

TITLE PAGE

TRANSACTIONAL PACKAGE FOR COMMUNITY BANK

(Case Study Of Ahmadu Bello University Community Bank, Samaru, Zaria).

BY

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PGD/MCS/97/408

A Project Submitted to Department of Maths/Computer Science, Federal University Of Technology, Minna, Niger State, in Partial Fulfilment of the requirement for the award of Post Graduate Diploma In Computer Science.

DECEMBER , 1999,.

APPROVAL PAGE

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ACKNOWLEDGEMENT

First, I need to thank God Almighty for his love and faithfulness throughout my career in Federal University of Technology, Minna.

Also, I am grateful to my supervisor: Professor K.R. Adeboye who found time to read my manuscript, guided and directed me within the time allotted to me.

My gratitude also goes to the department of Maths/Computer Science for rigorous academic pursuit. I owe my greatest indebtedness to my mother, Mrs. Grace Azuh for her patience and financial support.

This acknowledgement cannot certainly be complete without expressing my love to all those who taught me computer science, my entire family (present and future), and caring brethren, both in Zaria and Kaduna.

I am very grateful to all of them and pray that they will get the best of everything and above all for eternity in the Kingdom of God, Amen.

DEDICATION

Dedicated to the ALL SUFFICIENT GOD, THE PERFECT TRINITY; THE FATHER, THE SON, AND THE HOLY GHOST.

AND

To all true saints both living and dead.

ABSTRACT

Most Workers at one time or the other have experienced some degree of frustration and annoyance during banking transactions. Workers in Community banks face similar problems as those in conventional banks - the need to serve a flow of customers in a waiting line, balancing their accounts and preparing reports.

Transactional package for Community Banks (TPCB) evolved in an attempt to solve these problems with minimum human and capital resources. It is a relational database using dbase IV consisting of a collection of programs for manipulating the database.

The package was developed on a microcomputer (IBM Compatible). It is user friendly, cost effective and easy to use by non computer professional as it is menu driven. It seeks to eliminate fraud by limiting the number of people that have manipulatory access and degree of access into a customers account.

The study also looks into the history, rationale operations and problems of Community Banking System in Nigeria from inception to date. It suggests relevant solutions to such problems so that Community Banks can take the lead in the history of Nigerian Banking Industry especially as we consider the concern of the system to rural and economic development.

Transactional Package for Community Banks (TPCB), if well implemented will reduce customer's economic time wastage due to unnecessary waiting and help bankers operate promptly and more efficiently.

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CHAPTER ONE

INTRODUCTION

There is no statutory definition of a bank. Sometimes, the term "bank" is indiscriminately used by individuals and corporations whose business have no relation to banking.

The Thompson's Dictionary of Banking (Eleventh Edition), states that one of the earliest banks in the world was the Bank of Venice which originated for the purpose of the management of a public loan as it was referred to. Before that era, people were used to saving their gold, used as money, with blacksmiths. Gradually, the banking system evolved. The very idea of banking is itself a technological innovation designed to deal with the complexities of multiple exchanges.

According to Sir John Paget, K.C. the four tests of banking business are the taking of deposits, the taking of current accounts, the payment of cheque and the collection of cheque.

Objectively, the principal business of a banker is discounting bills and promissory notes and making advances either through loan or overdraft. The banker pays customers acceptances, issue drafts, letters of credit and circular notes, conduct foreign exchange business, inter alia. The banks provide capital for the investment and hence enhance industrialization proven of societies and nations. The banking system is in fact, the vein in which the blood of the economy is circulated.

1.1 HISTORY OF BANKING IN NIGERIA

The history of the industry in Nigeria could be traced back to cover a century, with the establishment of the British bank for West Africa (Now First Bank) in August 1894. People used to save their monies in dug pits! However, as people became encouraged to save in banks because of the interest this could earn them, the banking industry began to expand. This development enhanced the lifeline of the economy as against its dormant

nature prevalent before the advent of the banking industry. Today, the banking industry has expanded almost to a level of saturation.

1.1.1 The Impact of Computers in Nigeria Banking Industry

Banking has gone technological all round the world - the main technological device used in banking, is the computer. The computer arrived in the banking scene in the early 1960s. Then it was generally viewed by the banker as simply a tool with the capability to speed up the book-keeping process. The real function of the computer was relegated to the background. Most viewed the computer as a necessary evil!

However, with the advent of the third generation computers (present day electronic computers are in the 5th generation) banking began to realise the various applications the computer possesses. Other technological devices used in banking are mobile phones, fax machines, electronic scanner/camera, etc. Furthermore, there is now the emergence of highly sophisticated communication networks. Example is the mode of cross-talks between computers via data communication links regarded as the concept of connectivity. There are also the Local area Networks (LAN), Metropolitan Area Networks (MANs) and Wide Area Networks (WANs).

Most of the state-of-the-art technological devices in this "information age" are computerized. Almost every modern tele communication network is tightly connected to the computer.

1.2 EVOLUTION OF COMMUNITY BANKS

1.2.1 Historical Background

The Nigeria rural sector is characterized by poverty, neglect and absence of adequate infrastructure. In spite of this fact, the majority of the population still live in the rural areas. In the past few years, especially since the Structural Adjustment Programme (SAP) was instituted in 1986, the Nigerian government have tried several approaches with a view to evolving an acceptable strategy for proper national moral growth.

Unfortunately, however, a number of factors continued to be responsible for the failure of the various approaches in achieving the set objectives. Major among these factors was the absence of credit facility to the rural populace. Hence, the need for the institution of the Community Banking System in 1990.

1.2.2 The Main Objectives of Community Banks

The Community Bank idea was born to fulfil certain objectives and for the purpose of:

- (i) Promoting rural development through the provision of finance and banking services.
- (ii) Enhancing the rapid development of productive activities especially in the rural areas.
- (iii) Improving the economic status of small-scale producers both in the rural and urban areas.
- (iv) The promotion of the emergence of an effective and integrated national financial system that responds to the needs of the economy especially at the grassroots level.

1.2.3 Difference Between Community Bank and the Conventional Commercial Banks

- (i) The Community Banking system is a unit banking system as against the branch banking system operated by the conventional banks.
- (ii) Hence, a Community Bank is located and required to provide basic banking services to a particular community.
- (iii) The Community Bank is licensed to operate in and owned by a particular community unlike the case with conventional banks.
- (iv) Intimate Banker-customer relationship is facilitated better through the operation of Community Bank than what operates in the conventional Banks.
- (v) Community Banks focus on the particular needs of farmers who constitute the majority of the potential rural dwellers while conventional Banks are less

as the case with conventional Banks.

- viii) The management structure of the community bank is very simple with the manager being the Chief Executive unlike the Commercial Banks with complex organisational structure.

The above stated differences show the reason why conventional banks are seeing the CB system as rival and competitor. And of course, if the CB is well monitored, it will soon take the lead in the history of Nigerian Banking industry especially as we consider the concern of the system to rural and national economic developments.

1.2.4 **Community Bank Versus People's Bank**

- (i) Why the community bank is owned by a particular community, People's bank is the Federal Government Bank with branches all over the country with no limited geographical coverage as the case with conventional Banks.
- (ii) The Boards of Directors of community Banks appointed by its shareholder who all hail from a particular community. This is unlike the People's Bank whose Board of Directors are chosen by the Government.
- (iii) Government does not interfere in the running of the community Banks as the case with people's banks.
- (iv) Sense of Community ownership is not applicable to People's Bank as with the Community Banks - the reason why the CB system seems to thrive better than the people's bank.

1.2.5 **Functions of Community Banks**

- (i) Acceptance of various types of deposits from individuals, groups and other

2.5 Functions of Community Banks

- (i) Acceptance of various types of deposits from individuals, groups and other organisations.
- (ii) Receive money or collect proceeds of banking instruments on behalf of its customers.
- (iii) Provide auxiliary banking services to its customers such as remittance of funds.
- (iv) Invest surplus funds of the bank in suitable instruments including placement.
- (v) Maintain and operate various types of accounts with or for other banks in Nigeria.
- (vi) Pay and receive interest as may be agreed upon between community banks and their clients in accordance with public policy.
- (vii) Provide credit to its customers, promote and monitor effective loan usage among them.
- (viii) Operate equipment leasing facilities and supervise credit schemes.
- (ix) Give guarantee in favour of its customers to give them greater access to credit and other resources.
- (x) Performing non-banking functions that promote grassroots development.
- (xi) Receive re-financing of other funds from the National Board for Community Banks (NBCB) and other parties sources on terms mutually acceptable to both parties.

- xii) Enlighten the community on effective use of credit and other banking service as to enhance individual and community protectional development.
- xiii) Issue redeemable debentures to interest parties to raise funds from members of the public.

1.2.6 Roles of CB Systems in National Development

The main objective of CB system as stated in section two above rates very much to community development. The CB system contributes immensely to grassroots development in the following ways:

(i) Provision of Credit Facility

The CB system de-emphasizes sophisticated collateral but recognizes value system of the people in the provision of credit facility. By this, many rural dwellers are now enjoying credit facilities from CBs in their area.

(ii) Creation of Good Banking Habit

The CB system has been highly instrumental in creating good banking habit in the rural dwellers who used to keep their money at home. Mean while, they have been fairly oriented as to the importance of saving in the bank.

iii) Reduction of Unemployment

The CB system through its employment structure has helped to reduce the rate of unemployment especially in the rural areas. Through its credit facility, the system has also helped to turn many one-time unemployed people into employers.

(iv) **Project Financing**

The CB system is highly involved in project financing. The finance of projects like petrol station, saw mills etc, has contributed immensely to the development of rural areas.

(v) **Household Equipment Financing**

Many CBs are involved in financing household equipment such as tape recorder, television, cushion chairs, refrigerators etc. on behalf of their customers on a mutual agreement between the two parties.

(vi) **Facilitation of Easy Transportation**

Through the CB system, the hardship of transportation problems especially in the rural areas have been reduced drastically. The system is financing the purchase of vehicles to facilitate intercity or inter-village transportation.

(vi) **Farmers Development**

Many CBs are providing assistance to the farmers in the area of their operation. Such assistance include buying of improved seedlings, farm inputs, fertilizers etc., in bulk for the farmers at reduced prices. Some CBs have also helped to pay their customers labourers to prevent farmers from selling their products at reduced prices.

viii) Community Banking is a potent source of unification between the diverse political interests in the locality, as the ownership of the bank comprises of the indigenous people with divers interest now bind together by the system.

(ix) Community Banking is a gap filler to the extent that it plays an increasingly large role in the development and transformation of the rural areas and acting as tools for the local communities, thereby filling the gaps left in the operation of the conventional banks.

1.3 **PROBLEM DEFINITION**

Community Banks are faced with similar problems as those of conventional banks in the banking system. The need to serve a flow of customers in a waiting line. The rural areas are very conscious of time and that has accounted for the reason why they keep their money in their houses. The manual system of operations in banks has been found wanting as customers waste a lot of economic time in transacting with bank and even the bankers themselves waste more time in balancing their accounts and preparing reports.

This project evolve around the attempt to solve these problems with minimum human and capital resources. It seeks to eliminate fraud by limiting the number of people that has manipulatory access to a customer's account and to what degree also, it ensures that customers are attended to promptly and efficiently.

1.4 **SYSTEM JUSTIFICATION**

The development of a transactional package for community banks will involve an appreciable amount of money. Much time and energy is got to be expended for its successful implementation.

Hence, the following are the reasons why it is worthwhile to invest into such a project.

- i. It will lead to accurate calculations of customer's account.
- ii. It will reduce time spent on long queues as customers can be serviced faster.
- iii. Management within the bank will be easier as the manager can just view the banks documents without any transfer of files.
- iv. Paper work will be drastically reduced as workers can balance their accounts easily and more accurately.
- v. The number of workers required will be minimized since the computer can be utilised to reduce unskilled labour.

CHAPTER TWO

METHODOLOGY

2.1 MANUAL PROCEDURE

2.1.1 Introduction

Most bank workers at one time or the other have experienced some degree of frustration and annoyance when taking care of banking business. Transactions in banks involve much paper works and liable to human error as every human being is subject to fatigue as a result of long hours of service.

Even after a customer has been attended to in a bank, much more work is involved in recording and balancing accounts, producing reports and sending files to their appropriate sections within the banking environment. A great change in the banking activities have been brought about by the introduction of computer technology.

2.1.2 Basic Concept of Banking

A bank's main commodity is money which is needed to help in tracking customers' balances, computing interest commissions and other charges and reflecting these in an accurate and timely manner. (ICON NEWS, 1989).

According to G.M. Clenn (1975), the banking business is defined as the business of receiving money from outside sources as deposits irrespective of the payment interest.

2.1.3 Advantages of the System

- (i) Less economic time of customers will be wasted on bank transactions as they can be attended to faster than in manual processing.

- (ii) More customers can be served within the bank's working hours. This will result in serving larger amount of customers in the community.
- (iii) Bank workers particularly cashiers and clerks will find their work easier and more interesting than in manual operation.
- (iv) If a simple network system is employed, communication between the different sections will be faster.
- (v) Computers are known for their accuracy, so calculation will be more reliable than with the conventional manual process with the aid of electronic calculators.
- (vi) Reduced number of unskilled labour like messengers that check and transfer files will be needed. This will lead to lower cost of production.

