

COMPUTERIZATION OF BANK RECONCILIATION STATEMENT
(A CASE STUDY OF MINISTRY OF FINANCE:- NIGER STATE.)

By

Alhaji Baba Sani.

PGD/MCS/99/2000/930

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

SEPTEMBER, 2001.

**COMPUTERIZATION OF BANK RECONCILIATION STATEMENT.
(A CASE STUDY OF MINISTRY OF FINANCE – NIGER STATE).**

By
Alhaji Baba Sani.
PGD/MCS/99/2000/930

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

September, 2001

APPROVAL PAGE

This project work has been read and approved by the under signed, as meeting the requirements of the Department of mathematics | computer Science, Federal University of Technology, Minna.

Prince R. Badamosi,
Project - Supervisor

Date

Dr S.A. Reju
Head of Department

Date

External Examiner

Date

DEDICATION

This piece of work is solely dedicated to the glory of the Almighty Allah for his guidance , patience and love over all of us. To him alone be the glory.

Ma Salam!

ACKNOWLEDGEMENT

To God be the glory. He made everything possible. In writing this nature of academic work, there are usually one of two individuals involved.

First among such individuals is my project supervisor, - Prince R. Badmus He gave me enough time and proper direction towards a successful write – up. I thank him very much.

I wish to salute the current head of department, Dr S. Reju for his support and concern.

I would also like to acknowledge the untiring efforts, support and understanding of all lecturers in the Post- Graduate Diploma class. To my employer, thanks for the support given to me to carry out this study. My special gratitude to my parents, brothers, sisters and other relations too numerous to mention. to my classmates, you have been too special.

ABSTRACT

Generally organizations be private or public needs a more efficient, reliable and quicker way in preparing of their bank reconciliation statement of accounts.

With the modern technology, it has become imperative that bank reconciliation statement be computerized in order to provide adequate information on the financial status of the organization at any time when required for a quick decision- making on financial matters. It is based on this premise that the project focuses more on the need for automation of bank reconciliation statement. This will be achieved by using a dbase IV programming language.

TABLE OF CONTENTS

Title page	I
Title page.....	ii
Approval page.....	iii
Dedication.....	iv
Acknowledgement	v
Abstract	vi
Table of contents	vii

CHAPTER ONE

1.0 Introduction.....	1
1.1 Objective of the study.....	2
1.2 Definition of terms	3
1.3 Bank Reconciliation	5

CHAPTER TWO

2.0 Origin of Banking	7
2.1 Function of Banks	9
2.2 Bank Reconciliation (formal Approach).....	10
2.3 Need for Reconciliation in Non banking sectors.....	12
2.4 With computer in reconciling Bank statement.....	13

CHAPTER THREE

3.0	System analysis & Design.....	15
3.1	Feasibility study.....	15
3.2	Testing project feasibility.....	16
3.3	The current system.....	16
3.4	System design.....	17
3.5	Cost and Benefits analysis.....	17
3.6	Input specification.....	18
3.7	Output specification.....	19

CHAPTER FOUR

4.0	Software /program development.....	20
4.1	Introduction.....	20
4.2	Choice of Language.....	20
4.3	Features of Language Chosen.....	20
4.4	Hardware Requirement.....	21
4.5	Staff Training.....	21
4.6	Change - over procedure.....	22
4.7	Starting the system.....	22
4.8	Main menu.....	23

CHAPTER FIVE

5.0	Summary, Conclusion & Recommendation.....	26
	References.....	27

short comings include:

- (a) General repetitive nature of tasks of book-keeping
- (b) Copying and rearranging of information already produced.
- © Computations of balance any time transaction takes place
- (d) Involvement of much paper work in the operation.

However, with the introduction of computer, a lot of work done manually can now be effectively done using computer. Indeed, using computer in preparing reconciliation by banks do have the following advantages;-

- (a) Elimination of many repetitive works of book- keeping.
- (b) Automatic mathematical computation
- © Minimal reduction of use of stationary
- (d) Automatic updating of records and maintenance continuously.

OBJECTIVES THE STUDY

The objectives of this project is as follows :-

To ensure prompt postings of financial transactions of the ministry into the cash book.

To examine in details the present system of reconciliation in the ministry.

Analyzing the short comings of the present system

To achieve accuracy of posting of all financial transactions through bank reconciliation statement preparation.

Assessing the performance and evaluation of the new system and offer recommendation for better performance.

DEFINITION OF TERMS

Current assets:- These are those assets that are usually consumed in the course of one accounting year.

Liabilities:- Debts of an organization. The claims of creditors against the assets of a business or an organization.

Loans :- This is a sum of money borrowed (usually from a bank) and expected to be paid back with some amount of interest.

Income statement _A financial statement showing the results of operation for a business by matching revenue and related expenses for a particular accounting period.

Net Income :- The excess of revenue earned over the related expenses for a given period.

Cash flow :- This is the total amount of capital both acquired and spent needed to keep a business or organization functioning

Expenses :- The cost of goods and services used up in the process of obtaining revenue.

Collating- This is the gathering of all the bank statements and cash vouchers to facilitate the preparation of bank reconciliation statement at the end of every month.

