

**COMPUTER-BASED SYSTEM FOR MANAGEMENT AND
CONTROL OF LOANS AND ADVANCES:**

(CASE STUDY OF NATIONAL ASSEMBLY, ABUJA)

BY

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APPROVAL SHEET

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DEDICATION

I dedicate this work to my mother and father.

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TABLE OF CONTENTS

TITLE PAGE	
APPROVAL PAGE	ii
DEDICATION	iii
ACKNOWLEDGEMENT	iv
TABLE OF CONTENTS	v
ABSTRACT	vii
CHAPTER ONE	
1.1 Introduction	1
1.2 Objectives of Research	3
1.3 Feasibility Study of proposed System	3
1.4 Methodology	5
1.5 Historical Background of National Assembly	6
CHAPTER TWO	
2.1 Introduction	12
2.2 Analysis of Existing Manual System	12
2.3 Process Involve in Loans and Advances Management and Control	16
2.4 Problems of Manual System in Loans and Advances Management and Control	17
CHAPTER THREE	
3.1 System Design and Development	19

3.2	Features of Database Management System	19
3.3	Input and Output Specifications	20
3.4	Design of Database Files	21
3.5	Program Documentation	24
CHAPTER FOUR		
4.1	Introduction	25
4.2	Systems Requirement	26
4.4	Hardware Configuration and Specification	27
4.5.	System Testing	29
4.6	Systems Conversion	29
CHAPTER FIVE		
5.1	System Documentation	31
5.2	Benefit of the New System	33
5.3	Conclusion	34
5.4	Recommendation	34
	Bibliography	36

ABSTRACT

The unit of Loan and Advances in National Assembly is one of the busiest of its departments. The beehive of activities in that unit require a much healthier, faster and more accurate management system to make it function effectively.

Thus the need for the application of a computer-based system for the control and management of loans and advances in National Assembly, Abuja.

CHAPTER ONE

1.1 INTRODUCTION

Efficient management and control of loans and advances in public service is not only essential but very vital to the smooth operation of government accounting.

Loan is an age-old practice of lending money to an individual or group of individuals to enable him/them meet some otherwise impossible financial obligations. It is applied in public service to enable the civil servant meet some personal financial obligations such as car refurbishing etc. Low interest is charge on the loan and payment at stipulated installmental amount.

Advances, also known as personal advances (i.e advances of cash to individual officers in the employ of the Federal Government of Nigeria, on the order hand, is a sum of money placed at the disposal of an officer in the employ of the Federal Government of Nigeria to enable him carry out official duty or assignment at the end of which he is expected to retire the advance sum.

Two control mechanisms are involved in the management of loans and advances. These are payment period and retirement respectively. These control processes are to keep expenditure within the limit of planned policies and progarmmes of government.

This research is designed to find a feasible computer-based solution for National Assembly in restricting their loans and advances expenditure based on planned policies and programmes of government. This will also pave ways to curtail over-spending of a particular vote and duplication of loans and fresh advances without retirement on previous advances to ensure prudent management of the merge resources allocated to the office for proper accountability and transparency.

The research project is divided into five chapters, where chapter one consists of introduction, objectives of research, feasibility study of the proposed system, research methodology and historical background of National Assembly.

Chapter two is made up of analysis of existing manual system, process involved in loans and advances management and control, analysis of the new system, and comparison between the new system and the existing one.

In Chapter three the system design and development of the proposed system is carried out. Also the programming language used is fully explained alongside the benefits of the proposed system.

Input and output specifications, design of database files and programme document is also contained in this chapter.

Chapter four will deal directly with system implementation, software requirement,

hardware configuration, system testing and system conversion.

The last chapter contain system documentation, benefit of the new system conclusion and recommendations.

1.2 OBJECTIVES OF RESEARCH

The objectives of this research consists mainly of:

- (i) Designing Computer based programmes for loans and advances management and control.
- (ii) Examining the problems associated with manual mode of loans and advances management and control.
- (iii) Analysing the needs of using computer system in loans and advances management and control.
- (iv) proffering solutions as well as the recommendations of using computer-based system for an effective and efficient management and control of loans and advances in National Assembly.