2.2 QUEUING PROBLEM IN BANKS

A queuing system is characterized by a flow of customers in a waiting line and the order whereby customers arrive and served. Generally a queuing situation occurs where demand exceeds supply for a particular good or service.

2.2.1 Causes of Long Queues in Nigerian Banks

- (i) Manpower problem: This can be applicable to the community banking system where members of staff, cashier in particular, are not trained or do not study to improve performance.
- (ii) Month-end work load
- (iii) Poor Service Discipline e.g Service In Random Order (SIRO) or Last Come First Served (LCFS) often result to a queuing situation.
- (iv) Office interpersonal contact can tense the nerve of bank staff, cashier in particular hence, reducing attention to customers.

- v) Use of manual counting system brings a long delay in the counting especially when the amount to be counted is running to some thousands.
- vi) Some customers have the habit of shouting on cashiers on no just cause. Such unsociable attitude will by no means keep such customers long on the queue.
- vii) Some bank staff have a wrong orientation that they are customers boss and therefore pay uncared attention to them.

2.2.2 Effects of Queue Problems in the Banks

(a) Effects on the Customers

- i) Time wastage which would have otherwise been used for other productive activities.
- ii) Unnecessary long waiting time may lead to loss of confidence on the part of the customers for the bank.
- iii) Long waiting time leads to burden and create unnecessary stress on customers.

(b) Effects on the Banks

- (i) As customer loses confidence in banks, such banks would be losing her customers to fairly competitive banks.
- (ii) Loss of customers will certainly lead to a reduction of profit.

(c) Effects on National Economy

- i) Reduction of national productivity as waiting customers must have left their own paid jobs undone.
- ii) Unlucky patients may die in hospital if doctors are kept waiting in banks.
- iii) Teachers spending more time waiting in the bank will affect the standard of education in the country as teachers may not be able to attend to classes.

2.2.3 Possible Elimination Techniques

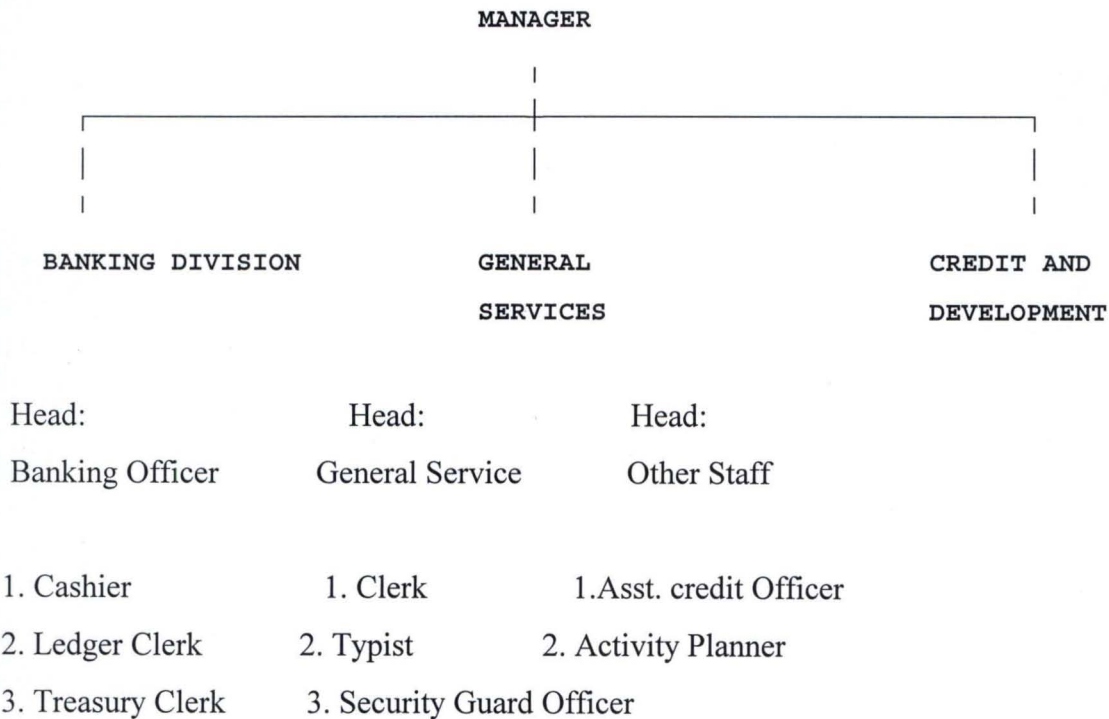
- i) Offering appropriate incentives to competent cashiers will help to boost their morale and encourage others to follow suit.

- ii) Alternative periodic reporting date as means of easing out month-end pressures of work has been proved workable especially with the community banks submitting their monthly returns on the 15th of each month.
- iii) Staff re-deployment especially during busy time.
- iv) Staff orientation to keep a good relationship with all customers and to show maximum commitment to their duties.

2.3 MANAGEMENT STRUCTURE OF COMMUNITY BANKS

2.3.1 The Heirachy

Because community banks are not expected to perform sophisticated banking services of the type associated with commercial banks, a simple organizational structure of the type shown in the diagram below is recommended for each community bank.



2.3.2 National Board for Community Banks (NBCB)

It is clear that if the community banking system must grow rapidly to serve the development needs of the grassroots through the country, an executive agency must be established. This was the rational for setting up the National Board of Community Bank

(NBCB) to take over from where the Community Bank Implementation Committee (CBI) had reached. The board was inaugurated on Tuesday July 16, 1991 and has settled down immediately for work.

2.3.3 Board of Directors

According to clause 233 (1) of the Company and Allied Matters Acts (CAMA) of 1990, director is defined simply as "Someone who is appointed to direct and manage the business affairs of a company". Also, the Banking Decree of 1969 (section 41) defines a director as "any person by whatsoever name he/she may be referred to, carrying out or empowered to carry out substantially the functions of a company registered under the companies decree of 1968".

According to NBCB guidelines, members of the Board of Community Bank shall not be more than seven (7), but not fewer than five (5) persons. It further states that, "the shareholders and Board membership must be fully representative of the board spectrum of the community; they MUST NOT be drawn from one section of the community".

The followings are general guidelines (or code of conduct) for Board members:

- i. To select a competent management team.
- ii. Establish jointly with management, the institution's long and short term business objectives.
- iii. Formulate effective and efficient policies for the purpose of achieving these objectives.
- iv. Monitoring the operations to ensure compliance with all applicable laws and regulations, stated policies on save and sound banking practices.
- v. Overseas the institution's business performance to ensure the achievement of stated objectives of profitability and adequate liquidity.

2.3.4 **Branching**

No community bank is allowed to CREATE, OPERATE AND UTILIZE a branching system. A community bank strives and endeavours to effectively cover and serve its catchment area (the community).

2.4 **Feasibility Studies**

The feasibility study of the proposed project depends on three major areas of consideration; namely:-

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

2.4.1 **Objectives**

- i) To analyse the current system
- ii) To determine whether a new computer system is needed or if the existing system can support suggested modifications.
- iii) To prepare a list of computer hardware that will be used in the new system and request manufacturers bids on this equipment.
- iv) To evaluate all bids received and list recommended equipment.
- v) To derive a plan to implement the newly purchased computer equipment and the proposed system.

2.4.2 **Project Request**

Ahmadu Bello University Community Bank daily carries out its transactions using ad-hoc manual methods of processing data to generate their reports. Hence the management demands for:-

- i) Automatic preparation of customer credit ledger card.
- ii) Interactive inquiry capability to respond to customer account status information.
- iv) Computer preparation of Bank Reconciliation Statement showing reference date, credit, debit, arrears and balance.

2.4.3 Cost and Benefit

The cost of development of the proposed system is as follows:

Hint: It is good to note that the cost of Amstrad 1386 computer system varies with time. The quotation made here is the one got from manufacturers bids. The prices of the equipment ceases to be valid after the next 30 days.

2.4.4 Cost of Development

Start up costs of System Development:

System analysis	₦126,000
System design	₦189,000
Development & Implementation	₦376,000

Indirect Cost Per Personnel Start

Purchase of Equipment	
PENTIUM 233 MMX	₦ 19,500
SVGA COLOR MONITOR	₦ 16,500
LQ 2170 EPSON PRINTER	₦ 56,000
Computer Furniture	₦ 25,000
Installation	₦ 30,000
Site Preparation	₦ 20,000
Training (No definite cost)	

Total start up costs ₦858,000

System Operating Costs

Additional Equipment Maintenance	-
Program Maintenance	-
Total Operating Costs (First year)	₦898,000

System Benefits

- Saving on additional personal not needed	₦ 350,000
- Elimination of pricing errors	
- Reduce accounts receivable	₦ 100,000
- (Minimum) overtime	₦ 400,000

Intangible Benefits

- Better Planning information
- Better Customer relations
- More satisfied employees
- Necessary to grow
- Ability to add communication and avoid costs (if expansion occurs)

Total tangible system benefits.

₹12,335,000

It is estimated that the design, programming, training of personnel and implementation of the system will require five calendar months, two system Analysts/Programmers. Using the above report, the system will pay for itself in 18 months.

The new system has an anticipated life of five years although in the later years the cost of using and maintaining the system will increase.

CHAPTER THREE

SYSTEM ANALYSIS AND DESIGN

3.1 INTRODUCTION

3.1.1 System Analysis

The Oxford Dictionary defines analysis as follows:-

"Separation of the substance into parts for study and interpretation; detailed examination".

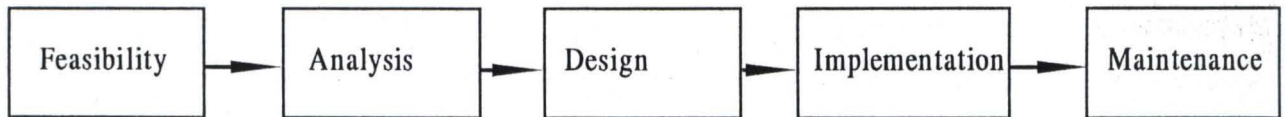
In the case of system analysis, the system is the business system under investigation and the parts are the various subsystems which work together to support the business. Before designing a system which will satisfy the information requirement of a bank, it is important that the nature of the system and the way it currently operates are clearly understood.

Systems analysis, for the purpose of this project, is defined by what a system analysis does and why it should be done. A reasonable definition of what a system analysis does could be as follows in connection with the proposed Transactional Package for Community Bank.

- a) Connects a study of the feasibility of the system
- b) Liaises with the users of the system and determine their requirement;
- c) Finds out the facts important to the design of the proposed system;
- d) Determine the human and computer procedures that will make up the system, designing forms and files;
- e) Writes program specification;
- f) Test the program and the system;
- g) Participates in the implementation of the new system;
- h) Document the system.

System analysis is a discrete stage which fits neatly between feasibility and design. The various stages in system analysis can be represented thus:

3.1.1 SYSTEM ANALYSIS



System analysis is an extremely difficult job to do well but is very stimulating. There has been a consistent world-wide shortage of good system analysts.

3.1.2 Systems design

This explains the program logic. More methodical approach to software design is the technique of structured programming which is an important feature of dbase IV language which was used in putting this program together.

Structured programming is a scientific method of programming in which program is divided into manageable modules and each module is further broken until a low level function is derived using three basic structures - sequential, conditional and interactive control flow.

The design of Transactional Package for Community Banks follows this modular manner. The various modules that make up the subsystem were developed independently and the advantages of using this method are:-

- a) It reduces the time required to test a program;
- b) It increases the programming productivity by allowing for future expansion of the components stifling the creativity of the software designer;
- c) It makes programs clear and easy to read;
- d) It also allows for easy maintenance.

3.2 DATABASE SECURITY

Security is the state of making safe or secure from danger. In a database, it is one way a system protects data from unauthorized access-modification or destruction.

Database provides security through the password protected log-in system, encryption of data and assignment of access privileges to users. Security in dBase IV is set up using the PROTECT demand.

3.2.1 Log-in Security

The log-in security allows the user to create a password protected system and if the password protection is ON, no unauthorized user can gain access to the system. This type of security consists of the group name, log-in name and a password, and entries must be made to them before access is gained. The PROTECT command also display the log-in screen whenever the system is accessed.

3.2.3 DATA ENCRYPTION

This is when data are scrambled so that they cannot be read until they are unscrambled. When the PROTECT is ON in dBase IV, data is automatically-encrypted and de-encrypted.

Data encryption protects by storing data on a disk in an encoded fashion so only authorized user can only unscrambled it when a security profile is created, the user is assigned to a group whose name must be specified to log-in.

3.2.3 ACCESS LEVEL SECURITY

This controls the file and the fields access by assigning users access levels that

determines the user privilege. Access level for files or fields are numbered 1 to 8 in descending order of rights.

To create a file access scheme, the file is selected and assigned to a specific group and the level of access is established. When the file access privilege is established, a user can only read records in a database, update records, delete and add to records in the database depending on the privilege level.

