COMPUTERIZATION OF CONTRIBUTORS ACCOUNT IN THE NATIONAL HOUSING FUND SCHEME

(A CASE STUDY OF FEDERAL CAPITAL DEVELOPMENT AUTHORITY, ABUJA)

BY

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APPROVAL PAGE

This project work has been read and approved by the undersigned, as meeting the requirement of the Department of Mathematics and Computer Science, Federal University of Technology, Minna.

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DEDICATION

This project is dedicated to God Almighty and my Lord Jesus Christ for making and keeping me.

Not forgetting my son Danjuma and his cousin (my niece) Mary-Ann who even though very young, acted very maturely by staying on their own while I went to School. I wish you God's love and every best thing out of life

ACKNOWLEDGEMENT

I sincerely register my profound gratitude to Almighty God His love, mercy, protection and guidance through out the period of this course My special thanks go to Prince R. Badamosi, my supervisor, who was always very kind and understanding.

I acknowledge the immeasurable efforts of all my lecturers and the entire members of staff of the Department of Mathematics and Computer Science under the dynamic leadership of professor Adeboye. May the Almighty God reward you all abundantly.

My Immense and sincere gratitude is extended to Alh. Ahmed Abba Tanko who is a friend indeed. DR. A. Suleiman who is a brother indeed. To MR. Adebayo of Mathematics/Computer Department who is a friend indeed. God bless you.

Lastly my unreserved gratitude goes to my son Danjuma and my niece Mary-Ann. For their maturity, understanding and patience through out the duration of this course. I am highly grateful to them

ABSTRACT

The design is to provide the Management of the Federal Capital Development Authority, Federal Capital Territory, Abuja with adequate and timely information, which will enhance effective retrieving of information regarding a particular contributor's Account for effective management as a result of timely and accurate reports that will be generated by the Department under review.

A feasibility study was conducted on the National Housing Fund Scheme in the Department of Finance/Supplies and Economic Development of the Federal Capital Development Authority, Abuja.

Various fact-finding techniques such as interview, record review, observation etc were employed during the study.

A Dbase IV package was used to implement the design because of the numerous facilities that it provides for carrying out this type of work.

The implementation of this proposal will enhance easy retrieval of necessary information about contributors such as

i) Their names and Account number
ii) Amount Contributed.
iii) Expect interests rates at a stipulated period of time.
iv) Remittance of contributions.
v) Proceeds of NHF.
vi) Withdrawal of contributions.
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CHAPTER ONE

1.0 INTRODUCTION:

A short while ago, Computer was only heard of by few people but not seen. The few that heard of Computer just knew that there was a big machine somewhere that was used in doing certain jobs such as record keeping, job organization and intelligence jobs. This gave an impression that it was a sort of mysterious electronic brain with an enormous thinking power and will of its own.

Today, as we now have the awareness of modern Computer Technology, it has come to be understood that computers are just fast, efficient and reliable machines capable of carrying out various tasks such as arithmetic and logical operations as directed by humans, but also capable of occasional breakdowns, We now live in the computer age, in which our World is being reshaped by the use of the computer.

The speed and level of influence of the Computer Technology on our modern Society compared to any other dominant technology is highly appreciable. We are presently in the fifth generation of computers, and the sixth generation is already being researched into. The sixth generation will provide users with a broad range of information and expertise as well as accept speeches to make expert decisions in the various fields. The current generation of computers has made it possible for who ever wishes to use computer to be able to use one, as its application spans over a wide range of diverse professions and fields. This implies that the range of application of computers can only be limited by our own human limit of imagination. This is made possible by the efficiency of the present day computer to process and store data or information with high degree of speed and accuracy.

A computer is therefore defined as an electronic device, which is capable of accepting and processing data by following a set of instructions (programs) to produce an efficient and accurate result (processed information). Computer is useful in any organization regardless of its size or purpose, since it is a necessity that the Organization processes information or facts or data about its operations in order to provide accurate and up to date information for the success full running of the organization. Primarily the focus of this project will be on the Computerization of Contributors Account in National Housing Fund Scheme in the Department of Finance and Economic Development of the Federal Capital Development Authority (FCDA), Abuja, to enhance the management in information system of the Department.

When this is accomplished, easier, faster and more accurate information on contributors accounts. Project Status can be gotten at any time they are required. This will help the management in most of its decisions taking in respect of past, present and future contributions that are interested or involved in the Scheme.

It will not in any way render any body jobless but rather it will enhance the efficiency of the staff in addition to their acquisition of new skill, which is a positive indication on the cost and benefit analysis report.

1.1 STATEMENT OF THE PROBLEM.

With the advent of inexpensive Microcomputer, the use of Computer has been recognized by various Organizations as a better means of storing, processing and retrieving data or information on for the day-to-day running of the organization. However, to properly utilize the computer to achieve the

desired organizational goal, the problem existing in the current method of data and information handling should be identified and clearly stated. The identified problems in the data and information handling of the Department of Finance and Supplies of the Federal Capital Development Authority, Abuja are as follows

i) The volume of accounting record keeping about contract work given and brought for payments, those that are paid and yet to be paid is very high and keeps increasing daily.

ii) The inability to keep accurate information about members of Staff of the Authority as regards their remuneration at the end of each month. Information such as those staff who is on in-service and those out of service, also the incoming staff.

iii) The current manual method of processing the records is slow and error prone.

iv) The continuously decreasing convenient storage space for accountings records.

v) The in ability to provide necessary and safeguard for the records of the contributors and that of the Department.

1.2 OBJECTIVES OF THE STUDY.

It is now an unmistakable fact the level of success of any system or Organization is dependent on how much of Information Technology (IT) is applied in the System, application of an well-articulated information technology to the operations of an organization is a sure way to its success.

This project is therefore intended to make possible the application of information technology by developing software that will keep records of the nature, progress and problems of Contributors Accounts and other

accounting works in the Federal Capital Territory. This is done with the view to enhancing the speed, efficiency and accuracy of processing these records, as well as providing better security for them, such that the management will be helped in making the right decisions and taking the right actions.

1.3 JUSTIFICATION FOR THE STUDY

It is obvious that the manual system of keeping and retrieving records is generally inefficient and prone to a lot of errors. This also tells on the image of an organization.

Developing an alternative method of keeping and retrieving records therefore, will enhance the image of the Federal Capital Development Authority in a broad sense, while the problems inherent in the use of the manual method is eliminated. The proposal method will provide easier and more convenient storage as well as faster and neater output for use both by the Management and the Operations staff.

1.4 SCOPE AND LIMITATIONS OF THE PROJECT.

The scope of this project is restricted to the Computerization of Contributor's account in the National Housing Fund Scheme.

However, with some adjustment in the programming and the database files, it could be utilized to cover some other record monitoring and record keeping in the Department.

1.5 DEFINITIONS OF TERMS.

The terminology's used and applied in this project work will reflect mainly on Contributors and Accounting Record keeping in the Department

of Finance in the Federal Capital Development Authority and other public organizations

CONTRIBUTORS:- are the members of staff of an organization from who deductions are made from their salaries per month into the National Housing Fund Scheme.

SCHEME:- An arrangement made by Government in an orderly way that will enable every member of the Labour force to put aside some amount which will eventually qualify them for a loan from the Federal Mortgage Bank to Build their own Houses.

FUND:- This is a sum of money made available for a purpose.

HOUSING:- This is an accommodation, a place to live in, and a shelter by modern standards. It is an accommodation constructed for people to live in.

ACCOUNT:- An account in this context is a Statement of money paid or received from a Bank. It is also evidence that someone has money in a Bank i.e. a credit arrangement with a bank

COMPUTER:- This is a fast and efficient and reliable machines capable of carrying out various tasks such as Arithmetic and logical operations as directed by humans. But also capable of occasional breakdowns.

CHAPTER TWO

2.0 HOUSING POLICY:

The National Housing Fund (NHF) was established by Decree No.3 of 1992 primarily to address the constraint to the Mobilization of long-term funds for housing development, and to ensure that every Nigerian has access to housing loans at affordable rates of the interest.