1.3 FEASIBILITY STUDY OF PROPOSED SYSTEM

Computers are costly pieces of equipment and the decision to purchase, lease or rent such a machine should not be taken lightly. Thus National Assembly needs a thorough understanding of the cost and benefits accruable from such venture to be able to make the correct decision on weather to install a computer system or not for its loans and advances unit. Diverse benefits stand to be gained from the use of computer in National Assembly.

In the first place, it eliminates the error that had associated with manual operation, thus saving time and thereby speeding up operation. It also make for more efficient use of staff in the sense that few well-trained staff can now man the computer and produce the best output as against many staff operating manual system of operation. The remaining staff can now be deployed to another post where they could be effectively utilised.

Also control mechanism is effectively maintained thereby making deviation from planned policies and progarmmes difficult.

Computer-based system of operation allows for an overview of an operation to b gleaned at a glance thereby making it easier to detect deviation from planned policies.

Another important benefit is the fact that computer allows for a very healthy environment in the sense that corrections and alterations can be made without using correct fluid. You can print when you are satisfied with what appears on screen. Thereby reducing wastage of paper.

On the other hand, all the above benefits are derivable at some costs enumerated below:

- Cost of buying the computer, which is affordable due to several competitive computer manufactures in the market.
- Staff that would handle the computer need to be trained to be able to accomplished the task.
- The computer need to be replenished with its consumables like diskette,

toner and printing paper.

- Some electricity stabilising equipments need to be installed along with the computer.

From the above outlay of benefits and costs, it can easily be seen that balance of benefits will survive a set-off of the cost of installation against the benefits to be derived from installation of computer thereby making computer installation in loans and advances department of National Assembly feasible.

1.4 RESEARCH METHODOLOGY

The methodology used in conducting this research is large extensive reading of all available literature pertaining to loans and advances in government accounting. But in view of the fact that the research is based on case study of National Assembly, Abuja, extensive discussion was carried out between the researcher and various levels of management of the loans and advances unit of National Assembly, Abuja.

Also observation of loans and advances documents of National Assembly Abuja, is carried out by the researcher.

Methodology for data analysis is mostly practical testing of the data collected into the programs to achieve the desired output.

Finally, journals and national dailies were extensively studied especially as they relate to specific problems of loans and advances in government accounting.

1.5 HISTORICAL BACKGROUND OF NATIONAL ASSEMBLY

The historical evolution of National Assembly from the parliament up to the present National Assembly is enumerated below:

Parliament and First Republic Assembly (1956 - 1966)

The parliament came into existence through the parliament act of 1956. Due to the need for administrative exigency, the colonial regime in agreement with independence agitators in those days, adopted regional Assemblies with the Federal House in Lagos. At independence we adopted in full measure the parliamentary system of government.

The handing over of our constitution by our colonial masters in 1960 which describes the various functions of the parliament also ensures the establishment of the House of Parliament. This they (the colonial masters) ensure to be a replica of their own parliament system. The constitutional provision in respect our Legislative Arm of Government ensured, first of all, that our central law making houses bore the tag "parliament" rather than "Assembly" or "Congress". Of course ours being a federal system of government which the imperialists had established right from the Richards and Macpherson constitution. The 1960 constitution also provided that our regional legislatures should bear the tag "House of Assembly and "House of Chiefs" (also known as Bicameral) to distinguish them from "Parliament" which applied only to Central (consisting of Senate and the House of Representatives).

The composition of parliament as contained in part 1 of the chapter V of the constitution is as follows: Under section 41, a parliament was established consisting of the Governor General, the Senate and the House of Representatives, the Governor-General, of course was appointed by the Queen on the advice of the Prime Minister (who also had to consult the premier of each region before tendering the advice). We had a nominated senate composed of representatives from each region selected at the joint sittings of their Houses from among the list nominated by the Governors, while the House from among the list nominated by the Governors, while the House of Representatives consisted of members representing various constituencies decided on the basis of approximately equal population per unit constituency (Section 43).

The Parliamentary House had two (2) distinct but interrelated department and the administration or technical department which provided support services for effective functioning of the legislatures as mentioned above. the two have their separate heads even though one is still answerable to the other, that is the head of administration who is the Clerk to the House of Parliament is answerable to the Senate president and the Speaker of the House of Representatives. The constitution also enumerated conditions for being elected as the President of Senate, or Speaker of the House of Representatives as well as conditions for vacating their seats (section 46 and 47). The Clerk is appointed by the government, who is a public servant.