File access can only be created for nine (9) files at a time. Field access on the other hand, allows to control operations. Access grant are FULL, R/O (Read only) or NONE for fields in a database which allows users to:

- (a) Read and Write a database in the file (Full)
- (b) Read but not write (R/O) and
- (c) Not Read or write (NONE)

3.3 FILE DESCRIPTION

This package for a bank environment requires a number of database files for customers and transactions. The master file is called GENERAL.DBF which contains all the information about customers. It has the following structures:

	Actual Name	Field Name	Type	Width	Rec
1.	Date	DDATE	Date	8	-
2.	Account Number	DMACC	Char	7	-
3.	Nature of Account	DP	Char	1	-
4.	Sex	DMSEX	Char	1	-
5.	Marital Status	DMSATAUS	Char	1	-
6.	Name	DNAME	Char	15	-
7.	Occupation	DOCCU	Char	15	-

8.	Place of Work	DPWORK	Char	15	-
9.	Employer Address	DEMPADD	Char	120	-
10.	Husband Name & employer	DMHUS	Char	120	-
11.	Telephone Number	DMTELL	Char	11	-
12.	Name & address of Reference	DMREF	Char	119	-
13.	Address of Customer	DCOMPADO	Char	80	-
14.	Company Name & Address	DSOCADD	Char	120	-
15.	Society Name & Address	DSOCADD	Char	120	-
16.	Surname	DSNAME	Char	20	-
17.	Postal Address	DPADD	Char	15	-
18.	Special Instruction	DSINS	Char	15	-
19.	Other Names	DONAME	Char	30	-
20.	Type of Account	DACCOUNT	Char	7	-
21.	Amount of first Deposit	DAMT	Char	15	-

The database file for monthly transactions is called SUMRY.DBF. It has the following structure.

	Actual Name	Field Name	Type	Width	Dec
1.	Date	DATE	Date	8	-
2.	Time	TIME	TIME	8	-
3.	Month	MONTH	Char	3	-
4.	Nature of Transaction	PARTICULAR	Char	10	-
5.	Whether debit or credit	STATUS	Char	7	-
6.	Cheque Number	CHKNO	Char	10	-
7.	Amount of Transaction	AMOUNT	NUMERIC	15	2
8.	Comment	COMMENT	Char	15	-

The database file used by the program generating statement of account is called STATE 1.DBF. It has the following structure:

	Actual Name	Field Name	Type	Width	Rec
1.	Date	DATE	Date	8	-
2.	Account number	ACCNO	Char	7	-
3.	Name of Customer	NAME	Char	15	-
4.	Address of Customer	NAME	Char	15	-
5.	Nature of Transaction	ADDRESS	Char	15	-
6.	Whether to debit or credit	TYPE	Char	3	-
7.	Amount	AMT	Char	12	2
8.	Period	PERIOD	Char	7	-

The database file used by the program generating statement of account is called STATE 1.DBF. It has the following structure:

	Actual Name	Field Name	Type	Width	Rec
1.	Date	DATE	Date	8	-
2.	Account number	ACCNO	Char	7	-
3.	Name of Customer	NAME	Char	15	-
4.	Address of Customer	NAME	Char	15	-
5.	Nature of Transaction	ADDRESS	Char	15	-
6.	Whether to debit or credit	TYPE	Char	3	-
7.	Amount	AMT	Char	12	2
8.	Period	PERIOD	Char	7	-

3.4 PROGRAM SPECIFICATION

This software is modular as earlier stated in this chapter with each module capable of being interfaced to the main program. The major modules in the program are explained.

3.4.1 MAIN PROGRAM MODULE (MAIN.PRG)

This comprises the program security and the main program which involves others by displaying a menu which can be activated. It is the entry level and controller of all other subsections of the Transactional Package for Community Banks.

PSEUDO CODE

Do while within program

Request for password

If password is current

Display menu

Accept menu-options

If menu-option = "OPEN"

then open appreciation account type

```
else
If menu-option = "TRANSACTION"
if menu-option = "REPORT"
then display appropriate report
else
if menu-option = "EXIST"
then Exit to Dos prompt
endif
endif
endif
endif
else enddo quit
```

3.4.2 CURRENT ACCOUNT OPENING MODULE (CURRENT.PRG)

This module handle the opening of current account, it records the customer data and produces a current account card as an output.

PSEUDO CODE

```
Do while within program
Ask for customer's particulars
store customers particulars
if amount > minimum value
then open account
produce account card
else
say cannot open account for amount
less than the minimum value
quit
endif
enddo
```

3.4.2 CURRENT ACCOUNT OPENING MODULE (CURRENT.PRG)

This module handle the opening of current account, it records the customer data and produces a current account card as an output.

PSEUDO CODE

```
Do while within program
Ask for customer's particulars
store customers particulars
if amount > minimum value
then open account
produce account card
else
say cannot open account for amount
less than the minimum value
quit
endif
enddo
```


CHAPTER FOUR

SYSTEM IMPLEMENTATION AND USER DOCUMENTATION

4.1 INTRODUCTION

Implementing a system is a tasking. It involves very complex processes of making decisions. It is also the stage of system development which is heavily concerned with implementing the designed system as well as documenting the system which will serve as user's reference. Hence the process of implementation involves both hardware and software to be used.

4.2 CHOICE OF SOFTWARE

The language that can be used to program a computer varies and depends to a large extent on what the program is all about, what is meant to do and the degree of the programmer's exposure to the various programming languages.

4.2.1 DBASE IV

This project was developed using dBase IV version 1.1 software package. Dbase IV is a Database Management (DBM) package used primarily for storing, retrieving and organizing data. The software has been chosen because it allows for programming, it is an easy-to-use, friendly package which is quite flexible, thus, allowing the user to develop new programs which manages databases and also to alter the existing program with little or no difficulty. The package has been chosen over existing software package because it is more users' friendly and allows procedures to be incorporated and specifies errors like stating type of errors. There are different versions of dBase., e.g. dBase II, dBase III, dBase III+, and dBase IV version 1.0-dBase 1.5 and version 1.5 is the most recent and most versatile.

4.3 CHOICE OF HARDWARE

The system chosen to develop a package depends on the environment and the availability of computers. Due to the increasing wave of popularity of micro computers and the advent of new and sophisticated computers. The Transactional Package for Community Banks was developed on an IBM Compatible micro computers with the following configuration:

PENTIUM 233MMX

2.5 GB

32 MB RAM

Enhanced Keyboard 104+, WINDOWS '98 + MOUSE

WITH SOUND BLASTER

SPEAKERS

"14 MONITOR SVGA

2MB VGA CARD

ETC, ETC.

It runs using MS-DOS (Microsoft Disk Operating System) version 6.22 as the operating system as well as WINDOWS '95 OR '98. This opportunity gives a wider audience to the package as it can equally run on lower and higher configurations.

4.4 SYSTEM TESTING

The system testing was made possible using data which contained correct and invalid items and expected results were determined. The modular structure of the program made this easier. The four menu modules, OPEN, TRANSACTIONS, REPORTS AND EXIT function as expected of them when the output generated by the program is meticulously checked against the expected results. The results were found to be correct.

4.5 USER DOCUMENTATION

This package is strictly menu driven. It is friendly and it is easy to use with message to guide users in every step on the way. This documentation will go a step further to explain how it works to a novice or first time user in a step-by-step description. The writer however assumes that dBase IV is already installed in the machine, if this is not the case, the section on installation description will be found helpful.

4.5.1 FUNCTIONAL DESCRIPTION

This system is to help in the day-to-day operation of a bank. It also helps to make the bank more efficient and makes sure customers are attended to promptly.

The system requires that dBase IV version 1.0 or 1.1 be installed on the machine and that the monitor be either Monochrome or Coloured, the latter is preferred for maximum productivity. The system also requires MS-DOS 3.3 or higher.

The aim of this project is to help solve problems most banks faced now which is inefficiency and slow services. It was developed to help solve problems of who gains access to customer's account and to what extent. This to curb fraud which affects even the best of banks.

The system however does not calculate profits or losses, credits or debits to the bank and does not eliminate malpractice totally.

4.5.2 INSTALLATION DESCRIPTION

A typical installation has the following description: To install the system on a machine, dBase IV must also be resident on the machine.

The system is simply copied from the diskette into the hard disk of the machine if there is one or used straight from the floppy disk. A network is installed and all servers are connected to a host.

To copy to the hard disk, the operator is required to type in:

CD\DBASE4 <ENTER>

If the directory is not already in dBase IV and if the directory name is DBASE4.

The prompt then shows:

: \DBASE4 >

The operator then types in:

Copy A: *.* <ENTER>

and everything on the floppy diskette in drive A is copied to the desired directory in C:

4.5.3 GETTING STARTED

The steps to be taken in order to operate and use Transactional package for Community Banks are listed below:

- (a) Activating dBase IV package

This involves changing directory to the already existing dBase IV package by typing:

CD\DBASE4 <ENTER>

This takes the user to the dot prompt where dBase IV command can be issued.

- (b) **Activating the Transactional Package for community Banks.**

This involves typing the following at the dot prompt:

. Do Main

This will activate the package and the user will be prompted to enter his identification number and password thus:

ENTER PASSWORD:

After the correct Password is supplied, the main menu is displayed. There are four options in the main menu thus

- | | | | |
|-------|--------------|---|---------------------------|
| (i) | OPEN | - | For opening accounts |
| (ii) | TRANSACTIONS | - | For daily transaction |
| (iii) | REPORTS | - | Report generation |
| (iv) | EXIT | - | To get out of the package |

CHOOSING OPTION 1

This allows the user to open the following types of account:

- (i) CURRENT account
- (ii) DEPOSIT account
- (iii) SAVING account

CHOOSING OPTION 2

The user can perform the following operations

- (i) Calculate interest on various accounts
- (ii) Record daily transactions
- (iii) Cumulate daily transactions into monthly.

CHOOSING OPTION 3

This allows the user to produce the following reports:

- (i) Monthly reports
- (ii) Statement of account generation.

CHOOSING OPTION 4

This allows the user to exit the package either to the dot prompt or the dos prompt.

CHAPTER FIVE

CONCLUSION AND RECOMMENDATION

5.1 IMPLEMENTATION AND EVALUATION

INTRODUCTION:

Every part of the new system developed is scheduled to be tested in order to verify its operational capabilities. That is, all aspects of the system will be operationally tested before use. Newly designed input forms will be used in this exercise to test their effectiveness and efficiency and allow redesign. Outline files will be created and filled with test data to ensure their accuracy. When the components prove satisfactory, the components of the system are then integrated which leads to whole system tested in much the same way as programme is tested. The following sub heading form the path to implementation of the new system.

5.1.2 TRAINING

This involves the special training to be given to some of the personnel that will serve in this capacity. The new system requires the specialised training for a category of people to be able to operate the newly developed system which includes the following:

- i) Data Entry personnel
- ii) Computer Operators
- iii) Computer Scientist
- iv) Resident Analyst

Live data can now be used and when solid results are achieved, then the entire system can be reinitialised to handle live data.

5.1.3 CONVERSION

This involves the changing from the old system to the newly developed one. There are about three predominant approaches to conversion but one is recommended among the three listed operations involved in the bank.

1. Parallel run (or conversion)
2. Phased conversion
3. Crash conversion (or cut conversion)

Parallel Conversion

In this approach, the new system can be tested to run parallel with the old system, processing exactly the same data. The result of the new should be identical to the existing system. This should be conducted for a complete processing cycle.

Advantages

The organisation is protected from relying on an interested system. The original system is still providing necessary information.

Disadvantages:

The maintenance of the two systems during parallel run will increase the cost of the project. However, the consequences of an untried system may be more expensive in the long run.

Phased Conversion

This approach demands that components of the new system are integrated into the old system. The old system is phased out in piece by piece.

This is well suited to hierarchical system designs. Hierarchical solutions are composed of modules in which related processing activities are grouped. The top-down nature of hierarchical approach can be successfully applied to system design. It easily establishes relationships between modules and helps position them at their proper level in the overall design.

Advantages

The organisation has some parts for computer support. Conversion is gradual and the cost of operating two parallel system are minimised.

Disadvantages

It is time consuming. The relationship among subsystems is continually undergoing change.

Cash Conversion

This is the most drastic system implementation. In this approach an entire old system is completely dismantled, leaving the organisation to rely on the new one alone.

A crash conversion has merit when the old system is seriously inadequate or radically different from the new system and when the conversion is so rapid that it will not disrupt operations.

5.1.4 RECOMMENDATION

The phased conversion is the suggested or recommended approach to conversion for the following reasons:

1. It minimises extra costs on operations.
2. The newly designed project is in modules of operations hence each module can be tested and verified before going into the other modules.
3. If one module fails, it does not have any impact with other modules and thus can be taken off to be redesigned.
4. The old system keep working without any delay at any quarter.

5.2 EVALUATION

The three main facts that will be used to review the new system are as follows:

1. Event logging which demands for unexpected results that affect the system to be reviewed and corrected.
2. Impact evaluation which calls for the impact of the new calls for the impact of the new system and organisation positively or negatively and appropriate steps taken.

3. Attitude survey that calls for the sampling of people's opinion about the new system. All these areas are scheduled to be exploited and necessary steps will be taken accordingly.