Specifically, the aim and objectives are as outlined in section 2 of the Decree to: -

a) Facility the mobilization of funds for the provision of affordable houses for every Nigerian;
b) Ensure the constant supply of loans to Nigerians for the purpose of building purchasing and improving their houses.
c) Provide incentives for the Capital market to invest in property development;
d) Encourage the development of specific programs that would ensure effective financing of housing development, in particular low cost housing, for low-income workers.
e) Provide proper policy control over the allocation of services and funds between the housing sector and other sectors of the Nigerian economy;
f) Provide long-term loans to mortgage institutions for on lending to contributors of the fund.

2.1 SOURCES OF FUND.

The sources of the fund are stipulated by the Decree to include: -

A mandatory contribution of 2.5% of the basic income of every Nigerian, in both public and private sectors of the economy, earning an income of ₦

3,000.00 and above per annum; every Commercial and merchant Bank is mandated to invest in the fund 10% of its loans and advances.

Every registered insurance company is mandated to invest a minimum of 20% of its non-life and 40% of its life funds in real property development out of which not less than 50% shall be paid into the fund through Federal Mortgage Bank of Nigeria.

Federal Government is also mandated to make adequate financial contributions to the fund. Contributions of the Federal Government to the fund may not be limited to Naira alone, but may include offshore funds, as it may deem necessary.

2.2 MANAGEMENT OF THE FUND.

The fund is being managed and administered by the Federal Mortgage Bank of Nigeria. This is in accordance with section 7 of the Decree.

2.3 REMITTANCE OF CONTRIBUTION.

The Decree makes it mandatory for every employer of labour to deduct the appropriate amount of contribution from the monthly salary of each employee and remit this to FMBN promptly.

Every self-employed person is similarly required to remit his/her contributions.

There are strict provisions in the Decree for the assessment and remittance of contributions due from the commercial and merchant banks as well as the insurance companies.

PROCEEDS OF NATIONAL HOUSING FUND (NHF).

Federal Mortgage Bank of Nigeria is mandated to lend the proceeds of N.H.F to the PMIS who shall, in turn, on lend as long-term mortgages to enable individuals to build, buy or improve their houses.

Each borrower must however, be a contributor to the fund.

2.4 INTEREST RATES.

Interest is payable at the rate of 4% per annum on the respective contributions from individuals and insurance companies. The interest payable on contributions from banks is at a rate of 1& above that payable by banks on current accounts.

2.6 REPORTING OBLIGATIONS.

A yearly statement of contributions is to be issued by the bank to every contributor. This shall state the respective cumulative amounts of contributions and accrued interest.

A similar report is to be submitted to the Central Bank of Nigeria on the operation of the fund

2.7 FUND MANAGEMENT AND PROCEDURES.

Given the potential magnitude of the N.H.F. operations, several management and procedural guidelines have been established.

2.8 COMPUTERIZATION.

A key issue in the operating philosophy is that all aspects of the fund must be computerized. In that regard the bank has acquired a computer of

4MG capacity in its central system; this is to be linked up through a wide Area Network to the computer installations in all its field offices.

This is to facilitate accuracy, timeliness and credibility in the recording and transmission of information on the operations .The computer will serve the purpose of both the contributory system and the lending activities.

2.9 REGISTRATION.

Every contributor will be issued a registration number that shall remain unchanged regardless of changes in the place of employment. Similarly, because they are the primary sources for the remittance of contributions all employers are issued registration numbers.

The employer is required to complete a registration form (NHF.1), and each employee or self employed person is required to complete the individual registration form (NHF.2). These are to be returned to FMBN for the issuance of the respective numbers.

2.10 PASSBOOKS

As a personal record of the contributions, each individual contributor will be issued a passbook for the regular updating of his/her contributions and interest accruals. The passbook, as a security document, is laminated and will carry the picture of the contributor, his name and registration number.

Loans from Federal Mortgage Bank of Nigeria to the PMIS are to be at an interest rate of 1% above the rate payable on contributions. The PMIS shall on lend at an interest rate of 4% above the rate chargeable by FMBN. The interest rate applicable to loans from the fund shall remain fixed for the duration of each loan.

2.11 SANCTIONS FOR NON COMPLIANCE.

Section 20,21 and 22 of Decree define offences and the appropriate penalties for non-compliance with the provisions of the Decree. These are as follows:-

i) An employer who fails to make deductions from the basic salary of his employees or fails to remit such deductions is liable on convictions.

- in case of a corporate body, to a fine of ₦ 50,000.00
- in case of an individual, to a fine of ₦ 20,000.00 or five years in prison or both.

ii) A self employed who fails to make deductions or fails to remit is liable to a fine of ₦ 5,000.00 or one year imprisonment or both

iii) A person who prevents or obstructs deductions or remittance is liable to a fine of ₦ 5,000.00 or three years imprisonment or both

iv) Any false statement, misrepresentation or falsification would attract a fine of =N=10,000.00 or three years imprisonment or both.

v) Failure to produce documents or books of record relating to the fund for inspection by the bank attracts:

- in case of corporate bodies a fine of ₦ 50,000.00 and
- in case of individuals, a fine of ₦ 5,000.00 or one year imprisonment or both

2.12 WITHDRAWAL OF CONTRIBUTIONS.

Under the current Decree, individual contributions may only be withdrawn when the contributor becomes 60 years old or has retired and can no longer contribute to the fund.

Experience in other schemes and indeed the providential purposes of the NHF suggest that a more practicable approach would be to allow each contributor to have access to especially in cases where the contributors would

not borrow from the fund, it would be necessary to release such savings for other investment needs. Hence, the amendment proposed will permit every individual contributor to withdraw prescribed proportions of his accumulated contributions at specific time intervals.

2.13 **BORROWING FROM THE FUND.**

Every contributor to the fund is eligible for a housing loan. An application for a loan from the fund must be submitted in the first instance to the PMI of the applicants' choice. The PMI will arrange the processing of applications, submission to the bank and loan approval/disbursement.

To be eligible, an applicant must be a contributor to the fund in addition he may be required to fulfill other conditions normally associated with mortgage loans e.g. possession of title to the land which is to be developed, evidence of income, town planning approval for the proposed development etc the originating PMI will be responsible for loan disbursement and collection of repayment.

DEPARTMENTS

i) THE DEPARTMENT OF ADMINISTRATION.
ii) FINANCE AND ECONOMIC DEVELOPMENT.
iii) EDUCATION.
iv) ENGINEERING SERVICES.
v) HEALTH SERVICES.
vi) LAND, PLANNING AND SURVEY.
vii) LEGAL SERVICES.
viii) PUBLIC BUILDING.
ix) MAINTENANCE.

PARASTATALS

i) AREA COUNCIL SERVICE BOARD.

ii) MASS LITERACY EDUCATION AGENCY.

iii) WATER RESOURCES AGENCY.

iv) URBAN MASS TRANSIT AGENCY.

v) ABUJA INVESTMENT/PROPERTY CO LIMITED. ETC

The Federal Capital Development Authority, FCT, Abuja is a Federal Government Agency or Parastatal responsible for the design, construction, administration and development of the Federal Capital Territory of Nigeria. The FCDA is also concerned with the provisions of community based services facilities in the various districts, provisions and allocation of residential quarters and office accommodation of public officers and their respective Ministries and department and so many other related activities for the actualization of a modern and modest Federal Capital for Nigeria. The FCDA is headed by a Minister, followed by a Minister of State, a Permanent secretary who heads nine Directors who are responsible for their various Departments, there are also some Parastatals. A Director heads each of the Department which are Sub-Divided into units called Divisions.

The Department of Finance and Economic Development is specifically responsible for the running of the National Housing Fund Scheme of the FCDA towards its successful achievement and its objectives and aims.

The Department of Finance has the following Divisions:-

1) Office of the Director

2) The Personnel division

3) The UNDP division

4) The Supplies division and Stores

5) Order charges
6) Checkroom
7) Revenue
8) Tax unit
9) Loans and Advances
10) Capital expenditure
11) Fixed assets
12) Reconciliation unit
13) Budget and Planning
14) Final account
15) Commerce and Industry
16) The Salary unit

THE IMPORTANCE OF COMPUTER IN THE RUNNING AND MANAGEMENT OF THE NATIONAL HOUSING FUND SCHEME

For any decisions to be made concerning any of the Contributors such decision-making must be dependent on the management information system of an Organization.