The 1963 constitution when it come into being which replaced the 1960 constitution

handed over by the colonial administration had also guaranteed the institutionalism of the National Assembly (Parliamentary House) in the mainstream of Nigerian policy. But the constitution contained the following changes in the parliamentary house:

- The Head of State was no longer the Queen's Representative but a President elected by our own representatives in the Parliamentary Assembly. There was therefore to be no allegiance whatsoever to a foreign monarch if we were to be truly independent.
- The last link with the British Judiciary which has earlier been served in 1962 by an Act of our Parliament was now broken constitutionally.

Apart from these few fundamental changes the content of both constitutions including the aspect dealing with parliament remained basically the same. Parliament procedure remained the same apart from a few allocation both under the monarchy from 1960 to September, 1963 and as a Republic from October, 1963 to January 1966 when the military took over, and terminated the first republic National Assembly.

National Assembly in Second Republic (1979 - 1983)

In the establishment of a machinery for the second republic the General Olusegun Obasanjo regime initiated a constituent Assembly which inserted the establishment of the National Assembly in the 1979 constitutional provision.

The system also setup by them appear to be a replica of the American Government,

simply because the two systems are both based on the political theory of Baron de Montesquieu. However, a closer study of each system would reveal that notwithstanding the similarity of both systems based on the Montesquieu factor, there are some intrinsic differences in the constitutional arrangements of each of their arms of government when compared. That is, the Nigerian Legislative arm in comparison with the American legislative arm, the two arms compared, as well as their judiciaries.

Our Legislative structure is similar in some ways to the American structure and different in other ways. The National Assembly institutional structure was similar to that of America in its bicameral nature of Federal Legislature, a Senate and a House of Representatives. Only the President has the constitutional responsibility to address a joint sitting of the legislature on the state of the nation (including the annual budget address) as and when occasion arises. But the life span of our House Assembly had differed with that of America's (Senate and House of Representatives). In Nigeria the life span is four years while in the United States Congress, the House of Representatives has a life span of two years while that of the Senate is six years. The National Assembly was established to carry out the following functions as constitutionally empowered. These are:

- i. National Assembly was vested with the legislative power which consists of a Senate and House of Representatives.
- ii. The National Assembly shall have the power to make law for a peace, order and good government of the Federation or any part thereof with

respect to any matter included in the exclusive legislative list set out in part I of the second schedule to the 1979 constitution.

- iii. The power of the National Assembly to make laws for the peace, order and good governance of the Federation with respect to any matter included in the exclusive legislative lists shall, save as otherwise provided in this constitution, be exclusive of the House of Assembly of states.
- iv. If any law enacted by the House of Assembly of state is inconsistent with any law validly made by the National Assembly, the law made by the National Assembly shall prevail and that other law shall to the extent of inconsistency be void.

Above are among other functions of the National Assembly. For the purpose of checks and balances with the aim of erasing any financial misappropriation in the Assembly's administrative machinery, the Nigerian experience initially adopted parliamentary type of hierarchical structure where the Clerk (i.e. the accounting officer) is purely a civil servant unlike in the American presidential system where the clerk is usually a member of the majority ruling party.

The National Assembly office was disbanded along with other political structures in 1983 when the military terminated the life of that Republic. This gave birth to Buhari/Idiagbon regime and subsequent deployment of the Civil Servant whose loyalty is to any government of the day.

1-6-3 The Third Republic National Assembly (1989 Date)

The present National Assembly office was put in place as part of structures of the General Ibrahim Badamasi Babangida's third republic democratic process. The Assembly is established by provisions of the 1989 constitution (Section 43 -47) which is yet to come into effect. The office is still as previous officer that is Parliamentary House and defunct Second Republic Assembly, with the two distinct and interrelated department namely the Legislative which constitute Senate and House of Representatives, and the administrative department which provides services to the Legislatures. The leadership of the National Assembly as stated earlier headed by the Senate President/Speaker of the House of Representatives for the Legislature and Clerk to the National Assembly for the administrative department who is also the accounting officer of the Assembly is appointed by the military administration.

The functions of the present Assembly is the same as mentioned in the first and second republic. It also provides the secretarial services to the on-going democratization process, represented by the constitutional conference, which is the result of the dissolution of the third republic members as a result of the June 12 crises. In the third republic, only the elected members were dissolved leaving in place the office structures with hope of future political structures.