5.3 PROBLEMS ENCOUNTERED

In the course of researching and developing this package, a number of problems were encountered. The lack of computers in the department and its environment had been the major bottleneck. Community Banking System is also relatively new in the Nigeria Banking system and so there was no ready source of data and information to consult.

5.3.1 CONCLUSION

The Transactional package for Community Banks has been designed, developed and implemented with the sole purpose of satisfying the customers request and to reduce the workload of the bank staff.

5.3.2 RECOMMENDATION

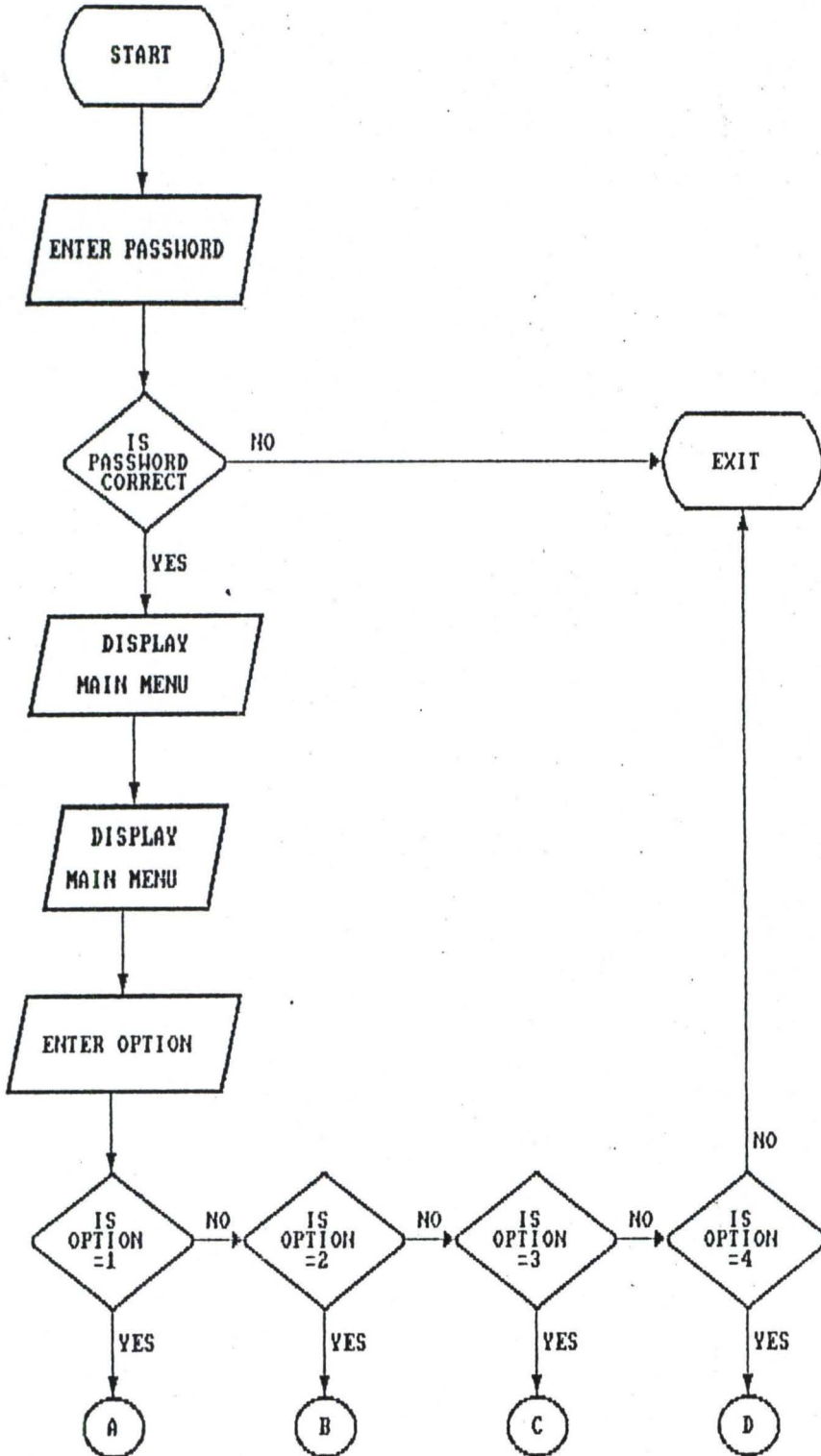
This system should be made operational in the Community Bank where it can serve as a model for their day-to-day transactions. The scope of transactions and operations of a bank is very wide, hence, the author was not able to cover certain aspect of the overall operations of banks especially loss and profits at the end of the fiscal year, general ledgers, running expenses and salaries of staff.

It is recommended therefore, that whoever might be interested to build on this project could go into the other aspects incorporating more of the functions of a Bank. Such a person must have shared the opinion that the community Banking system is a viable and profitable system if well monitored and managed.

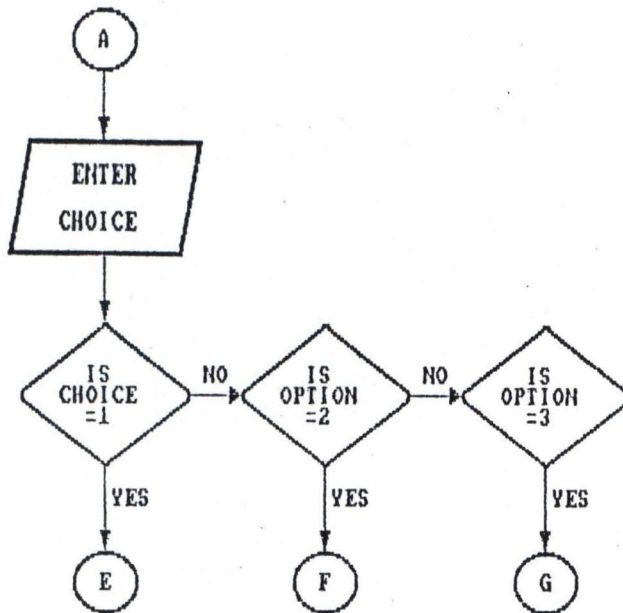
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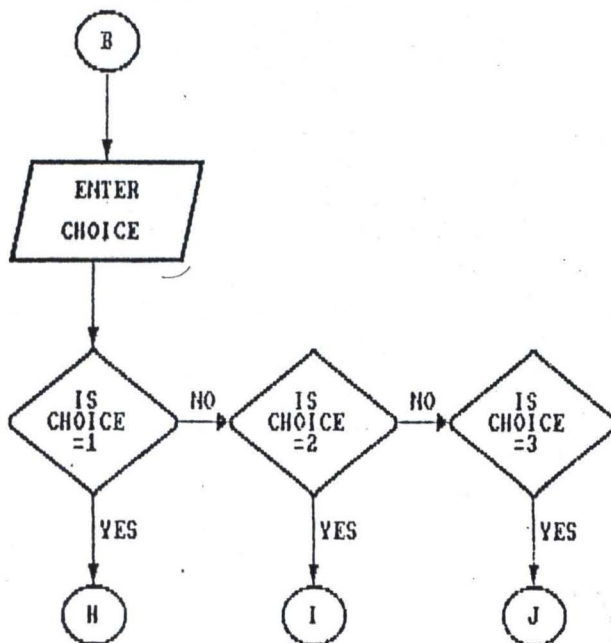
MAIN MENU



