



*In the name of Allah,
the Beneficent, the Merciful.*

IN THE NAME OF

ALLAH

THE MOST MERCIFUL

THE MOST GRACIOUS

COMPUTERIZATION OF
DEPOSIT ACCOUNTING SYSTEM
OF
NATIONAL DEVELOPMENT FINANCE
CORPORATION

BY

SYED ARSLAN ZAIDI
&
SYED ALI IMRAN KAZMI

DATED:

Computer Centre
Quaid-I-Azam University,
Islamabad, Pakistan.

QUAID-I-AZAM UNIVERSITY
COMPUTERCENTER
ISLAMABAD

FINAL APPROVAL

This is to certify that we have read this project report submitted by
SYED ARSLAN ZAIDI and **SYED ALI IMRAN KAZMI** and found it of sufficient
standard to warrant its acceptance by the Quaid-I-Azam University, Islamabad for the
Post Graduate Diploma in Computer Science.

COMMITTEE

EXTERNAL EXAMINER

NAME _____

SIGNATURE _____

SUPERVISOR

DR. GHULAM MUHAMMAD
Director
Computer Center ,
Quaid-I-Azam University,
Islamabad.

SIGNATURE _____



DISS
COM
1123

PROJECT IN BRIEF

| | | |
|---|---|--|
| Project Title (Certificates of Deposits) | : | Deposit Accounting System |
| Objectives | : | To computerize the manual system of Deposit Certificates of Nation Development Finance Corporation . |
| Organization | : | National Development Finance Corporation. |
| Developed by | : | Syed Arslan Sabah Zaidi & Syed Ali Imran Kazmi. |
| Database tool used | : | Oracle 7 |
| Visual Tool used | : | Oracle Develops 2000. |
| Operating system | : | Microsoft Windows 98. |
| Packages used | : | Oracle Database Designer Microsoft Word 97 E R Win. |
| System used | : | Pentium 333 MMX. |

1 PREFACE

This report is regarding project work titled 'Deposit Accounting System' which was assigned as a partial requirement of Post Graduate Diploma. It contains the details.

- Chapter One** : Of this report describes the organization, its working and objectives. This chapter also includes methodology and objective of the project.
- Chapter Two** : Of this report explains the Account opening procedure of the current system Chapter Three describes the accounting module of Current system.
- Chapter Three**: Describes the accounting module of current system .
- Chapter four** : Gives the information about the coding structure and accounting opening of proposed system.
- Chapter five** : Contains the accounting Module of the proposed system.
- Chapter six** : Explains the file structure and give Batchman diagram of proposed system.
- Chapter seven**: Contains layout of Reports, future suggestions and conclusion.

TABLE OF CONTENTS

1 - INTRODUCTION

| | | |
|-----|--|---|
| 1.1 | Introduction to the organization. | 2 |
| 1.2 | Deposit schemes. | 3 |
| | 1.2.1 Golden Certificate of Deposit. | 3 |
| | 1.2.2 Standard Certificate of Deposit. | 3 |
| | 1.2.3 Monthly income Certificate. | 4 |
| 1.3 | Objectives of the corporation. | 4 |
| 1.4 | Background of the assignment. | 4 |
| 1.5 | Scope of work Deposit certificates applications. | 4 |
| | 1.5.1 Methodology. | 5 |
| 1.6 | Objectives of assignments. | 6 |

2- OPENING OF ACCOUNT

| | | |
|-----|---|---|
| 2.1 | Account opening from. | 2 |
| | 2.1.1 Signal individual. | 2 |
| | 2.1.2 Joint account holders. | 3 |
| | 2.1.3 Non profitable organization. | 3 |
| | 2.1.4 Limited liability companies. | 4 |
| | 2.1.5 Monthly income certificate. | 4 |
| 2.2 | Creating of account Records. | 4 |
| 2.3 | Issuance of certificate current system flow. | 5 |

3-ACCOUNTING MODULE

| | | |
|-----|--------------------------------------|---|
| 3.1 | Issue of certificate of Deposit. | 2 |
| 3.2 | Accruals. | 3 |
| | 3.2.1 Certificate of Deposit schemes | 3 |
| 3.3 | zakat | 3 |
| | 3.3.1 Certificate of Deposit | 3 |
| 3.4 | With holding Tax. | 4 |
| 3.5 | Encashment | 4 |

PROPOSED SYSTEM

4- CODING STRUCTURE

| | | |
|-------|---------------------------|---|
| 4.1 | Master information setup. | 3 |
| 4.1.1 | Account opening forms. | 3 |

5-ACCOUNTING MODULE

| | | |
|-------|----------------------------|---|
| 5.1 | Profit Payment (MIC) | 2 |
| 5.1.1 | Cash payment of Profit. | 2 |
| 5.1.2 | Payment by cheque to Bank. | 2 |
| 5.1.3 | By crediting TDA,SDA,STDA | 2 |
| 5.2 | Profit payment (SCD) | 3 |
| 5.3 | Profit payment (GCD) | 3 |
| 5.4 | Encashments | 3 |
| 5.5 | Pre-mature encashments. | 4 |
| 5.6 | Back dated renewal of CDs. | 5 |

6 FILE STRUCTURE & BATCHMAN DIAGRAM

| | | |
|----|-------------------------------|---|
| 1. | Master information table. | 2 |
| 2. | Depositor table. | 4 |
| 3. | Pre -mature encashment table. | 5 |
| 4. | Transaction table. | 6 |
| 5. | Profit mode table. | 6 |
| 6. | Scheme table | 7 |
| 7. | Religion table | 7 |
| 8. | Tran code table. | 8 |
| 9. | DP type table | 8 |

BATCHMAN DIAGRAM

7- CONCLUSION

| | | |
|-------|-------------------------------------|---|
| 7.1 | Reports | 2 |
| 7.1.1 | List of certificate issued. | 2 |
| 7.1.2 | Schedule of MIC | 2 |
| 7.1.3 | Schedule of GCD | 2 |
| 7.1.4 | Schedule of SCD | 3 |
| 7.1.5 | Schedule of CD encashed. | 3 |
| 7.1.6 | Monthly profit sheet. | 4 |
| 7.1.7 | Statement of pre mature encashment. | 4 |

| | | |
|-------|---------------------------------------|---|
| 7.2 | What we have achieved | 5 |
| 7.3 | Future enhancements. | 6 |
| 7.3.1 | Automation of Deposit Account Schemes | 6 |
| 7.3.2 | Building a Distributed Database. | 6 |

CURRENT SYSTEM

CHAPTER – 1
INTRODUCTION

CHAPTER – 1

1 INTRODUCTION

We are at the dawn of a new era. The emphasis has shifted from the physical and mechanical labor required by the industrial Revolution to the mental labor needed to sustain the new information revolution. Just as gears, gas engines and electric motors extend on physical power, so do today's computer give us the information we need to extend our thinking power. For the first our society is keyed to a resource – information – that is renewable and self-generating.

