MANAGING FIXED DEPOSIT ACCOUNTS IN A COMMERCIAL BANK (A CASE STUDY OF CO-OPERATIVE BANK PLC)

A RESEARCH PROJECT
PRESENTED BY

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TO

THE DEPARTMENT OF MATHEMATICS,
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COLLEGE OF SCIENCE AND AGRICULTURE
UNIVERSITY OF ABUJA, ABUJA-NIGERIA

IN PARTIAL FULFILMENT OF THE
REQUIREMENTS FOR THE AWARD OF
POST GRADUATE DIPLOMA DEGREE IN
COMPUTER SCIENCE.

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DEDICATION

This study is significantly dedicated to my parents Mr and Mrs J.C.E. Nwaiwu.

ACKNOWLEDGEMENT

In carrying out this project the researcher obtained considerable assistance from various sources which deserve mentioning.

Special thanks and indebtedness go to my project supervisor, Mr Franklin Ogunfiditimi for the guidance he willingly offered. His wealth of experience, academic and constructive criticism contributed immmensely to the successful completion of this work.

I am also grateful to my parents, relations, and friends for their encouragement moral amd financial support towards my pursuit of knowledge.

Finally, I thank God for his guidance throughout the period of my studies in this University.

ABSTRACT OF THIS PROJECT

This project is based on the computerization of banking systems fixed deposit account. In those days when computer have not been invented, the operations/ctivities of the banks were carried out manually. This has lots of negative effects (e.g. misplacement of records,lost of document etc)

This project highlight the design and implementation of a computerized banking system, which will store all relevant information of every customers in the fixed Deposit Account Department and their transactions respectively. Such data could be used in management information, checking, balancing and other processes relevant to the department or organisation

--A case study of Co-Operative Bank plc.

The objective of this project design is to facilitate the computerization of fixed Deposit Account System specifically for Co-Operative Bank plc.

CERTIFICATION

This is to certify that this work was carried out by Nwaiwu Isaac Chidi of the Department of Mathematics, Statistics and Computer Science, University of Abuja, for the award of a Post Graduate Diploma Degree in Computer Science (PGDC) under my supervision.

MR FRANKLIN OGUNFIDITIMI — DATE 25/5/99
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CHAPTER 1

1.0 INTRODUCTION

1.1 BACKGROUND OF THE STUDY

The main purpose of an organisation is how to achieve his objective, since any money earning activities is regarded as business, and any business are transacted with a view to making profit. For it to grow and make profit, its services must be widely acceptable and spreadnationwide . But for these to be achieved, a company's sales (cash and credit) must be effectively analysed and managed among all other activities in the Department of the organisation.

To achieve this laudable objective is to have all it's operation fully computerized especially fixed Deposit Account.

The computer is known for its speed and accuracy in processing information which have not been achieved manually or by any other device.

The ability of the computer to :

- Perform tedious and complex computations at a very high speed accurately and precisely;

- accept and store a sequence of instructions for further retrieval or use; depends on its ability to store to sequence of instructions. These instructions are referred to as the computer program.

In designing a program, Douglas W, Wance and Thomas L.Naps (1997) propounded six steps in problem solving which include:

- analyze the problem
- develop an algorithm
- write code for the program
- run the program
- test the results against answers manually computed with paper and pencil and
- document the program.

However, due to the issue of a de-regulated economy in the present day dispensation, Nigeria has allowed for competition for customers among banks and financial institutions in the area of savings and lending; hence fixed deposit transaction among other services attracts interest to the prospective customers which is negotiable between the bank and the customer.

CHARACTERISTICS OF FIXED DEPOSIT ACCOUNT

1. It has terms attached to it eg interest is payable at maturity date
2. Withdrawal can only be made where the account has reached maturity stage.

Fixed or time deposit can be for a period of 3 months, 6 months, 12 months or any length of time agreed by the bank and the customer. The minimum deposit under this scheme is N50,000 at an interest rate that is attractive and negotiable.

1.2 BRIEF HISTORY OF CO-OPERATIVE BANK PLC

The establishment of a Co-Operative Bank was first conceived on 5th September, 1952 when the co-operative congress of Western Nigeria unanimously adopted a motion moved by the executive committee of the co-operative Union of Western Nigeria .The motion reads thus:-

" That this congress approve the formation of central co-operative Bank, in view of the Minister of Local Development 's policy statement for the co-operative department and calls on all the co-operative organizations to be prepared to give full support to the Bank in every possible way when it was created".

The Co-operative Bank P.L.C. was finally established in 1953 to primarily finance and ensure a stable source of income for the co-operative societies in the old Western Region of Nigeria.

It was the aim of the then regional government that the birth of a co-operative Bank which would not only provide a steady flow of funds for rural development but also believed that the loans and grants to the rural areas would increase the economic activities of the hinterland, thus, improving the living standard of the low income group.

By April 23, 1953 the formation of the co-operative Bank became a reality with its registration as a Co-operative society by ten registered Co-operative societies in the Western Region with the following specific objectives:

(i) Operate as a central agency for securing finance for registered Co-operative societies within the area of operation.

(ii) Develop, assist and co-ordinate the financed aspect of co-operative societies within the area of operation..

(iii) Undertake such other works as will promote the cause of the operation.

As a result of logistic problems however, the bank did not take off until October 1953, when it received a grant of £million from the Nigeria cocoa Marketing Board with the help of the Western Regional Government. Infant, due to the excess liquidity status of the new bank, a total of £400,000 was put in a fixed deposit account with the Bank of West Africa Limited, now First Bank limited and a sum of £10,000 was set aside for staff training.

Due to few qualified Nigeria Bankers in those days however, the earlier manager were foreigners, with Mr. Donald Earnie, who was seconded from the co-operative Department in England, becoming the first manager of the Bank. After his departure in October 1954 due to failing health, Mr. John Caldecott came on secondment from the Co-operative Department in England to temporarily replace him until May, 1955, when a new manager Mr. Henry John Vermon, a professional banker was transferred from the Co-operative wholesale society limited in England . By the time Mr. Vermon was going in June, 1959, that the first Nigeria bank manager Chief Gilbert Ayodele Onagoruwa, a Lawyer and a fellow of the Institute of Bankers, was appointed in May, 1959.

Following the promulgation of the banking ordinance on 1961, the bank decided to engage in full commercial Banking operations and it was thus licensed as a commercial Bank and obtained a commercial banking licences on January 20, 1962, thereby allowing

the bank to extend its operatives to the public at large. It also started performing both domestic and international Banking. With the growth of the Bank into gigantic financial complex, it became imperative for it to change its name from co-operative Bank of Western Nigeria to Co-operative Bank P.L.C on the 18th May, 1993, with now over 59 branches nationwide, and since then has been competing favourably with its counterpart in the industry.

1.3 SCOPE AND LIMITATIIONS OF THE PROJECT

This project is limited to the operations involved in the fixed deposit account, viz, registration, deposits, withdrawals, updating records, interest calculations and reports arrising from transaction of the fixed deposit account.

1.4 AIMS AND OBJECTIVES OF THE PROJECT

This project has the following aims:

1. To examine the fixed deposit transaction at Co-operative Bank PLC., with a view to understanding its mode of operation.
2. To reduce the volume of employees and the associated delays
3. To determine the efficiency and weakness of the existing manual method.
4. To computerize the existing method in order to obtain a more efficient and reliable system.
5. To produce a package that will reduce customers' waiting time while accurately maintaining customer's account.

CHAPTER TWO

2.0 ANALYSIS OF THE EXISTING SYSTEM

2.1 RE-VIEW OF THE EXISTING SYSTEM

Fixed deposit account system is one of the services rendered by the bank. It is gratifying to note that due to the high volume of money or deposit involved, the issue of fixed deposit account system is handled with high sensitivity and with utmost interest.

Thus, in Co-operative Bank PLC., issues of fixed deposit account is deliberated with the officials like the manager or bank secretary who provide genuine and reasonable information and provide answers to questions concerning the issue of fixed deposit account.

Fixed deposit account can be for a period of 3 months, 6 months, 12 months or any length of time agreed by the bank and the customer.

2.2 THE PROCESSES OF THE EXISTING SYSTEM

2.2.1 COLLECTION OF FORMS

The customer who wants to open a fixed deposit account will write a letter to the bank applying for the type of fixed deposit account required. He will then call at the bank and be issued with the fixed deposit application form to complete.

In the form, the modalities for deposit and interest are spelt out. The form serves as contractual agreement between the bank and the customer. It contains fields such as

Name, Address, Amount to be deposited, Existing account number to which interest should be credited (saving or current account), Date and signatories to Account.

2.2.2 REGISTRATION/DEPOSIT

When the customer returns the completed registration form and lodges his initial deposit, depending on the type of fixed deposit, a certificate of Deposit is given to the customer which establishes a genuine business relationship between the bank and the customer. Then a file is opened for him.

However, a teller is given to the customer either for the first time or subsequent deposits to fill-in the amount to be deposited. Also relevant information that appear on the teller will be filled-in, in duplicate.

The customer will be given a copy of this, while the counterfoil of the teller is stored in his Opened - file. The fields contained in the teller are Name, Date, Branch Name, Amount Deposited.

The amount deposited is also indicated in the ledger file if the customer wishes to add to the initial deposit, the money will be credited to the same account but where the duration of The account has elapsed, then he starts from where he stopped.

It is important to note that in co-operative bank idemnity form is given only if the customer losses his certificate of Deposit. But before the form is given, the customer has to report his missing certificate of Deposit to the police followed by an affidevit from the court. This form is issued to help the customer do his transaction with the bank.