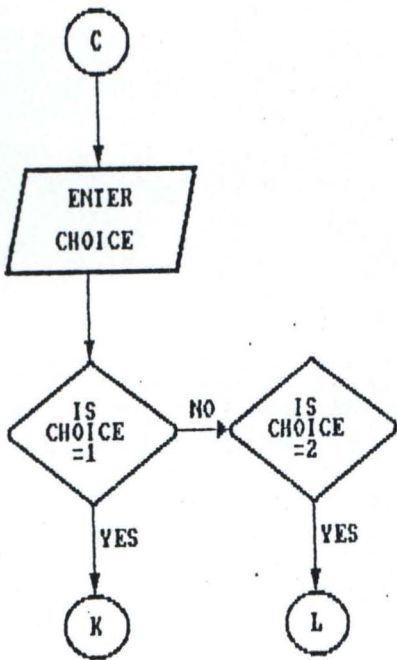
ACCOUNT OPENING MENU



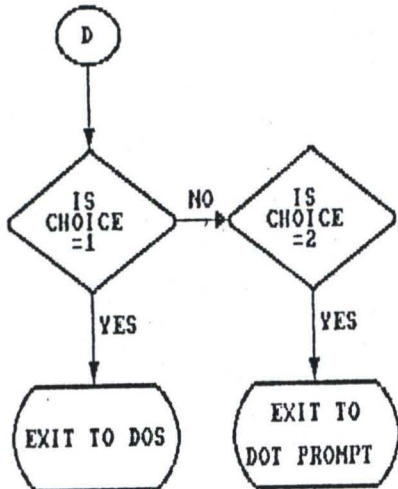
TRANSACTION MENU



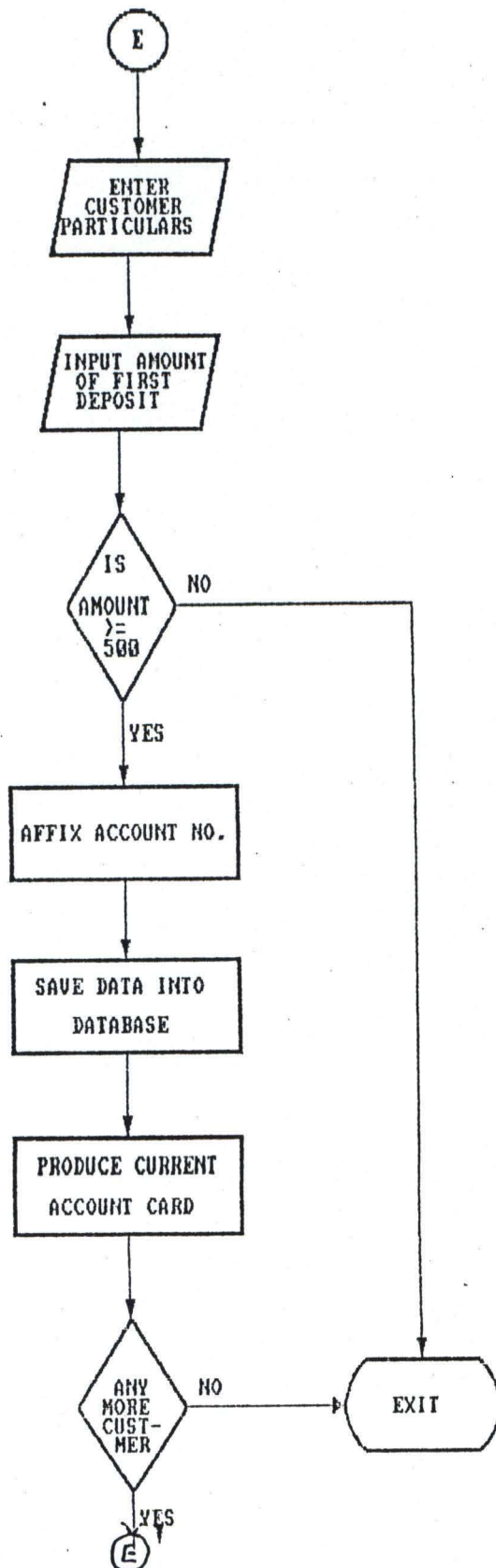
REPORT MENU



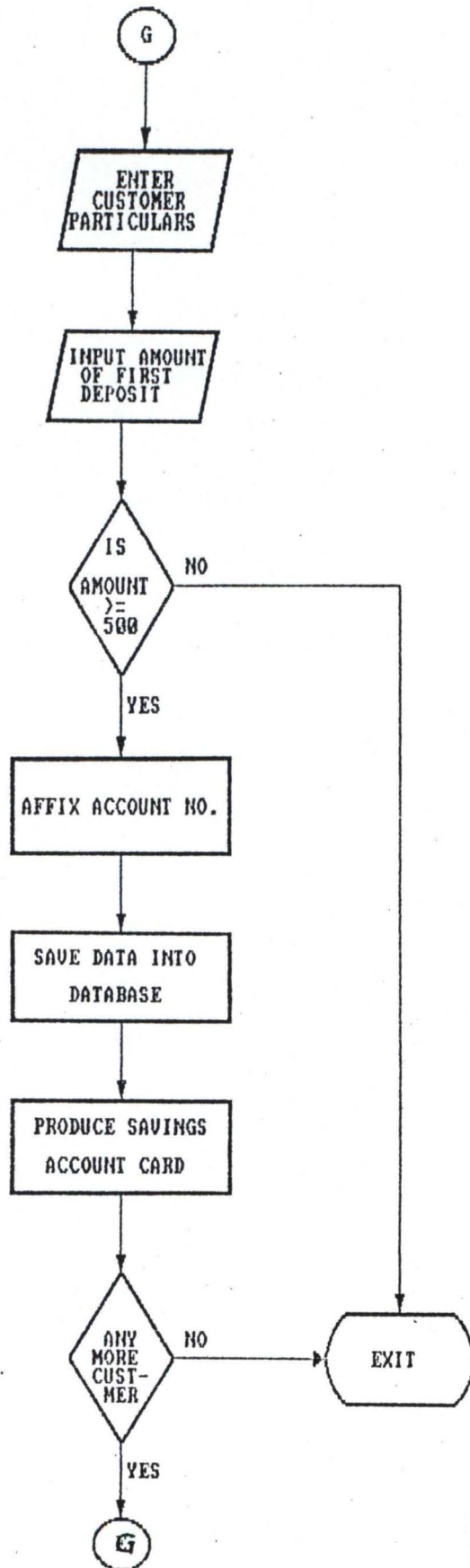
EXIT MENU



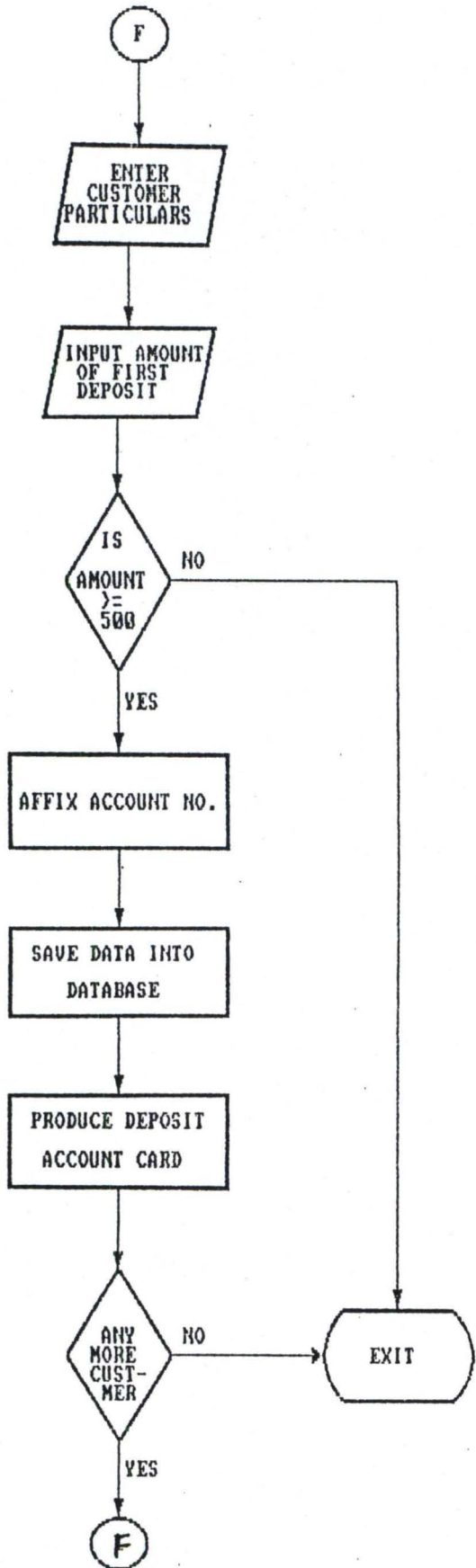
CURRENT ACCOUNT MODULE



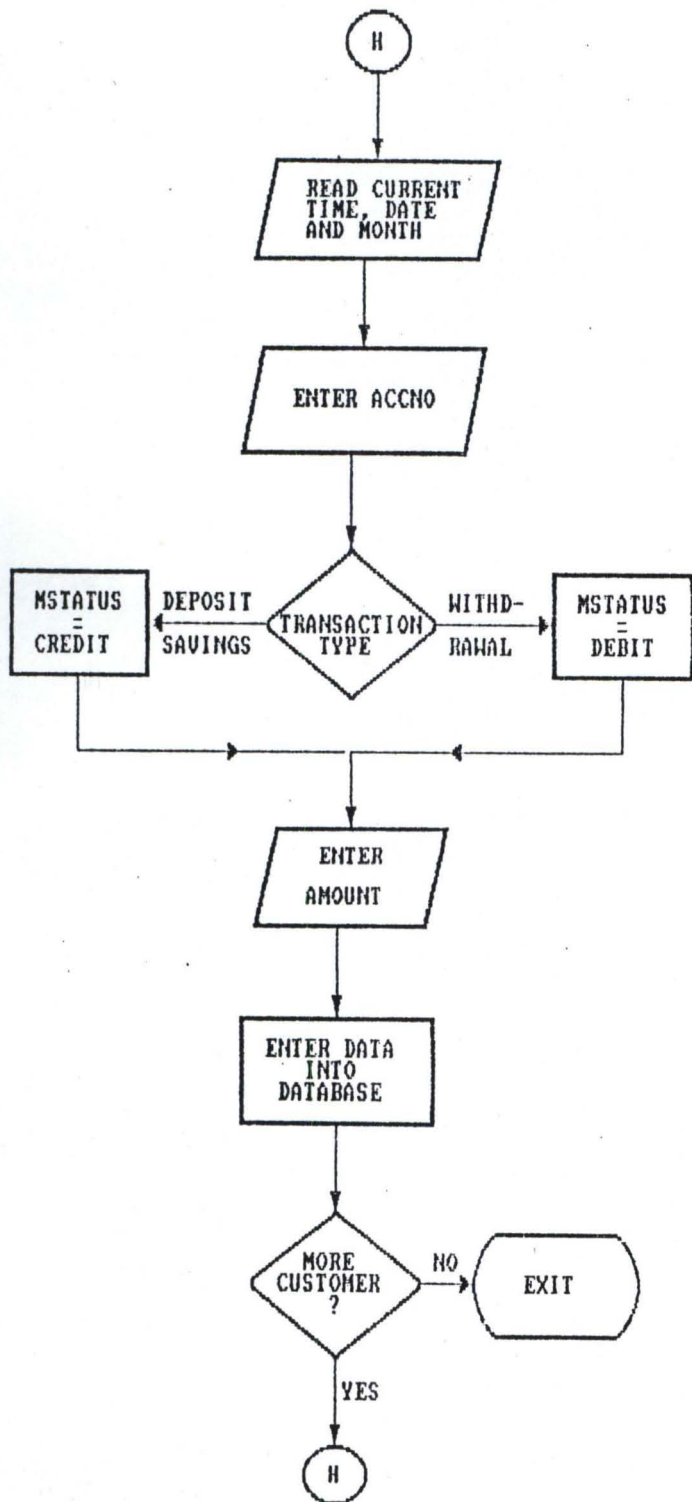
SAVINGS ACCOUNT MODULE



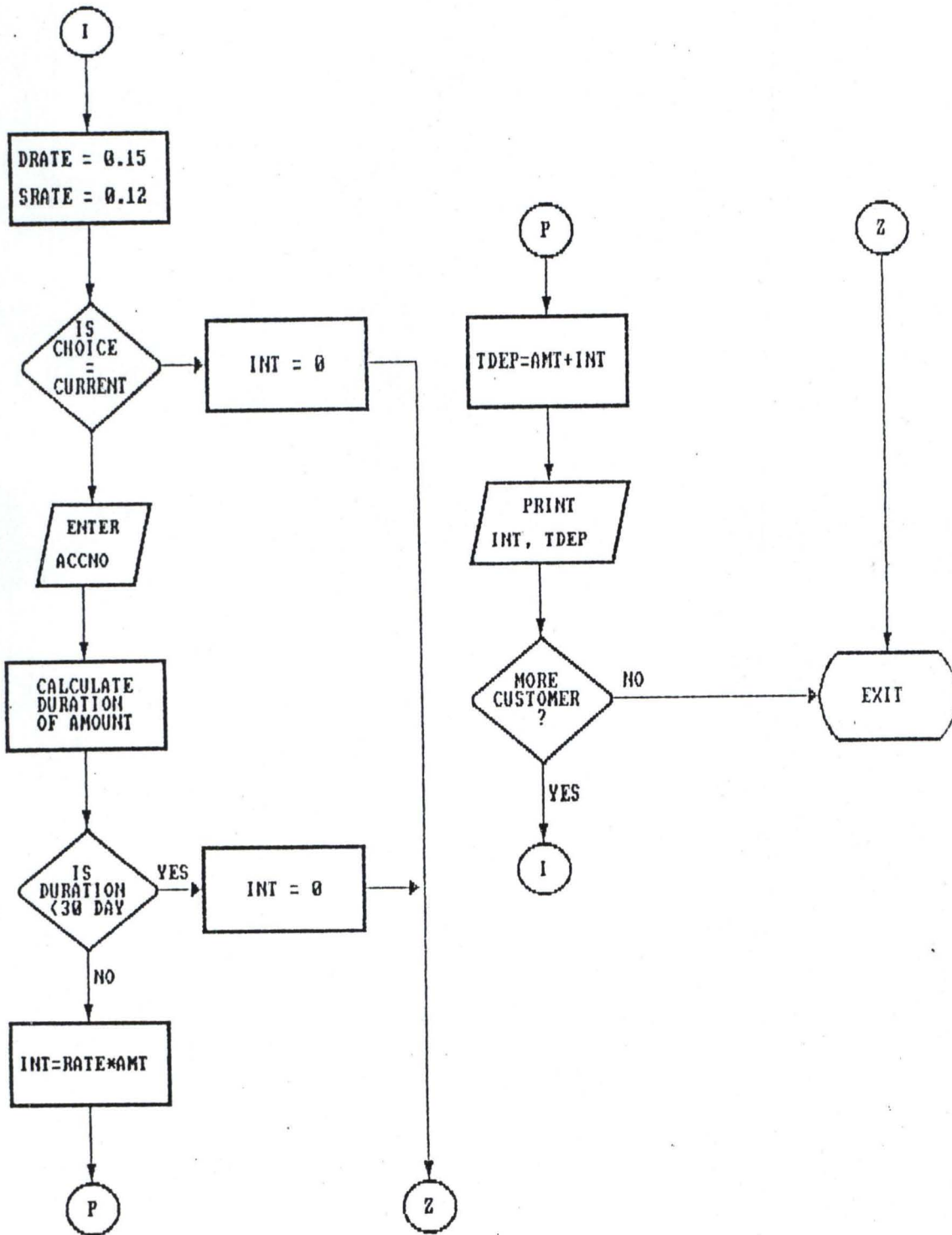
DEPOSIT ACCOUNT MODULE



MONTHLY MODULE



INTEREST MODULE



```
*****
* PROGRAM NAME:      MAIN.PRG      *
* DATE WRITTEN:     11-11-98      *
*****
```

```
SET TALK OFF
CLEAR ALL
STORE "SET COLOR TO R*/W*" TO HILITE
STORE "SET COLOR TO W/B" TO DEMO
STORE "SET COLOR TO" TO NORMAL
STORE .T. TO PASS
STORE 0 TO MCNT
DO WHILE PASS
&DEMO
```

```
    CLEAR
    @ 2,1 SAY "TODAY'S DAY IS:" COLOR R+
    ?? DATE()
    @ 2,50 SAY "TIME NOW IS:" COLOR R+
    ?? TIME()
    TEXT
```

THIS PACKAGE WAS
DEVELOPED BY AZUH O. PATRICK.
REGISTRATION NUMBER PGD/MCS/97/408.

IN PARTIAL FULFILMENT FOR THE AWARD OF PGD PROGRAMME
IN COMPUTER SCIENCE

BY THE DEPARTMENT OF COMPUTER SCIENCE
FACULTY OF SCIENCE
FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA.

ENDTEXT

```
*
* Password Protection Segments
*
```

```
@ 20,3 SAY " Please Enter Your Password " COLOR GR+*
SET ESCAPE OFF
SET EXACT ON
SET CONSOLE OFF
ACCEPT TO MPASS
STORE MCNT+1 TO MCNT
SET CONSOLE ON
IF MCNT > 2 .AND. UPPER(MPASS) # "SAY"
    SET ESCAPE ON
    SET EXACT OFF
    &NORMAL
    CLEAR
    @ 14,20 SAY "YOU ARE AN ILLEGAL USER! ACCESS DENIED."
    @ 15,25
    WAIT
    RETURN
ENDIF
IF UPPER(MPASS) # "SAY"
    &HILITE
    @ 20,0 CLEAR
    @ 22,17 SAY "INCORRECT PASSWORD, PLEASE TRY AGAIN"
    @ 23,78
    WAIT
    LOOP
ENDIF
STORE .F. TO PASS
ENDDO
```

ENDDO
&DEMO
DO SCREEN

2

* PROGRAM NAME: SCREEN.PRG *

3

SET TALK OFF
SET SCORE OFF
SET STAT OFF
SET BELL ON
STORE 0 TO MCNT
CLEAR
SET CONS OFF

DO WHILE MCNT < 300
@ 2,2 TO 20,78 COLO R*
@ 1,1 TO 21,79 CHR(176)
@ 5,4 SAY "
@ 10,3 TO 10,14 CHR(178)
@ 11,8 TO 16,9 CHR(178)
@ 12,8 TO 12,9 CHR(178)
@ 13,8 TO 13,9 CHR(178)
@ 14,8 TO 14,9 CHR(178)
@ 16,11 SAY CHR(236)
@ 10,22 TO 10,33 CHR(178)
@ 11,22 TO 16,22 CHR(178)
@ 11,23 TO 16,23 CHR(178)
@ 11,32 TO 13,32 CHR(178)
@ 11,33 TO 13,33 CHR(178)
@ 13,24 TO 13,32 CHR(178)
@ 16,25 SAY CHR(236)
@ 10,42 TO 10,53 CHR(178)
@ 11,42 TO 16,42 CHR(178)
@ 11,43 TO 16,43 CHR(178)
@ 16,43 TO 16,53 CHR(178)
@ 16,55 SAY CHR(236)
@ 10,61 TO 10,73 CHR(178)
@ 11,61 TO 16,61 CHR(178)
@ 11,62 TO 16,62 CHR(178)
@ 13,62 TO 13,73 CHR(178)
@ 11,73 TO 16,73 CHR(178)
@ 16,61 TO 16,73 CHR(178)
@ 16,75 SAY CHR(236)

W E L C O M E T O "

@ 18,3 SAY " AHMADU BELLO UNIVERSITY COMMUNITY BANK,
ZARIA, KADUNA STATE "
@ 19,12 SAY " DEVELOPED BY:MR. AZUH O. PATRICK"

MCNT = MCNT + 1
LOOP
ENDDO
SET CONS ON
CLEA
TEXT

THIS PROGRAM IS WRITTEN
AND DESIGNED
BY
AZUH O. PATRICK
REG.NO. PGD/MCS/97/408

FOR MODIFICATION AND MAINTAINANCE
CONTACT:
P O BOX 17, OGBEGO VILLAGE, UBULU-UKU
DELTA STATE.