Computerization, a term associated with computers, many to change over a system using manual labor to a system that runs on computers. Studying the existing system in depth, along with all its weaknesses and drawbacks, suggesting a suitable computer system and seeing to its proper functioning are the major functions involves in computerization. A computerized system is better than the manual system, since computer will process information with great speed, accuracy and reliability. They do this by systematically performing calculations and storing vast amount of data in better organized form. These day's computers have been introduced in almost all the fields of life, with fast and accurate access to the information stores on computers readable materials.

Timely and accurate information is the most important factor than necessities in the economic world of today's and as the banking system is a part of now - a - day's money market so it is quite obvious that it should have complete accurate and fast flow of information which is crucial for decision making.

The use of automated method not only speeds up the flow of work in the bank as it is envisaged that the system will be on line one with terminals on the counter as well as other locations where access to the system is required, but also increase the accuracy by automatically generating the transactions and updating the data base.

1.1 Introduction To The Organization (NDFC)

The National Development Finance Corporation (NDFC) provides long and short term financial assistance to projects in local as well as foreign currencies. It operates from a large resource base which consists of funds raised through its own deposit schemes, lines of credit from the State Bank of Pakistan and borrowing from multi-lateral credit agencies such as the World Bank, the Asian Development Bank, the Islamic Development Bank, etc. NDFC has also raised Japanese Yen 3.0 billion through Bond floatation in the Japanese market.

NDFC has the privilege of assisting and fielding new financial institutions in the country. It co-sponsored the first Modaraba company in 1983. The first leasing company was co-sponsored in 1984. Regional Development Finance Corporation was setup in 1985 to cater to the development related funding requirements of less developed areas of Pakistan. First Credit & Discount Corporation and the First Investment Bank in the private sector were co-sponsored in 1989. In addition, NDFC

is also providing credit lines to a large number of companies in the financial sector. Thus the contribution of NDFC to the social and economic development of Pakistan is significant.

The major strategic objectives behind NDFC's project lending is the maximization of economic benefits to the nation. Priority sectors for investment are energy, communications, production of chemicals being imported, engineering manufacture of sugar mills machinery, manufacture of textile machinery, electrical, electronics, agrobased including food items and export-oriented industries. Projects involving transfer of technology and sponsored with foreign collaboration will be financed on priority basis.

NDFC is a one window institution as it is providing funds for projects financing, banking services, portfolio management, syndication, underwriting, etc. The major problem facing potential investors in the lack of access to reliable project identification services. NDFC offers its client access to high quality market and technical research through its consultancy services.

NDFC also offers attractive deposit schemes.

1.2 DEPOSIT SCHEMES

At present three different schemes are being marketed by the corporation.

CERTIFICATES OF DEPOSIT

These are fixed term deposit schemes, where certificates are issued to the depositor equivalent to the amount deposited. However, funds can be withdrawn at any time before maturity, the amount paid being as per the application growth schedule. Three schemes fall into this category:

1.2.1 Golden Certificate of Deposit (GCD)

This is a fixed deposit certificate having a term of five years although funds can be withdrawn at any time before maturity and payment is made as per the applicable growth schedule. However no profit is payable on encashment within one year of the date of issue.

1.2.2 Standard Certificate of Deposit (SCD)

Under this scheme funds can be placed for a fixed period ranging from 7 days to 5 years. Profit is paid at the time of maturity. However in case of SCDs of one year and above, profit may be paid on half yearly basis at the option of the depositor.

1.2.3. Monthly Income Certificate (MIC)

This is a five year certificate of deposit, with profit payable on a monthly basis. The maximum amount permissible for investment is Rs. 500,000. The deposit scheme is for individuals only (both for single and joint account), but, in some rare cases, these certificates are also issued to companies. No profit is paid if the certificate is encashed before three months. If encashed between specified period, lower rates of expected profit are paid.

1.3. OBJECTIVES OF THE CORPORATION

To promote industrial expansion and economic growth in the country through the provision of financial and technical assistance for the establishment of new enterprises as well as for the balancing, modernization, replacement and expansion of existing enterprises.

- To identify, promote and develop viable projects and investment proposals.
- To assist in the rehabilitation of sick and problem projects.
- To assist in the rehabilitation of sick and problem projects.
- To administer and supervise loans provided by the government and foreign institutions to projects in the country.
- To help the government in implementation of its industrial policies with respect to economic growth of the country.

1.4. BACKGROUND OF THE ASSIGNMENT

The present assignment given to us is to develop Deposit Accounting System for the Corporation (NDFC). This report relates to the Certificates of Deposit.

1.5. SCOPE OF WORK DEPOSIT CERTIFICATES APPLICATIONS

The scope of work for the Deposit Certificates Application includes:
Review of the existing manual system and procedure in detail.
Documentation of the existing system.
To document the propose Deposit Accounting System.
Develop a computerized Deposit Accounting System for the corporation.
Implementation of the system in one branch.

1.5.1 METHODOLOGY

PHASE 1

- Detailed review of the present system and submission of a draft report discussing in detail the present and the proposed system including all the input/output documents and the system flow for the proposed system.
- Incorporation of amendments if any, identified by the corporation in the draft report. This report will be considered as the final report for the first phase.

PHASE 2

Based on the report finalized in phase-1 a draft technical specification will be submitted discussing the following items:

- Technical system flow
- Program specification/flow/file layouts
- Production of a prototype consisting of screens, menus and reports without the actual logic and integration

PHASE 3

After finalization of phase-2 the following activities will be started:

- Program coding on the bases of the program specification and prototype
- Conversion of data for those application where computer application exist

1.6 OBJECTIVES OF ASSIGNMENT

- Online Processing
- Efficiency and Effectiveness
- Accuracy
- User Friendly
- Minimum Redundancy
- Data Security and Integrity

CHAPTER - 2
CURRENT SYSTEM
OPENING OF ACCOUNT

CHAPTER – 2

OPENING OF ACCOUNT

2. CURRENT SYSTEM

2.1 ACCOUNT OPENING FORMS

Accounts are opened or certificates are issued on the basis of an application made by the depositor on a prescribed 'Account Opening Form'. Common forms are used for GCD and SCD, although the contents vary to the type of depositor.