2.2.3 UPDATING ACCOUNT

This is done at the end of each days activity. It involves using the records entered in the ledger file to update the accounts file depending on the type of fixed deposit account.

2.2.4 COMPUTATION OF INTEREST

The computation of interest is done towards the end of each month and is based on the balance in the account as at the first day of the month for each customer.

The formula for computing the interest is

$$I = \frac{(\text{Principal} * \text{Rate} * \text{Time})}{365}$$

where, the principal is the balance in the account as at the first day of the month, Time being one , month and Rate at 4% for 3 months, 5% for 6 months and 6% for 12 months and above.

After computation, the interest is credited to either his savings or current account, depending on the wish of the customer as indicated in the application form.

2.2.5 WITHDRAWAL

When the time is due for withdrawal of the interest, the customer simply makes withdrawals through his account (savings or current account). But if the customer has no account (savings or current account) with the bank, he is issued with payment Voucher which is used to pay him after submitting his two passport photographs earlier.

On the other hand, if the customer wishes to make withdrawals from the initial amount deposited, a Debit forms are given to him to fill and return: The fields contained in the debit forms are Name, Account Number, Date, Address and Amount to be withdrawn.

Also the customer indicates how much he has withdrawn with a receipt. After verification, he will be paid based on the amount stipulated on both debit form and receipt.

Where he wants to close the account after withdrawals, his name is crossed by writing "Account closed".

2.3 FILES INVOLVED ON THE EXISTING SYSTEM

2.3.1 APPLICATION FILE

This file keeps all correspondences/letters addressed to the bank by the customer in the course of operating the fixed deposit account.

2.3.2 OPENED FILE

This file is opened for a customer during his registration. Items in this file include Application letter, Application form filled and Debit forms (filled for withdraw purposes).

2.3.3 ACCOUNT FILE

In this file, the type of fixed deposit account designated by the customer is kept there. It could last for the duration of 3 months, 6 months, 12 months or above. The field

includes Name, Address, Date, Amount Deposited, Account Number and Account to Accredited to (savings or current account).

2.3.4 LEDGER FILE

This file is used to keep records of transactions that take place for the day. Thereafter, information from this file is used to up-date the account files. The field includes Name, Address, Telephone Number, Amount Deposited and Account Number.

2.3.5 SAVINGS, CURRENT OR PAYMENT VOUCHER FILE

In this file, computed interests on the main fixed deposit account are credited to the customer's savings or current account based on his choice, if he has account with the bank, otherwise payment voucher is used to pay the customer's interest.

2.4 SHORTFALLS IN THE EXISTING SYSTEM

1 **Time:** There is slow retrieval of data from records of transactions in banking industries.

2 **Security:-** Information stored on papers are not protected enough because the paper may get missing or in the case of fire outbreak, they might get burnt hence causing a lot of havoc to the organisation involved.

3. **Inconsistency:** If a file is used in different departments of the bank, there is the possibility that a change made to one file in a department may not

reflect in the other files associated with it, hence resulting to inconsistency in records.

4. **Shortage of space:** Since lots of records are dealt with in the banking process, there is steady problem of limited space at long run causing serious shortfall in the file management system.

5. **Drudgery:** In this case, workers easily get fed-up and exhusted with the work because of its tediousness when it is done manually.

6. There is always greater difficulty in sending reports.

CHAPTER THREE

3.0 DESIGN OF THE NEW SYSTEM

3.1 LANGUAGE USED

The dBASE IV Programming language is the software used in designing this application package. DBASE IV is user-friendly and is used because of its flexibility in file handling and manipulation in the customer record application package. The layout of the main menu is shown on the next page.

3.2 PROCESSES OF THE NEW SYSTEM

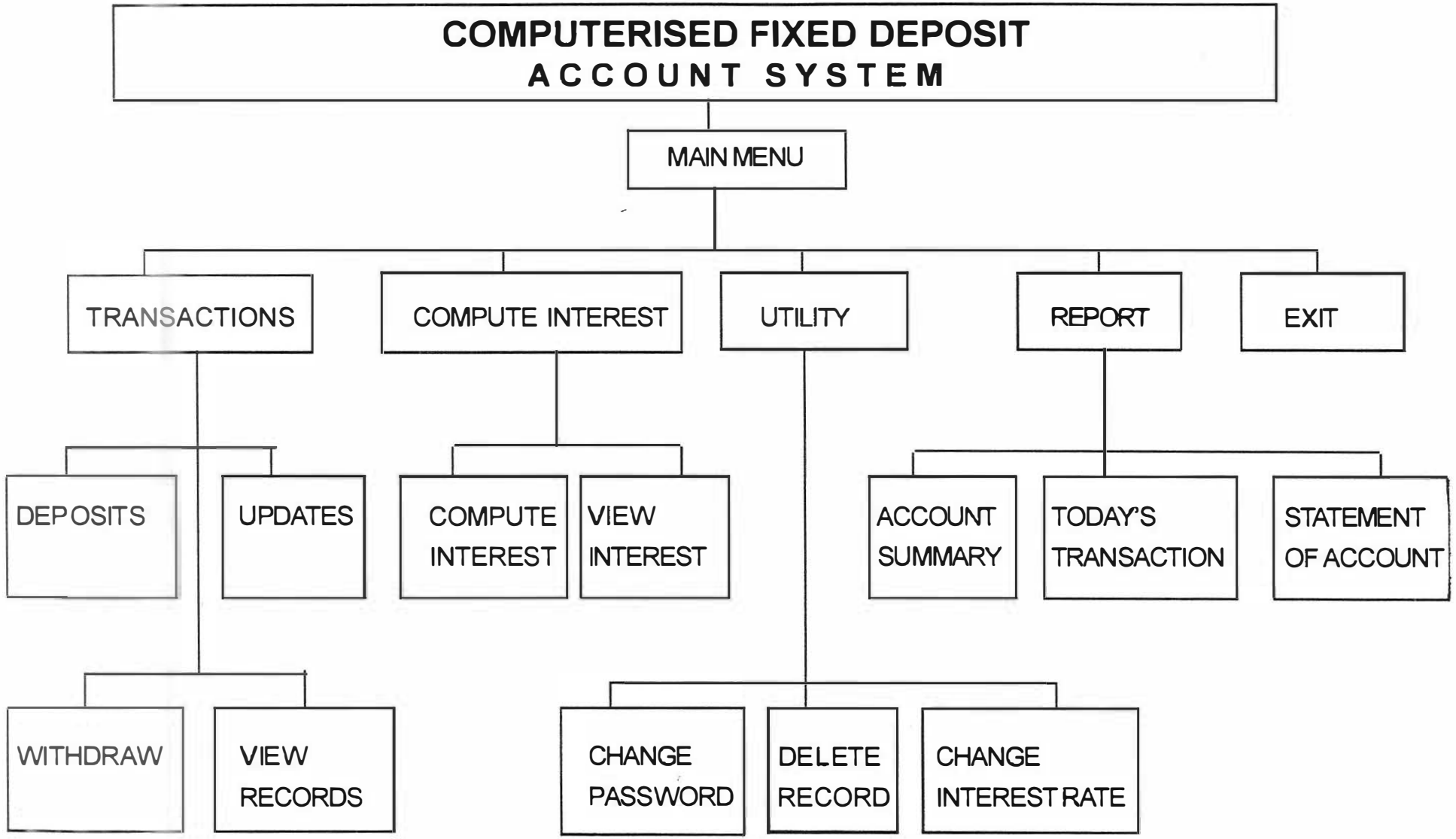
3.2.1 DEPOSITS

This process is carried out when a customer returns his completed registration forms with the money he wants to open account. It involves creating a customer's record in the deposits file. The deposits file composed of such fields as account number, amount deposited, opening date etc.

Further details of this file is explained in 3.4 below. When a deposit is made by a customer, the current balance in the deposit file is updated to take into account the amount deposited.

3.2.2 WITHDRAWAL

This process commences when a customer wants to withdraw his money. It involves modifying the customer's record in the deposits file by deducting the amount to be withdrawn from both the current balance and the principal.


COMPUTERISED FIXED DEPOSIT
ACCOUNT SYSTEM
MAIN MENU
TRANSACTIONS
COMPUTE INTEREST
UTILITY
REPORT
EXIT
DEPOSITS
UPDATES
COMPUTE INTEREST
VIEW INTEREST
ACCOUNT SUMMARY
TODAY'S TRANSACTION
STATEMENT OF ACCOUNT
WITHDRAW
VIEW RECORDS
CHANGE PASSWORD
DELETE RECORD
CHANGE INTEREST RATE

3.2.3 UPDATES

This updates the information of the customer. The user can change the Amount Deposited, Transaction type and Duration of the fixed deposits.

3.2.4 INTEREST COMPUTATION

The interest is calculated based on the rate of 4% for three months, 5% for six months and 6% for twelve months and above. After the calculation, the last Interest Paid and Date are updated in the deposits files.

3.2.5 REPORTS

At anytime, the summary of each customer's Account can be printed. All the day's transactions and statement of accounts can also be printed. The Today's Transaction report prints all the new deposits and account closed that were recorded on that day.

3.2.6 UTILITIES

This process takes place when a customer wants to change password, delete record or change interest rate as the case may be. After the operation is over, the password file, int-rate file and deposits file are updated.

3.3 PROGRAMS IN THE NEW SYSTEM

3.3.1 DEPOSITS.PRG

This program is the main menu under which all other programs are sub-titled. It consists of transaction, computation of interest, utility, reports and exist sections.

3.3.2 DEPOTRAN.PRG

This program Adds New Deposit for new customer.