Bank statement - This is a summary statement of a customer's account in the bank's ledger. This statement is usually sent to the customers from time to time or at the request of the customer.

Cash book - This is a book of original entry where cash receipts and cash payment are recorded during any finance transactions

Ledger - It is a summary statement of a transaction in both words and figures.

Computerization - This is the use of programmed computer to process cash receipts and cash payments as they arise in order to generate the desired results that shall be used for management decision making.

Unpresented cheques - These are cheques drawn by the organization on itself and given to an individual corporate body who fails to present those cheques before the bank statement is prepared or sent.

Reconciliation of account:-This is the process of agreeing the balance of one account with the balance of another account.

Cash receipts - These are the various items of cash receipts received by a bank as recorded on the debit side of the main cash book. Undraped

effects/Lodgement - These are charges paid into a business or individual account of which the bank has not given a direct credit in the bank statement as

Undeared Effects/ Uncredited Lodgement -These are cheques paid who a business or individual account of which the bank has not given a direct

credit in the bank statement as a result of the cheque undergoing clearance.

Posting - This is the recording of financial transactions on the proper side of a cash book. e.g. the receipts are always recorded on the debit side.

(xviii) Dishonoured cheques - This is a situation where by a cheque initially credited in a bank statement to a customer is later debited bank in the statement as a result of some irregularity regarding the cheque.

BANK RECONCILIATION

For the fact that banks do prepare reconciliation for deposits and withdrawals account with them, such individuals and organisation of individuals and organizations do also maintain cash book records of all the deposits and withdrawals they have in the banks.

The method of approach used by the individuals and organizations is somehow similar to that of the banks. The main difference is that money own by individual or organization is shown on the debit side and liabilities on the credit side. In all the cases, record keeping process is carried out manually.

However, with the introduction of the computer, the reconciliation can be done quickly and faster. The importance of timely and accurate bank reconciliation statement can not be over - emphasized in an organization like the ministry of finance. They needed the information for the following reasons in addition to the benefits to be derive using computers :-

To know its financial position at any particular period of time.

To avoid over issuance of cheques so as not to lead to be bounced.

To avoid the embarrassment of dishonoring cheques due to lack of sufficient fund in the account.

To avoid the over drawing of their bank accounts and hence incur overdraft charges by the banks.

CHAPTER TWO

ORIGIN OF BANKING

Banking as we know it today is generally known to have started by the Italian Goldsmiths who settled down in to business in London around the 17th century. They began by accepting deposits of gold, coins and other valuables from their customers for safe keeping. As the volume of this business grew, they had to build large strong rooms where these customers valuable items were kept until demands were at any particular time.

And so, they began to give out part of the money deposited to interested borrowers by way of loans. They charged some amount of interest. The acceptance of deposit and granting of loan are still some of the basic banking functions all over the world today. It must be borne in mind that the forerunner of the modern banking started and performed virtually all the present functions of modern banking. The acceptance of their customer's letter of instruction to transfer funds from his/her holding to another represent the present day cheque system.

After all, the cheque is merely an instruction on legalized paper from one customer to the banker requesting him (Bank) to pay money written on cheque to a named beneficiary.

The goldsmiths receipts to their clients became the first known issue to notes, though they were not legal tender. These receipts later became transferable

instruments.

As the individual goldsmiths' business expanded, it became necessary for them to organise themselves into groups to form merchants and private banks. As a result of the fast expanding activities of these goldsmiths and huge financial involvement to protect both the depositors and goldsmiths.

In consequence, therefore, the British government in 1694 establishes the Bank of England to regulate and control these merchants and private banks amongst other functions.

In Nigeria, banking came with the advent of colonial masters. The introduction of the first modern banking dated to 1892 when the African banking corporation was established in Lagos at the invitation of Elder Dempster and company. African Banking corporation was based in south Africa but merely open a branch office in Lagos to finance shipping business of Elder Dempster company who was operating steamship service between Liverpool and the West coast of Africa. As a result of the good performance of the African banking corporation another bank opened its branch office in Lagos in 1894. The bank was the Bank of British west African which was registered in London in 1894 with an authorized capital of N120,000 and this bank enjoyed the monopoly over banking business in Nigeria until 1916.

Until this date however, the bank of British west African was the sales agent for Custody and Distribution of British silver currency in West Africa as

issued by the West African currency Board which was established in 1912.

The Bank of British west African remained dominated in the field until 1914 when colonial bank which was more in the business of banking was established. As a result of its dynamism, the bank opened 15 branches within the year it was established in west Africa.

In 1915 the asset and liabilities of these banks were there then taken over by a consortium of banks comprising of Barclays Bank, Anglo Egyptian Bank and National bank of south Africa to form a new bank called Barclays Bank D.C. O.

This new bank had to change its name from its earlier colonial name as a result of new banks that sprang up. Such banks include United Bank for Africa (UBA), Nigeria -Arab bank, savannah bank, etc

FUNCTION OF BANKS

Commercial banks can be defined as business enterprises set up to do banking business.

They are the most common type of banks in Nigeria and they started much earlier than all other types of Bank. The commercial bank accept deposits from the public and make profit by lending money to the individual or corporate body.

The functions of the bank include thus :

Accepting and keeping of deposits on behalf of their various customers.