A Management Information System is an organized collection of people, procedure, databases and devices used to provide routine Information to Managers and decision-makers. Its ultimate aim is to produce operational efficiency. All functional areas like marketing, production, finance, etc are typically supported by management information system and linked through a common database. A good management information system provides only relevant information to the individual decision maker, highlighting only critical factors controlling the organization success, ensuring accuracy and

timeliness of required information, and creating allowance for response for changes in the needs of the customers the organization serves.

Increase in productivity in the administrative function is achieved through the introduction of a system that functions with improved and responsive technique and equipment. It also creates an enlarged information potential, reduces record and file requirements and expands dissemination capability, there by effecting cost savings. Essential and valuable information vital to the continuance of profitable activities of the organization is effectively preserved. This is possible because the computer allows for meaningful control over the flow of records and safeguarding it against physical hazard and sabotage.

RECORD KEEPING AND PROGRESS MEASUREMENT.

Progress measurement of the National Housing Fund Scheme is based on the present contributors' assessment of the operations of the Federal Mortgage Bank of Nigeria and the assessment of the Board of Directors.

Thus, one of the major prerequisites for an effective management system, is the effective use of work programming.

Programming is the systematic arrangement of actions, based on scientific planning. The follow work programs are expected.

1) Mobilization program.
2) Section program.
3) Weekly program.

The programs are produced in either of the two widely used planning techniques. That is the bar chart and the critical path analysis. Monthly

progress reports at weekly meetings are always advocated in order to measure progress of work at the bank.

Another way of progress measurement is the financial situation report. This is based on the staff wages, purchase of materials , and materials returned to the store. Thus the actual cash flow, income and expenditure will be plotted against the anticipated tender . Cash flow can then be made for the works . Updated cash flow will be able to be prepared quarterly. The most efficient method of preparing program for progress measurement is by the use of computers.

2.17 TYPES OF RECORDS

In record keeping , efforts are usually geared towards identifying, collecting and making available the most urgently needed information at all levels of the organization. The type of records available in an organization depends upon the type of services rendered by such organization. The type of records kept by a business organization is quite different from those kept by an administrative set-up. In a typical parastatal such as the Federal Capital Development Authority, records can be categorized into the following :-

(i) General Administrative Records:- these are the general correspondence records used for administrative work, system and procedure records, management records, paper works, and etc.

(ii) Communication Records:- these consists of communication bulletins, messages records, postage records, telecommunication copies etc.

(iii) Personnel Records:- these include employee's applications and activities records, health records, insurance records, job description, time cards, training and union records.

in cost and improved efficiency without employing such elaborate and expensive equipment and methods.

The adoption of elementary concept and techniques of record management will result in the number of ideal records being processed and stored in order to provide easy and accurate method for the identification, organizing and retrieval of essential records.

2.18.1 COMPONENTS OF A RECORD MANAGEMENT SYSTEM.

The components of a record management system are as follows :-

(i) Control.

(ii) Evaluation.

(iii) Simplification.

(iv) Implementation.

(v) Review.

- Control involves isolating and enumerating the relevant elements of the information flowing through the information network. This is done to achieve compliance with the practices and procedures of the record management system.
- Evaluation is the measuring of correctness and effectiveness of the information flow before and after modification, as well as the flexibility of the record management system in respect of its provision for future requirements.
- Simplification is the process of establishing clarity and ease through restructuring of the network design and its contents to eliminate confusion. The final information network is also subjected to simplification function scrutiny.

- Implementation process consists of deployment and reinforcement of authorized personnel armed with specific procedure with which to create, process, store, retrieve and destroy records as the need may be under supervision. The active participation of record management professionals is required in this process
- Review is affected immediately after the withdrawal of active participation of the professionals involved in the program implementation. A handing over period would have elapsed during which accuracy, reliability, validity, and relevance were tested and found satisfactorily.

2.18.2 PROBLEMS AND DECISION – MAKING.

Organizations usually make decisions that affect their internal and external operations and relationships. These decisions may include what product line to embark on, new services to be provided, manpower cadre to be employed, productivity evaluation, budgetary allocation to units, quality standard, appropriate wage rates, equipment to purchase and a host of others. The scope of information needed in making decisions can be very large too. Sophisticated decision making models may therefore be needed to ensure that qualities of the decisions made are high. The tools to be employed may range within the following:-

(1) Computer with necessary software package.

(2) Simulation theory.

(3) Queuing theory.

(4) Network analysis.

(5) Linear programming etc.

The decision area can be for the following:-

(1) Marketing- sales forecasting, sales planning and sales analysis.

(2) Operations- planning and scheduling, cost control analysis.

(3) Logistics- planning and control of purchasing functions, inventory management and distributions.

(4) Personnel- planning personnel requirements, analyzing performance, salary administration.

(5) Finance and accounting – financial analysis, cost analysis, and capital requirement planning.

(6) Information processing – information system, planning, cost effectiveness analysis, etc.

(7) Top management – strategic planning and resource allocations.

DECISION MAKING STEPS.

There are certain steps that help in making decisions, namely:-

(1) Defining objective and being clear about it.

(2) Getting all the information required, but being careful about the source.

(3) Listing all the options that are available (for and against).

(4) Trying to be logical and using common sense.

(5) Making sure the method to be used is simple; the simpler the method the better.

(6) Choose among the alternatives, men, money, and materials taken into consideration.

(7) Implementing the decision.

(8) Following up and getting feedback on the results of the decisions

In summary, it could be said that there are three phases in decision making process viz.:-

(a) Intelligence- searching the environment for conditions calling for decisions. Collecting data, processing and examining them for clues that may identify problems or opportunities.

(b) Design – developing and analyzing possible courses of action. This involves processes to understand the problem, generate solutions and test solutions for feasibility.

(c) Choice – selecting an alternative course of action from the available alternatives. Different situations demand different approaches. Therefore, rational and scientific approaches need to be therefore articulated to make problem solving and decision making a simple and efficient exercise for busy managerial officials.

2.19 FEASIBILITY STUDY.

This is the preliminary investigation stage of system development. The existing system is looked at, its inherent problem considered, and alternatives proffered. This is achieved by:-

(i) Finding out what is being done, what is required, and why so as to clarify and understand the situations at hand.

(ii) Estimating the amount of time and the number of hands required to handle the account by determining the size of the organization.

(iii) Compiling the cost and benefits of each of the possibilities. The cost includes, the cost of training and retraining of the users and end users.

(iv) Determining the main findings of the feasibility studies i.e. technical, financial and operational feasibility.

(v) Reporting the findings to the management along with the outline of recommendations accepting or rejecting the proposal. The existing

system presently under consideration is however partly computerized and manual on the organization side.

2.20 TESTING FEASIBILITY

The existing system is said to be feasible when the analysis of its studies passes this tests:-

(i) Operational feasibility.

(ii) Economic feasibility.

(iii) Technical feasibility.

Operational Feasibility:- this deals with the workability of the proposed information system in terms of the accuracy of its output and ease of operations.