3.3.3 UPDEPOSI.PRG

This program updates the information of the customer in the deposits.dbf. The user can change the amount deposited, transaction type and the duration of the fixed deposit.

3.3.4 WITHDRAW.PRG

This program helps the user to make withdrawal from his account

3.3.5 CHECKDEP.PRG

This program helps the user to view on the screen the records newly entered and to check whether such records are correct or not..

3.3.6 COMPUTE.PRG

The program calculates the interest of the customer base on the rate of 4%, 5% and 6% for three months, six months and twelve months and above respectively.

3.3.7 VINTERES.PRG

This program helps the user to view on the screen the amount of interest earned.

3.3.8 CHANPASS.PRG

This program helps the customer to change his password as the case may be and updates the changed password in the password.dbf.

3.3.9 DELDATA.PRG

This program deletes unwanted records of customers who have closed their account or wrong record.

3.3.10 CHANRATE.PRG

This program helps the customers to change to the interest rate of their choice and its corresponding type of deposit.

3.3.11 DEPOREPT.PRG

This program takes care of the Accounts summary of all the customers operating fixed deposit account system in the bank.

3.3.12 TODAYTRANS.PRG

This program takes care of Today's Transaction only, that is, whether deposit, interest or withdrawal that take place that day.

3.3.13 DEPOREPOF.PRG

This program handles the statement of Accounts of the customer.

3.4 DATA BASE FILES INVOLVED IN THE NEW SYSTEM

3.4.1 PASSWORD.DBF

This file contains the username and password of authorised users of the system. The file contains the fields username and password.

3.4.2 DEPOSITS.DBF

This is the main account file which contains up to date information on each customer. The file contains the fields:Account number, name, postal address, residential address, amount deposited, type of transaction, type of deposit (duration), date account was opened, date last interest was paid. A record is created when a customer opens an account and is updated each time a transaction takes place.

3.4.3 INT_RATE.DBF

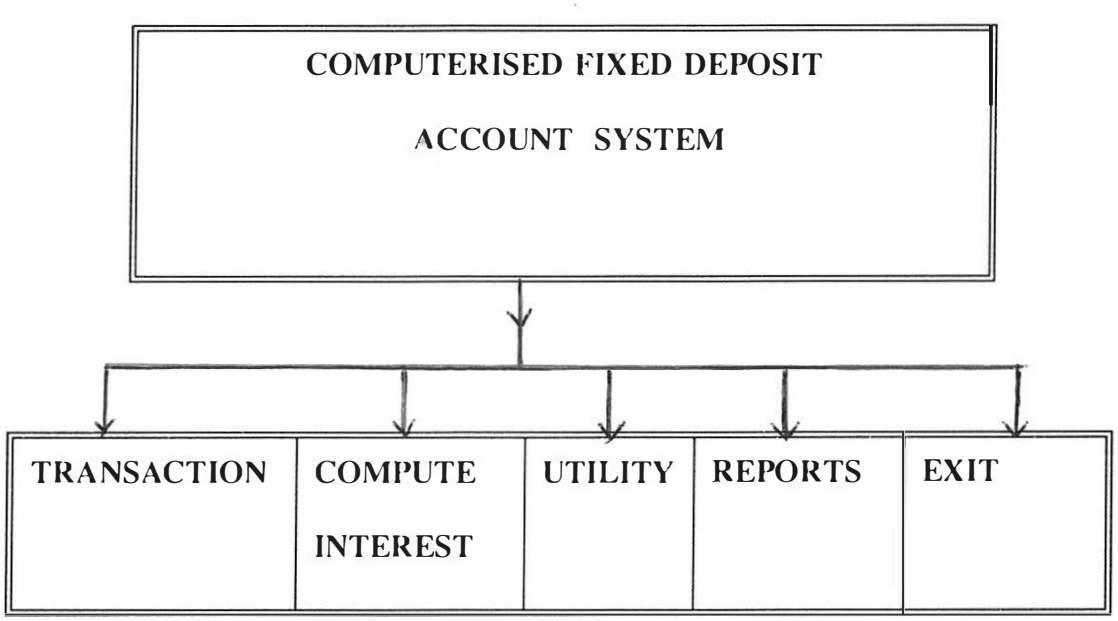
This file contains the interest rates of customers. The file contains the interest rates of customers .The file contains the fields, interate1, interate2, and interate3; which means interest rate at 4%, 5% and 6% corresponding to three months, six months and twelve months or above respectvely.Each time interest is calculated or changed, the interest rate file is updated.

CHAPTER FOUR

4.0 IMPLEMENTATION

4.1 HOW THE NEW SYSTEM WORKS

The software used is Borland Dbase version IV. At dot prompt, the user types: D0 DEPOSITS, press the enter key and the user is asked to type in the user name and password.Once any of them is wrong, the system displays a message "WRONG PASSWORD... press any key to continue", hence access to the system is denied, but if both are correct, the logo screen displays the main menu screen as follows:



4.1.1 TRANSACTION

This involve the day-to-day Customer Banker interaction. If the transaction section is pressed, a submenu is displayed underneath it on the screen as follows:

ADD NEW DEPOSIT

UPDATE DEPOSIT

WITHDRAW DEPOSIT

VIEW RECORDS

EXIT

4.1.1.1 ADD NEW DEPOSIT

The first choice demands for the account number and once supplied leads to an entry form. this form is entered in corroboration with the completed form filled in by the customer with his money when He comes to open an account with the bank. The entry form is opened to enter the details as follows:

DEPOSIT ACCOUNT NO:.....

DATE OF ACCOUNT:...../...../.....

DEPOSIT PERIOD:.....

DEPOSIT AMMOUNT:.....

CONTACT ADDRESS:.....

RESIDENTIAL ADDRESS:.....

NAME OF HOLDER:.....

If the form is completed the system asks "Please confirm that this record is Okey?

(Y/N)".

If "Yes", the deposits file is automatically updated and it will ask "Do you wish to continue? (Y/N)", then if "No", it takes you back to the menu.

4.1.1.2 UPDATE RECORD

When a customer wants to make some changes in his records like his address or type of deposit. that is, changes from say six months to twelve months and vice versa etc, update record is chosen. This section displays on the screen a form as follows:

DEPOSITACCOUNTNO.:.....DATEOFACCOUNT:...../...../.....

DEPOSIT TYPE:.....DEPOSIT AMOUNT:.....

INTEREST RATE:.....

CONTACT ADDRESSS:.....

RESIDENTIAL ADDRESS:.....

NAME OF HOLDER:.....

If the record is confirmed it automatically updates the deposits file and int_rate file.

4.1.1.3 WITHDRAW DEPOSIT

In fixed deposit account, withdrawal should not exceed the minimum entry into this type of accounting system. Withdrawal involves reducing the amount withdrawn

from the amount deposited or current in the deposits file. If chosen, a windows is displayed asking for the following:

DEPOSIT ACCOUNT NO:----------Date of Withdrawal:---------/----------/---------

Amount to be Withdrawn:----------

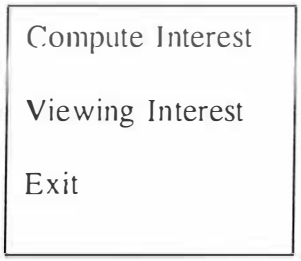
If completed, it prints the Balance and asks for confirmation of the record.

4.1.1.4 VIEW RECORDS

This section enables you to check if the record is correct otherwise you go back to update record to make your correction. It displays the record on the screen and asks "Do you wish to continue?(Y/N)". "NO" takes you back to the main menu.

4.1.2 COMPUTE INTEREST

Interest is Computed once in a month (last week of the mouth). It involves using the current balance -if withdrawal has taken place before or amount deposited in the principal field of the deposits file as principal.The rate is 4% for deposit of three months, 5% for deposit of six months and 6% for deposit of one year and above and the time is one month. If chosen, a sub-menu is displayed underneath it, on the screen as follows:



4.1.2.1 COMPUTE INTEREST

If this section is pressed the system demands for your account number which if supplied displays the deposit account number, date of deposit, deposited amount, interest earned and balance. It asks for confirmation of the record and if confirmed interest field is updated in the Int-Rate file.

4.1.2.2 VIEWING INTEREST

This helps the customer to view on the screen how much interest he has earned for the month. If this section is pressed and account number supplied, it prints on the screen customer's deposit account number, date opened and interest earned.

4.1.3 UTILITY

If chosen it displays on a screen, a submenu underneath it as follows:

4.1.3.1 CHANGE PASSWORD

It demands for the user name and password. If either user name or password or both are not correct the system displays a message "Wrong Password....press any key to continue". If any key is pressed, it takes you back to the main menu. However, if correctly entered it asks to supply the new password you want to change to . Again it asks "CONFIRM PASSWORD P/S....." by re-typing the new password. If correctly confirmed in displays a message "YOUR PASSWORD HAS BEEN CHANGED", "Press any key to continue....." and if not confirmed it takes you back to the main menu.

4.1.3.2 DELETE RECORD

This section demands for account number which if supplied displays the record for you to see and ask you to confirm if that record should be deleted or not. If"NO" it asks "Do you wish to continue (Y/N)", and "NO" takes you back to the main menu.

4.1.3.3 CHANGE INTEREST RATE

Once the account number is supplied, it displays the types of deposits viz 3 months, 6 months or 12 months and above and their corresponding interest rates. The change made by the customer is updated in both his deposits file and int-rate file.