Provision of credit facilities to their respective customers.

Provision of banking facilities to their customers both within the country and outside the country.

Bank also provide facilities for the safe keeping of valuables like Jewelleries and documents for their customers.

Banks also give financial advice to their customers on the use and management of funds and on how to manage their business.

To safe guard the deposits of customers and to prevent bank failures.

BANK RECONCILIATION (FORMAL APPROACH)

Bank reconciliation can be defined as a way of keeping both bank record and general ledger cash account record in balance. It is a good control procedure for identifying inaccuracies introduced by the banks accounting of cheques and deposits, disbursements, possibly unauthorized that have not been accounted for through cash disbursement records old out standing cheques that may never be cashed and adjustments generated by the banks.

Indeed, the relationship between a bank and its customers is one of debtor and creditor.

For example, when company M.B.S. pays in N90,000.00 cash into the bank.

The bank will debit cash account and credit the company account

M.B.S, meaning that it owes the company N90,000,00 which the company has paid in. If the company M.B.S gives out a cheque for N69,000,00 to another dealer, the company's record in the bank account will read this:

BANK ACCOUNT OF M.B.S COMPANY

Capital - N90,000,00	Cheque drawn N69,000,00
	Balance c/d 21,000,00
N90,000,000	N90,000,000
	Balance b/d - N21,000,00

From the above record, it shows that the company balance now is N21,000,00, But until the cheque issues out to their dealer is presented for payment at the bank, the balance on the company's account will still stand as N21,000,00. It must be at this point be shown that differences in a bank statement and a customers. Own cash book records can be as a result of the following:

- (a) Un presented cheques
- (b) Un credited cheques
- © Bank charges
- (d) Bank commission on Turn-over (COT)
- (e) Interest paid
- (f) Dishonoured cheques

- (g) Direct payments into or from the bank account.

NEED FOR RECONCILIATION IN NON-BANKING SECTORS

The importance of preparing bank reconciliation in non-banking sectors can never be overemphasized. For the fact the individuals, Organisations, government and institutions have an account in the bank (s), they have to, from time to time prepare a reconciliation statement to know the balance of what they have at anytime in the bank.

The purpose of a bank reconciliation statement in a non-banking sector is to:

- (a) Ensure that management is kept abreast of the actual cash backing for meeting organizational needs.
- (b) Reflects bank charges or other deduction from the balance at the bank that may have escaped management attention or was never initiated by management, so that institutions book of accounts reflect such discrepancies.
- © Shows all payments to the institution and other credits made directly to the bank by the individual paying it so that full account can be taken of all such receipts.
- (d) Ensure that all cheques drawn on the account or other payments or transfer instructions made or given by the institution are fully debited to the account.

- (e) Ensures that any discrepancies between the bank entries and entries into the institutions cash books are fully looked into and corrected in the books of account.
- (f) Ensures that all bank charges or bank initiated debits are in line with prevailing regulations or agreement with the bank.

WHY COMPUTER IN RECONCILIATION BANK STATEMENT ?

In business, banks and some organisations, computers are been used for many purposes, such include:-preparing payroll, book-keeping, inventory and stock control, billing, etc. With the invention of computers, many softwares were also introduced. Most especially the accounting packages available include ACCPAC PLUS, REAL WORD payroll and DacEasy Accounting. Indeed, DacEasy accounting is a low-cost package with a large number of accounting functions. It is an integrated package that provides several functions, such as General ledger, Account Recoverable Account Payable, Purchase orders, Billing, etc. One of the recent software that deals more on the Bank reconciliation is the Data perfect. This software is rather very wide and comprehensive. Using this software, the reconciliation report will help in balancing cheque books so that books will be the same as that of the bank

From the sample software enumerated, it could be seen that application of computers in preparing bank reconciliation is a new development.

Even in some organizations like banks, companies that use the computers in their operations, the reconciliation aspect is still done manually.

The main advantages of using computers in reconciling bank statements include thus:

It helps to eliminate many of the repetitive task of book keeping.

It eliminates copying and re-arranging of information which has already been entered in to the system.

It performs all the mechanical computations faster and accurately.

It eliminates most of the paperwork.

It helps in updating of records automatically.

It produces reports that are timely and accurate.

CHAPTER THREE

SYSTEMS ANALYSIS AND DESIGN

Systems analysis and design is a process similar to problem solving. The process of system analysis involves a number of steps that can be applied to any study.

FEASIBILITY STUDY

Possible feasibility study was carried out on the existing system and a look at all the possible alternative solutions were done.

In preparing bank reconciliation of the ministry manually, the following problems were encountered:

Repetitive task of book-keeping

° Computations of balance anytime transaction takes place.

Delay in generating of reports when required.

° Frequent mistakes made while preparing a reconciliation.

Time consuming and wasting

Once reconciliation is prepared manually, it becomes very difficult to insert or delete any information, as alterations could render it useless.

TESTING THE PROJECT FEASIBILITY

For project feasibility, the following have to be undertaken:

Operational Feasibility - This relates or is concerned with the workability of the proposed information system when developed and installed.

Technical Feasibility - This test seeks to clarify if the proposed project can be done with current equipment, existing software and available personnel.