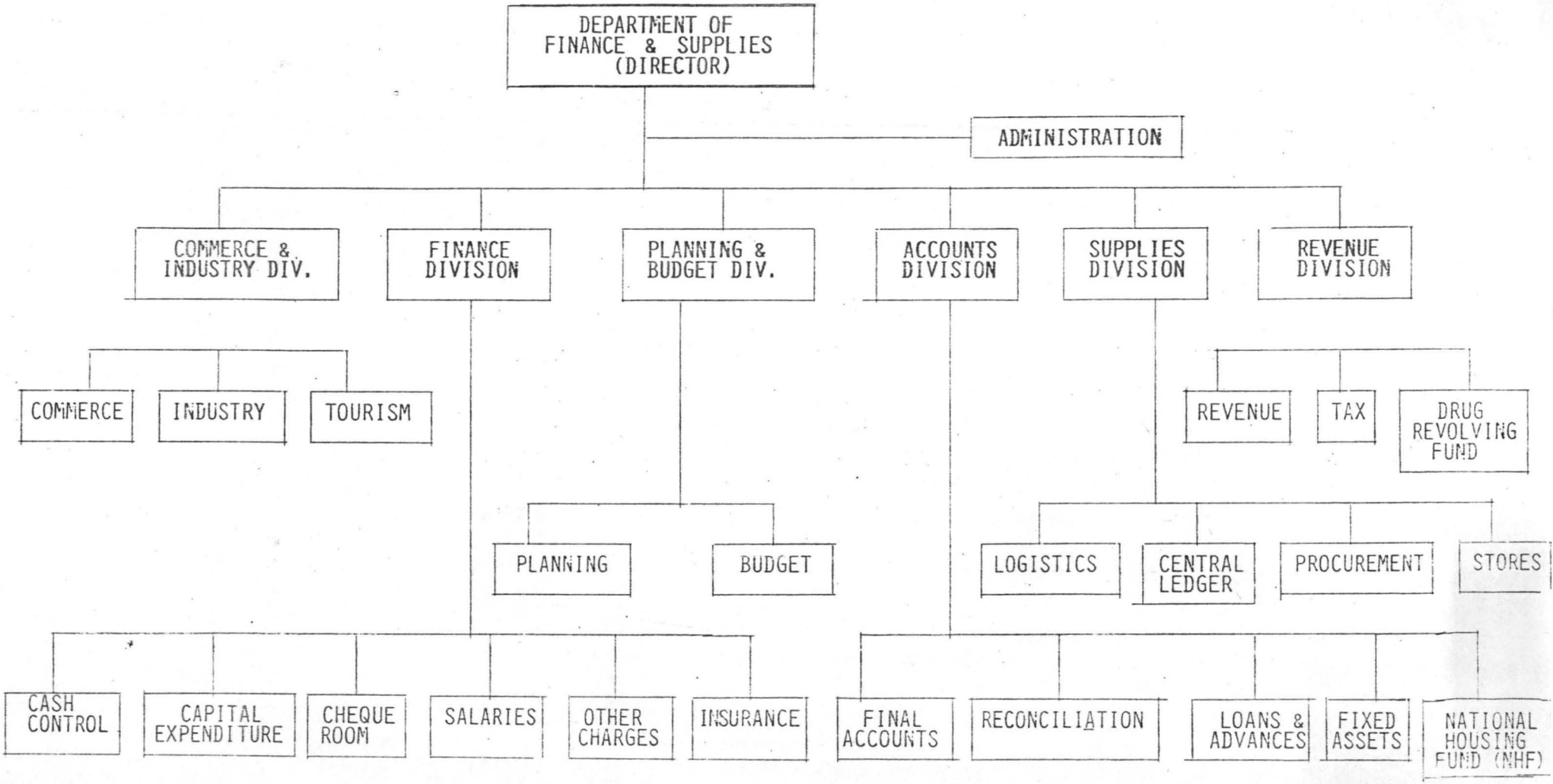
Economic Feasibility:- this is the part that deals with cost and benefit test of the proposed system. The cost referred to here consists of the development cost, operational cost, and maintenance cost.

Technical Feasibility:- This aspect clarifies the usefulness of the current equipment, existing software technology, and available personnel to the proposed financial operation.

ORGANISATIONAL CHART

FOR THE

DEPARTMENT OF FINANCE & SUPPLIES, F.C.D.A., ABUJA



CHAPTER THREE.

3.0 SYSTEM ANALYSIS AND DESIGN.

3.1 INTRODUCTION

System analysis and design form the major part of a large area of computing called para computing. One of the main functions of system analysis and design is conversion of system from manual to computerized form. A system can be defined as a set of interacting elements responding to input to produce outputs. system analysis is the method of determining how best to use computer with other resources to perform tasks that meets the information needs of an organization. During this stage, full detailed study of the current system, including its procedure information flow and methods of work organization and control is carried out. The three main issues to tackle here are (1) why the problem occurred, (2) why the current methods were adopted and (3) what the alternative methods are. The design of the new system is based on whatever findings are got from the system analysis stage. The problems associated with the existing system as well as the objectives guiding the proposal will be out lined so that the resultant system will be able to meet the desired goal. The Input requirement, the Output requirement, and the data files requirement for convenient working of the proposed system will also be discussed. The cost and benefit analysis will also be highlighted.

COST AND BENEFIT ANALYSIS.

In order to determine the cost of operating the proposed system, it is necessary to recognize the various ways in which costs may be incurred are usually in the following categories.

DEVELOPMENT COST:

COMPUTER HARDWARE

2 IBM COMPUTERS with the following configuration:

PENTIUM 133MHz

32 MB RAM

2.1GB HARDDISK

1.44MB (3.5") FLOPPY DISK

1.2MB (5.25") FLOPPY DISK

CD ROM (X23)

ENHANCED KEY BOARD (101 KEYS)

14" SVGA MONITOR ----------All @ ₦ 200,000.00 each =₦ 400,000.00

- UNINTERRUPTIBLE POWER SUPPLY (UPS)

2 UPS (500 VOLTS)----------@=₦ 65,000.00 each = ₦ 130,000.00

2 VGA ADAPTOR (500VOLTS)----------@ ₦ 7,500.00 each = ₦ 15,000.00

-COMPUTER PRINTER

LASER JET PRINTER (LASER 4 PLUS)---------- ---@=₦ 60,000.00 each = ₦ 120,000.00

INSTALLATION COST

Installation cost----------@ ₦ 20,000.00 each = ₦ 20,000.00

PERSONNEL TRAINING

3 OPERATORS PER TWO MONTHS----------@ ₦ 8,000.00 each = ₦ 24,000.00

MSDOS 4.1

Dbase IV management system package----------@ ₦ 10,000.00 each = ₦ 10,000.00

CONSUMABLE ITEMS

3.5" HD diskettes (Maxell)----------@ ₦ 800.00 each = ₦ 800.00

5.25 HD diskettes (Maxell)----------@ ₦ 800.00 each = ₦ 800.00

ACCOMODATION AND FURNITURE

A rugged room with air conditioner, Computer table, Chair and Cabinet:-@ ₦ 200,000.00 = ₦ 200,000.00

TOTAL DEVELOPMENT COST---------- ₦ 920,600.00

BENEFITS ANALYSIS

There are numerous benefits that could be derived from the proposed system. See below:

1) **RAPID AND ACCURATE:-** The most obvious benefit of using a Computer is speed. Contributor's record can be inputted within seconds.
2) **ACCURACY:-** the Computerized contributor's record system with accurate data will do the intended work with a very high degree of accuracy. The computer does exactly what the program tells it to do. In

addition the computer does not get bored or fatigued, Thus avoiding human errors.

3) **RELIABILITY:-** The computer can work for twenty-four hours without complaints of being tired or overworked, however, constant and regular maintenance procedures must always be provided.

4) **STORAGE:-** With the use of computer, you can store and search massive files and also accesses them easily. It can be used as often as necessary and the content of the files does not fade nor get lost unlike the case of file cabinets

5) **MEMORY CAPABILITY:-** With the use of computer system data can be totally and instantly recalled without delay, nor forgetfulness. There is virtually unlimited capacity to store data.

6) **MODIFICATION/ANALYSIS OF STORED DATA:-** It is possible to change daily sales data stored on computer if there is error or there is nee for modification example you can add, edit or delete a document before or after it has been printed, without needing to retype the whole document. Summaries and breakdown of information is entered into a computer.

7) **CONTINUOUS OPERATION:-** Untrained novice can use computer system. To use an information a database can be accessed with or no much skill.

8) **SECURITY:-** the security of the system is taken into cognizance such that facilities are provided only for Authorized users to have access to them.

3.2 DESIGN OF THE PROPOSED SYSTEM

It would be realized that the optimum aim of the design is to improve the information management system of the department concerned in order to ease and fasten decisions by the management. The design is therefore focused towards full automation of the tasks to be carried out while being used.

In this design stage, the concept is transformed into actual implementation. The various design specifications will be made in terms of Input, output, and procedures.

3.3 SYSTEM INPUT SPECIFICATION

Data processing task using computer requires feeding of data into the computer as one of its stages. This is influenced by the needs of the output. The items put into consideration during input specification are the type of input data, the data collection method, the design of the input layout, and the volume of input document. The system-input specification therefore, states the source and type of data that needs to be supplied into the system. It is designed to achieve cost effectiveness and accuracy while ensuring acceptability and understandability by the user.