4.1.4 REPORTS

Once in a month, a report is sent to each customer, notifying them about the details of their balances. Similarly, the balances can be viewed on the screen at any

time within the month. If reports section is pressed, it displays a sub-menu underneath it as follows:

ACCOUNTS SUMMARY
TODAY'S TRANSACTION
STATEMENT OF ACCOUNTS
EXIT

4.1.4.1 ACCOUNTS SUMMARY

This section list the names of all depositors account number, date of transaction, amount, transaction type (W,D,I).key W : withdrawal D: Deposit, I : Interest.

4.1.4.2 TODAY'S TRANSACTIONS

It prints to the file only transactions that take place that day

4.1.4.3 STATEMENT OF ACCOUNTS

This section first asks for deposits account number and if supplied, displays account number, account holder, date of transaction, amount deposited, transaction type, current balance.The system then asks "Do you wish to continue? (Y/N)". If "No", it takes you back to the main menu.Details of the few transaction reports are shown on the next page.

COOPERATIVE BANK PLC, GWAGWALADA

STATEMENT OF ACCOUNT FOR May 1999

ACCOUNT NUMBER.: AC1234 ACCOUNT HOLDER: JAMES MANTAU

DATE OF TRANSACTION	AMOUNT	TRANSACTION-TYPE
24/05/1999	1525000.00	D

CURRENT BALANCE = 1525000.00 : PRINCIPAL = 1525000.00

KEY: -> W:WITHDRAWAL D:DEPOSIT I:INTEREST

STATEMENT OF DEPOSITS ACCOUNTS

S/NO	DATE OF TRANSACTION	AMOUNT	TRANSACTION-TYPE
1	AC1231	24/05/1999	48931.51	I
2	AC1232	01/01/1997	12000000.00	D
3	AC1232	24/05/1999	1148054.79	I
4	AC1233	01/02/1998	700000.00	D
5	AC1234	24/05/1999	1525000.00	D
6	AC123457	24/05/1999	1400000.00	D
7	AC12399	12/05/1999	1680000.00	D

KEY: -> W:WITHDRAWAL D:DEPOSIT I:INTEREST

END OF ACCOUNT

4.1.5 EXIT

If exit section is pressed, it displays underneath it :

QUIT TO DOS;-: which takes you out of DBASE completely and

EXIT TO PROMPT;-: which takes you out of the application to DBASE prompt.

4.2 DATA BASE FILES USED

This work is made up of three different data base files namely: Deposits.dbf, Int_Rate.dbf, and password.dbf.

4.2.1 THE DEPOSITS.DBF

This file is used to update the records of customers from time to time.

STRUCTURE OF DEPOSITS.DBF

NUM	FIELD NAME	FIELD TYPE	WIDTH	DEC	INDEX
1	DEPOSITNO	CHARACTER	12		N
2	DATE_OPEN	DATE	8		N
3	NAME	CHARACTER	30		N
4	POST_ADDRE	CHARACTER	50		N
5	RESI_ADDRE	CHARACTER	50		N
6	AMOUNT_DEP	NUMERIC	12	2	N
7	SIGNATURES	MEMO	10		N
8	DEPO_TYPE	NUMERIC	2	0	N
9	TRANS_ID	CHARACTER	1		N

DESCRIPTIONS

DEPOSITNO:- Customer's account number.

DATE_OPEN:- Date account was opened.

POST_ADDRE:- Customer's postal address.

RESI_ADDRE:- Customer's residential address

AMOUNT_DEP:- Amount deposited by a Customer

DEPO_TYPE:- Type of deposit,that is, whether three months, six months, one year

and above

TRANS_ID:- Type of transaction, that is, I for interest, D for deposit, W for withdrawal.

4.2.2 THE INT_RATE.DBF

This file contains the interest rates of users.The structure is as follows:

NUM	FIELD NAME	FIELD TYPE	WIDTH	INDEX
1	INTE_RATE1	NUMERIC	2	N
2	INTE_RATE2	NUMERIC	2	N
3	INTE_RATE3	NUMERIC	2	N

DESCRIPTION

INTE_RATE1:- Interest rate at 4%

INTE_RATE2:- Interest rate at 5%

INTE_RATE3:- Interest rate at 6%

4.2.3 THE PASSWORD.DBF

This file contains the user name and password of legitimate users.

The structure is as follows:

NUM	FIELD NAME	FIELD TYPE	WIDTH	INDEX
1	USERNAME	CHARACTER	8	N
2	PASSWORD	CHARACTER	8	N

DESCRIPTION

USERNAME:- This stores the user name. PASSWORD:- This stores the password.

CHAPTER FIVE

5.0 SUMMARY RECOMMENDATION AND CONCLUSION

This project is designed for Co-operative Bank plc with the aim of computerising their fixed deposit account system. The computerised system made possible the modification of records, deleting unwanted transactions and generating different types of reports.

To avoid manipulation, the computerised banking system package has been protected with password so as to prevent unauthorised user to get access to the records.

5.1 COMPARISON BETWEEN THE NEW AND THE EXISTING SYSTEM

The new system checks redundancy hence avoids unnecessary duplication of data as compared to the existing system.

It generates efficient and reliable results in the process of computing interest of the customers and more error free. Unlike the existing system where computation of interest is done manually for hours coupled with errors.

The retrieval of data is easier and large data can be processed with little time/intervention in the new system while in the existing system a lot of time is needed in retrieving and processing of large data.

The new system does not allow the unauthorised users to have access to the customer's record hence protecting the records while in the existing system much data has been lost through an unauthorised users.

Information are stored in disk or diskettes in the new system hence eradicating the problem of space or storage space unlike the existing system where storage space for records become problems with time.

5.2 SHORTCOMINGS OF THE DESIGNED SYSTEM

It is important to note that the initial cost of procurring the hardwares and training the personnels that will handle the system is nothing to write home about but at long the benefits over-ride the demerits.

Also computer as a machine is subject to technical faults and as a result jobs to be done might be at a stand still. However, it is advisable to ensure adequate back-ups of records and prints out data at regular intervals on case the computer breaks down.

Borland DBASE Version IV is a simple user software in Network, that is, only one person uses the system at a time if connected to network.

5.3 RECOMMENDATION

It is advisable for the bank to change to this system having realised the numerous benefits derivable from this system design. Furthermore, the bank should train their workers on the use of computer and ensure adequate back-ups of their data in case the system breaks down.

5.4 CONCLUSION

The reduction in time wastage by customers at the banks will be greatly achieved if the banking system is fully computerised. Also accuracy is achieved if errors and fraudulent manipulations are avoided which depends wholesomely on the honestly and dedication of the personnels. On the other hand, unemployment will be on increase if organisations are fully computerised because few personnels will handle the computers leaving the rest populace unemployed.

In case of fraud, seperation of duties can guard against fraud, where the operator, is not the programmer and those who prepare input transactions are collusion that fraud could be carried out.

Finally, banks should be careful in the process of computerisation of their customer - banker transactions.

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```
***************deposits.PRG**************
procedure deposits
do passwd
mores  = .t.
do while mores
set print off
set colo to
*set trap on
set esca off
set status off
set century on
PUBLIC cmenu
set colo of highlight to bw+*/gb+
        set talk off
        set status off
        set scoreboard off
        set color to ,,,rb+/w
        set color of normal to nb+/g
  do title
     mores  = .t.
    do Depomenus
  loop
  enddo
  set colo to
  clear

return

procedure Depomenus
       @6,1 to 8,75 double colo r/bw+
    define menu menusbar message "ALT + Fisrt for sub-menus"
    define pad deposit of menusbar prompt "TRANSACTION" at 7,3
message "Deposit, Update, Withdrawals"
    @7,2 fill to 7,70
    @6,15 to 8,15 double colo r/w+
    define pad interests of menusbar prompt "COMPUTE INTEREST"
at 7,17 message "compute interest rate, view record"
    @6,35 to 8,35 double colo r/w+
    define pad utility of menusbar prompt "UTILITY" at 7,37
message "Change Password, Delete Record, Change Interest Rate"
    @6,48 to 8,48 double colo r/w+
    define pad reports of menusbar prompt "REPORTS" at 7,50
message "Accounts Summary, Today's Transaction, Statement of
Accounts"
    @6,62 to 8,62 double colo r/w+
    define pad Exit of menusbar prompt "Exit" at 7,63 message
"Exit to dot Prompt, Quit Dbase"


       on selection Pad exit of menusbar do menuexit
       on selection Pad reports of menusbar do menureports
       on selection Pad utility of menusbar do menuutility
       on selection Pad interests of menusbar do interest
       on selection Pad deposit of menusbar do menutrans
       activate menu menusbar
```

```
*procedure for DEPOTRANS sub menu
Procedure menutrans
Define popup DEPOTRANS from 8,1 to 14,20 message "Press first
letter of menu of your choice,; or highlight and press enter"
Define Bar 1 of depotrans prompt "ADD NEW DEPOSIT" message
"Adding records to accounts code Database file"
Define Bar 2 of depotrans prompt "UPDATE DEPOSIT" message
"Updating  records to accounts code Database file"
Define Bar 3 of depotrans prompt "WITHDRAW DEPOSIT" message
"Removing Records no longer needed from accounts database file"
Define Bar 4 of depotrans prompt "VIEW RECORDS"  message "Viewing
Records in a database file in accounts dattabase file"
Define Bar 5 of depotrans prompt "EXIT" message "exit to main
menu"
On selection popup depotrans do DEPO
activate popup DEPOTRANS
return