ECONOMICAL FEASIBILITY - This relates to the financial feasibility. This has to be undertaken to assess cost of implementing the proposed project

All in all, the proposed system can be carried out based on the main testing project feasibility.

THE CURRENT SYSTEM

Bank reconciliation in the ministry under review is prepared on monthly basis. To prepare a bank reconciliation, one needs to get the record of all the payments and receipts by the Ministry and a bank statement for a particular month to be reconciled.

This is followed by producing the cash book balance for the period under review. This will show the previous months closing balance, which will serve as the new opening balance for the month to be reconcile. This is then added to the total receipts and deduct the total payments in order to get a new cash book balance.

After obtaining the cash book balance, it is then transfer to the appropriate bank for reconciliation with the bank statement.

SYSTEM DESIGN

Design is the process where by the system analyst applies his judgement, skills and knowledge to interpret the requirements specification that provides detailed documentation of the new system.

For effective design to be accomplished, some basic factors must be considered:

Production of desired information at the right time, and amount with an acceptable level of accuracy.

The need to minimise cost and time spent on data preparation.

Effective safeguards for prevention of frauds.

Effective security measures to avoid loss of data stored in files.

Efficient design of document and reports.

COST AND BENEFITS ANALYSIS OF THE NEW SYSTEM

OPERATING COST

	N	K
Supplies (Diskettes, stationery)	- 80,000	= 00
Equipment maintenance	- 30,000	= 00
Program maintenance	- 25,000	= 00
Labour cost (5 Operators)	- 40,000	= 00
Utilities	-45,000	= 00

Miscellaneous Expenses	-25,000 = 00
SUB TOTAL	<u>N245,000=00</u>

DEVELOPMENT COST

	N	K
Systems Analysis and Design		
For 4 weeks	- 40,000	= 00
Software Development	- 20,000	= 00
4 personal computers	-480,000	=00
Installations	- 30, 000	=00
Miscellaneous Expenses	- 20, 000	=00
	N590, 000	= 00

Grand Total =N 245,000.00 + 590,000.00 = N835,000=00

BENEFITS OF THE PROPOSED SYSTEM

Reduction in the use of stationery (paper work)

Sorting and arranging of information in various ways can be done easily and quickly.

Automatic up dating of records and maintenance.

Elimination of many repetitive work of book keeping.

(e.) Increase speed of operation in the ministry.

INPUT SPECIFICATION

This describes the manner in which data enters the system for processing.

Indeed, the input specification is influenced by the need of the output. The Main input specification for this work involve about six database files been Used. This includes:

- a) Receipt . Dbf
- Payment .dbf
- Unpresented . dbf
- d) Uncredit .dbf
- e) Dishonour .dbf
- f) Reconcile .dbf

OUTPUT SPECIFICATION

One of the most relevant features of an information system for users is the output It produces. The program is design based on the requirement of the system. This include producing monthly report that show -

Cash book balance

Bank reconciliation statement

List of unpresented, uncredited and dishonoured cheques.

CHAPTER FOUR

SOFTWARE /PROGRAM DEVELOPMENT

INTRODUCTION

Programming is the preparation of a detailed sequence of operating instruction for particular problem to be run on a computer. It involves identification of the problem into a program flow chart, testing and running the Program in Programming, input and output must be specified because the output can always be determined by the inputs.

CHOICE OF LANGUAGE

- In developing this system BASE IV programming language is used. This is due to numerous facilities available.

Features of language chosen

It provides a full relational database environment to users.

Using dbase IV, one can design database, manipulate and edit records and files, generate reports, perform database query, design labels, and database without the use of command language.

Data can be verified automatically as they are entered into fields. Up to

255 fields can be specified per record.

Pop-up menus window can be designed.

It has a larger number of memory variables, user define functions up to 99 files

can be opened at a time.

Hardware Requirements

The proposed system requires the following:

- ◆ Personal computer 836 main processor
- ◆ RAM - 24MB
- ◆ Floppy Disk drive - 3.5/5. 25
- ◆ Colour monitor
- ◆ Laser jet printer (6L)
- ◆ Stabilizer 1500VA.
- ◆ Ups 3000VA

Software Requirements

- ◆ -WINDOW 98 VERSION
- ◆ MS-DOS 6.0 VERSION
- ◆ DBASE IV

Staff Training

The amount and period of training for this system will depend upon its complexity and the available skill on the ground presently

The proposed system will be users - friendly. How ever, it is necessary to have an in-house training for the various personnel in the finance section.

The training will cover areas like Basic computing and operations guidelines for the account staff in general. This training should not exceed three weeks

of rigorous practicals in the usage of the packages designed.

Change-over procedures / system conversion

The following approaches/ procedures could be used during conversion:

1. The parallel Approach -This is a method whereby the old method is operated simultaneously for some time with the new system to make sure that the new system meets the requirements that the old system has been meeting all long and to determine whether the new system will be able to stand the test of time.

2.Direct method - This is a method where the old system is discontinued and the new system becomes operational immediately.

3. Piecemeal method-This is a method whereby changing to a new system is done gradually until the desired result is installed in other parts of the Ministry gradually.