CHAPTER TWO

2.1 INTRODUCTION

The manual system of managing loans and advances in National Assembly follows definite steps or process and has been the same in most government offices throughout the Federation. It uses inputs in the form of permanent secretary's approval of an application for loans or advances made by an officer. The approved application is then processed manually through the definite steps to achieve an output around which a considerable amount of government activities revolve.

However, the above layout of loans and advances management had control difficult. It is the aim of this chapter to analyse these process and bring to light some of these problem.

2.2 ANALYSIS OF EXISTING MANUAL SYSTEM

The existing manual system of operating loans and advances in National Assembly is a simple method of documenting the list of beneficiaries as approved by the Permanent Secretary and keeping track of the advanced sum to its last stage of retirement (in case of advances) and the installmental payment plus the interest chargeable (in case of loan) till liquidated.

This method is interwoven in a step by step procedure that starts from the approval of the Permanent Secretary as instructed by the Director of Finance. The system (manual system) operates like any other administrative system and has input, output and processing steps to make the aforesaid functions possible.

Output is in the form of documenting the list of beneficiaries and the amount in their favour. This enable the system to keep track of who retires or yet to retire the advanced sum (in case advances) so as to avoid subsequent advances to any beneficiary that has not retired previous advances made to him.

In the case of loans, the system keeps track of the amount loaned and subsequent payment of principal and interest at defined periods, usually monthly till liquidated. This helps avoid enjoying subsequent loans by an officer or beneficiary that has not liquidated a previous loan awarded him.

On the whole, the output of this system (manual system) consist of list of beneficiaries (either loans or advances and who has or has not retired (in case of advances) liquidated or not (in case of loans) so as to avoid rewarding of either loan or advances to an officer that has not liquidated or retired the sum in his favour.

The aforementioned output is achieved after the intakes of an input in the form of an application by the beneficiary as approved by the permanent Secretary.

Thus the input of such a system is an approval by the Permanent Secretary as instructed by the Director of Finance and supplies in favour of the beneficiaries.

The above intake of input to produce the mentioned output is made possible only with the aid of the records and files that are described below:

An approved written application applied by the would-be beneficiary and approved by the Permanent Secretary.

This document contains the stated purpose for which the applied sum is intended and the signature of the applicant. It also contains the signed approval of the Permanent Secretary and also the written instruction and signature by the Director of Finance and Supplies in favour of the beneficiary. Date of application too is recorded. This is the input document.

The next is the payment voucher i.e. formTF1 that record the departmental number of the unit in question (loans and advances unit), station of payment, voucher number, head, subhead, classification code, amount in naira and kobo, date, payee's and address.

It also contains a detailed description of services and work to be carried out to the tune of the approved sum and also honour certificate. This form also provides spaces for the signature and rank of payee and that of officer controlling expenditure.

Another record is the ledger book which is a book of account for recording financial transaction. This book provides spaces for debit and credit and bears the name of the

beneficiary. The receipt of advanced or loaned sum is debited against the beneficiary and retirement or liquidation credited in favour of the same, thus closing the book. It provides space for payees name, date, and amount received and retired or liquidated. It also provides space for stating work or service carried to the tune of approved sum. There are other forms that are actively involved and these are loan agreement form, guarantor form and application for advance refurbishing motor vehicle. These forms have to do with loan only. A brief description of them is carried out below:

The loan agreement form signifies the granting of the loan and acceptance by the beneficiary when filled. It stipulate terms of acceptance and repayment both in period and installmental amount. It also contains information on vehicle if it's a vehicle refurbishing loan such as particulars of vehicle.

The guarantor form contains name, rank, file No. appointment date etc. of guarantor and beneficiary.

The application for advances for refurbishing motor vehicle form is completed and contain information on applicants name, salary, grade level, type of motor vehicle to refurbish, registration number, period of repayment etc. It also contains certificate by sectional head of the applicant being truly a staff of his section.

The next document is the schedule form that provides space for payment vouchers dispacked to the next unit down to cash office. The spaces include schedule No. PV No., Payee name and amount.

The last but not the least is the file used. This file is either personal or departmental file in which case it bears payee name and number or department's name and number accordingly.