*procedure for interest sub menu
Procedure interest
Define popup interest from 08,17 to 12,35 message "Press first
letter of menu of your choice,; or highlight and press enter"
Define Bar 1 of interest prompt "Compute Interest" message
"Compute Interest"
Define Bar 2 of interest prompt "Viewing Interest" message
"Viewing Interest"
Define Bar 3 of interest prompt "Exit" message "exit to main
menu"
On selection popup interest do depointe
activate popup interest
return


Procedure menuexit
*The exit pull down menu
Define popup exit from 8,63 to 11,79
Define bar 1 of exit prompt "Quit to DOS" message "End this
session"
Define bar 2 of exit prompt "Exit to prompt" message "Exit
current system to dot prompt"
On selection popup exit do exitall
activate popup exit
return

Procedure exitall
do case
        case bar() = 1
                close databases
          do quit
        case bar() = 2
                mores = .f.
          do exit
          endcase
     return

procedure exit
mores  = .f.
```

```
!cls
clea
set colo to
set stat on
close all
close databases
deactivate menu
release menusbar
cancel

return

procedure quit
close databases
set colo to
clea
quit


Procedure DEPO
clea
Do case
        case bar() = 1
                Do DEPOTRAN
        case bar() = 2
                do updeposi
        case bar() = 3
                do withdraw
        case bar() = 4
                do checkdep
        case bar() = 5
          return to deposits
     !cls
        endcase
        return

Procedure Title
     clea all
     !cls

*draw lines and boxes for menu with colors to affect
Set Device to Screen
@0,2  say  cdow(date())+"      "+ltrim(str(day(date())))+"  ,"+
cmonth(date())+ "  "+ltrim(str(year(date()))) colo rg+/w
@0,61 say "Time :       " colo w+/r
set clock to 0,69
@1,17 to 4,45 double &&colo gr+
@2,18 say "COMPUTERISED FIXED DEPOSIT:"
@3,18 say "   ACCOUNTS SYSTEM  :"
set colo to n/n
@23,18 say "Press ALT key and First Character to Change Menu:"
colo w+r/b+*
@12,51 clear to 12,77
set colo to b+/g
return


Procedure depointe
```

```
clea
Do case
        case bar() = 1
                do compute
        case bar() = 2
                do vinteres
        case bar() = 3
          return to deposits
        endcase
        return

*procedure for reports sub menu
Procedure menureports
Define popup reports from 8,48 to 13,70 message "Press first
letter of menu of your choice,; or highlight and press enter"
Define Bar 1 of reports prompt "ACCOUNTS SUMMARY" message
"Produce List of All Deposits Accounts Holders"
Define Bar 2 of reports prompt "TODAY'S TRANSACTIONS" message
"Produce Hard copies of Today''s Entries only"
Define Bar 3 of reports prompt "STATEMENT OF ACCOUNTS" message
"Produce Individuals Statements on Request"
Define Bar 4 of reports prompt "EXIT" message "Exit this submenu"
On selection popup reports do reporters
activate popup reports
return

*procedure for utility sub menu
Procedure menuUtility
Define popup utility from 8,35 to 13,56 message "Press first
letter of menu of your choice,; or highlight and press enter"
Define Bar 1 of utility prompt "Change Password" message
"changing Password"
Define Bar 2 of utility prompt "Delete Record" message "Deleting
Deposit from file"
Define Bar 3 of utility prompt "Change Interest Rate" message
"Changing Interest Rate"
Define Bar 4 of utility prompt "EXIT" message "Exit this submenu"
On selection popup utility do utilis
activate popup utility
return

procedure utilis
do case
        case bar() = 1
                do Chanpass                &&list rec
        case bar() = 2
                do DelData              &&print recs
        case bar() = 3
                do Chanrate               &&with advice
        case bar() = 4
                return to Deposits
        endcase
        return



procedure reporters
do case
```

```
if mdepositno=space(12)
close all
deacti wind depo1_1
exit
endif

sele 1
use deposits

locate for depositno=mdepositno
if found()
deact wind mdepos_1
acti wind error
text
 recod  already exist !!!
endtext
@3,2 say 'Press any key to continue'
b=inkey(0)
deact wind error
clear
loop
endif
@4,40 say 'Date of Account.:' colo br+
@12,1 say 'Name of Holder.:' colo br+
@6,1 say 'Deposit Period.:' colo br+
@6,35 say 'Deposit Amount.:' colo br+
@8,1 say 'Contact Address.:' colo br+
@10,1 say 'Residential Address.:' colo br+

@4,60 get mdate
@6,24 get mdep_period
@6,52 get mamount_dep pict '999,999,999,999.99'
@8,17 get mpadd1 pict '!!!!!!!!!!!!!!!!!!!!!!!!!'
@8,42 get mpadd2 pict '!!!!!!!!!!!!!!!!!!!!!!!!!'
@10,27 get mradd1 pict '!!!!!!!!!!!!!!!!!!!!!!!!!'
@10,52 get mradd2 pict '!!!!!!!!!!!!!!!!!!!!!!!!!'
@ 1 2 , 2 2 g e t m n a m e p i c t
'!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!'
read
mpost_addre=trim(mpadd1)+trim(mpadd2)
mresi_addre=trim(mradd1)+trim(mradd2)

do while .NOT. ans$ "YN"
@16,10 say "Pls Confirm that this Record is Okay? (Y/N)" colo
w/br+
@16,54 get ans pict "!"
 read
enddo
close all

if ans ="Y"
sele 1
use &fl
append blank
replace depositno with mdepositno, depo_type with
mdep_period,trans_id with 'D',amount_dep with mamount_dep
replace date_open with mdate, name with mname, post_addre with
mpost_addre, resi_addre with mresi_addreendif
```

```
endif
ans =" "
@16,0 clear to 16,70

do while .NOT. ans$ "YN"
@16,10 say "Do you wish to continue? (Y/N)" colo w/br+
@16,50 get ans pict "!"
 read
enddo

 if ans ="Y"
clea
loop
else
close all
deact wind depo1_1
exit
endif
enddo
return
********UPDEPOSI.PRG******************
set talk off
set escape on
set stat off
set echo off
set score off
set bell off
set excl on
set safe off
set colo to


close all

myear=space(4)


*!attrib -r *.dbf

define window depo1_1 from 2,5 to 24,78 double
*define window mdepos from 7,20 to 14,50 double colo r+,b+
defi window error from 15,25 to 20,55 double


fl= 'deposits'
sele 1
use &fl
     index on depositno tag bydepo
sele 2
     use int_rate
     index on inte_rate1 to rate

Do while .t.
store space(12) to mdepositno
mname=space(50)
store space(25)to mpost_addre,mresi_addre
store space(25) to mpadd1,mpadd2,mradd1,mradd2
store 0 to mamount_dep,mdepo_type,mter_rate
```

```
msignature=space(20)
store space(1) to ans
mdate=ctod('  /  /    ')

*
acti wind depo1_1
@0,12 say ' COMPUTERISED FIXED DEPOSIT ACCOUNTS SYSTEM' colo
w+/br+*
@1,25 say 'UPDATING DATA SCREEN' colo r+/bw+

depositno=mdepositno
@3,21 get mdepositno pict '!!!!!!!!!!!!'
@3,21 say depositno pict '!!!!!!!!!!!!'
@3,1 say 'DEPOSIT ACCOUNT NO.:▌▌▌▌▌▌▌▌▌▌▌▌' colo br+
read

if mdepositno=space(12)
close all
deacti wind depo1_1
exit
endif

sele 1
locate for depositno=mdepositno
if .not. found()
deacti wind mdepos_1
acti wind error
text
 record  does not exist !!!
endtext
@3,2 say 'Press any key to continue'
b=inkey(0)
deact wind error
clear
loop
endif
*
@3,40 say 'Date of Account.:' colo br+
@5,1 say 'Deposit Type.:' colo br+
@5,33 say 'Deposit Amount.:' colo br+
@7,1 say 'Interest Rate.:' colo br+
@9,1 say 'Contact Address.:' colo br+
@11,1 say 'Resid. Address.:' colo br+
*@13,1 say 'Interest Account No.:' colo br+
@15,1 say 'Account Signatures.:' colo br+
@17,1 say 'Name of Holder.:' colo br+
*
*
@3,60 say date_open
@5,20 say depo_type
@5,50 say amount_dep pict '999,999,999,999.99'

Do case
     case depo_type <6
     minter_rate=int_rate->inte_rate1
     case depo_type>5 .and. depo_type<12
     minter_rate=int_rate->inte_rate2
     case depo_type>=12
```

```
     minter_rate=int_rate->inte_rate3
     endcase
@7,16 say minter_rate pict '99'
sele 1
@ 9 , 1 8   s a y   p o s t _ a d d r e   p i c t
'!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!'
@ 1 1 , 1 7   s a y   r e s i _ a d d r e   p i c t
'!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!'
*@13,30 say inter_acctno pict '!!!!!!!!!!!!'
@15,30 say signatures pict '!!!!!!!!!!!!!!!!!!!!'
@ 1 7 , 2 2   s a y   n a m e   p i c t
'!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!'
*
*minter_acctno=inter_acctno
mname=name
mpost_addre=post_addre
mresi_addre=resi_addre
mamount_dep=amount_dep
*minter_rate=inter_rate
mdepo_type=depo_type
msignature=signatures
mdate=date_open