In the case of the Ministry of Finance the new system will be implemented using the parallel method because of the advantage it has over other methods since the new system will be operated simultaneously with the old system.

STARTING THE PROGRAM

The Bank reconciliation system was developed using dbase IV

Dbase IV is a convenient programming language for record oriented programming. The Bank reconciliation system makes use of various record thus dbase IV is a suitable programming language for developing the application.

Dbase IV must be installed on any computer system that the bank reconciliation software is to be implemented. To execute dbase software, the user will first go to the dbase directory and then type "dbase". eg

C:\>cd dbase then press Enter

C:\>DBase \>D base press enter

The dbase package is loaded and the dot prompt appears. The bank reconciliation programming can then be executed by typing "Do bank 1" from the dot prompt i.e

.Do bank 1

Databases

- The bank reconciliation programming makes use of five (5) databases. As following

- (i) payments - keeps record of amounts paid out
- (ii) receipts - keeps record of amounts received
- (iii) Unpre - Keeps record of unpresented cheques
- (iv) unCRE- keeps record of uncredited cheques
- (v) DISHO - keeps record of dishoured cheques

MENU

The main menu appears when the program is executed.

MAIN MENU

RECORDS REPORTS

QUIT

RECORDS

When the records option is selected a sub menu is loaded.

PAYMENTS
RECEIPTS
UNPRESENTED
UNCREDITED
DISHONOURED

From this menu the appropriate database will be selected for record operation on selection of any of these options another submenu is loaded.

OPERATION MENU

ADD RECORDS
DELETE RECORDS
MODIFY RECORDS
EXIT

ADD RECORDS

The add records option is used to add records to the already selected database. Values are supplied into field variables and they are saved in the appropriate file.

DELETE RECORDS

The delete option is used for the removal of records from the database. Users must be sure of this operation before performing it because a deleted record cannot be recalled.

MODIFY RECORDS

The modify record option is selected whenever the user wishes to make amendment or edit existing records. When the amendments have been completed the record is replaced in the database.

REPORTS

The Reports option in the main menu is used for producing reports for all the databases. When the report option is selected a sub-menu is loaded so that user can select which particular report they wish to produce .

REPORT MENU

PAYMENTS
RECEIPTS
UNPRESENTED
UNCREDITED
DISHONOURED

On selection of an optimum the appropriate report is produced.

EXIT.

The exit option is used for going out of the application.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

Computerization in any organization is carried out with the hope of eliminating or reducing to certain minimum level; the use of manual method in carrying out its activities. It is also done with the sole aim of improving the speed, accuracy and efficiency in collection, manipulation, storage, reporting and dissemination of data.

Computerization of Bank Reconciliation program is aimed at eliminating most of the manual work involved in book-keeping of the ministry. Indeed with automation, reports can be generated in good time, thus enabling the ministry officials to take quick decision over its financial obligations.

RECOMMENDATIONS

Systems are bound to face changes as technology, economy and society change, therefore, the new system should be modified from time to time to meet the challenges given brain tasking bank reconciliation.

Also a well planned approach to system maintenance and follow-up is essential to the continued effectiveness of an information system..

Also recommended is staff training, workshop and seminars to keep the staff of the ministry up to date in the modern equipment's

REFERENCES

- 1 Anderson R.G (1990) -Principles and Practice of Data processing (vol. I)
- 2 Badmus R.(2000) - Lecture Notes on systems Analysis & Design (unpublished)
- 3 Elliason A.L (.1997) -Business computer and Application. Science Research Association systems, Chicago
- 4 John R. et al (1979) -Accounting and Information system Renton Publishing company, Renton V.A
- 5 Potter D.A (1991) -Automation Accounting system and produces Handbook. John wiley & sons Inc. New York.
- 6 Morae T.W (1964) -The impact of computers on accounting Willey and Sons Inc.-New York.

*****AUTOMATION OF BANK RECONCILIATION

SET TALK OFF

SET ECHO OFF

SET STATUS OFF

SET COLOR TO W+/B

SET ESCAPE OFF

CLEAR

B = .T.

DO WHILE B

@4,6 TO 22,70 DOUBLE

@6,8 SAY [SECURITY : MOHAMMED BABA SANI]

@8,8 SAY [PROGRAM : BANK RECONCILIATION]

@10,8 SAY [DATE : 11-03-2001]

@12,8 SAY [FUNCTION : TO AUTOMATE BANK RECONCILIATION IN]

@14,8 SAY [FINANCIAL INSTITUTION]

@16,8 SAY [CASE STUDY:]

@22,8 SAY [PRESS ANY KEY TO CONTINUE---]

B = .F.