2.1.1 Single Individual

The Account Opening Form for individual depositors is given in. The contents of this form includes:

Completed by depositor

- Scheme Name
- Date of Opening of Account
- Name/Address of Depositor
- National Identity Card (NIC) Number
- Telephone Number
- Specimen Signature
- Special Instructions
- Account will be Operated by
- Account Introduced by, Name and Signature

For Corporation Use Only

- Account Number
- Deposit Scheme (TDA, SDA,)

2.1.2 Joint Account Holders

This form is used for opening of a deposit account for joint holders.
The contents of the form includes:

Completed by depositor

- Deposit Scheme
- Date of Opening of Account
- Name of Depositors (all the joint depositors)
- Addressees of Depositors
- NIC No. of Depositors
- Telephone Numbers of Depositors
- Account Introduced by, Name and Signature
- Special Introduction
 - . Account will be operated by:
 - . Any one of us
 - . Either or Survivor
 - . Both of us
 - . Single by me

For Corporation Use Only

- . Account Number
- . Deposit Scheme

2.1.3 Non-Profitable Organizations

This form is used for opening of a deposit account for a non-profitable organizations (PROVIDENT FUNDS AND ASSOCIATIONS NOT LIMITED).
The contents of the form includes:

Completed by depositor

- Deposit Scheme
- Date of Opening of Account
- Trustee or Government Body
- Full Name of Provident Fund/ Association
- Address
- Fund or Association
- Name and Authorized Signatures

For Corporation Use Only

- Account Number
- Deposit Scheme

2.1.4 Limited Liability Companies

This form is used for the opening of a deposit account for Limited Liability Companies. The contents the form includes:

Completed by depositor

- Deposit Scheme
- Date of Opening of Account
- Name of Company
- Address
- Name of Directors and Authorized Signatures

For Corporation Use Only

- Account Number
- Deposit Scheme

2.1.5 Monthly Income Certificate

In the case of MICs, a separate form is used by the corporation . The Contents of the form includes:

- Date of Opening of Account
- Name of Depositors(s)
- Address of Depositor(s)
- Religion
- NIC Numbers of Depositor
- Telephone Numbers
- Specimen Signatures
- Special Instructions
- Monthly Profit Payments
- Zakat Deduction
- Operating Instruction
- Account Number (to be filled by the corporation)

2.2 CREATING OF ACCOUNT RECORDS–DEPOSIT ACCOUNTS SCHEME

Account Opening Forms are used to create an initial record for the account in the present system. Apart from completing the Account Opening Form the depositor must also make the initial deposit, which, in the case of the certificates of deposit, must equal the value of the certificates. Deposits are made using deposit slips, the counterfoil being attached to the Account Opening Form. After receiving the forms and necessary documents (e.g., Specimen Signature Form), the branch staff/manager check the forms and, if all the formalities are in accordance with the

defined procedure of the corporation, then the account is opened into the concerned scheme.

2.3 ISSUANCE OF CERTIFICATE – CERTIFICATE OF DEPOSIT

Pre-printed Certificates are issued for deposits received against Certificates of Deposit Schemes, i.e., for MIC, GCD and SCD. For this purpose pads of pre-printed certificates for each scheme are issued from the Head Office to the branches. Each pad contains fifty sequentially numbered Certificates. Whenever an account has been open by a depositor, these pre-numbered certificates are issued to the depositor and the allocated Certificates number is also mentioned on the Account Opening Form. The various format of certificate used for these schemes are given in .

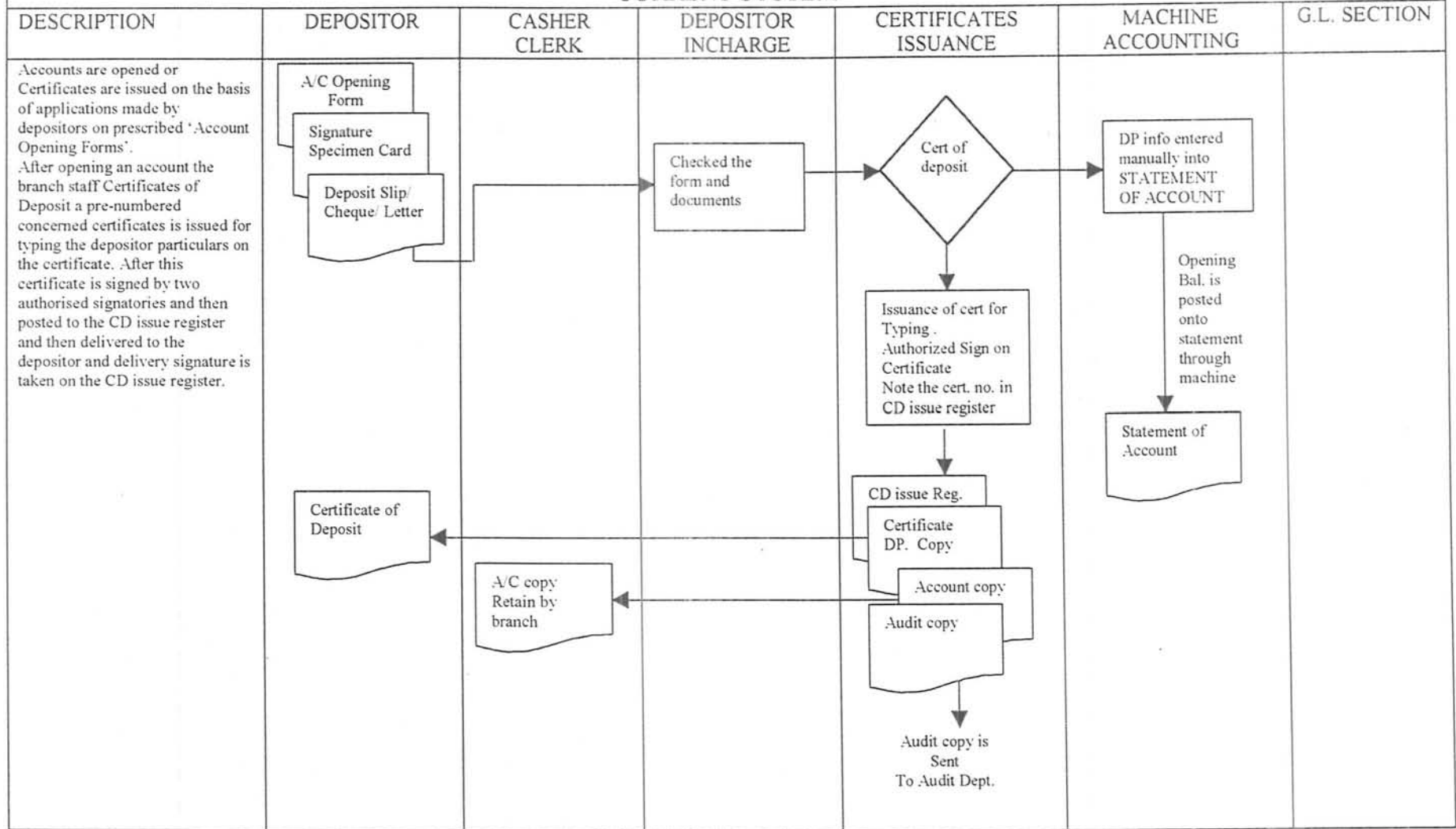
2.3.1

The Depositor presents the Accounts Opening Form to the concerned deposit incharge for verification and checking. After the proper verification the incharge issues pre-numbered concern certificates of deposit which are in triplicate for typing. Depositor name, principal amount, expiry date, date of issue of certificate and period are typed by the typist and the certificates are signed by two authorized signatories. After completing this formalities the certificate is posted into the 'CD Issue Register' format are given in, and then delivered to the depositor and delivery signature is taken on the CD Issue Register. The distribution of the triplicate copies of a certificate are as follows:

- Original Copy given to the depositor
- Pink Copy given to the Audit department
- Accounts Copy retained by the branch for record

CURRENT SYSTEM FLOW

**NATIONAL DEVELOPMENT FINANCE CORPORATION
DEPOSIT CERTIFICATES
CURRENT SYSTEM**



CHAPTER - 3
CURRENT SYSTEM
ACCOUNTING MODULE

CHAPTER - 3

ACCOUNTING MODULE

3. CURRENT SYSTEM

3.1 ISSUE OF CERTIFICATE OF DEPOSIT BY DEBITING DEPOSIT ACCOUNT

After completing the Opening of Account procedure for a Certificate of Deposit scheme , the depositor, instead of cash payment, can debit his deposit account in two ways:

- By presenting a cheque with the deposit slip along with the Account Opening Form for purchasing Deposit Certificate. This cheque is used to debit the deposit account via accounting machine and the deposit slip attached with the Account Opening Form is used to credit the concerned certificate of deposit scheme.
- By intimating through letter along with the Account Opening Form that his deposit account should be debited by crediting his new certificate of deposit account. For this purpose the general ledger section prepares an internal voucher by debiting the concerned deposit account and crediting the new certificate of deposit account. The debit entry is posted to the Statement of Account through account machine.

Deposit Account – Debited
Other Scheme Deposit Account - Credited

3.1.1 The documents used to update the deposit accounting system via the accounting machine are the cheque and debit side of the internal voucher. The information entered includes:

- Account Number
- Date of Transaction
- Transaction Code, i.e., in this case the deposit account is debited therefore the accounting code is '5'
- Amount Debited
- Balance of the Account

3.1.2 If the transaction is for the Certificate of Deposit, then these entries are posted to the subsidiary ledger and a consolidated entry to the main ledger.

3.2 ACCRUALS

3.2.1 CERTIFICATE OF DEPOSIT SCHEME (MIC, GCD & SCD)

- MIC The profit is accrued on a monthly basis and given to the depositor monthly. Premature encashment is allowed but the preceding rate of profit is applicable. Whenever profit payment is made to the depositor this is posted to the 'Monthly Profit Sheet' for future record.

Profit Payable - Debited
 Cash - Credited OR
 Cheque Bank/Branch – Credited OR
 Deposit Scheme - Credited

- SCD The profit is accrued on a monthly basis and is paid on a half-yearly basis to the depositor for those certificates purchased for a year and above. Whenever profit is paid to the depositor it is posted on the back side of the Account copy of the certificate for future record. Pre-mature encashment is allowed to the depositor but the rate used is either the preceding year's rate or the current year's rate less 1%, this being at the discretion of the branch manager

Profit Payable – Debited
 Cash - Credited

- GCD The profit is accrued on a monthly basis and paid to the depositor at the time of encashment. Pre-mature encashment is allowed for the depositor but the preceding rate of profit is applicable.

3.3 ZAKAT

3.3.1 CERTIFICATES OF DEPOSIT

In the case of MIC monthly zakat has been deducted from the certificates of deposit and posted to the subsidiary ledger and a consolidated entry to a main ledger account. The entries generated at this stage are :

Deposit Scheme – Debited
 Profit Payable Zakat (MIC) – Credited

- For SCD & GCD zakat is deducted on 1st Ramzan each year.

3.4 WITHHOLDING TAX

In the case of Certificates of deposit the Withholding Tax entries are posted to the subsidiary ledger.

3.5 ENCASHMENT

Whenever a depositor wants to encash a certificate, he has to produce the deposit certificate with his specimen signature on the back of the certificate or in the case of a company and non-profitable organization the authorized signature with a letter on the letterhead of the company. The options available to a depositor to encash a certificate are:

- 3.5.1 Re-invest the total principal amount and profit. The entries generated at this stage are as follows:

Deposit Schemes – Debited
Profitable Payable – Debited
Deposit Scheme – Credited

- 3.5.2 Only reinvest the principal amount, in this case the profit earned by the depositor are given to him according to instructions of payment at the time of Opening of an Account. The entry generated at this stage is:

Deposit Scheme – Debited
Profit Payable - Debited
Cash - Credited
Cheque Bank/Branch – Credited
Deposit Scheme - Credited

- 3.5.3 Encash both the investment and the profit amount. The entries generated at this stage are:

Deposit Scheme – Debited
Profit Payable - Debited
Cash - Credited
Cheque Bank/Branch – Credited

- 3.5.4 In pre-mature encashment the branch staff prepares the following entries, if applicable (especially in the case of MIC):

Deposit Scheme - Debited
Profit Payable – Credited
Sundry Account Central Zakat Collection – Credited
Sundry Account Withholding Tax - Credited

PROPOSED SYSTEM

CHAPTER 4
CODING STRUCTURE
AND
MASTER INFORMATION
SETUP MODULE

4. CODING STRUCTURE

Whereas in a manual system different elements of a system , e.g., zakat status ,profit mode, depositor code etc., can be referred to by name, but in a computerized environment it is essential to allocate codes to each element , so that the system is able to identify such elements clearly. Even in manual systems are often used.

| NATIONAL DEVELOPMENT FINANCE CORPORATION LIST OF CODES | |
|--|---|
| DESCRIPTION | CODE |
| <p>SCHEME TYPE This is a six digit alpha code</p> | MIC, SCD, GCD |
| <p>BRANCH CODE This is a three digit numeric field</p> | 9- 99 → BRANCH → ZONE |
| <p>DEPOSITE ACCOUNTS/ CERTIFICATES NO. This is a seven digit unique sequential number for each depositor .For each scheme the sequential no. will start from 1 to 9999999 with the combination of the scheme the sequential no. will start from 1 to 9999999 with the combination of the scheme code.</p> | MIC-0000001 SCD-0000001 GCD-0000001 |
| <p>ZAKAT CODE One-digit alpha code valid entries are.....</p> | *Y* Applicable *N* Not Applicable *M* Monthly |
| <p>WIYHHOLDING TAX One-digit alpha code valid entries are.....</p> | Y* Applicable *N* Not Applicable |
| <p>TRANCATION CODE This is a two digit numeric code , generated on daily basis.</p> | 01. Cash Receipt 02. Cash Payment and so on..... |
| <p>DEPOSITOR CODE This is a seven digit numeric code</p> | 9-999999 → six digit unique sequence → Depositor type |
| <p>OPERATIONAL INSTUCTION CODE This is one digit numeric code</p> | 01. Any one of us. 02. Either or survivor. 03. Both of us. 04. Single by me. |

4.1 MASTER INFORMATION SETUP

4.1.1 ACCOUNT OPENING FORMS

CREATING OF MASTER INFORMATION

In the computerized system the master information will be created through Depositor Information and Account Opening Forms. The present forms have been redesigned so that they will be compatible with the computerized applications.