*
@3,21 get mdepositno pict '!!!!!!!!!!!!'
@3,60 get mdate
*@5,20 get mmatur_date
@5,50 get mamount_dep pict '999,999,999,999.99'
*@7,16 get minter_rate pict '9,999.99'
@ 9 , 1 8   g e t   m p o s t _ a d d r e   p i c t
'!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!'
@ 1 1 , 1 7   g e t   m r e s i _ a d d r e   p i c t
'!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!'
*@13,30 get minter_acctno pict '!!!!!!!!!!!!'
@15,30 get msignatures pict '!!!!!!!!!!!!!!!!!!!!'
@ 1 7 , 2 2   g e t   m n a m e   p i c t
'!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!'
read

do while .NOT. ans$ "YN"
@19,10 say "Pls Confirm that this Record is Okay? (Y/N)" colo
w/br+
@19,54 get ans pict "!"
 read
enddo
 if ans ="Y"

replace depositno with mdepositno, depo_type with
mdepo_type,amount_dep with mamount_dep, signatures with
msignatures
replace date_open with mdate, name with mname, post_addre with
mpost_addre, resi_addre with mresi_addre
endif
ans =" "
@19,0 clear to 19,70
do while .NOT. ans$ "YN"
@19,10 say "Do you wish to continue? (Y/N)" colo w/br+
@19,50 get ans pict "!"
```

```
 read
enddo
 if ans ="N"
close all
*deact wind depo1_1
exit
endif
clea
loop
enddo
*!attrib +r *.dbf
return
**********WITHDRAW.PRG******************
set talk off
set escape on
set stat off
set echo off
set score off
set bell off
set excl on
set safe off
*set colo to

store space(12) to mdepositno
s        t        o        r        e    t        o
mamount_dep,minter_rate,mdep_period,mdebit,mcredit,mbalance
store space(1) to ans
mdate=ctod('  /  /    ')

do varify

close all
define window depo1_1 from 2,5 to 14,78 double
define window mdepos from 7,20 to 14,50 double colo r+,b+
defi window error from 15,25 to 20,55 double


fl= 'deposits'
deact wind mdepos

sele 1
use &fl
     index on depositno tag bydepo


*
*depositno=mdepositno

Do while .t.
acti wind depo1_1
@0,12 say ' COMPUTERISED FIXED DEPOSIT ACCOUNTS SYSTEM' colo
w+/br+*
@2,25 say 'WELCOME TO WITHDRAWAL SCREEN' colo r+/bw+
@4,21 get mdepositno pict '!!!!!!!!!!!!'
@4,1 say 'DEPOSIT ACCOUNT NO.:' colo br+
read

if mdepositno=space(12)
```

```
close all
deacti wind depo1_1
exit
endif

*nmdepositno='D'+mdepositno
*@10,10 say nmdepositno
locate for depositno=mdepositno
if .not. found()
deacti wind mdepos_1
acti wind error
text
 record  does not exist !!!
endtext
@3,2 say 'Press any key to continue'
b=inkey(0)
deact wind error
clear
loop
endif

mamount=amount_dep
@4,40 say 'Date of Withdrawal.:' colo br+
@4,60 get mdate
@6,1 say 'Amount to be withdrawn.:' colo br+
@6,25 get mdebit pict '999,999,999,999.99'
read

mbalance=mamount-mdebit
@8,10 say 'Balance.:' colo br+
@8,23 say mbalance pict '999,999,999,999.99'

do while .NOT. ans$ "YN"
@10,10 say "Pls Confirm that this Record is Okay? (Y/N)" colo
w/br+
@10,54 get ans pict "!"
 read
enddo
 if ans ="Y"

sele 1
append blank
replace date_open with mdate,amount_dep with mamount,depositno
with mdepositno,trans_id with 'W'
endif
ans =" "
@10,0 clear to 10,70
do while .NOT. ans$ "YN"
@10,10 say "Do you wish to continue? (Y/N)" colo w/br+
@10,50 get ans pict "!"
 read
enddo

 if ans ="N"
close all
deact wind depo1_1
set stat on
*set colo to
```

```
exit
endif
loop
enddo
return
***********CHECKDEP.PRG*****************
set talk off
set escape on
set stat off
set echo off
set score off
set bell off
set excl on
set safe off
*set colo to

close all
define window depo1_1 from 2,5 to 24,78 double
define window mdepos from 7,20 to 14,50 double colo r+,b+
defi window error from 15,25 to 20,55 double

myear=space(4)

acti wind mdepos


fl= 'deposits'
deact wind mdepos
sele 1
use &fl
     index on depositno tag bydepo
sele 2
use int_rate
     index on inte_rate1 to interrate
Do while .t.
store space(12) to mdepositno,minter_acctno
mname=space(50)
store space(30)to mpost_addre,mresi_addre
store space(30) to mpadd1,mpadd2,mradd1,mradd2
store 0 to mamount_dep,minter_rate,mmatur_date
msignature=space(20)
store space(1) to ans
mdate=ctod('  /  /    ')

*
acti wind depo1_1
@0,12 say ' COMPUTERISED FIXED DEPOSIT ACCOUNTS SYSTEM' colo
w+/br+*
@1,25 say 'WELCOME TO VIEWING DATA SCREEN' colo r+/bw+

depositno=mdepositno
@3,21 get mdepositno pict '!!!!!!!!!!!!'
@3,21 say depositno pict '!!!!!!!!!!!!'
@3,1 say 'DEPOSIT ACCOUNT NO.:[redacted]' colo br+
read

if mdepositno=space(12)
```

```
close all
deacti wind depo1_1
deact wind mdepos
exit
endif

sele 1
locate for depositno=mdepositno
if .not. found()
deacti wind mdepos_1
acti wind error
text
 record  does not exist !!!
endtext
@3,2 say 'Press any key to continue'
b=inkey(0)
deact wind error
clear
loop
endif
*
@3,40 say 'Date of Account.:' colo br+
*@5,1 say 'Deposit Period.:' colo br+
@5,1 say 'Deposit Amount.:' colo br+
*@7,1 say 'Interest Rate.:' colo br+
@9,1 say 'Contact Address.:' colo br+
@11,1 say 'Resid. Address.:' colo br+
*@13,1 say 'Interest Account No.:' colo br+
@15,1 say 'Account Signatures.:' colo br+
@17,1 say 'Name of Holder.:' colo br+
*
*
@3,60 say date_open
*@5,20 say matur_date
@5,21 say amount_dep pict '999,999,999,999.99'
*@7,16 say int_rate->inte_rate pict '9,999.99'
@ 9 , 1 8    s a y    p o s t _ a d d r e    p i c t
'!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!'
@ 1 1 , 1 7    s a y    r e s i _ a d d r e    p i c t
'!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!'
*@13,30 say int_rate->inter_acctno pict '!!!!!!!!!!!!'
@15,30 say signatures pict '!!!!!!!!!!!!!!!!!!!!'
@  1  7  ,  2  2  s  a  y  n  a  m  e  p  i  c  t
'!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!'
*
do while .NOT. ans$ "YN"
@19,10 say "Do you wish to continue? (Y/N)" colo w/br+
@19,50 get ans pict "!"
 read
enddo
 if ans ="N"
close all
deact wind depo1_1
*set colo to
exit
endif
clea
loop
```

```
enddo
return
**********COMPUTE.PRG***************
set talk off
set escape on
set stat off
set echo off
set score off
set bell off
set excl on
set safe off


close all
defi window depo1_1 from 2,5 to 14,78 double
defi window error from 15,25 to 20,55 double



fl= 'deposits'

deact wind mdepo1_1
sele 1
use &fl
     index on depositno tag depo
sele 2
     use int_rate

Do while .t.
store space(12) to mdepositno
store 0 to mamount_dep,minter_rate,macct_int,mwithdraw,mtwithdraw
store space(1) to ans
mdate=ctod('  /  /    ')
period=0
mperiod=0
*
acti wind depo1_1
@0,12 say ' COMPUTETING FIXED DEPOSIT INTEREST SYSTEM' colo
w+/br+*
@4,22 get mdepositno pict '!!!!!!!!!!!!'
@4,1 say 'DEPOSIT ACCOUNT NO.:▌▌▌▌▌▌▌▌▌▌▌▌' colo br+
read

IF mdepositno=space(12)
close all
deacti wind depo1_1
exit
endif

sele 1
locate for depositno=mdepositno
if .not. found()
deacti wind mdepos_1
acti wind error
text
 record  does not exist !!!
endtext
@3,2 say 'Press any key to continue'
```

```
b=inkey(0)
deact wind error
clear
loop
endif

set filter to depositno=mdepositno
go top
mdate=date_open
sum all for trans_id='D' to mdepo_amt
sum all for trans_id='I' to mdepoI_amt
sum all for trans_id='W' to mdepoW_amt

@6,1 say 'Date of Deposit.:' colo br+
@6,25 say mdate
@6,37 say 'Deposited Amount.:' colo br+
@6,53 say mdepo_amt pict '999,999,999,999.99'
@8,37 say 'Balance.:' colo br+
@8,1 say 'Interest Earned.:' colo br+
mperiod=date()-(mdate)

sele 2
if deposits->depo_type<6
     Rate=Int_rate->inte_rate1
     if deposits->depo_type>5
     rate=Int_rate->inte_rate2
     if deposits->depo_type>11
          rate=Int_rate->inte_rate3
          endif
          endif
     endif
*?mperiod
minter=round(mdepo_amt*(mperiod/365)*(rate/100),2)
@8,18 say minter pict '999,999,999,999.99'
mbal=round(mdepo_amt+mdepoI_amt-mdepoW_amt,2)
@8,54 say mbal pict '999,999,999,999.99'

do while .NOT. ans$ "YN"
@10,10 say "Pls Confirm that this Record is Okay? (Y/N)" colo
w/br+
@10,54 get ans pict "!"
 read
set filter to
go top
enddo
 if ans ="Y"
clea

sele 1
append blank
replace  deposits->date_open  with  date(),  depositno  with
mdepositno,amount_dep with minter, trans_id with 'I'
endif
ans =" "
@10,0 clear to 10,70
do while .NOT. ans$ "YN"
@10,10 say "Do you wish to continue? (Y/N)" colo w/br+
@10,50 get ans pict "!"
```