WAIT ""

ENDDO

CLEA ALL

store 0 to barkey

SET COLOR TO GR+, G, G

CLEAR

ABORT = ' '

DO WHILE ABORT = ' '

CLEAR

DO DEFIN

CLEAR

DO DESIGNSC

DO MAIN

ENDDO

*QUIT

RETURN

PROCEDURE DEFIN

IF ISCOLOR()

SET COLOR OF BOX TO GR+/BG

SET COLOR OF NORMAL TO W+/B

SET COLOR OF HIGHLIGHT TO GR+/BG

SET COLOR OF MESSAGES TO W+/N

SET COLOR OF TITLES TO W/B

SET COLOR OF FIELDS TO N/BG

SET COLOR OF INFORMATION TO B/W

ENDIF

SET BORDER TO DOUBLE

* SET BORDER TO DOUBLE

DEFINE POPUP OPEMENU FROM 6,45

DEFINE BAR 1 OF OPEMENU PROMPT " O P E R A T I O N M E N U " SKIP

DEFINE BAR 2 OF OPEMENU PROMPT "===== " SKIP

DEFINE BAR 3 OF OPEMENU PROMPT "ADD RECORD(s)";

MESSAGE "Addition of record(s) to the database file"

DEFINE BAR 4 OF OPEMENU PROMPT "DELETE RECORD(s)";

MESSAGE "This option allows deletion of record(s)"

DEFINE BAR 5 OF OPEMENU PROMPT "MODIFY RECORD(s)";

MESSAGE "This option allows modification of record(s)"

DEFINE BAR 6 OF OPEMENU PROMPT "E X I T ";

MESSAGE "You want to Shutdown"

ON SELECTION POPUP OPEMENU DO OPE_PARA

```
DEFINE POPUP FILEMENU FROM 6,45
DEFINE BAR 1 OF FILEMENU PROMPT " F I L E   M E N U " SKIP
DEFINE BAR 2 OF FILEMENU PROMPT "===== " SKIP
DEFINE BAR 3 OF FILEMENU PROMPT "PAYMENTS";
  MESSAGE "Want to work on PAYMENTS Database file"
DEFINE BAR 4 OF FILEMENU PROMPT "RECEIPTS";
  MESSAGE "Want to work on RECEIPTS Database file"
DEFINE BAR 5 OF FILEMENU PROMPT "UNPRESENTED CHEQUES";
  MESSAGE "Want to work on UNPRESENTED Database file"
DEFINE BAR 6 OF FILEMENU PROMPT "UNCREDITED CHEQUES";
  MESSAGE "Want to work on UNCREDITED Database file"
DEFINE BAR 7 OF FILEMENU PROMPT "DISHONOURED CHEQUES";
  MESSAGE "Want to work on DISHONOURED Database file"
*DEFINE BAR 8 OF FILEMENU PROMPT "E X I T ";
*  MESSAGE "You want to Exit"
ON SELECTION POPUP FILEMENU DO FILE_PARA
```

```
DEFINE POPUP MAINMENU FROM 6,15
DEFINE BAR 1 OF MAINMENU PROMPT " M A I N   M E N U " SKIP
DEFINE BAR 2 OF MAINMENU PROMPT "===== " SKIP
DEFINE BAR 3 OF MAINMENU PROMPT "1 === RECORDS";
  MESSAGE "Want to work with Database Record(s)"
DEFINE BAR 4 OF MAINMENU PROMPT "2 === REPORTS";
  MESSAGE "Want to see report summary(s)"
DEFINE BAR 5 OF MAINMENU PROMPT "3 === Q U I T ";
  MESSAGE "You want to Shutdown"
ON SELECTION POPUP MAINMENU DO MAIN_PARA
RETURN
```

```
PROCEDURE DESIGNSC
  1,15 to 4,36 double
  2,17 SAY "INTERCITY BANK PLC."
  3,17 SAY "MINNA, NIGER STATE "
RETURN
```

```
PROCEDURE MAIN
ACTIVATE POPUP MAINMENU
RETURN
```

```
PROCEDURE MAIN_PARA
DO CASE
  CASE BAR() = 3
    DO RECORDS
  CASE BAR() = 4
    DO REPORTS
  CASE BAR() = 5
    @18,20 to 20,60
    store 'N' to reply
    @19,25 say 'Are you sure? (Y/N)' get reply pict '!';
    valid reply $ 'YN' error 'Invalid entry!!!'
  read
  if reply = 'Y'
    ABORT = 'A'
    CANCEL
  endif
  CLEAR
ENDCASE
RETURN
```

PROCEDURE OPE_PARA

DO CASE

CASE BAR() = 3

DO ADDREC

CASE BAR() = 4

DO DELREC

CASE BAR() = 5

DO MODREC

CASE BAR() = 6

DEACTIVATE POPUP

CLOSE DATA

RETURN

ENDCASE

RETURN

PROCEDURE FILE_PARA

barkey = bar()-2

DO CASE

CASE BAR() = 3

USE PAYMENTS

CASE BAR() = 4

USE RECEIPTS

CASE BAR() = 5

USE UNPRE

CASE BAR() = 6

USE UNCRE

CASE BAR() = 7

USE DISHO

ENDCASE

DEACTIVATE POPUP

RETURN

PROCEDURE RECORDS

ACTIVATE POPUP FILEMENU

ACTIVATE POPUP OPEMENU

RETURN

PROCEDURE REPORTS

ACTIVATE POPUP FILEMENU

DO REPORT

RETURN

procedure ADDREC

store 'Y' to ans

set stat off

do while ans = 'Y'

clear

store space(10) to maccnum

@1,10 Say "Enter Account Number: " get maccnum Pict "!!-999999"

read

locate all for accnum = maccnum

if found()