DEPOSITOR INFORMATION FORM

This form will be used to register a depositor with the NDFC. This caters to a fixed type of information usually of the one time nature, that is, name, address, NTN, NIC etc. Registration of a depositor means that a UNIQUE depositor no. has been allotted to him.

ISSUANCE OF CERTIFICATES

For this purpose pads of pre-printed certificates for each scheme are being issued from the head office to the branches. Each pad contains fifty sequentially numbered certificates. Whenever an account has been opened by a depositor in this scheme through an account opening form these printed numbered certificates are issued

In the computerized system the pre-printed pads of certificates will continue to be issued from the head office in order to maintain the uniqueness and control over the certificates issued to the depositors. These pads will be entered into the system and during entry of issued certificates via Account Opening Form. At the time of the transfer of these BLANK CDs from one branch to other, the transferor branch will enter the following information into the system to transfer these certificates

- ◆ Pad Number
- ◆ Scheme Type
- ◆ Certificate Number (From – To)
- ◆ Receiving Branch Code

CHAPTER 5
ACCOUNTING MODULE

CERTIFICATE OF DEPOSITE SCHEMES

5.1 PROFIT PAYMENT (MIC):

5.1.1 CASH PAYMENT OF PROFIT

On request of the depositor for the payment of monthly profit, the user will have to run this option, and system will update the 'Monthly Profit Sheet'. During this process the system will also calculate the withholding tax and zakat for those who have selected the option of monthly deduction. The Journal Entries which will be generated and posted to the subsidiary Ledger are :

Profit Payable- Debited
 Sundry Account Withholding Tax – Credited
 Sundry Account Central Zakat Collection- Credited
 (if zakat is paid on monthly basis)
 Cash - Credited (With net Payment)

5.1.2 PAYMENT BY CHEQUE TO BANK

By selecting this option the system will process profit payment transactions for those depositors where profit is paid by cheque. During this process the system will also calculate the withholding tax (if applicable) and zakat for those who have selected the option of monthly deduction. The Journal Entries which will be generated and posted to the subsidiary Ledger are :

Profit Payable- Debited
 Sundry Account Withholding Tax – Credited
 Sundry Account Central Zakat Collection- credited (if zakat is
 paid on monthly basis)
 Our Current A/C Bank- Credited

5.1.3 BY CREDITING TDA, SDA, STDA

By selecting this option the system will process profit payment transactions for those depositors where profit is credited to his other deposit account. During this process the system will also calculate the withholding tax (if applicable) and zakat for those who have selected the option of monthly deduction. The Journal Entries which will be generated and posted to the subsidiary Ledger are :

Profit Payable- Debited
 Sundry Account Withholding Tax – Credited
 Sundry Account Central Zakat Collection- Credited (if zakat is paid on monthly basis)
 Deposit Account - Credited

5.2 PROFIT PAYMENT(SCD)

On request of the depositor for the payment of six monthly profit, the user will have to run SCD processing option, and system will generate 'Profit Payment Advice'. During this process the system will also calculate the withholding tax. The Journal Entries which will be generated and posted to the subsidiary Ledger are :

Profit Payable- Debited
 Sundry Account Withholding Tax – Credited
 Sundry Account Central Zakat Collection- Credited
 Our current A/C Bank - Credited

5.3 PROFIT PAYMENT (GCD)

In this case the system will only accrue the profit which will be given to the depositor at the time of encasement.

5.4 ENCASHMENTS

Whenever a depositor wants to encash a certificate , he will have to produce the deposit certificate with his specimen signature on the back of the certificate ,or, in the case of company and non-profitable organization , the authorized signature with the letter head of the company .the option available to a depositor to encash a certificate will be as follows

5.4.1

Re-invest the total principal amount and profit. By selecting this option the system will print an 'Encasement Advice'. The entries generated at that stage are as follows :

Deposit Schemes - Debited
 Profit Payable- Debited
 Sundry Account Withholding Tax – Credited
 *Sundry Account Central Zakat Collection- Credited
 Deposit Scheme - Credited

* This option will be applicable on SCD, GCD enacted on maturity.

5.4.2

Only reinvest the principle amount , in this case the profit earned by the depositor are given to him according to instructions of payment at the time of account opening .By selecting this option the system will generate the following entries.

Deposit Schemes - Debited
 Profit Payable - Debited

Sundry Account Withholding Tax – Credited
 Sundry Account Central Zakat Collection- Credited
 Deposit Scheme - Credited
 Cash/Our Current A/C Bank - Credited
 This option will be applicable on SCD, GCD encased on maturity.

5.4.3

Encasement both the investment and the profit amount . By selecting this option the system will generate the following entries.

Deposit Schemes - Debited
 Profit Payable - Debited

Sundry Account Withholding Tax – Credited
 Sundry Account Central Zakat Collection- Credited
 Deposit Scheme - Credited
 Cash/Our Current A/C Bank - Credited

5.5 PRE-MATURE ENCASHMENT

5.5.1

In pre-mature encasement the following entries will be generated by the system . if applicable (specially in the case of MIC) and SCD (in case of six monthly profit payment):

Deposit Schemes - Debited
 Profit Payable - Credited (Excess profit recovered from client)

Sundry Account Withholding Tax – Debited (Excess WH Tax refunded to client)

Sundry Account Central Zakat Collection- Credited
 (Applicable in annual deduction of Zakat)
 Cash/Our Current A/C Bank - Credited

5.5.2

In case when we are deducting zakat on monthly basis (specially in the case of MIC)

Deposit Schemes - Debited
 Profit Payable - Credited (Excess profit recovered from client)



Sundry Account Withholding Tax – Debited (Excess WH Tax refunded to client)
Sundry Account Central Zakat Collection- Credited (Excess Zakat refunded to client)
Cash/Our Current A/C Bank - Credited

5.6 BACK DATED RENEWAL OF CDs

After the date of maturity of a certificate the system will perform related accounting entries as done for the normal CDs. At the time when the depositor will come and re-invest the certificate again, then the certificate will be encased and then reinvested on the back date . For this the certificate will be issued through an account opening form and all the transaction activities, i.e., accrual, profit, etc., will be transferred to the new certificate.