ENDTEXT
WAIT
DO MENU

SET COLO TO W+/B
RETU

4

```
*****
** PROGRAM NAME: MENU.PRG *
*****
```

5

```
SET TALK OFF
SET STAT OFF
SET ESCAPE OFF
SET ECHO OFF
SET SCORE OFF
CLEAR
SET COLO TO W+/B
@ 1,1 CLEA TO 24,79
DO DECO
DEFINE MENU gen
DEFINE PAD Open OF gen PROMPT "OPEN" at 13,6
DEFINE PAD Transac OF gen PROMPT "TRANSACTIONS" AT 13,21
DEFINE PAD Report OF gen PROMPT "REPORTS" AT 13,39
DEFINE PAD Exit OF gen PROMPT "EXIT" AT 13,56
```

```
*-- Define pad actions
ON PAD Open OF gen ACTIVATE POPUP Copen
ON PAD Transac OF gen ACTIVATE POPUP Cstatement
ON PAD Report OF gen ACTIVATE POPUP Creport
ON PAD Exit OF gen ACTIVATE POPUP Cexit
DO DECO
```

```
*-- Define popups under pads menu
DEFINE POPUP Copen FROM 14,6
DEFINE BAR 1 OF Copen PROMPT " Savings " MESSAGE ;
"Select SAVINGS by highlighting and pressing the enter key"
DEFINE BAR 2 OF Copen PROMPT " Current " MESSAGE ;
"Select CURRENT by highlighting and pressing the enter key"
DEFINE BAR 3 OF Copen PROMPT " Deposit " MESSAGE ;
"Select DEPOSIT by highlighting and pressing the enter key"
ON SELECTION POPUP Copen DO Menu11
```

```
DEFINE POPUP Cstatement FROM 14,21
DEFINE BAR 1 OF Cstatement PROMPT "Monthly Transactions" MESSAGE ;
"Select for Monthly Transactins"
DEFINE BAR 2 OF Cstatement PROMPT "Interest" MESSAGE ;
"Select for Interest rate calculation"
DEFINE BAR 3 OF Cstatement PROMPT "Daily Transactions" MESSAGE ;
"Press Enter to input Transaction of the day"
ON SELECTION POPUP Cstatement DO Prc2
```

```
DEFINE POPUP Creport FROM 14,38
DEFINE BAR 1 OF Creport PROMPT "Monthly Report" MESSAGE ;
"Review of Monthly Transactions"
DEFINE BAR 2 OF Creport PROMPT "Statement of Account" MESSAGE ;
"Press Enter key to generate customer's statement of account"
ON SELECTION POPUP Creport DO Prc3
```

```
DEFINE POPUP Cexit FROM 14,55
DEFINE BAR 1 OF Cexit PROMPT "Exit to Dos" MESS ;
"Press Enter to exit to MS-DOS Prompt"
DEFINE BAR 2 OF Cexit PROMPT "Exit to Dot Prompt" MESS ;
"Press Enter to Exit to dBase IV Dot Prompt"
ON SELECTION POPUP Cexit DO exi
ACTIVATE MENU gen PAD OPEN
RELEASE MENU
```

```
PROCEDURE Menu11
DO CASE
CASE BAR() = 1
DO SAVINGS
```

CASE BAR() = 2
DO CURRENT
CASE BAR() = 3
DO DEPOSIT
ENDCASE
RETU

PROCEDURE PRC2
DO CASE
CASE BAR() = 1
DO DATA
CASE BAR() = 2
DO INTEREST
CASE BAR() = 3
DO SUMRY
ENDCASE
RETU

PROCEDURE PRC3
DO CASE
CASE BAR() = 1
DO MONTHLY
CASE BAR() = 2
DO STATE1
ENDCASE
RETU

PROCEDURE EXI
DO CASE
CASE BAR() = 1
@ 1,1 CLEA TO 24,79
QUIT
CASE BAR() = 2
@ 1,1 CLEA TO 24,79
DEACTIVATE MENU
RETU
ENDCASE

PROC DECO
@ 1, 1 TO 20,78 DOUB COLO
@ 3,19 SAY "TRANSACTIONAL PACKAGE FOR COMMUNITY BANKS" COLO R
@ 5,28 SAY "A.B.U COMMUNITY BANK LTD." COLO G
@ 6,33 SAY "SAMARU - ZARIA"
@ 7,34 SAY "KADUNA STATE" COLO G
RETU


```

*****
* PROGRAM NAME: CURRENT.PRG *
*****
** Setting the environment
SET BELL ON
SET STAT OFF
SET TALK OFF
SET SAFE OFF
SET DELI ON
SET DELI TO []
*SET COLO OF FIELDS TO N/B
**-- Initialising the variables to be used
STORE SPACE(8) TO DATE
STORE DATE() TO DATE
STORE " / " TO Macc
STORE " " TO P,Msex,Mstatus
STORE SPACE(40) TO Mname
STORE SPACE(15) TO OCCU,PWORK
STORE SPACE(80) TO ADDRESS
STORE SPACE(120) TO EMPADD,MHUS,COMPADD,SOCADD
STORE SPACE(11) TO MTELL
STORE SPACE(119) TO MREF
STORE 0 TO AMT

**-- Printing and underlining headings
@ 2,21 SAY "OPENING OF CURRENT ACCOUNT"
@ 3,21 TO 3,46

**-- Inputing and reading data from the screen

H = .T.
DO WHILE H
@ 4,1 SAY "Enter Name <Surname first>" GET MNAME PICT REPL("!",40)
@ 5,1 SAY "Nature of Account" GET P PICT "!" Mess "Press P-Personal,C-
S-Society"
READ
@ 24,1
IF .NOT. P$ 'PCS'
  @ 5,1 Clear to 23,79
  @ 22,1 SAY "Invalid Entry, Press Any Key To Try Again"
  read
@ 22,1
  LOOP
ENDIF
IF P = "P"
  @ 6,1 SAY "Enter Employee's Name And Address"
  @ 7,1 GET EMPADD PICT REPL("!",40)
@ 8,1 SAY "Enter Cutomer's Sex" GET Msex PICT "!" Mess "F-Female,;
M-Male"
READ
@ 24,1
  IF .NOT. MSEX$ 'FM'
@ 10,1 Clear to 23,79
  @ 22,1 SAY "Invalid Entry, Press Any Key To Try Again"
  READ
@ 22,1
  LOOP
  ENDIF
  IF MSEX = "F"
    @ 10,1 SAY " Enter Marital Status" GET Mstatus Mess "M-Married,;
S-Single"
  READ
  IF .NOT. MSTATUS$ 'SM'
    @ 11,1 Clea to 23,79

```

7

```

@ 22,1 SAY "Invalid Entry, Press Any Key To Try Again"
READ
@ 22,1
LOOP
ENDIF
IF MSTATUS = "M"
    @ 11,1 SAY "Enter Husband's Name And Address:"
    @ 12,1 GET Mhus PICT REPL("!",120)
    READ
ENDIF
ENDIF
ENDIF
IF P = "C"
@ 6,1 SAY "Enter Company,s Name And Address"
@ 7,1 GET SOCADD PICT REPL("!",120)
READ
    ENDIF
@ 14,1 SAY "Enter Account Number :" GET Macc PICT "OCB/9999999"
@ 14,34 SAY "Enter Occupation Or Business:" GET OCCU PICT REPL("!",15)
@ 16,1 SAY "Enter Place Of Work :" GET PWORK PICT REPL("!",15)
@ 17,34 SAY "Enter Address [Not P.O.Box or P.M.B.]"
@ 18,1 GET ADDRESS PICT REPL("!",15)
@ 19,1 SAY "Enter Telephone Number" GET MTELL PICT "99-9999999"
@ 19,40 SAY "Enter Date Account Opened:" GET DATE;
    Mess "Please Ensure That The System Date Is correct"
@ 20,1 SAY "Enter Two Referees:" GET MREF PICT REPL("!",110)
@ 22,1 SAY "What's The Amount Of First:" GET AMT;
    PICT "9999999999999999.99" Mess "Minimum of =N=500"

READ
DO WHILE AMT < 500
    @ 1,1 CLEAR TO 24,79
    @ 12,10 SAY "Cannot open Account for Amount less than =N=500!"
    WAIT
    @ 1,1 CLEA TO 24,79
    DO DECO
    DEACTIVATE POPUP

    RETU
ENDDO

ANS = .T.
**-- Checking whether to save data or not
@ 23,1 SAY "Do you want to SAVE this record? Y/N" GET ANS
READ

**-- Saving data into the database file
IF ANS
USE GENERAL          && Database file in use
APPEND BLANK
    REPLACE DDATE WITH DATE,;
    DMACC WITH MACC,DP WITH P,;
    DMSEX WITH MSEX,DMSTATUS WITH MSTATUS,;
    DMNAME WITH MNAME, DOCCU WITH OCCU,;
    DPWORK WITH PWORK, DADDRESS WITH ADDRESS,;
    DMREF WITH MREF, DEMPADD WITH EMPADD,;
    DMHUS WITH MHUS, DMTELL WITH MTELL,;
    DCOMPADD WITH COMPADD,DSOCADD WITH SOCADD,;
    DAMT WITH AMT
ENDIF
@ 23,1

**-- Checking if there are other customers to attend to
@ 23,1 SAY "Any Other Customer To Open Account? Y/N" GET H
READ
@ 23,1

```

IF H
@ 5,1 CLEA TO 23,79
LOOP
ELSE
H = .F.
ENDIF
ENDDO
CLOSE DATA
@ 1,1 CLEA TO 24,79
DO DECO
DEACTIVATE POPUP
RETU

9

**** end of program current.prg ****

```
*****
** PROGRAM NAME: DEPOSIT.PRG
*****
```

10

```
SET SCORE OFF
SET BELL ON
SET STAT OFF
SET TALK OFF
SET SAFE OFF
SET DELI ON
SET DELI TO "[]"
CLEAR
USE GENERAL
ANS = .T.
STORE " / " TO MACC
STORE SPACE(7) TO ACCOUNT
STORE 0 TO AMT
STORE " " TO DATE
DATE = DATE()
SRATE = 0.12
DRATE = 0.15
STORE SPACE(80) TO ADDRESS
STORE SPACE(20) TO SNAME
STORE SPACE(15) TO PADD,SINS,OCCU,PWORK
STORE SPACE(50) TO ONAME
H = .T.
DO WHILE H
@ 2,15 SAY "SAVINGS/DEPOSIT ACCOUNT OPENING/SIGNATURE CARD"
@ 3,15 TO 3,60 DOUB
@ 5,1 SAY 'Date Is ' GET DATE
@ 5,50 SAY "Type Of Account "GET ACCOUNT PICT
"!!!!!!" MESS "Savings Or Deposit"
@ 6,50 SAY "Enter Space To Exit"
READ
@ 6,1
IF ACCOUNT = SPACE(7)
CLEAR
DO DECO
DEACTIVATE POPUP
RETURN
ENDIF
@ 24,1
IF .NOT. ACCOUNT$ 'SAVINGSCURRENTDEPOSIT'
@ 6,1 CLEAR TO 23,79
@ 22,1 SAY "Invalid Entry, Press Any Key To Again"
read
@ 22,1
LOOP
ENDIF
@ 7,20 SAY "Account Number" GET MACC PICT "OCB/999999"
*@ 9,1 SAY "Surname" GET SNAME PICT REPL("!",20)
@ 9,1 SAY "Input Name (Surname First):" GET ONAME PICT REPL("!",50)
@ 11,10 SAY "Enter Amount Of First Deposit:" GET AMT PICT "9,999,999.9"
@ 13,1 SAY "Enter Occupation:" GET OCCU PICT REPL("!",15)
@ 13,38 SAY "Enter Place Of Work:" GET PWORK PICT REPL("!",15)
@ 15,1 SAY "Enter Full Address:"
@ 15,20 GET ADDRESS PICT REPL("!",80)
@ 18,1 SAY "Enter Postal Address (If Different From Above):" GET PADD
@ 20,1 SAY "Enter Special Instruction:" GET SINS PICT REPL("!",30)
READ
DO WHILE AMT < 500
@ 1,1 CLEA TO 24,79
@ 12,10 SAY "Cannot Open Account For Amount Less Than =N=500!"
SET COLO TO R*
```