There are three categories of input data required for the proposed system. They border on the information about the projects of award stages, the information on the progress, and the information on payments made by the contributors to the bank.

The details of the required input data for the CONTREC.DBF have five fields .

The structure is shown below:

CONTREC.DBF

FIELD NUMBER	FIELD DESCRIPTION	FIELD NAME	FIELD TYPE	FIELD WIDTH
1	SERIAL NUMBER	S_NO	NUMERIC	
2	DATE	DATE	DATE	8
3	NAME	NAME	CHARACTER	30
4	CONTRIBUTORS NUMBER	CONT_NO	NUMERIC	
5	AMOUNT CONTRIBUTED	CONT_AMT	NUMERIC	
6	AMOUNT BFOWARD	BFOWARD	NUMERIC	
7	NEW BALANCE	NEWBAL	NUMERIC	
8	REMARKS	RMKS	NUMERIC	

These details are to be supplied by the bank on a passbook for easy and clear information made available to both contributor and bank. The information supplied will be checked and vetted by both parties, and therefore, transferred to the computer room for entry into the computer.

3.4 SYSTEM OUTPUT SPECIFICATION.

The system output is the result of information arising from processing of data inputted to, and those generated by the computer. The output from a computer system is necessary primarily to communicate the result of data

processing to the end user. There are two forms of output that can be got from computer data processing viz.: hard copy and soft copy.

The hard copy outputs are usually generated on papers and are generated on magnetic media to be used for subsequent data processing cycles. They are in magnetic spots and not readable.

The design process of the output begins by the identification of the type of output that is expected from the system. The proposed system is designed to generate outputs on contributor's record with the Federal Mortgage bank of Nigeria. The various results expected are those of the of the participants whose account are currently being credited,

S_NO, DATE, NAME OF EMPLOYERS, EMPLOYERS NUMBER, AMOUNT CONTRIBUTED, AMOUNT BROUGHT FORWARD, NEW BALANCE, REMARKS.

COMPLETED CONTROL LAYOUT FORM AND SCREEN OUTPUT BELOW.

PROGRAM----------

CONTREC

S_NO----------

DATE----------

NAME----------

CONT_NO----------

CONT_AMT----------

BFOWARD----------

NEWBAL----------

RMKS----------

3.5 DATABASE FILES DESIGN

The database files define the contents and structures of the data storage. the structure shows the field names, field type, and width associated with each of the files. The proposed system is designed and developed to specifically operate with the database files in database management system environment . the system is designed to use database files. There will be the History files and the transaction files. The history files will include historical facts about contributors while the transaction files will contain contributions of the various contributors. The transaction and historical files are allocated each to a Sectional Head since contributors are from various ministries. This is done to ensure correct entries and Security.

CHAPTER FOUR.

4.0 SYSTEM DEVELOPMENT AND IMPLEMENTATION.

4.1 INTRODUCTION.

After the completion of the physical design, the next stage is the transformation of the design, into a workable system, and the operations monitored to ensure an efficient and effective performance. The system implementations phase of the system development is the phase in which the conceptual requirement and the over all objectives are turned into physical reality.

This is the critical stage for the achievement of the success of the new system. It is at this stage that the user's confidence building is achieved as the system success is now pre-emptive.

System implementation begins with the description of the proposed system and its hardware requirement. Which is immediately followed by system testing. The mode of system conversion is then described lastly, the post implementation preview is done to consider the procedures required in carrying out amendment on the system.

4.2 CHOICE OF LANGUAGE.

Computer programming languages are developed with the primary objective of enabling a large number of people to use computer without the need to know in detail, the internal structure of the computer. Languages are chosen taking into consideration the type of tasks the user intends to make the computer performed. These languages are designed to be machine independent. The Dbase IV language is used for this design. The proposed system is designed to be a complete Database Management System. Database

management system uses logical relationships to link integrated data of different types. It also provides an interface between the user and the data in such a way that users are able to record, organize, select, summarize, and extract data contained in database. The fundamental objective of database technology is to treat data as organizational resources, integrated as a whole, thereby allowing data to be protected and organized separately from other resources.

4.3 FEATURES OF DBASE IV LANGUAGE.

Dbase iv was designed to provide users and software developers with most, if not all, of the feature of the many competing data base products and the wide array of products that have been developed as add- on for Dbase iii plus. It is one of the most popular and powerful Database Management system languages available. Dbase IV is an advanced form of Dbase language that provides a full relational database environment to users. The control center of Dbase IV is a significant improvement on the provisions of the Dbase iii plus. Through the control center. And without the use of command language, one can design database, manipulate and edit records and files, generate reports, perform database query, design labels, and browse databases . data fields are specified with default values. While data are verified automatically as they are entered into fields. Users defined windows and pop-up menus can be designed. As much as Ninety-nine files can be opened at a time, and there is allowance for a large number of memory variables to be used. There are also provisions for user definable functions, improved indexing, large command line buffer, and improved command editor.

4.4 SOFTWARE/HARDWARE REQUIREMENT

The choice of computer configuration is usually made to suit both the current and likely foreseeable future needs of the organization a system is being developed for the purpose of the proposed system , and in view of the already highlighted-superiority of the features of some Database management system software over the others, the Dbase iv was chosen. This software offers a host of features and tools for the system developers, as well as provides speed and ease of operation for the end users. The presentation of menu and command is completely simplified. This makes the running of the developed system source programs possible when installed with the Dbase IV package

To run this system effectively, the following hardware components are required:-

COMPUTER HARDWARE

2IBM COMPUTERS with the following configuration:

PENTIUM 133MHz

16MB RAM

2.1 GB HARDDISK

1.44 MB (3.5") FLOPPY DISK

1.2 MB (5.25") FLOPPY DISK

CD ROM (X23)

ENHANCED KEY BOARD (101KEYS)

14"SVGA MONITOR

UNINTERRUPTIBLE POWER SUPPLY (UPS)

2UPS (500 VOLTS)

2VGA ADAPTOR (500 VOLTS)

COMPUTER PRINTER

2LASER JET PRINTER (LASER 4PLUS)

SOFTWARE REQUIREMENTS:

The software of a computer system is a collection of program that is responsible for controlling of the activities of the computer. The essential software requirements for the proposed system are:-

MS-DOS 4.1 OR HIGHER VERSION

DBASE IV MANAGEMENT SYSTEM PACKAGE

CONSUMABLE ITEMS:

3.5" HD DISKETTES (MAXELL)

5.25" HD DISKETTES (MAXELL)

ACCOMODATION AND FURNITURE:

A rugged room with air conditioner computer tables and chairs , office cabinet.

4.5 SYSTEM TESTING:

This is one of the vital aspects of system implementation. It serves as the confirmation for the correctness and proof of efficiency of the designed system.

System testing involves the application of raw and live data on the new system to observe the accuracy of the system prior to commencement of live operations. This test was conducted by using some live data on the different modules of the system, and the correctness and efficiency of the system was thus confirmed.

4.6 SYSTEM CONVERSION.

This refers to the aiding of the transformation of the existing system to the newly developed system. It involves file conversion, file setup, and changeover . file conversion involves changing the old (existing system files) to the format and contents required by the new system. It entails fact- finding, analysis, data capture, design of clerical methods and computer processes, form design, and provision of special training courses. Setting up new master files for large systems and involve the transfer of hundred of thousands of records which may be beyond the data handling capacity of an organization and should be sub-contracted out. For the system under consideration however, the number of files to be converted are relatively few and can be handled by the logistics division which is the coordinating division of the department. The change over stage entails the movement from the old system to the newly developed system. This can be achieved using any of the following methods:-

- parallel running.
- Pilot running.
- Direct changeover.
- Staged changeover.

PARALLEL RUNNING

Parallel running requires processing current data by both the old and new system to crosscheck the results. This will continue until the new system is confirmed to be working satisfactorily the main disadvantage of this is the extra cost involved in running two systems at a time as well as the difficulty of having to carry out the different clerical operations for two systems (old and new) in the time available for one.

PILOT RUNNING

This is similar in concept to parallel running but safer to apply. Data from past periods are run on the whole or part of the new system and the results compared with the old. If the results are satisfactory, the new system can then be embarked on.