```
exit
endif

locate for depositno=mdepositno
if .not. found()
deacti wind mdepos_1
acti wind error
text
 record  does not exist !!!
endtext
@3,2 say 'Press any key to continue'
b=inkey(0)
deact wind error
clear
loop
endif
*

set filter to depositno=mdepositno .and. trans_id='I'

*
@17,10 say "Press ESC to continue" colo w/br+*

brow noinit nofollow noappend nomenu noedit nodelete  fields
depositno,date_open,amount_dep /r compress wind mdepos
clea

do while .NOT. ans$ "YN"
@19,10 say "Do you wish to continue? (Y/N)" colo w/br+
@19,40 get ans pict "!"
 read
enddo
 if ans ="N"
close all
deact wind depo1_1
set colo to
exit
endif
clea
loop
enddo
return
********CHANPASS.PRG******************
procedure chanpass
set talk off
set bell on
set status off
set escape on
set delete on
set scoreboard off
set date british
*set colo to
set lock on
set encr on
*clear
use password
store .t. to wrgpasswd
atbuflag = 0
```

```
atbubud = .f.
pass="YOU CAN NOW CHANGE YOUR PASSWORD"
pass1="YOUR PASSWORD HAS BEEN CHANGE"
pass2="YOUR PASSWORD WAS NOT CHANGE"
pass3="PASSWORD IS ALREADY IN USE"
pass4="PASSWORD WAS USE BEFORE"
do while wrgpasswd
store space(8) to musename
store space(8) to mpasswd,mmpass
clear
if atbuflag = 3
           @2,20 say "too may attempts to login"
           store 0 to delay
           do while delay$20000
           delay = delay + 1
           enddo
        *set colo to
        clear
        close all
        cancel
        return
        endif
        set colo to r+/rbg+
        store 3 to rowcnt
        @rowcnt,10 say repli(chr(176),58)
        rowcnt=rowcnt+1
        set colo to rg+/w
        @05,60 say "Date:  "
        @05,68 say date()
        set colo to w/b
        @07,27 say "FIXED DEPOSIT ACCOUNTING SYSTEM " colo r/rb+g*
        @13,20 say "ENTER YOUR USER NAME:" colo w/br
        set colo to w/bg+
        @12,56 clear to 14,60
        @12, 50 to 14,60 double
        *set colo to
        @13,50 get musename pict '!!!!!!!!'
        read
        *set colo to
        set colo to w/b+
        @18,20 say "PLEASE ENTER PASSWORD" colo b/wr+
        *set colo to
        set colo to w/b+g
        @18,50 clear to 18,60
        @17,50 to 19,60 double
        *set colo to
        @18,54 to 18,54
        set escape off
        set exact on
        set console off
        accept to mpasswd
        set console on
        if mpasswd= "      "
           set escape on
           set exact off
           *set color to
             clear
             loop
```

```
        endif
        locate for upper(username) = upper(musename);
        .and. upper(trim(password)) = upper(trim(mpasswd))
        if .not. found()
            set color to r/bg+
            @23,16 say "Wrong password......."
            atbuflag = atbuflag+1
         atbubud = .f.
            set color to bg+/w
            @23,34 say "Press any key to continue"
            wait ""
            *set color to
            loop
         endif

      clea
      @10,22 say pass colo br+*
*set colo to
        set colo to w/b+
        @18,20 say "PLEASE ENTER PASSWORD" colo b/wr+
        *set colo to
        set colo to w/b+g
        @18,50 clear to 18,60
         *set colo to
        @17,32 to 19,54
        set escape off
        set exact on
        set console off
      deacti wind all
      clea
      @17,35 to 19,45 double colo w/b+g
        @18,17 say "NEW PASSWORD PLS.:" colo b/wr+
      accept to mpasswd
        if mpasswd= "      "
           set escape on
           set exact off
          *set color to
             clear
             loop
             endif
      mpasswd=mmpass
         set console on


      @17,35 to 19,45 double colo w/b+g
             set escape off
             set exact on
             set console off
          deacti wind all
      @18,13 say "CONFIRM PASSWORD PLS.:" colo b/wr+
          accept to mpasswd
            set console on

      if mpasswd=mmpass
      @13,12 say pass1
      wait
      *exit
      *loop
```

```
      endif
      replace password with mpasswd

      clea
 if mpasswd= "      "
      @13,17 say pass2 colo br+
      else
      @13,17 say pass1 colo br+
      endif
      @20,10 say '  '
      wait
         store .f. to wrgpasswd
         exit
     enddo
     store "  " to errmsg
     store "  " to errmsg
     clear
     return
*********************END OF CHANPASS.PRG*******************+

*********************DELDATA.PRG*****************************
set talk off
set escape on
set stat off
set echo off
set score off
set bell off
set excl on
set safe off
*set colo to


close all
define window depo1_1 from 2,5 to 24,78 double
define window mdepos from 7,20 to 14,50 double colo r+,b+
defi window error from 15,25 to 20,55 double

myear=space(4)

acti wind mdepos


fl= 'deposits'
deact wind mdepos
sele 1
use &fl
     index on depositno tag bydepo

Do while .t.
store space(12) to mdepositno,minter_acctno
mname=space(50)
store space(25)to mpost_addre,mresi_addre
store space(25) to mpadd1,mpadd2,mradd1,mradd2
store 0 to mamount_dep,minter_rate,mdep_period
msignature=space(20)
store space(1) to ans
mdate=ctod('  /  /    ')
```

```
*
acti wind depo1_1
@0,12 say ' COMPUTERISED FIXED DEPOSIT ACCOUNTS SYSTEM' colo
w+/br+*
@1,25 say 'DATA DELETION SCREEN' colo r+/bw+*

depositno=mdepositno
@3,21 get mdepositno pict '!!!!!!!!!!!!'
@3,21 say depositno pict '!!!!!!!!!!!!'
@3,1 say 'DEPOSIT ACCOUNT NO.:█████████████' colo br+
read


if mdepositno=space(12)
close all
deacti wind depo1_1
exit
endif

locate for depositno=mdepositno
if .not. found()
deacti wind mdepos_1
acti wind error
text
 record  does not exist !!!
endtext
@3,2 say 'Press any key to continue'
b=inkey(0)
deact wind error
clear
loop
endif
*
@3,40 say 'Date of Account.:' colo br+
@5,1 say 'Deposit Period.:' colo br+
@5,33 say 'Deposit Amount.:' colo br+
@7,1 say 'Interest Rate.:' colo br+
@9,1 say 'Contact Address.:' colo br+
@11,1 say 'Resid. Address.:' colo br+
@13,1 say 'Interest Account No.:' colo br+
@15,1 say 'Account Signatures.:' colo br+
@17,1 say 'Name of Holder.:' colo br+
*
@3,60 say date_open
@5,20 say matur_date pict '99/99/99'
@5,50 say amount_dep pict '999,999,999,999.99'
@7,16 say inter_rate pict '9,999.99'
@9,18 say post_addre pict
'!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!'
@11,17 say resi_addre pict
'!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!'
@13,30 say inter_acctno pict '!!!!!!!!!!!!'
@15,30 say signatures pict '!!!!!!!!!!!!!!!!!!!!'
@17,22 say name pict
'!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!'
*
delete
```

```
do while .NOT. ans$ "YN"
@19,10 say "Pls Confirm that this Record Should be Deleted (Y/N)"
colo w/br+
@19,62 get ans pict "!"
 read
enddo
 if ans ="Y"
pack
endif
ans =" "
@19,0 clear to 19,70
do while .NOT. ans$ "YN"
@19,10 say "Do you wish to continue? (Y/N)" colo w/br+
@19,50 get ans pict "!"
_read
enddo
 if ans ="N"
close all
deact wind depo1_1
exit
endif
loop
enddo
set confirm off
set stat on
*set colo to
set safe on
return
**********CHANRATE.PRG*************************
set talk off
set escape on
set stat off
set echo off
set score off
set bell off
set excl on
set safe off
set dbtrap off
*set colo to


close all
define window mdepos from 3,20 to 17,77 double colo r+,b+

myear=space(4)



fl= 'int_rate'
deact wind mdepos
sele 1
use &fl
     index on inte_rate1 tag bydepo

store 0 to mint_rate1,mint_rate2,mint_rate3,mdep_period
store space(1) to ans

Do while .t.
```

```
clear
*
acti wind mdepos
@0,7 say ' COMPUTERISED FIXED DEPOSIT ACCOUNTS SYSTEM' colo
w+/br+*
@2,11 say 'CHANGING INTEREST RATE SCREEN' colo wr+/bw+*
*
@5,3 say "3 Months Deposit Interest Rate is.:" colo w+/br+
@7,3 say "6 Months Deposit Interest Rate is.:" colo w+/br+
@9,3 say "12 Months & Above Deposit Interest Rate is.:" colo
w+/br+