2.3 PROCESS IN LOANS AND ADVANCES MANAGEMENT AND CONTROL

Management and Control of loan and advances follows a set pattern that makes it orderly and easier, thus aid overall planning and co-ordination. The following pattern is strictly observed in loans and advances unit of National Assembly and it takes care of both loans, advances and retirement. Repayment of loans is discussed separately as it involves slightly different processing steps.

The whole process starts from Director of Finance and Supplies's offices in form of written instructions to OC Loans and Advances Unit based on approval from the Permanent Secretary's Office. The officer in charge of Loans and Advances Unit based on approval from the Permanent Secretary' office. The OC Loans and Advances now minutes to EO account for processing who in turn raise payment voucher in six copies if it is advances or in five copies if it is retirement. The voucher is then stamped at the back and provides spaces for signature of officers that raises the voucher, officer controlling expenditure and other spaces to be signed at the other units.

The voucher is now sent to Vote Book Unit charging into appropriate subhead and returned back for posting into the ledger as a debit balance pending retirement it's advances or repayment. if it is loans. At this point, the voucher is passed unto the next unit for further action. Whether it is loans or advances the same process obtains. It also obtains for retirement of advances and repayment of loan save that the final posting in the ledger is credited to the payee name, thus closing the book.

There is a slight difference in loans repayment in the sense that repayment is done installmentally over a fixed period of time usually five years. Thus it will be spread into monthly installmental over the agreed period.

The significance of this is that the ledger book remains open for a long time and closes after the installmental payment has added to the total loan received and interest paid.

2.4 PROBLEMS OF MANUAL SYSTEM IN LOANS AND ADVANCES MANAGEMENT AND CONTROL

The manual system of managing loans and advances in National Assembly has been in use for quite a long time and has been found to be relatively effective. On the whole some problems abound here and there and some of them are discussed below:

Written material are sometimes in short supply especially during peak working period of beginning and end of year. Such working materials includes pens, stencil and stationary.

The most generally accepted means of storing information is on ledger and paper

files. This means they suffer from the problem of being destroyed by insect, dampness caused by whether changes or even theft thereby causing loss of information.

There is also the problem of tedious calculation in loan payment thereby causing arithmetic mistakes.

Date storage tends to be a day to day affair in loans and advances unit of National Assembly, thereby increasing the number of ledgers and files that need storage space. Currently there is dearth of file cabinets to contain such increase.

CHAPTER THREE

3.1 SYSTEM DESIGN AND DEVELOPMENT

The new system is to be designed to meet all the requirement of the current system and other additional facilities that will be considered necessary. Given the tolls to use, the design consider the software that would best suit the objectives.

However, the software package for the new system is to be developed using Database management System (DBMS). This is a package of computer programs and it associated documentation use to create, maintain, organise and retrieve information from a database. The database is regarded as a databank where data are stored. Therefore, a Database System has the capacities to help establishments and institutions manage their data resources.

3.2 FEATURES OF DATABASE MANAGEMENT SYSTEM

The basic features of Database management Packages which make it relevant for this purpose are discussed below:

i. DATA INTEGRATION

This is the ability of DBMS to co-ordinate, access and operate an information from several files as if it is contained in the same file.

ii. DATA REDUNDANCY

This is the duplication of similar data in to or more files. A DBMS packages is not designed to store the same data more than once except the need for the duplication arise.

iii. INDEPENDENCE OF DATA FROM PROGRAM

This is the separation of data files from program files in order to allow for modification retrieved in a database environment. Data integrity is achieved in DBMS as a result of lack of duplication of data.

iv. INTEGRITY OF DATA

This is an important feature of DBMS because of the reliability of information retrieved in a database environment. Date integrity is achieved in DBMS as a result of lack of duplication of data.

v. DATA SECURITY

This involves the centralization of data storage in an organisation which is the premise on which database was introduced. The possibility of the centralization allow for security of data.

3.3 INPUT AND OUTPUT SPECIFICATIONS

Input is defined as the raw data submitted for processing to the computer, which output is the processed version of input. For a proper design of a computerized system, the required output needs to analysed in order to identify the input required.

In software development, the method and format of data entry are important. This is

because other processes of the system depends to a large extent on The information supplied by the users. If the data supplied is erroneous, the result from the system will also be wrong. This conforms the saying in the computer environment that garbage in garbage out. It is against this background that data entry design needs to be properly done.