CHAPTER 6
FILE STRUCTURE
AND
BATCHMAN DIAGRAM

1. MASTER INFORMATION TABLE

| Column Name | Data Type | Width | Primary Key | Foreign Key |
|---------------|-----------|-------|-------------|-------------|
| Scheme Type | Number | 02 | | Fk |
| DP-Code | Number | 07 | | Fk |
| Br.- Code | Number | 04 | | |
| A/c Cert. No. | Number | 07 | Pk | |
| P-Mode | Number | 01 | | Fk |
| Zak. Status | Varchar2 | 01 | | |
| P-Scheme | Number | 02 | | |
| P-Account | Number | 07 | | |
| P-Bank | Varchar2 | 15 | | |
| P-Bank Br. | Number | 04 | | |
| P-Bank Add. | Varchar2 | 30 | | |
| Bal.-Face | Number | 13,2 | | |

| Column Name | Data Type | Width | Primary Key | Foreign Key |
|--------------|-----------|-------|-------------|-------------|
| Op-Date | Date | | | |
| Issue-Date | Date | | | |
| Matu-Date | Date | | | |
| Rate | Number | 13,2 | | |
| P-Accrued | Number | 13,2 | | |
| P-Paid | Number | 13,2 | | |
| Zakat-Ded. | Number | 13,2 | | |
| WHT-Ded. | Number | 13,2 | | |
| P-Accr-Date | Date | | | |
| P-Paid-Date | Date | | | |
| Zak-Ded-Date | Date | | | |

2. DEPOSITER TABLE

| Column Name | Data Type | Width | Primary Key | Foreign Key |
|--------------|-----------|-------|-------------|-------------|
| Scheme Type | Number | 02 | | Fk |
| DP-Code | Number | 07 | Pk | |
| Br.-Code | Number | 04 | | |
| DP-Ty-Code | Number | 02 | | Fk |
| Zakat-Status | Varchar2 | 01 | | |
| Zak-Amt. | Number | 13,2 | | |
| WHT-Code | Varchar2 | 01 | | |
| Rel.-Code | Number | 01 | | |
| Name | Varchar2 | 35 | | |
| Add1 | Varchar2 | 50 | | |
| Add2 | Varchar2 | 50 | | |

| Column Name | Data Type | Width | Primary Key | Foreign Key |
|---------------|-----------|-------|-------------|-------------|
| Phone-1 | Number | 12 | | |
| Phone-Res. | Number | 12 | | |
| M-Add. | Varchar2 | 50 | | |
| A/c Cert. No. | Number | 07 | | F |
| NTN | Varchar2 | 15 | | |
| Occup. | Varchar2 | 15 | | |
| Intro. Code | Number | 07 | | |
| System-date | Date | | | |

3. PRE-MAT ENCASHMENT TABLE

| Column Name | Data Type | Width | Primary Key | Foreign Key |
|---------------|-----------|-------|-------------|-------------|
| DP-Code | Number | 07 | | Fk |
| A/c Cert. No. | Number | 07 | | Fk |
| Encash.-Date | Date | | | |
| Revise-Rate | Number | 13,2 | | |
| Revis.-Accur. | Number | 13,2 | | |
| Revise-Zakat | Number | 13,2 | | |
| Revise-WHT | Number | 13,2 | | |

4. TRANSACTION TABLE

| Column Name | Data Type | Width | Primary Key | Foreign Key |
|---------------|-----------|-------|-------------|-------------|
| Scheme Type | Number | 02 | | Fk |
| A/c Cert. No. | Number | 07 | | |
| Tran. No. | Number | 07 | Pk | |
| Tran. Date | Date | | | |
| Br. Code | Number | 04 | | |
| Tran. Code | Number | 01 | | |
| Cheque No | Number | 10 | | |
| Amount | Number | 13,2 | | |
| GL. Dr Cr. | Varchar2 | 01 | | |
| .Pad No. | Number | 03 | | |

5. PROFIT MODE TABLE

| Column Name | Data Type | Width | Primary Key | Foreign Key |
|--------------|-----------|-------|-------------|-------------|
| P-Mode Table | Number | 01 | P | |
| P-Mode Name | Varchar2 | 20 | | |

6. SCHEME TABLE

| Column Name | Data Type | Width | Primary Key | Foreign Key |
|-------------|-----------|-------|-------------|-------------|
| Scheme Type | Number | 01 | Pk | |
| Scheme Name | Varchar2 | 20 | | |

7. RELIGION TABLE

| Column Name | Data Type | Width | Primary Key | Foreign Key |
|---------------|-----------|-------|-------------|-------------|
| Religion-Code | Number | 01 | | P |
| Rel. Name | Varchar2 | 20 | | |