*@11,20 say '    '
*wait

*brow noinit nofollow noappend nomenu nodelete compress wind
mdepos

@5,52 say inte_rate1 colo wb+/gr+
@7,52 say inte_rate2 colo wb+/gr+
@9,52 say inte_rate3 colo wb+/gr+

mint_rate1=inte_rate1
mint_rate2=inte_rate2
mint_rate3=inte_rate3

@5,52 get mint_rate1 pict '9'
@7,52 get mint_rate2 pict '9'
@9,52 get mint_rate3 pict '9'
read

do while .NOT. ans$ "YN"
@12,1 say "Pls Confirm if the Rates are now Okay? (Y/N)" colo
w/br+
@12,47 get ans pict "!"
 read
enddo
 if ans ="Y"

replace inte_rate1 with mint_rate1, inte_rate2 with mint_rate2,
inte_rate3 with mint_rate3
endif
ans=' '

close all
deact wind all
exit
*endif
loop
enddo
set confirm off
set stat on
*set colo to
set safe on
return
**********DEPOREPT.PRG**********
set stat on
*set escape off
```

```
**********DEPOREPT.PRG**********
set stat on
*set escape off
set safety off
set talk off
*----------------------*
clear
*----------------------*
store space(12) to mdepositno
store 1 to pageno,lineno,sn
store 0 to mbal,mprin,minter,wm
*mdate=( / / )
mdate=date()

select 1
use deposits excl
        index on depositno+trans_id to deposit
        set filter to date_open=date()
        go top

        set print to file todayprt
        set print on
        do header

        Do while .not. EOF(1)
        do mainbody
        enddo
        do footer
        store 0 to mbal,mprin,minter,wm
        store space(12) to mdepositno
        set print to
        set talk on
        set escape on
        set safety on
        close all
        return
*++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++*
procedure header
?space(7)+ 'STATEMENT OF DEPOSITS ACCOUNTS FOR' +space(2)+cmonth(date())
*?space(15)+ 'ACCOUNT NUMBER:'+space(2)+ltrim(depositno)
*?space(20) + 'COOPERATIVE BANK PLC GWAGWALADA, ABUJA' + space(20) +
'pageno' + str(pageno)
?space(6)+ replicate('=',40)
?
mcmonth=cmonth(date())
myear=year(date())
?space(1)+ replicate('-',77)
?    space(5)+'S/NO'+space(8)+repl(chr(179),1)+space(2)+'DATE    OF
```

```
TRANSACTION'+repl(chr(179),1)+space(5)+'AMOUNT'+space(3)+repl(chr(179),1)
+space(5)+'TRANSACTION-TYPE'+space(1)+repl(chr(179),1)
*?
*?space(4)+'S/No' +space(7) +'CODE' +space(13)+ 'DESCRIPTION'
?space(1) +replicate('=',77)
return

*-------------------------------------------------------------------*
procedure mainbody
        Scan while .not. EOF(1)
        set filter to amount_dep>0
        ? str(sn,3) at 5
        ?? repl(chr(179),1) at 17
        ??depositno at 18
        ?? repl(chr(179),1) at 30
        ?? date_open at 32
        ?? repl(chr(179),1) at 42
        ??amount_dep at 44
        ?? repl(chr(179),1) at 56
        ?? trans_id at 70
        ?? repl(chr(179),1) at 77
        ? space(1) +replicate('=',77)

        if depositno=mdepositno
        sum all for trans_id='D' to mprin
        sum all for trans_id='I' to minter
        sum all for trans_id='W' to wm
        endif

        lineno=lineno+1
        pageno=pageno+1

        if lineno=60
        if depositno<>mdepositno
        eject
        depositno=mdepositno
        endif
        endif

        sn=sn+1
        endscan

        if (lineno=60)
        eject
        do header
        endif
        return

Procedure footer
```

```
        mbal=(mprin+minter)-wm
        mprinc=mprin+amount_dep
        ?
        ?
        * ? space(5) + ' CURRENT
BALANCE'+space(2)+str(mbal,14,2)+space(5)+'PRINCIPAL'+space(2)+str(amount_
dep,12,2)
        ?
        ?repl('=',70)
        ?
        ?
        ?                '                K                E                Y                :
->'+space(5)+'W:WITHDRAWAL'+space(5)+'D:DEPOSIT'+space(5)+'I:INTEREST'
        ?space(20)+"END OF ACCOUNT"
        *close all
        return
**********END OF CODEREPT.PRG**********
```

```
**************TODAYTRANS.PRG********

set stat on
*set escape off
set safety off
set talk off
*-----------------------*
clear
*-----------------------*
store space(12) to mdepositno
store 1 to pageno,lineno,sn
store 0 to mbal,mprin,minter,wm
*mdate=(  /  /  )
mdate=date()

select 1
use deposits excl
     index on depositno+trans_id to deposit
     set filter to date_open=date()
     go top

     set print to file todayprt
     set print on
     do header

     Do while .not. EOF(1)
     do mainbody
     enddo
     do footer
     store 0 to mbal,mprin,minter,wm
     store space(12) to mdepositno
     set print to
     set talk on
     set escape on
     set safety on
     close all
     return
*++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
++++++++++*
procedure header
?space(7)+ 'STATEMENT OF ACCOUNT OF'+space(2)+trim(name)
?space(15)+ 'ACCOUNT NUMBER:'+space(2)+ltrim(depositno)
*?space(20) +   'CO-OPERATIVE BANK PLC, GWAGWALADA'      + space(20) +
'pageno' + str(pageno)
?space(6)+ replicate('=',40)
?
mcmonth=cmonth(date())
myear=year(date())
?space(1)+ replicate('-',77)
?  space(5)+'S/NO'+space(8)+repl(chr(179),1)+space(2)+'DATE  OF
TRANSACTION'+repl(chr(179),1)+space(5)+'AMOUNT'+space(3)+repl(
chr(179),1)+space(5)+'TRANSACTION-TYPE'+space(1)+repl(chr(179),1)
*?
*?space(4)+'S/No' +space(7) +'CODE' +space(13)+ 'DESCRIPTION'
?space(1) +replicate('=',77)
return

*-------------------------------------------------------------
```

```
----------*
procedure mainbody
     Scan while .not. EOF(1)
     ? str(sn,3) at 5
     ?? repl(chr(179),1) at 17
     ?? date_open at 25
     ?? repl(chr(179),1) at 39
     ??amount_dep at 41
     ?? repl(chr(179),1) at 54
     ?? trans_id at 70
     ?? repl(chr(179),1) at 77
     ? space(1) +replicate('=',77)

     if depositno=mdepositno
     sum all for trans_id='D' to mprin
     sum all for trans_id='I' to minter
     sum all for trans_id='W' to wm
     endif

     lineno=lineno+1
     pageno=pageno+1

     if lineno=60
     if depositno<>mdepositno
     eject
     depositno=mdepositno
     endif
     endif

     sn=sn+1
     endscan

     if (lineno=60)
     eject
     do header
     endif
     return

Procedure footer
     mbal=(mprin+minter)-wm
     mprinc=mprin+amount_dep
     ?
     ?
     ? s p a c e ( 5 ) + ' C U R R E N T
BALANCE'+space(2)+str(mbal,14,2)+space(5)+'PRINCIPAL'+space(2)
+str(amount_dep,12,2)
     ?
     ?repl('=',70)
     ?
     ?
     ?          '          K          E          Y          :
->'+space(5)+'W:WITHDRAWAL'+space(5)+'D:DEPOSIT'+space(5)+'I:I
NTEREST'
     ?space(20)+"END OF ACCOUNT"
     *close all
     return
***********DEPOREPOT.PRG**************
set talk off
```

```
set safe off
set stat on
!cls
set colo to
*
page_no =0
noline =1
goback="Do you wish to continue? (Y/N)"
*
defi window error from 15,25 to 20,55 double
*
select 1
     use deposits
          index on depositno to depo
go top
store space(12) to mdepono

do while .t.
***
store 0 to mamount,mbal,mdepoD,mdepoW,mdepoI
@06,5 to 8,60 double colo w/br+
@07,07 say 'Pls Enter Deposits Account Number' colo gr/gb+
@07,45 get mdepono pict '@!!!!!!!!!!!!'
read
***
if mdepono=space(12)
close all
exit
endif

*sele 1
locate for depositno=mdepono
if .not. found()
acti wind error
text
 record  does not exist !!!
endtext
@3,2 say 'Press any key to continue'
b=inkey(0)
deact wind error
clear
loop
endif
***
set filter to mdepono=depositno
***
set prin to file deposit
set prin on

do phead

scan while .not. EoF()
do details
endscan
do end
***
if noline >55
eject
```

```
endif
set prin off
set prin to
***
ans =" "
@19,0 clear to 19,70

do while .NOT. ans$ "YN"
@23,10 say ' '
wait
clea
@19,10 say goback colo w/br+
@19,50 get ans pict "!"
 read
enddo
 if ans ="N"
close data
close all
exit
endif
clea
loop
enddo
return
***


*REPORT PAGE HEADING
procedure phead
***
?space(27)+ 'COOPERATIVE BANK PLC, GWAGWALADA'
?space(26)+repl('-',40)
?
? s p a c e ( 2 4 ) +   ' S T A T E M E N T   O F   A C C O U N T
FOR'+space(2)+ltrim(cmonth(date()))+  space(2)+
ltrim(str(Year(date())))
?space(23)+repl('=',45)
?
?
? s p a c e ( 5 ) +   ' A C C O U N T
NUMBER.:'+space(2)+ltrim(depositno)+space(2)+'ACCOUNT  HOLDER:
'+trim(name)
? space(4)+repl('*',75)
?
?
?     s p a c e ( 5 ) + ' D A T E     O F
TRANSACTION'+space(9)+'AMOUNT'+space(9)+'TRANSACTION-TYPE'
? space(4)+repl('*',75)
return

*REPORT DETAILS
procedure details
***
     mamount=amount_dep

?space(8)+dtoc(date_open)+space(12)+rtrim(str(amount_dep,14,2)
)+space(17)+trans_id
```