@8,20 say 'Record already exist'

else

store 0 to mopening, mamount

store space (15) to mname

store space (10) to mchequeno

store date() to mdatetran

DO GETDATA

READ

```

clear
append blank
replace accnum with maccnum, chequeno with mchequeno
replace name with mname, datetran with mdatetran
replace opening with mopening, amount with mamount
endif
@10,10 to 12,50
store 'N' to ans
@11,12 say 'Are there more records? (Y/N)' get ans pict '!';
      valid ans $ 'YN' error 'Invalid entry !!!'
read
enddo
CLEAR
close databases
return

```

Procedure DELREC

```

store 'Y' to ans
do while ans= 'Y'
  clea
  @2,15 to 4,55
  @3,20 say 'Deletion of record'
store space(10) to maccnum
@1,10 Say "Enter Account Number: " get maccnum Pict "!!-999999"
read
  locate all for accnum = maccnum
  if found()
@10,10 to 12,50
  store 'N' to reply
@11,12 say 'Are you sure? (Y/N)' get reply pict '!';
      valid reply $ 'YN' error 'Invalid entry!!!'
read
  if reply = 'Y'
    dele
    pack
  endif
else
  @8,20 say 'Record does not exist'
endif
@10,10 clea to 12,50
@10,10 to 12,50
store 'N' to ans
@11,12 say 'Delete more records? (Y/N)' get ans pict '!';
read
enddo
CLEAR
close data
return

```

Procedure MODREC

```

store 'Y' to ans
do while ans = 'Y'
  clea
store space(10) to maccnum
@1,10 Say "Enter Account Number: " get maccnum Pict "!!-999999"
read
  locate all for accnum = maccnum
  if found()
store opening to mopening
store name to mname

```

```

store amount to mamount
store chequeno to mchequeno
store datetran to mdatetran
DO GETDATA
READ
clear
  replace accnum with macnum, chequeno with mchequeno
  replace name with mname, datetran with mdatetran
  replace opening with mopening, amount with mamount
else
  @8,20 say 'Record does not exist'
endif
@10,10 to 12,50
store 'N' to ans
@11,12 say 'Modify more record? (Y/N)' get ans pict '!';
      valid ans $ 'Y/N' error 'Invalid entry!!!'
  read
enddo
CLEAR
close databases
return

```

Procedure REPORT

```

define window user from 1,1 to 22,78 none color W+,B
activate window user
set stat off
set alternate to 'bank.out'
set device to screen
  set alternate on
  set space on
  DO HEADING with barkey
  store 1 to couter
  go top
do while .not. eof()
do case
  case barkey = 1
  ? '|',str(couter,4), '|',accnum,'|',datetran,'|',str(amount,9,2), '|',
  ?? str(opening,9,2), '|',str(opening-amount,9,2), '|'
  case barkey = 2
  ? '|',str(couter,4), '|',accnum,'|',datetran,'|',str(amount,9,2), '|',
  ?? str(opening,9,2), '|',str(opening+amount,9,2), '|'
  case barkey >= 3
  ? '|',str(couter,4), '|',accnum,'|',datetran,'|',str(amount,9,2), '|',
  ?? chequeno,'|',space(8), '|'
  *case barkey = 4
  *?
  '|',str(couter,4), '|',accnum,'|',name,'|',datetran,'|',str(amount,9,2), '|',
  *?? chequeno,'|',space(8), '|'
  *case barkey = 5
  *?
  '|',str(couter,4), '|',accnum,'|',name,'|',datetran,'|',str(amount,9,2), '|',
  *?? chequeno,'|',space(8), '|'
ndcase
couter = couter + 1
? replicate ('-',69)
skip
nddo

et alternate off
it
ose data

```

deactivate window user
return

PROCEDURE GETDATA

CLEAR

@ 1,5 SAY "NAME :" GET MNAME PICT "@!"
@ 3,5 SAY "DATE OF TRANSACTION :" GET MDATETRAN
@ 5,5 SAY "OPENING BALANCE : " GET MOPENING PICT "999999.99"
@ 7,5 SAY "AMOUNT : " GET MAMOUNT PICT "999999.99"
@ 9,5 SAY "CHEQUE NUMBER : " GET MCHEQUENO PICT "INBK-99999"
RETURN

PROCEDURE HEADING

PARAMETER K

? space(12), "*****"
? space(12), "*" *"
? space(12), "*" MINNA, NIGER STATE. *"
? space(12), "*" AUTOMATION OF BANK RECONCILIATION SYSTEM *"
? space(12), "*****"
?

DO CASE

CASE K = 1

? space(23), "*****"
? space(23), "* SUMMARY OF PAYMENTS *"
? space(23), "*****"
?

? REPLICATE(" ", 68)

* S/NO	* NUMBER	* DATE	* AMOUNT PAID	* OPENING BALANCE	* NEW BALANCE
--------	----------	--------	---------------	-------------------	---------------

? REPLICATE(" ", 68)

CASE K = 2

? space(23), "*****"
? space(23), "* SUMMARY OF RECEIPTS *"
? space(23), "*****"
?