STAGED CHANGEOVER

This involves switching from the old system to the new one in piece meal. A complete part or logical section is selected at a time and committed to the new system while the remaining parts are run with the old system. This method enables the analyst and users to learn from mistakes made as the changeover progresses.

DIRECT CHANGEOVER

Direct changeover is a one move total replacement of the old system with the new one. This method is the least expensive but the most risky. Because of it's inherent high risk, system tests and training should be comprehensive, and the changeover itself planned in detail. The old system may be held in obeisance such that in the event of any major failure of the new one, the old system would be reverted.

The most appropriate method of change over in the system under consideration is the parallel running. The extra clerical cost and time are minimal since progress measurement although highly vital is only a small part of the activities of the department of finance of the Federal Capital Development Authority ,Abuja. The only changes are the additional equipment computer system and the training received by the staff.

4.7 SYSTEM DOCUMENTATION.

The description of system software normally comes in form of documentation. Documentation serves as guide to users on how to set up, use, and maintain the software. It gives a detailed description of how the system operates. It ensures better understanding of the system as well as solves any problem that might be encountered while using the software. Therefore, in documenting the system, the mode of starting the operation, the menu structure and linkages, and its disruption are discussed.

4.7.1 STARTING THE SYSTEM.

The CONTREC.DBF is developed using Dbase IV. To run the system therefore, there is need to install Dbase IV in the computers to be used. This is based on the result of the investigation from the existing system. These programs are automation of the manual ways of processing information in the Contrec such as updating, storage and retrieval of information as well as production of reports.

The procedure for running the programs is as follows:-

At the C:\> prompt; type change directory to dbase IV

C:\> CD\Dbase iv

Type Dbase and press ENTER key

Dbase iv will be loaded

Press ALT E

Two options will apear on the screen

1 EXIT TO DOT PROMPT

2 QUIT TO DOS

Option one takes you to Dbase iv dot prompt when pressed.

While option two leave the control center and quit Dbaseiv

Tap the ENTER key (◄——

For the first option which will take you to Dbase IV dot prompt

At the Dbase IV dot prompt enter command appears as seen below

ENTER COMMAND : \>

INSERT your program disk in either drive A: or B: and change default to the drive where your programs reside by typing the below command at the dot prompt.

SET DEFA TO A: or B: depending on the drive in use

ENTER COMMAND : \> SET DEFA TO A: or B:

At DOT prompt i.e. ENTER COMMAND : \>

Type DO MAINMENU and press enter key (↵)

This will display the main menu this menu if chosen, consists of five options listed as shown below:

[1] ADD RECORD

[2] EDIT RECORD

[3] DELETE RECORD

[4] REPORT GENERATOR

[0] EXIT

The above listed programs are subprograms to CONTREC programs, which are executed when the desired option is chosen from the menu.

MAIN MENU:

Main menu is the main program that display the menu options in the boxes

Refers appendix I and for the program and output

DELETE RECORD:

This program is similar to the edit program because the record is searched in the same way it is done in the edit program. However, if the record to be deleted is located, then the delete procedure is carried out.

See appendix iv and for the program and output

REPORT GENERATOR:

This program module enables the user to generate report from the database file. This report is presented either through the computer screen or through the printer as hard copy. To print out or view, the output device used must be selected before the call of the database file

Refer appendix v and for its program and output.

EXIT:

This option enables the program to quit whatever work is being done.

CHAPTER FIVE

4.0 SUMMARY.

The National Housing Fund Scheme emphasizes on the need to computerize its records. The existing system was reviewed and a new system capable of drastically reducing, if not totally eradicating the difficulties and problems encountered by the department with the use of the existing system, with a view to enhancing efficiency and productivity while meeting up with the set organizational standards and objectives. After the background introduction of the department of finance and economic development and the Federal Capital Development Authority, Abuja. In an early chapter, the project went on to observe the under mentioned problems existing in the system.

1) The high and continuously increasing volume of finance paper work being handled by the federal capital development authority, Abuja.
2) The inability to make information about the contributors readily available at all times.
3) The slow and error prone nature of the current manual method of processing the records.
4) The continuously decreasing convenient storage space for storing paper with information about contributors
5) The inability to provide necessary security and safeguard for the records of the National Housing Fund Scheme.

The third and fourth chapters' make-up the main body of this project work. The description of the proposed system as well as the input and output requirement, the file design, choice of language, system implementation,

The system is password to ensure data security. To ensure effectiveness of the password provision, only one person in the unit should be allowed to access data for the section.

That the office be fully rugged, air conditioner installed, furnished and well secured.

REFERENCE

1. **AYO C.K. (1994)** — COMPUTER LITERACY (Operation & appreciation) Alanukitan Commercial Press (Nig) Ltd., Egbe Kogi, State.

2. **BADAMOSI, R. (1998)** — System Analysis and Design F.U.T Minna, (Course Outline) (Unpublished)

3. **FEDERAL PUBLIC OF NIGERIA (1992)** — Official Gazette No 3, Vol. 79 National Housing Fund Decree No 3.

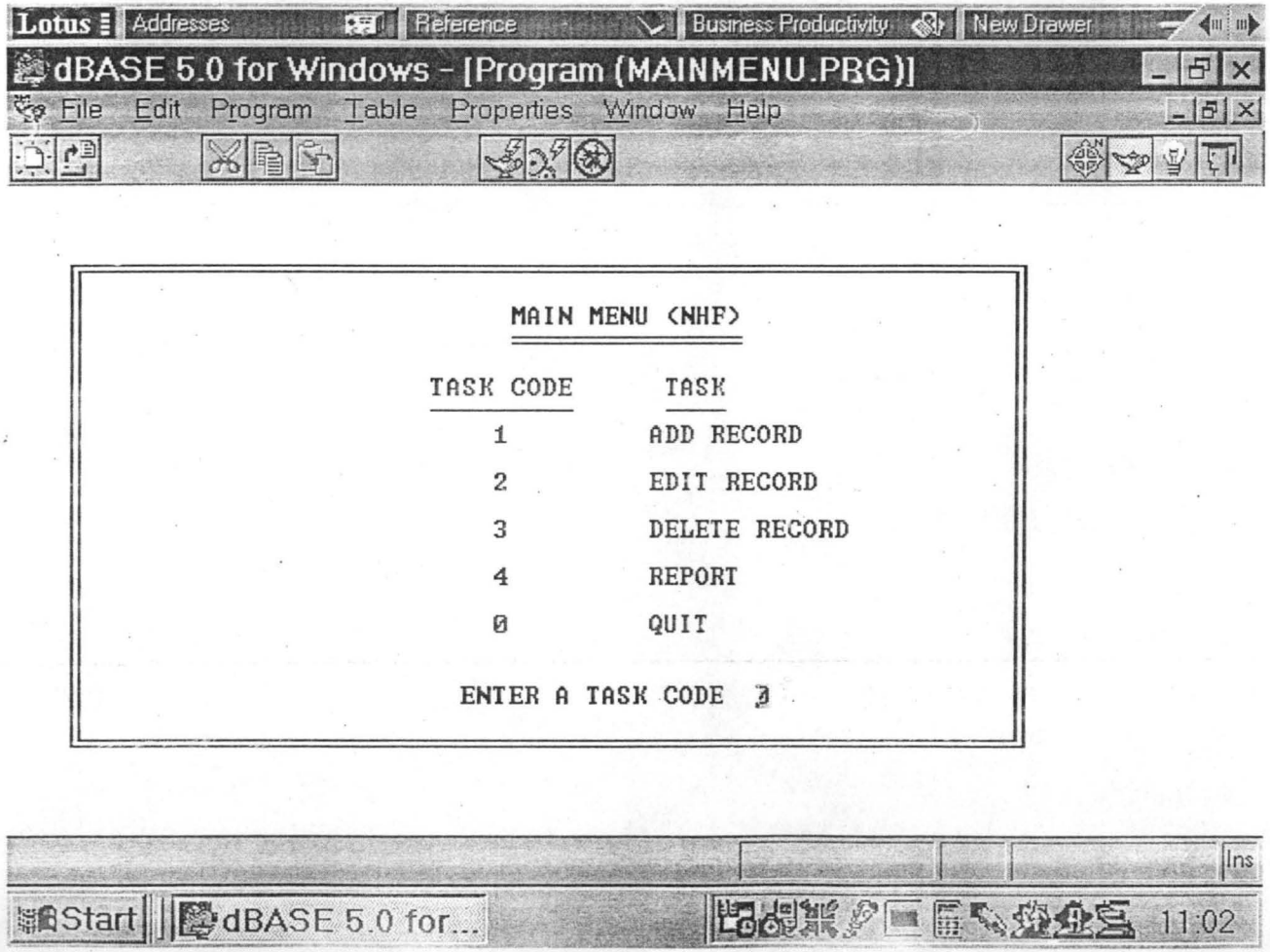
4. **RAIMI, K. (1998)** — Database Management System F.U.T Minna, Course Outline) (Unpublished)

