb = '9999999'
    exit
  endi
  go top
  loca for anumb = manumb
  if .not. found()
    @ 23,17 say 'ACCOUNT NUMBER DOES NOT EXIST - PRESS ANY
KEY'
    set cons off
    wait
    set cons on
```

```
  macnumb = spac(7)
  @ 23,17 clea to 23,65
  loop
endi
maddr1 = addr1
maddr2 = addr2
msex = sex
masc = asc
macc = acc
mdob = dob
mdac = dac
midep = idep
mbal = bal
mcname = cname
mocc = occ
mpb = pb
sele b
go top
loca for masc = code
mdesc1 = desc
sele c
go top
loca for macc = code
mdesc2 = desc
@ 9,6 say "CUSTOMER'S NAME:" get mcname pict '@!'
@ 11,6 say 'OFFICE ADDRESS:' get maddr1 pict '@!'
@ 13,6 say 'HOUSE ADDRESS: ' get maddr2 pict '@!'
@ 15,6 say 'DATE OF BIRTH:' get mdob
@ 15,35 say 'SEX:' get msex pict '!'
@ 15,47 say 'OCCUPATION:' get mocc pict '@!'
@ 17,6 say 'DATE ACCOUNT OPENED'
@ 17,30 say 'ACCOUNT STATUS CODE'
@ 17,53 say 'ACCOUNT CLASS CODE'
@ 18,11 get mdac
@ 18,30 get masc
@ 18,32 get mdesc1
@ 18,53 get macc
@ 18,55 get mdesc2
@ 20,6 say 'INITIAL DEPOSIT: #'
```

```
 @ 20,43 say 'PASSBOOK NO.:'
 @ 20,24 get midep pict '9,999,999.99'
 @ 20,57 get mpb pict '@!'
 clea gets
 @ 9,23 get mcname pict '@!'
 @ 11,22 get maddr1 pict '@!'
 @ 13,22 get maddr2 pict '@!'
 @ 15,21 get mdob
 @ 15,40 get msex pict '!'
 @ 15,59 get mocc pict '@!'
 @ 18,11 get mdac
 read
 do whil .t.
  @ 18,30 get masc
  read
  sele b
  go top
  loca for masc = code
  if .not. found()
   @ 23,17 say 'ACCOUNT STATUS CODE NOT EXIST - Press any
key'
   set cons off
   wait
   set cons on
   @ 23,17 clea to 23,64
   loop
  endi
  mdesc1 = desc
  exit
 endd
 @ 18,30 get masc
 @ 18,32 get mdesc1
 clea gets
 do whil .t.
  @ 18,53 get macc
  read
  sele c
  go top
  loca for macc = code
```