? REPLICATE(" ", 68)

* S/NO	* NUMBER	* DATE	* AMOUNT RECEIVED	* OPENING BALANCE	* NEW BALANCE
--------	----------	--------	-------------------	-------------------	---------------

? REPLICATE(" ", 68)

CASE K = 3

? space(18), "*****"
? space(18), "* SUMMARY OF UNPRESENTED CHEQUES *"
? space(18), "*****"
?

? REPLICATE(" ", 68)

* S/NO	* NUMBER	* DATE	* AMOUNT	* UNPRESENT CHEQUE-NO	* REMARK
--------	----------	--------	----------	-----------------------	----------

? REPLICATE(" ", 68)

CASE K = 4

? space(18), "*****"
? space(18), "* SUMMARY OF UNCREDITED CHEQUES *"
? space(18), "*****"

REPLICATE(" ", 68)

* S/NO	* NUMBER	* DATE	* AMOUNT	* UNCREDITED CHEQUE-NO	* REMARK
--------	----------	--------	----------	------------------------	----------

REPLICATE(" ", 68)

CASE K = 5

space(18), "*****"
space(18), "* SUMMARY OF DISHONoured CHEQUES *"
space(18), "*****"

?

? REPLICATE ("*", 68)

? "*" * ACCOUNT * * * * * * DISHONORED * *"

? "*" S/NO * NUMBER * DATE * AMOUNT * CHEQUE-NO * REMARK *"

? REPLICATE ("*", 68)

ENDCASE

RETURN

 *
 * AUTOMATION OF BANK RECONCILIATION SYSTEM *
 *

 * SUMMARY OF DISHONoured CHEQUES *

* S/NO *	* ACCOUNT NUMBER *	* DATE *	* AMOUNT *	* DISHONORED CHEQUE-NO *	* REMARK *
1	CR-121222	01/05/2001	45355.00	INBK-45423	
2	BK-344334	01/12/2001	6667.00	INBK-45445	
3	CR-345543	01/15/2001	6567.00	INBK-45666	
4	BK-431211	02/14/2001	5466.00	INBK-42311	
5	BK-121234	01/13/2001	23323.00	INBK-44545	

 *
 * AUTOMATION OF BANK RECONCILIATION SYSTEM *
 *

 * SUMMARY OF PAYMENTS *

* S/NO *	* ACCOUNT NUMBER *	* DATE *	* AMOUNT PAID *	* OPENING BALANCE *	* NEW BALANCE *
1	BK-122122	11/23/2000	2300.00	64000.00	61700.00
2	CO-233311	01/14/2001	5600.00	17800.00	12200.00
3	BK-456555	01/16/2001	34500.00	62677.00	28177.00
4	BK-155111	02/13/2001	6634.00	423355.00	416721.00
5	CO-121344	02/25/2001	4600.00	13500.00	8900.00

 *
 * AUTOMATION OF BANK RECONCILIATION SYSTEM *
 *

 * SUMMARY OF RECEIPTS *

* S/NO *	* ACCOUNT NUMBER *	* DATE *	* AMOUNT RECEIVED *	* OPENING BALANCE *	* NEW BALANCE *
1	BK-122122	11/25/2000	2300.00	64000.00	66300.00
2	BK-233311	01/25/2001	5600.00	17800.00	23400.00
3	BK-455555	01/12/2001	34500.00	12677.00	47177.00
4	CO-121111	01/13/2001	456634.00	23355.00	479989.00
5	CO-121344	01/25/2001	4600.00	3500.00	8100.00

*
* AUTOMATION OF BANK RECONCILIATION SYSTEM *
*

* SUMMARY OF UNPRESENTED CHEQUES *

* ACCOUNT * UNPRESENT *
* S/NO * NUMBER * DATE * AMOUNT * CHEQUE-NO * REMARK *

| 1 | BK-121233 | 01/09/2001 | 3455.00 | INBK-54344 | |

| 2 | CR-222333 | 01/10/2001 | 2300.00 | INBK-45344 | |

| 3 | BK-123344 | 01/25/2001 | 23233.00 | INBK-23333 | |

*
* AUTOMATION OF BANK RECONCILIATION SYSTEM *
*

* SUMMARY OF UNCREDITED CHEQUES *

* S/NO *	* ACCOUNT NUMBER *	* DATE *	* AMOUNT *	* UNCREDITED CHEQUE-NO *	* REMARK *
1	BK-645234	01/12/2001	5566.00	INBK-54232	
2	CR-235556	01/18/2001	45665.00	INBK-21341	
3	BK-567776	02/01/2001	44345.00	INBK-34554	
4	CR-467454	02/25/2001	6677.00	INBK-56666	

 *
 * AUTOMATION OF BANK RECONCILIATION SYSTEM *
 *

 * SUMMARY OF DISHONOURED CHEQUES *

* S/NO *	* ACCOUNT NUMBER *	* DATE *	* AMOUNT *	* DISHONORED CHEQUE-NO *	* REMARK *
1	CR-121222	01/05/2001	45355.00	INBK-45423	
2	BK-344334	01/12/2001	6667.00	INBK-45445	
3	CR-345543	01/15/2001	6567.00	INBK-45666	
4	BK-431211	02/14/2001	5466.00	INBK-42311	
5	BK-121234	01/13/2001	23323.00	INBK-44545	