WAIT
CLEAR
DO DECO
DEACTIVATE POPUP
RETU
ENDDO
@ 22,5 SAY "Do you want to save this record? Y/N" GET ANS
READ
@ 22,1
IF ANS
APPEND BLANK
REPLACE DMACC WITH MACC, DACCOUNT WITH ACCOUNT, DPADD WITH PADD;
, DSINS WITH SINS, DADDRESS WITH ADDRESS, DSNAME WITH SNAME;
, DOCCU WITH OCCU, DONAME WITH ONAME, DPWORK WITH PWORK, DAMT WITH AMT
DO CARD1
ENDIF
@ 23,1
@ 23,1 SAY "Any Other Customer To Open Account? Y/N" GET H
READ
IF H
@ 1,1 CLEAR TO 23,79
LOOP
ELSE
H = .F.
ENDIF
ENDDO
@ 1,1 CLEAR TO 24,79
DO DECO
DEACTIVATE POPUP
RETU

***** end of deposit.prg program *****

** PROGRAM NAME: SAVINGS.PRG

12

SET STAT OFF
SET TALK OFF
SET SAFE OFF
SET DELI ON
SET DELI TO " [] "
CLEA
DO DEPOSIT
@ 1,1 CLEA TO 24,79
DEACTIVATE POPUP
RETU

** PROGRAM NAME: CARD.PRG *

17

```
SET STAT OFF
SET TALK OFF
SET DELI ON
SET SCORE OFF
SET DELI TO []
SET DATE TO BRIT
CLEAR
@ 3,8 TO 22,61 DOUB COLO R
@ 4,10 TO 11,59 COLO G
@ 7,12 SAY "ABU COMMUNITY BANK LTD.           Account Card"
@ 8,14 SAY "ABU, SAMARU-ZARIA"
@ 10,23 SAY "CURRENT ACCOUNT CARD"
@ 12,15 SAY "ACCOUNT NO.:"
@ 14,15 SAY "NAME           :"
@ 16,15 SAY "ADDRESS          :"
@ 18,15 SAY "AMT OF FIRST DEPOSIT:"
@ 20,12 SAY "OPERATIONS ON THIS ACCOUNT TAKES EFFECT AS FROM:" COLO G
@ 21,20 SAY "TODAY" COLO G
@ 21,26 SAY UPPER(CDOW(DATE())) COLO G
@ 21,35 SAY DATE() COLO R
USE GENERAL
GO BOTTOM
@ 12,27 SAY DMACC COLO R
@ 14,27 SAY RTRIM(DMNAME) COLO R
@ 16,27 SAY RTRIM(DADDRESS) COLO R
@ 18,38 SAY DAMT COLO R
RETU
```

***** end of card.prg program *****

** PROGRAM NAME: DECO.PRG *

14

@ 1,1 TO 20,78 DOUB COLO
@ 3,19 SAY "TRANSACTIONAL PACKAGE FOR COMMUNITY BANKS" COLO R
@ 5,29 SAY "A.B.U. COMMUNITY BANK LTD." COLO G
@ 6,37 SAY "SAMARU CAMPUS" COLO G
@ 7,35 SAY "ZARIA CITY, KADUNA STATE." COLO G
RETU

** PROGRAM NAME: CARD1.PRG *

15

```
SET STAT OFF
SET TALK OFF
SET DELI ON
SET SCORE OFF
SET DELI TO []
SET DATE TO BRIT
CLEAR
@ 3,8 TO 22,61 DOUB COLO R
@ 4,10 TO 11,59 COLO G
@ 7,12 SAY "ABU COMMUNITY BANK LTD.           Account Card"
@ 8,14 SAY "ABU, SAMARU-ZARIA"
@ 10,23 SAY "CURRENT ACCOUNT CARD"
@ 12,15 SAY "ACCOUNT NO.:"
@ 14,15 SAY "NAME          :"
@ 16,15 SAY "ADDRESS         :"
@ 18,15 SAY "AMT OF FIRST DEPOSIT:"
@ 20,12 SAY "OPERATIONS ON THIS ACCOUNT TAKES EFFECT AS FROM:" COLO G
@ 21,20 SAY "TODAY" COLO G
@ 21,26 SAY UPPER(CDOW(DATE())) COLO G
@ 21,35 SAY DATE() COLO R
USE GENERAL
GO BOTTOM
@ 12,27 SAY DMACC COLO R
@ 14,27 SAY RTRIM(DONAME) COLO R
@ 16,27 SAY RTRIM(DADDRESS) COLO R
@ 18,38 SAY DAMT COLO R
RETU
```

***** end of card1.prg program *****

```
*****
** PROGRAM NAME: INTEREST.PRG *
*****
```

16

```
**-- Clearing the screen
CLEAR
```

```
**-- Setting up the environment
SET TALK OFF
SET SAFE OFF
SET STAT OFF
SET DELI ON
SET CENT ON
SET DELI TO "[ ]"
```

```
USE GENERAL      && Database File in use
```

```
**-- Initialising variables
ANS = .T.
STORE " / " TO MACC
STORE SPACE(7) TO ACCOUNT
STORE 0 TO FDEP, INT, TDEP, NMONTHS, CALDATE
STORE " " TO DATE
DATE = DATE()
MDATE = { }
```

```
**-- Fixing of interest at 12% for Savings Account
**-- and 15% for Deposit Account.
SRATE = 0.12
DRATE = 0.15
H = .T.
DO WHILE H
```

```
**-- Printing and underlinig page headings
@ 2,2 TO 20,72 DOUB COLO R
@ 4,15 SAY "SAVINGS/DEPOSIT ACCOUNT INTEREST CALCULATION"
@ 5,15 TO 5,58 DOUB
```

```
**-- Reading data from keyboard
@ 7,5 SAY "Today's Date Is:" GET DATE;
  Mess "Please ensure that the system date is";
+ "correct before proceeding with this program."
@ 7,44 SAY "Type Of Account:";
GET ACCOUNT PICT "!!!!!!" ;
Mess "SAVINGS,DEPOSIT,BLANK TO EXIT"
@ 8,50 SAY "Enter Space To Exit"
READ
@ 8,3 CLEA TO 8,70
```

```
**-- allows user to exit program if he so desires
IF ACCOUNT = SPACE(7)
  @ 1,1 CLEA TO 23,79
  DO DECO
  DEACTIVATE POPUP
  RETURN
ENDIF
```

```
**-- makes sure only valid entries are allowed
@ 24,1
IF .NOT. ACCOUNT$ 'SAVINGSDEPOSIT'
  @ 6,1 CLEAR TO 23,79
  @ 22,1 SAY "Invalid Entry Encountered, Press A Key To Try Again"
  read
  @ 22,1
```

loop
endif

17

```
**-- no interest on Current Accounts
IF ACCOUNT = 'CURRENT'
@ 16,1 SAY 'NO INTEREST FOR CURRENT ACCOUNT PLEASE !!!'
@ 22,1 SAY 'PRESS A KEY TO CONTINUE.....'
READ
@ 1,1 CLEA TO 24,79
DO DECO
DEACTIVATE POPUP
RETURN
@ 22,1
@ 16,1
ENDIF
@ 9,23 SAY "Account Number:";
GET MACC PICT "OCB/999999"
@ 11,12 SAY "Amount Of First Deposit:";
GET FDEP PICT "9,999,999.99"
@ 17,9 SAY "What is the date of last withdrawal?";
GET MDATE PICT "@D"
READ
CLEAR
```

```
**-- calculating period on which interest is to be calculated
**-- (mininum of 30 days"
CALDATE = DATE() - MDATE
DO CASE
CASE CALDATE < 30
INT = 0
@ 8,4 TO 16,73 DOUB
@ 10,29 SAY "Account Status:" COLO G
@ 12,12 SAY "You have only saved for" GET CALDATE PICT "999999"
@ 12,44 SAY "days"
@ 14,7 SAY "Please Note: No interest for durations less than 30 days
READ
CASE CALDATE >= 30 .AND. CALDATE <= 180
NOMONTHS = INT(CALDATE/30)
```

```
**-- interest on Deposit Accounts
IF ACCOUNT = 'DEPOSIT'
@ 7,7 TO 18,72 COLO GR
@ 9,25 SAY "Calculated Interest " colo r*

INT = FDEP * DRATE/12 * NOMONTHS
TDEP = FDEP + INT
@ 11,20 SAY 'Interest To Date Is: ';
GET INT PICT "999,999.99"
@ 14,16 SAY 'Total Amount To Date Is =: ';
GET TDEP PICT '9,999,999.99'
@ 17,9 SAY "Number Of Days On Which Interest Is Calculated =:"
@ 17,58 GET CALDATE
```

ELSE

```
**-- Interest on Savings Accounts
IF ACCOUNT = 'SAVINGS'
@ 7,7 TO 18,72 COLO GR
@ 9,25 SAY "Calculated Interest " colo r*
INT = FDEP * SRATE/12 * NOMONTHS
TDEP = FDEP + INT
@ 11,20 SAY 'Interest To Date Is: ';
GET INT PICT '999,999.99'
@ 14,16 SAY 'Total Amount To Date Is =: ';
```

```
GET TDEP PICT '9,999,999.99'  
@ 17,9 SAY "Number Of Days On Which;  
Interest Is Calculated =:"  
@ 17,58 SAY CALDATE  
ENDIF  
ENDIF  
CASE CALDATE > 180  
@ 1,1 CLEAR TO 24,79  
@ 6,13 TO 14,64 DOUB  
@ 8,30 SAY "Account Status"  
@ 12,15 SAY "Your Account Is Dormant, You Need To Reactivate" COLO R*  
ENDCASE
```

```
**-- checking if there are more customers to attend to.  
@ 23,1 SAY "Any Other Customers To Attend To? Y/N" GET H  
READ  
IF H  
@ 1,1 CLEAR TO 23,79  
LOOP  
ELSE  
H = .F.  
@ 1,1 CLEA TO 24,79  
DO DECO  
DEACTIVATE POPUP  
RETU  
ENDIF  
ENDDO  
@ 1,1 CLEA TO 24,79  
DEACTIVATE MENU  
RETURN
```

***** end of interest.prg program *****

```
*****
** PROGRAM NAME: SUMRY.PRG *
*****
```

19

```
**-- setting up the envoronment
SET TALK OFF
SET STAT OFF
```

```
**-- clearing the screen
CLEAR
```

```
USE SUMRY      && database file in use
```

```
**-- initialising variables
STORE 0 TO AMT
STORE SPACE(15) TO COM
STORE SPACE(10) TO PAR,CHKNU
STORE SPACE(3) TO MNO
STORE SPACE(7) TO STA
STORE {      } TO DAT
STORE SPACE(8) TO TIM
DAT = DATE()
TIM = TIME()
ANS = .T.
REM = .T.
```

```
**-- requesting and storing data
DO WHILE REM
@ 2,8 SAY "Enter Date           :" GET DAT
@ 4,8 SAY "Enter Time           :" GET TIM
@ 6,8 SAY "Enter Month          :" GET MNO PICT "AAA"
@ 8,8 SAY "Enter Particulars    :" GET PAR MESS "Savings,Deposit,;
Withdrawal"
READ
@ 24,0
```

```
**-- debiting or crediting account
IF PAR = "SAVINGS" .OR. PAR = "DEPOSIT"
STA = "CREDIT"
ELSE
IF PAR = "WITHDRAWAL"
STA = "DEBIT"
ENDIF
ENDIF
@ 10,8 SAY "Enter Status        :" GET STA

@ 12,8 SAY "Is this Transaction by Cheque? Y/N" GET ANS
READ
@ 12,8
@ 12,8 SAY "Enter Cheque Number   :" GET CHKNU;
      PICT "OCB/999999" WHEN ANS = .T.
@ 14,8 SAY "Enter Amount         :" GET AMT PICT "99999999999999.99"
@ 16,8 SAY "Enter Comment        :" GET COM
READ
```

```
**-- determinig whether to save record or not
@ 18,8 SAY "Do you want to Save thie record? Y/N" GET REM
READ
@ 18,8
IF REM
```

```
**-- saving record into the database file
APPE BLAN
REPLACE MONTH WITH MNO,PARTICULA WITH PAR,DATE WITH DAT,TIME WITH TIM;
```

COMMENT WITH COM, AMOUNT WITH AMT, STATUS WITH STA, CHKNO WITH CHKNU
@ 22,8 SAY "Any More Records To Input? Y/N?" GET REM