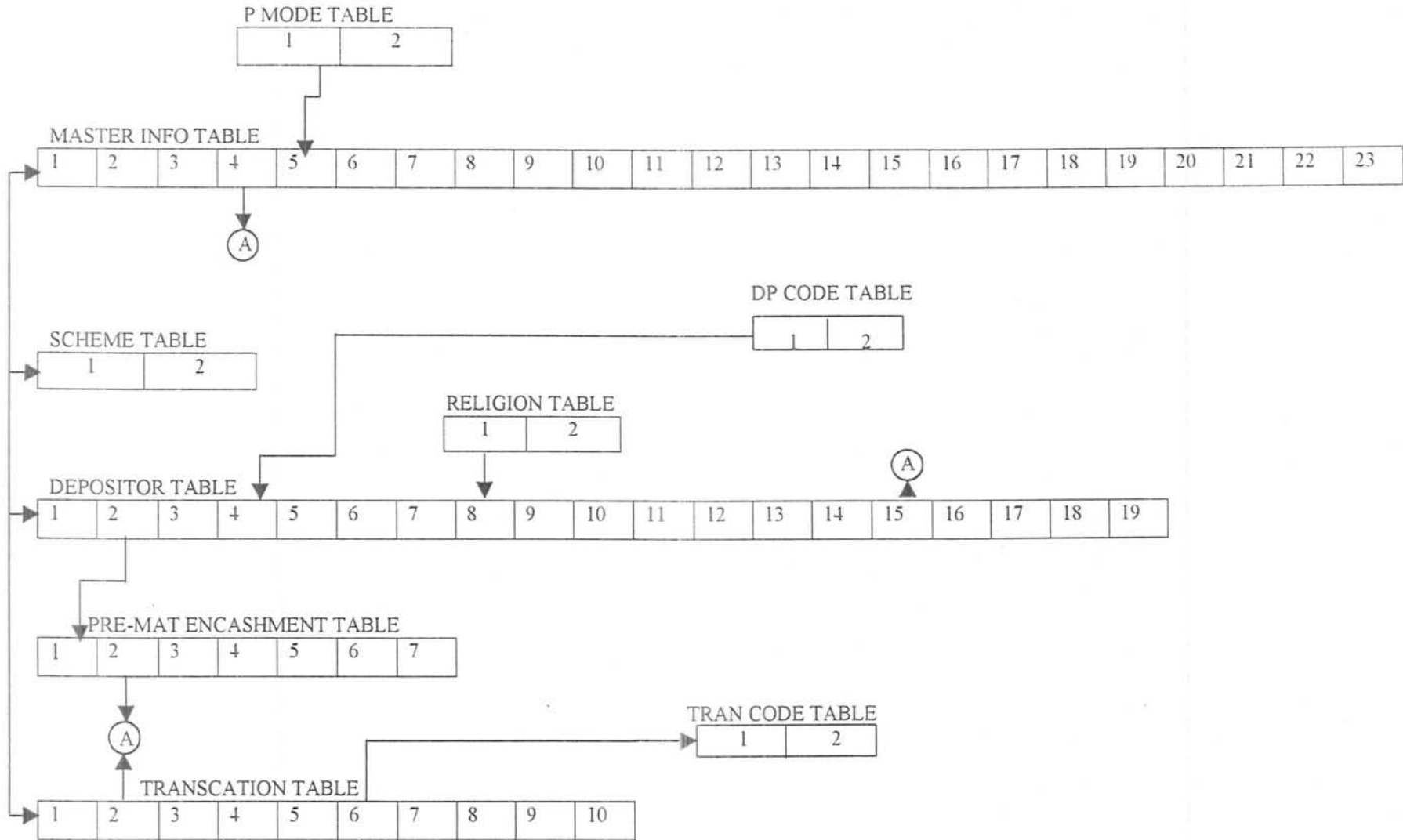
8. TRAN CODE TABLE

| Column Name | Data Type | Width | Primary Key | Foreign Key |
|-------------|-----------|-------|-------------|-------------|
| Tran-Code | Number | 02 | P | |
| Tran-Name | Varchar2 | 20 | | |

9. DP TYPE TABLE

| Column Name | Data Type | Width | Primary Key | Foreign Key |
|-------------|-----------|-------|-------------|-------------|
| DP-Ty-Code | Number | 02 | P | |
| DP-Ty-Name | Varchar2 | 20 | | |

BATCHMAN DIAGRAM



CHAPTER –7
CONCLUSION

7.1 REPORTS

7.1.1 List of Certificates Issued

This report will be used to see the list of certificate issued from specified scheme in a specific time period. The contents of the report consists

- Scheme Type
- Date From To
- Certificate Number
- Date of Issue
- Date of Maturity
- Profit Rate
- Principal Amount

7.1.2 Schedule of MIC

This report will show the details of monthly income certificates (within the specified time period) The contents of the report consists of

- Serial No.
- Certificate No.
- Face Value
- Issue Date
- Maturity Date
- Duration
- Profit Rate
- Profit Accrued
- Profit Paid
- Withholding Tax
- Zakat

7.1.3 Schedule of GCD

This report will contain the information in detail about Golden Certificates of Deposit containing the contents

- Serial No.
- Certificate No.
- Face Value
- Issue Date
- Maturity Date
- Accrued Profit
 - ◆ Period
 - ◆ Rate

- ◆ Amount
- Unearned Profit
 - ◆ Period
 - ◆ Rate
 - ◆ Amount

7.1.4 Schedule of SCD

This Report will contain the information in detail about Standard Certificates of Deposit having the contents:

- Serial No
- Certificate No
- Face Value
- Issue Date
- Maturity Date
- Period
- Rate
- Opening Profit Payable
- Profit Accrued This Year
- Total Profit Payable
- Profit Paid This Year
- Unpaid Profit

7.1.5 Schedule of CD Encashed

This report contains the details of Encashed Deposit Certificates of all schemes during a specified period showing the contents:

- Date From To
- Certificate No.
- Name of Depositor
- Rate
- Duration
- Amount
- Date of Issue
- Date of Encashment
- Profit Paid
- At The Rate of
- Withholding Tax
- Zakat

7.1.6 Monthly Profit Sheet

This report shows the monthly profit for every individual depositor for his owned scheme, containing the contents:

- Scheme Type
- Certificate No.
- Name of Depositor
- Address
- NIC No.
- Face Value
- Issue Date
- Maturity Date
- Payment Mode
- Cash
- Bank
 - ◆ Address
 - ◆ Account
- Serial No.
- Profit Due Date
- Profit Rate
- Deductions
 - ◆ W.H. Tax
 - ◆ Zakat
- Net Profit

7.1.7 Statement of Pre – mature Encashment

This is a detail statement report which will be issued on Pre – mature encashment having the contents as follows:

- Scheme Type
- Certificates
- Name of Depositor
- Address
- Issue Date
- Maturity Date
- Encashment Date
- Actual Duration
- Actual Rate
- Revised Duration
- Revised Rate
- Payment Mode
 - ◆ Cash
 - ◆ Bank

- Address
- Account
- Face Value
- Profit
 - ◆ Actual Profit Accrued
 - ◆ Revised Profit Accrued
 - ◆ Adjusted Profit
 - ◆ Profit Paid
- Withholding Tax
 - ◆ W.H. Tax Deducted - at source
 - ◆ W.H. Tax Deducted - excess
 - ◆ Adjusted W.H. Tax Refundable
- Zakat
 - ◆ Zakat Deducted - at source
 - ◆ Zakat Deducted - excess
 - ◆ Adjusted Zakat
- Net Payable Amount

7.2 WHAT WE HAVE ACHIEVED

It feels very good to develop and implement a system successfully. Before developing this project although we have theoretical knowledge of software engineering, being students of computer science, but it is far away from theory to develop a real-life system, which completely fulfill the user requirement. Luckily we have found our project in National Development Finance Corporation, which is a leading Finance Corporation, so we have a very good chance to learn a lot.

There was a very good interaction between our supervisor, Mr. Farooq, and us that helped us to develop the system well in time.

During the development of this project, We've achieved the following benefits.

- Project management and scheduling
- How to interact with the user
- How to analyze a system and collect data
- A good knowledge of system designing and modelling
- During the modelling phase, We learnt some new CASE tools
- ⇒ ERWIN/ERX
- Developing the project for software building house, and we learnt how coding is done according to standards
- During testing and implementation finding a bug and its fixtures was a totally new healthy experience
- The most important one, which not bothered to much in our education environment, how to document properly

- We have learnt development tool ORACLE and DEVELOPER/2000, and got expertise in it which will help us to enter in the industry and prove ourselves.
- We are confident enough to play my role as software engineer

7.3 FUTURE ENHANCEMENTS

7.3.1 Automation of Deposit Account Schemes

As schemes were distributed into two categories

- a- Certificates of Deposit
- b- Deposit Account Schemes

We recommend that Deposit Account Schemes should also be automated

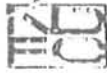
7.3.2 Building a Distributed Data base

As NDFC is a Nation wide organization and it has number of branches in the country, We also propose that Corporation should have a Distributed Data base System through which all the branches of a Regional Office should be connected and as well as the Regional Offices should be linked together.