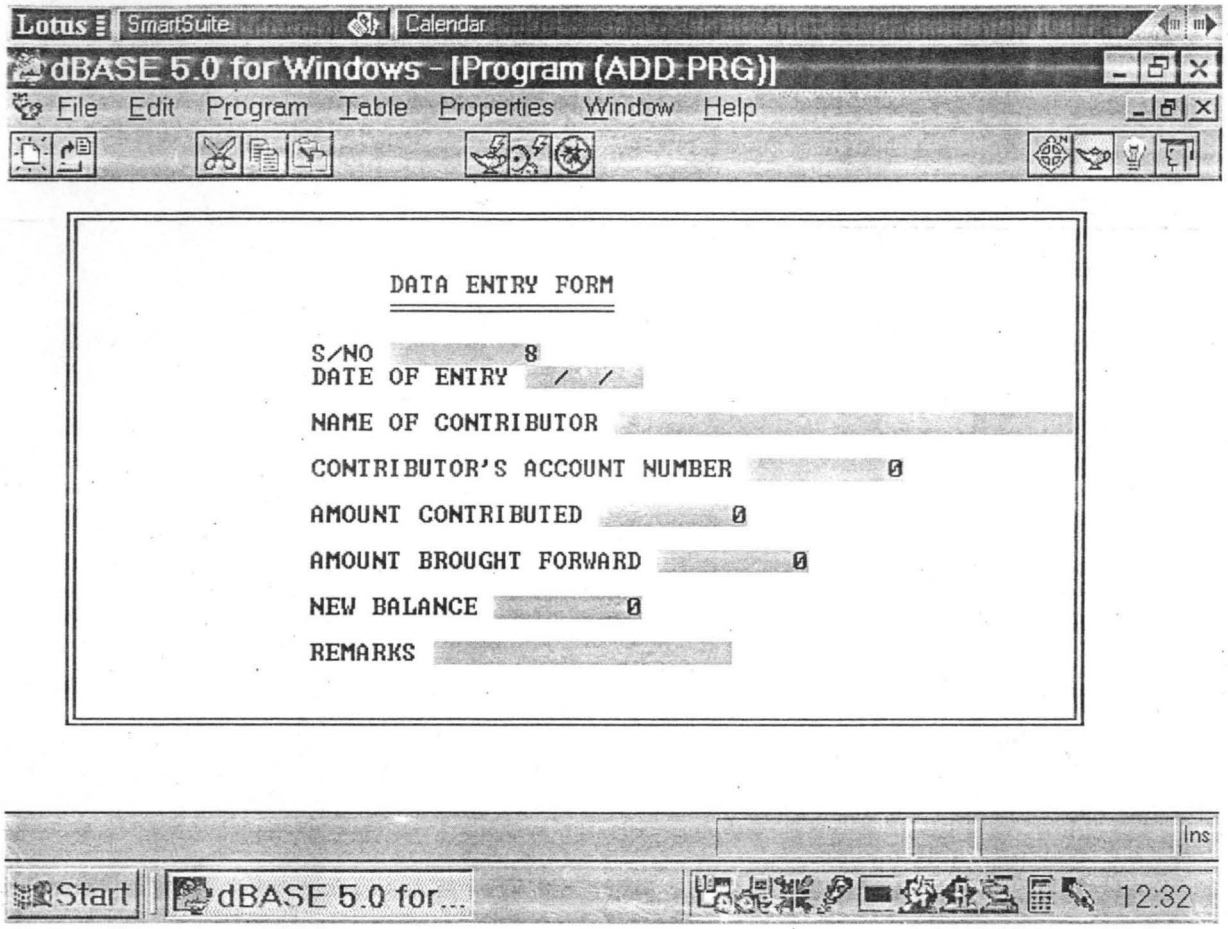
```
*     PROGRAM-------------CONTRIBUTORS.PRG
*     WRITTEN BY----------FELICIA A. ENOKELA
*     REGNO---------------PGD/MCS/98/716
*     NOTE-THIS PROGRAM IS TO DISPLAY THE MENU
*     OPTIONS ON THE SCREEN


SET TALK OFF
SET SCOREBOARD OFF
SET STATUS OFF
CLEAR
DO WHILE .T.
   @ 3,4 TO 23,64  DOUBLE
   @ 5,32 SAY "MAIN MENU (NHF)"
   @ 6,32 TO 6,46 DOUBLE
   @ 8,27 SAY "TASK CODE"
   @ 8,42 SAY "TASK"
   @ 9,27 TO 9,35
   @ 9,42 TO 9,45
   @ 10,31 SAY "1" + SPACE (9) + "ADD RECORD"
   @  12,31  SAY  "2"  +  SPACE  (9)  +  "EDIT
RECORD"
   @  14,31  SAY  "3"  +  SPACE  (9)  +  "DELETE
RECORD"
   @ 16,31 SAY "4" + SPACE (9) + "REPORT"
   @ 18,31 SAY "0" + SPACE (9) + "QUIT"
   CHOICE =0
   @ 21,29 SAY "ENTER A TASK CODE"
   @ 21,48 GET CHOICE PICTURE "9" RANGE 0,4
   READ
      DO CASE
   CASE CHOICE =1
      DO ADD
   CASE CHOICE =2
      DO EDIT
   CASE CHOICE =3
      DO DELETE
   CASE CHOICE =4
      DO REPORT
   CASE CHOICE =0
```

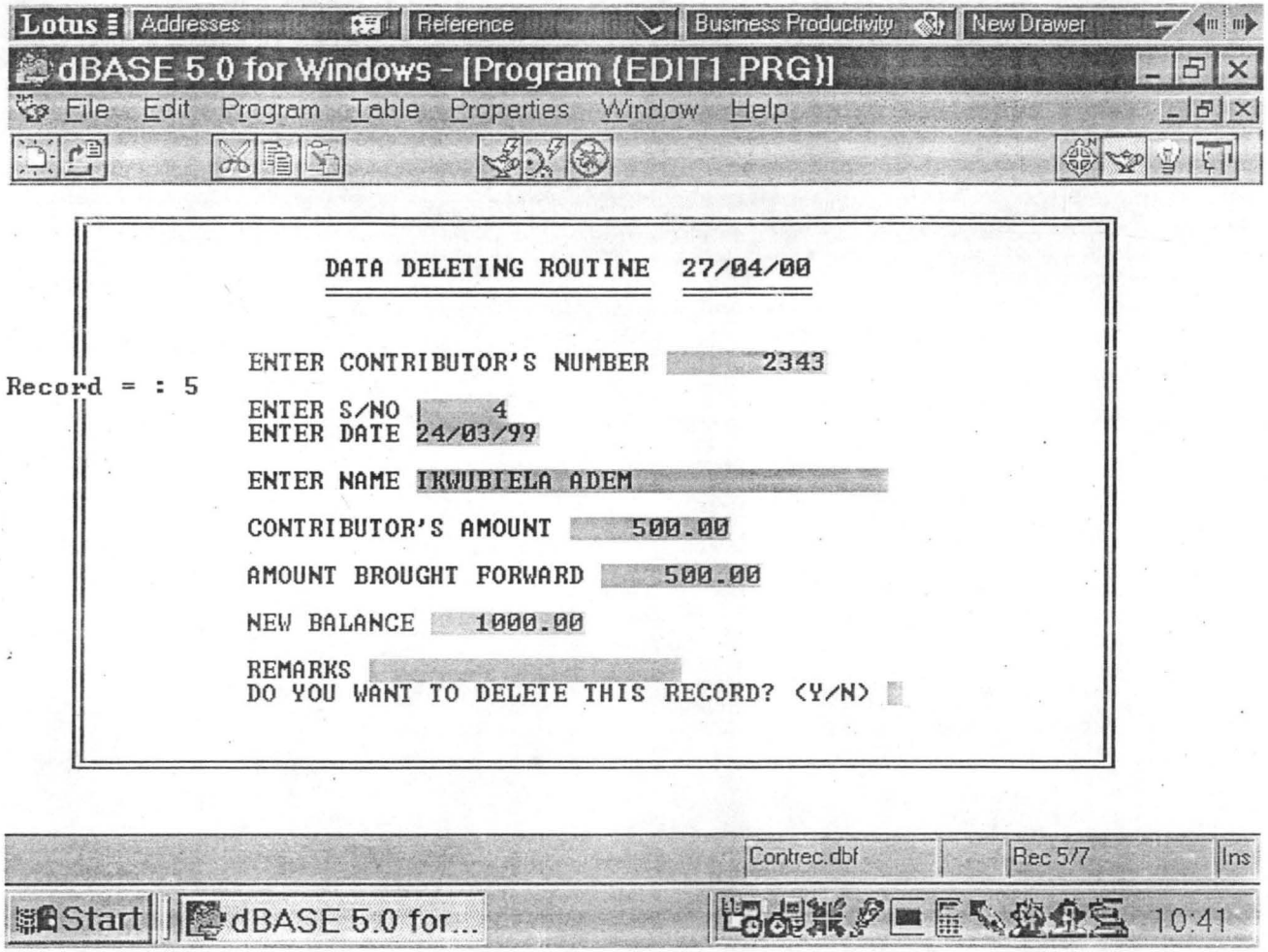
```
        EXIT
    ENDCASE
ENDDO
SET TALK ON
SET SCOREBOARD ON
SET STATUS ON
CLEAR
RETURN
```