20

READ
IF REM
LOOP
ENDIF
ELSE

**-- checking whether there are more customers to attend to
@ 22,8 SAY "Any more records to input? Y/N" GET REM

READ
@22,8
IF REM
LOOP
ELSE
@ 1,1 CLEAR TO 24,79
DO DECO
DEACTIVATE POPUP
RETU
ENDIF
ENDIF
ENDDO
@ 1,1 CLEA TO 24,79
DO DECO
DEAC POPUP
RETU

***** end of sumry.prg program *****

```
*****
* PROGRAM NAME: DATA.PRG *
*****
```

21

```
SET DELI TO "||"
SET TALK OFF
SET STATUS ON
SET DELI ON
USE SUMRY
STORE { / / } TO MDATE
STORE TIME() TO MTIME
STORE SPACE(3) TO MMONTH
STORE SPACE(10) TO MPARTICULA, MCHKNO
STORE SPACE(15) TO MCOMMENT
STORE SPACE(7) TO MSTATUS
STORE 0 TO MAMOUNT
MDATE = DATE()
MTIME = TIME()
ANS = .T.
DO WHILE ANS
SET ESCAPE ON
@ 2,5 SAY "Today's Date Is   :" GET MDATE
@ 4,5 SAY "Current Time Is   :" GET MTIME
@ 6,5 SAY "Enter Month       :" GET MMONTH PICT "!!!";
MESS "JAN For JANUARY, FEB For FEBRUARY, ETC"
@ 8,5 SAY "Enter Particular  :" GET MPARTICULA PICT REPL("!",10);
MESS "SAVINGS,OR DEPOSIT OR WITHDRAWAL"
READ
@ 24,0
IF MPARTICULA = "SAVINGS" .OR. MPARTICULA = "DEPOSIT"
    MSTATUS = "CREDIT"
IF MPARTICULA = "WITHDRAWAL"
    MSTATUS = "DEBIT"
ENDIF
ENDIF
@ 10,5 SAY "Enter Status       :" GET MSTATUS PICT REPL("!",7)
@ 12,5 SAY "Enter Check Number  :" GET MCHKNO PICT "OCB/999999"
@ 14,5 SAY "Enter The Amount    :" GET MAMOUNT PICT "99999999999999.99"
@ 16,5 SAY "Enter Comment      :" GET MCOMMENT PICT REPL("!",15)
READ
@20,0
IF ANS
APPE BLAN
REPLACE DATE WITH (MDATE), TIME WITH (MTIME)
REPL MONTH WITH MMONTH;
,CHKNO WITH MCHKNO, STATUS WITH MSTATUS, COMMENT WITH MCOMMENT;
,AMOUNT WITH MAMOUNT, PARTICULA WITH MPARTICULA
ENDIF
H = .T.
store space(1) to H
DO WHILE .NOT. H $"YnN"
@ 20,5 SAY "Do you still have more records to input? Y/N" GET H
READ
ENDDO
IF UPPER(H
```

LOOP
ELSE
CLEA
@ 1,1 CLEA TO 23,79
CLOSE DATA
DEAC POPUP
DO DECO
ENDIF
RETURN
ENDDO

22

*** end of data.prg program ***

* PROGRAM NAME: MONTHLY.PRG *

*-- setting up the environment
SET CENT OFF
SET STAT OFF
SET TALK OFF
SET DELI OFF

**--clearing the screen
CLEAR

**--initialising variables
R = 7 && row
SN = 0 && serial number
MTH = " " && month

USE SUMRY && database file in use

**-- printing headings
@ 2,17 SAY "AHMADU BELLO UNIVERSITY COMMUNITY BANK MONTHLY REPORT"
@ 3,17 SAY REPL("*",53)

**-- allows user to exit from the program if they don't wish to contin
@ 6,8 SAY "Enter Space To Exit"
READ
@6,0
IF MTH = " "
 @ 1,0 CLEA TO 24,79
 DO DECO
DEAC POPUP
RETU
ENDIF

**-- printing sub-headings
@ 7,1 SAY "S/N DATE MONTH PARTICULAR STATUS AMOUNT CH
 COMMENT"
@ 5,20 SAY "Report For The Month Of: "
DO CASE
 CASE MTH = 'JAN'
 @ 5,44 SAY 'JANUARY'
CASE MTH = 'FEB'
 @ 5,44 SAY 'FEBRUARY'
CASE MTH = 'MAR'
 @ 5,44 SAY 'MARCH'
 CASE MTH = 'APR'
 @ 5,44 SAY 'APRIL'
 CASE MTH = 'MAY'
 @ 5,44 SAY 'MAY'
 CASE MTH = 'JUN'
 @ 5,44 SAY 'JUNE'
 CASE MTH = 'JUL'
 @ 5,44 SAY 'JULY'
 CASE MTH = 'AUG'
 @ 5,44 SAY 'AUGUST'
 CASE MTH = 'SEP'
 @ 5,44 SAY 'SEPTEMBER'
 CASE MTH = 'OCT'
 @ 5,44 SAY 'OCTOBER'
 CASE MTH = 'NOV'
 @ 5,44 SAY 'NOVEMBER'
 CASE MTH = 'DEC'
 @ 5,44 SAY 'DECEMBER'

24

ENDCASE

```
**-- scanning for transactions of the specified month from the databas  
**-- file  
DO WHILE .NOT. EOF()  
SCAN FOR MONTH = MTH  
SN = SN + 1  
R = R + 1  
@ R,1 GET SN PICT "99"  
@ R,5 SAY DATE  
@ R,15 SAY MONTH  
@ R,21 SAY PARTICULA  
@ R,33 SAY STATUS  
@ R,43 SAY AMOUNT  
@ R,60 SAY CHKNO  
@ R,74 SAY COMMENT  
ENDSCAN  
ENDDO  
CLOSE DATA  
WAIT  
@ 1,0 CLEA TO 24,79  
DO DECO  
DEAC POPUP  
RETU
```

**** end of monthly.prg program ****

* PROGRAM NAME: STATE1.PRG *

25

```
SET SCORE OFF
SET TALK OFF
SET STAT OFF
SET SAFE OFF
SET DATE TO BRIT
DDATE = (      )
STORE SPACE(10) TO ACCNO
STORE SPACE(15) TO NAME, ADDRESS, PERIOD, PARICULA
STORE SPACE(3) TO TYPE
STORE 0 TO BALANCE
M = .T.
DO WHILE M
  R = 1
  PG = 1
  SN = 0
  STORE SPACE(10) TO ACN
  STORE 0 TO BALANCE, AMT
  BALANCE = 20000
  @ 4,5 TO 12,50
  @ 6,12 SAY "STATEMENT OF ACCOUNT GENERATION" COLO G
  @ 8,7 SAY "Enter Account Number      :" GET ACN PICT "OCB/999999"
  READ
  @ 4,4 CLEA TO 12,50
  DO HEADER
  USE STATE1
  @ 9,32 SAY BALANCE PICT "999999999999.99"
  DO WHILE .NOT. EOF()
  set filter to accno = ACN
  SN = SN + 1
  R = R + 1
  @ R,3 SAY SN PICT "999"
  @ R,9 SAY DATE
  @ R,19 SAY PARTICULA
  @ R,46 SAY TYPE
  @ R,52 SAY AMT
  DO CASE
    CASE TYPE = 'WTH'
    BALANCE = BALANCE - AMT
    CASE TYPE = 'DEP'
    BALANCE = BALANCE + AMT
    @ R,63 SAY BALANCE PICT "999999999999.99"
  ENDCASE
  @ R,63 SAY BALANCE PICT "999999999999.99"
  SKIP
  IF R >= 20
    @ 24,1
    @ 24,4 SAY "Press Any Key For The Next Page" colo g*
    READ
    CLEAR
    PG = PG + 1
    R = 1
    DO HEADER
  ENDIF
ENDDO
DO CASE
CASE R <= 16
```

```

R = 18
DO COMMENT
CASE R > 16
CLEAR
R = 1
G = PG + 1
DO HEADER
    = 12
DO COMMENT
UPPERCASE
@ 24,5 SAY "Any more Customer to attend to Y/N?" GET M
READ
IF M
LOOP
ELSE
@ 1,1 CLEAR TO 24,79
DO DECO
DEAC POPUP
RETU
ENDIF
ENDDO
@ 1,1 CLEA TO 24,79
DO DECO
DEAC POPUP
RETU

```

```

PROC COMMENT
@ R,6 SAY "We hope you will find this redesign statement easy-to-read"
R = R + 1
@ R,8 SAY "And in a more convenient format. It's one of the ways"
R = R + 1
@ R,5 SAY "A.B.U. COMMUNITY BANK IS WORKING TO BETTER SERVE YOUR BANKING
NEEDS"
@ 23,10 SAY "Press any key to continue"
wait""
clear
retu

```

```

PROC HEADER
@ 6,16 SAY NAME PICT REPLI('X',15)
@ 7,16 SAY ADDRESS PICT REPLI('X',15)
@ 6,63 SAY ACCNO PICT REPLI('X',10) COLO G*
@ 7,63 SAY PERIOD PICT REPLI('X',15)
@ R,2 TO 22,79 DOUB COLO G
R = R + 1
@ R,3 TO 8,78 COLO R
R = R + 1
@ R,7 SAY "ABU COMMUNITY BANK LTD Account Statement:"
R = R + 1
@ R,7 SAY " SAMARU, ZARIA"
R = R + 1
@ R,63 SAY "PAGE NO." + STR(PG,3)
R = R + 1
@ R,50 SAY "ACCOUNT NO.:"
R = R + 1
@ R,50 SAY "PERIOD : "
R = R - 1
@ R,7 SAY "NAME : "
R = R + 1
@ R,7 SAY "ADDRESS : "

```

R = R + 2

R,5 SAY "BALANCE BROUGHT FORWARD = :"

R = R + 1

R,5 SAY "S/N DATE TRANSACTION DESCRIPTION TYPE AMOUNT;
BALANCE"

R = R + 1

@ R,5 TO R,77

RETU

**** end of state1.prg program ****

ABU COMMUNITY BANK LTD
SAMARU, ZARIA.
=====

DAILY OPERATIONS SAVINGS LEDGER
-----/-----

```
=====
ACCOUNT  CUSTOMER'S  CUSTOMER'S  CUSTOMER'S  DATE OF  OPENING
NUMBER   NAME        ADDRESS     OCCUP       LAST UPD  BAL.
=====
OCC001   P.O.AZUH    1,SAMARU,ZARIA  TEACHING   10-10-97  500.00
OCC002   E.O.EBERE   AFRIBANK,ZARIA  BANKING    02-11-97  1,000.00
OCC003   U.E.INI     ABU,ZARIA       ADMIN.     02-01-99  600.00
OCC004   R.OLONAIYE  GIWA,ZARIA     FARMING    04-01-99  500.00
OCC005   R.ANENE     T/D.,KD.       RESEARCH   05-01-99  700.00
=====
```

Total Amount Received =.....> N3,300.00

Total Number of Customers> 5

This is the end of records

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ABU COMMUNITY BANK LTD
SAMARU, ZARIA.
=====

DAILY OPERATIONS DEPOSIT LEDGER

=====

ACCOUNT NUMBER	CUSTOMER'S NAME	DATE OF TRANSACTION	TRANSACTION AMOUNT
OCC001	P.O.AZUH	10-10-97	250.00
OCC002	E.O.EBERE	02-11-97	300.00
OCC003	U.E.INI	02-01-99	200.00
OCC004	R.OLONAIYE	04-01-99	400.00
OCC005	R.ANENE	05-01-99	350.00

=====

Total Amount Received =.....> N1,500.00

30

ABU COMMUNITY BANK LTD
SAMARU, ZARIA.

=====

DAILY OPERATIONS WITHDRAWAL LEDGER

=====

ACCOUNT NUMBER	CUSTOMER'S NAME	DATE OF TRANSACTION	TRANSACTION AMOUNT
OCC001	P.O.AZUH	10-10-97	100.00
OCC002	E.O.EBERE	02-11-97	120.00
OCC003	U.E.INI	02-01-99	200.00
OCC004	R.OLONAIYE	04-01-99	150.00
OCC005	R.ANENE	05-01-99	200.00

=====

Total Amount Received =.....> N770.00
Total Number of Customers> 5

 This is the end of records

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ABU COMMUNITY BANK LTD
SAMARU, ZARIA.
=====

STATEMENT OF ACCOUNT AS AT:07-11-98

ACCOUNT NUMBER:OCC001

NAME : P.O.AZUH
ADDRESS : 1, SAMARU, ZARIA

PAGE NO.: 1
PERIOD: NOV.

=====

DATE OF TRANSACTION	TYPE OF TRANSACTION	TRANSACTION AMOUNT	BALANCE
02-11-97	BALANCE B/D	500.00	500.00
02-01-99	DEPOSIT	250.00	750.00
04-01-99	WITHDRAWAL	100.00	650.00
05-01-99	INTEREST	-----	81.25
			=====
10-10-97	BALANCE C/D>	731.25
			=====

We hope you will find this redesign statemet easy-to-read And in a convenient format. It's one of the ways A.B.U. COMMUNITY BANK IS WORKING TO BETTER SERVE YOUR BANKING NEEDS.