BIBLIOGRAPHY

- Ivan Bayross, Commercial Application Development Using Oracle/Developer 2000, BPS Publications, New Delhi.
- Ivan Bayross, Oracle 7 The Complete Reference, BPB Publications, New Delhi.
- Edward Whalen, Oracle Performance Tuning and Optimisation, Techmedia, New Delhi.
- Oracle Forms 4.5(Course Notes) , Ora-Tec System (Pvt) Ltd., Karachi.
- Introduction to Oracle : SQL * PLUS and PL/Sql (Course Notes). Ora-Tech Systems (Pvt) Ltd., Karachi.
- Oracle 7 : Introduction to Oracle Tools (SQL * PLUS), Ora-Tech Systems (Pvt) Ltd., Karachi.
- Elias M. Awad (1997) , System Analysis and Design, Galoria Publications (Pvt) Ltd., New Delhi.
- C.J.Date, An Introduction To Database Systems, Addison-Wesley Publishing New York.
- Scott Urman , Oracle PL/SQL Programming, Osborne McGraw Hill.

ANNEXURE - R 6



NATIONAL DEVELOPMENT FINANCE CORPORATION
SHAHEEN COMMERCIAL COMPLEX BRANCH

| | | | | | | | |
|----------------|--|--|--|--|--|--|--|
| Account Number | | | | | | | |
|----------------|--|--|--|--|--|--|--|

Name of Account

| Signatories | Specimen Signature |
|-------------|--------------------|
| | |
| | |
| | |
| | |
| | |

Special Instructions:
A/C will be operated by:

1. Any one of us.
2. Either or Survivor.
3. Both of us.
4. Singly by me.



NATIONAL DEVELOPMENT FINANCE CORPORATION
SHAHEEN COMMERCIAL COMPLEX BRANCH

NAME OF A/C: _____
 ADDRESS: _____

 PHONE NO: _____

STATEMENT OF ACCOUNT
 A/C NO: _____
 AS OF: _____
 SHEET NO: _____



NATIONAL DEVELOPMENT FINANCE CORPORATION
SHAHEEN COMMERCIAL COMPLEX BRANCH

NAME OF A/C: _____
 ADDRESS: _____

 PHONE NO: _____

A/C NO: _____ L.NO: _____
 TYPE OF A/C _____
 ORIGINAL DATE OF A/C OPENING: _____
 DATE OF MATURITY: _____ SHEET NO: _____

| DATE | REF | CO. IDE | DEBIT | CREDIT | BALANCE | A/C. NO | DATE | CD | DAY NO. | PRODUCT | REF | CO DE | DEBIT | CREDIT | BALANCE | INITL |
|--|-----|---------|-------|--------|---------|---------|------|----|---------|---------|-----|-------|-------|--------|---------|-------|
| [The table body is mostly blank with diagonal lines drawn across it, indicating no transactions recorded.] | | | | | | | | | | | | | | | | |

1. CHECK
 2. CALL
 3. CALL
 4. CALL

ANY DISCREPANCY NOTICED IN THIS STATEMENT SHOULD BE BROUGHT TO OUR NOTICE WITHIN TEN DAYS OR WE WILL ASSUME THIS STATEMENT TO BE CORRECT.

SPECIAL INSTRUCTIONS/REMARKS _____

SIGNATURE OF AUDITOR _____

CHEQUES ISSUED: FROM " " _____

ANNEXURE- R8

NATIONAL DEVELOPMENT FINANCE CORPORATION

MIC NO. 060325

BRANCH _____

DATE OF ISSUE _____

DATE OF MATURITY _____

EXPECTED RATE OF PROFIT PAYABLE AT MATURITY OR ON PREMATURE ENCASHMENT

| | |
|-----------------------|------------|
| LESS THAN 3 MONTHS | NIL |
| 3 MONTHS & ABOVE | 6.0% P.A. |
| 6 MONTHS & ABOVE | 8.0% P.A. |
| 12 MONTHS & ABOVE | 11.0% P.A. |
| 24 MONTHS & ABOVE | 12.0% P.A. |
| 30 MONTHS & ABOVE | 12.5% P.A. |
| 36 MONTHS & ABOVE | 13.0% P.A. |
| 42 MONTHS & ABOVE | 13.5% P.A. |
| 48 MONTHS & ABOVE | 14.0% P.A. |
| 54 MONTHS & ABOVE | 15.0% P.A. |
| 60 MONTHS & ABOVE | 16.0% P.A. |
| 66 MONTHS ON MATURITY | 17.0% P.A. |

ZAKAT AND WITHHOLDING TAX WILL BE DEDUCTED AS PER RULES

RECEIVED FROM _____
A DEPOSIT OF RUPEES _____ FOR THREE-YEARS
ON PROFIT AND LOSS SHARING BASIS AT RATES OF PROFIT/ (LOSS) TO BE ANNOUNCED
FROM TIME TO TIME BY NDFC, SUBJECT TO RULES AND REGULATION OF THE
CORPORATION FOR THE TIME BEING IN FORCE PROFIT WILL BE PROVISIONALLY PAID
ON MONTHLY BASIS. NO PROFIT WILL BE PAYABLE AFTER THE DATE OF MATURITY.

Rs. _____

Authorised Signature

Authorised Signature

MONTHLY INCOME CERTIFICATE

ANNEXURE - R9

**NATIONAL DEVELOPMENT FINANCE
CORPORATION**

GCD 010495

Expires on _____

Date _____

Received from _____

the sum of Rupees _____

in deposit for a period of _____ years under
our Golden Certificate of Deposit Scheme and subject to
our rules applicable thereto. Interest will accrue annually
and accumulate for return with the deposit in accordance
with the schedule on the reverse hereof.

Rs. _____

Authorized Signature

GOLDEN CERTIFICATE OF DEPOSIT

TRANSFERABLE & NEGOTIABLE

ANNEXURE - R1

NATIONAL DEVELOPMENT FINANCE CORPORATION

SCD 079221

Expires on _____

Date _____

Received from _____

the sum of Rupees _____

in deposit for a period of _____ under
our Standard Certificate of Deposit Scheme and subject to
our rules applicable thereto.

Rs. _____

Authorized Signatures _____

STANDARD CERTIFICATE OF DEPOSIT

NOT TRANSFERABLE - NON NEGOTIABLE

Date _____



Deposited with
**NATIONAL DEVELOPMENT
 FINANCE CORPORATION**
 SHAHJHAN COMMERCIAL COMPLEX
 BRANCH - KARACHI

In the name of: _____

SPECIAL TERM DEPOSIT ACCOUNT NO. _____

Deposit: _____

| | Rs. | Ps. |
|--------------|-----|-----|
| CASH | | |
| CHEQUES | | |
| TOTAL | | |

Teller's Stamp
& Signature

Validated for
Posting on

Authorized Signature _____

Depositor's Signature _____

Cash Deposit will be credited to the account on the day it is received.

Cheque will be credited to the Account on the day funds are received in our bank account

| | |
|-----|--------|
| SL. | POSTED |
| | |