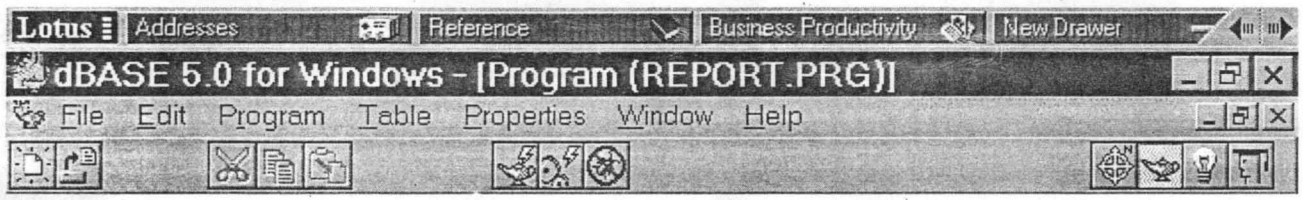
```
*      PROGRAMM-------------ADD
*      NOTE-----------------THIS PROGRAM IS TO ADD RECORD TO CONTREC.DBF
*      CONTRIBUTORS ACCOUNT RECORD
*
*
SET TALK OFF
SET SCOREBOARD OFF
SET STATUS OFF
USE CONTREC
CLEAR
DO WHILE .T.
APPEND BLANK
MNAME = SPACE (30)
MRMKS = SPACE (20)
STORE CTOD (" / / ") TO MDATE
STORE 0 TO MCONTNO
STORE 0 TO MCONTAMT
STORE 0 TO MBFOWARD
STORE 0 TO MNEWBAL
STORE 8 TO MSNO
   @ 1,4 TO 23,70 DOUBLE
   @ 4,25 SAY"DATA ENTRY FORM"
   @ 5,25 TO 5,39 DOUBLE
   @ 7,20 SAY "S/NO" GET MSNO
   @ 8,20 SAY "DATE OF ENTRY" GET MDATE
   @ 10,20 SAY "NAME OF CONTRIBUTOR" GET MNAME
   @ 12,20 SAY "CONTRIBUTOR'S ACCOUNT NUMBER" GET MCONTNO
   @ 14,20 SAY "AMOUNT CONTRIBUTED" GET MCONTAMT
   @ 16,20 SAY "AMOUNT BROUGHT FORWARD" GET MBFOWARD
   @ 18,20 SAY "NEW BALANCE" GET MNEWBAL
   @ 20,20 SAY "REMARKS" GET MRMKS
   READ
   CH = SPACE (1)
  @ 21,20 SAY"DO YOU WANT TO SAVE THIS RECORD?(Y/N)" GET CH PICTURE "!"
   READ
   IF CH = "Y" .OR. CH = "y"
   REPLACE S_NO WITH MSNO
   REPLACE DATE WITH MDATE
   REPLACE NAME WITH MNAME
   REPLACE CONT_NO WITH MCONTNO
   REPLACE CONT_AMT WITH MCONTAMT
   REPLACE BFOWARD WITH MBFOWARD
   REPLACE NEWBAL WITH MNEWBAL
   REPLACE REMARKS WITH MRKS
   CLEAR
 ELSE
   CLEAR
   ENDIF
   RESPONSE = SPACE (1)
  @ 22,20 SAY "DO YOU WANT TO CONTINUE? (Y/N)" GET RESPONSE PICTURE "!"
   READ
   IF RESPONSE = "Y" .OR. RESPONSE = "y"
   LOOP
 ELSE
   EXIT
 ENDIF
ENDDO
```

```
          @ 23,36 SAY "RECORD IS RECALLED"
          WAIT SPACE (19) + "PRESS ANY KEY TO CONTINUE"
       ENDIF
          CLEAR
          CH = SPACE (1)
   @24,15  SAY  "DO  YOU  WANT  TO  DELETE  MORE  RECORDS?
Y/N)" GET CH PICTURE "!"
          READ
          IF CH = "Y" .OR. CH = "y"
          LOOP
        ELSE
          EXIT
          ENDIF
         ENDIF
        ENDDO
        CLOSE DATABASE
        SET STATUS ON
        RETURN
```


Lotus
Addresses
Reference
Business Productivity
New Drawer
dBASE 5.0 for Windows - [Program (MAINMENU.PRG)]
File Edit Program Table Properties Window Help
MAIN MENU (NHF)
TASK CODE
TASK
1
ADD RECORD
2
EDIT RECORD
3
DELETE RECORD
4
REPORT
0
QUIT
ENTER A TASK CODE
Ins
Start
dBASE 5.0 for...
11:02


Lotus SmartSuite
Calendar
dBASE 5.0 for Windows - [Program (ADD.PRG)]
File Edit Program Table Properties Window Help
DATA ENTRY FORM
S/NO 8
DATE OF ENTRY / /
NAME OF CONTRIBUTOR
CONTRIBUTOR'S ACCOUNT NUMBER 0
AMOUNT CONTRIBUTED 0
AMOUNT BROUGHT FORWARD 0
NEW BALANCE 0
REMARKS
Ins
Start
dBASE 5.0 for...
12:32


Lotus
Addresses
Reference
Business Productivity
New Drawer
dBASE 5.0 for Windows - [Program (EDIT1.PRG)]
File Edit Program Table Properties Window Help
DATA DELETING ROUTINE 27/04/00
Record = : 5
ENTER CONTRIBUTOR'S NUMBER 2343
ENTER S/NO 4
ENTER DATE 24/03/99
ENTER NAME IKWUBIELA ADEM
CONTRIBUTOR'S AMOUNT 500.00
AMOUNT BROUGHT FORWARD 500.00
NEW BALANCE 1000.00
REMARKS
DO YOU WANT TO DELETE THIS RECORD? (Y/N)
Contrec.dbf
Rec 5/7
Ins
Start
dBASE 5.0 for...
10:41




```
        1
         NATIONAL HOUSING FUND, DEPT OF FINANCE.FCDA, ABUJA
         CONTRIBUTOR'S RECORD
         TODAY'S DATE:              PAGE        1

  S_NO DATE NAME      CONT_NO CONT_AMT  BFOWARD  NEWBAL   REMARKS
  ------------------------------------------------------------------
_
     3  23/03/99  GRACE AUDU                          2    50    500
     0    /  /                                                    0

        15key to continue...
Press any key to continue...|
```