The proposed system require data entry such as loan approval, loan repayment, advance approval, advance retirement, etc. All these are to be built into the new system. In the case of output from the new system, necessary report that will aid in loans and advances monitoring by the authority of the National Assembly, Abuja are expected to be generated.

3.4 DESIGN OF DATABASE FILES

The proposed new system requires three database files for the purpose of storing data. The database files are STAFF.DBF, LOAN.DBF and ADVANCE.DBF. The explanation of the files are given below:

3.4.1 STAFF.DBF

This files contain the official details of each employee in National Assembly, Abuja. The detail contains both personal and official information. Structure of the file is as given below:

S/No	FILED NAME	DESCRIPTION	TYPE	WIDTH
1	Persno	Personnel File No	Character	15
2	Surname	Surname	Character	15
3	Firs Name	Fist Name	Character	15
4	Oname	other Name	Character	35
5	Caddr	Contact Address	Character	35
6	Design	Designation	Character	35
7.	Dept	Department	Character	35

3.4.2 LOAN.DBF

The database files is designed to contain the details of loans taken by the employees of the National Assembly, Abuja.

The structure of the file is described below:

S/No	FIELD NAME	DESCRIPTION	TYPE	WIDTH
1	Persno	Personnel File No.	Character	15
2	Surname	Surname	Character	15
3	First Name	First Name	Character	15
4	Oname	Other Names	Character	35
5	Design	Designation	Character	35
6	Dept	Department	Character	35
7	Apply	Amount Apply For	Numeric	12/2
8	Ins	No. of Instalment	Numeric	3/0
9	Purpose	Purpose of Loan	Character	45
10	Approve	Amount Approved	Numeric	12/2

11	Repay	Amount Repaying	Numeric	12/2
12	Approve2	Balance Remaining	Numeric	12/2
13	Ntrest	Interest Charged	Numeric	12/2

3.4.3 ADVANCE.DBF

The database file is designed to contain the details of advances taken by the employees of the National Assembly, Abuja.

The structure of the files is described below:

S/No.	FILED NAME	DESCRIPTION	TYPE	WIDTH
1	Persno	Personnel File No.	Character	7
2	Surname	Surname	Character	15
3	First Name	First Names	Character	15
4	Oname	Other Names	Character	35
5	Design	Designation	Character	35
6	Dept	Department	Character	35
7	Apply	Amount Apply For	Numeric	12/2
8	DTA	Duty Tour Allowance	Numeric	3/0
9	Contigent	Contingency	Character	45
10	Purpose	Purpose of Advance	Numeric	12/2

11	Approve	Amount Approve	Numeric	12/2
12	Retire	Amount Retired	Numeric	12/2

3.5 PROGRAM DOCUMENTATION

The source program for the new package was developed using the programming mode of DBASE IV. The complete package was divided into various subproblems and modules such that each module is responsible for a subproblem. In this case, related jobs are grouped together to form a subproblem and a module designed for each. The details of the source program for the software is included in the appendix.

CHAPTER FOUR

4.1 INTRODUCTION

This next stage of system development is the implementation and application stage. The sequences is such that after the physical system has been designed as contain in the last chapter, the stage is set to turn the design into a working system and then monitor the operation of the system in order to ensure that it is working efficiently.

System implementation, therefore, it the stage of system development when the conceptual requirement of the new system and the overall objectives are to be transformed into physical reality. This is an important stage because it is the most crucial in achieving a successful new system and giving the users the confidence that the new system will work and be effective.

It is for proper analysis of the task of implementation and application that this chapter attempts to describe the hardware configuration and software required for the proper application of the newly designed system. The mode of testing used in order to ascertain that the system is working correctly is also described. In addition, for easy implementation of the newly designed system, the mode of conversion in others of changeover method is recommended.

4.2 SYSTEM REQUIREMENT

The new system will require the installation of some software for the propose of its execution. In this vain, Dbase Iv is required to be installed for the sake of execution and future modification. The developed source program cannot be executed if the computer does not contain the Dbase IV installation files, while the modification is for the purpose of changing the design.

However, the newly designed program can be executed in both DOS and Windows environment. In this vein, it is recommended that DOS 6.22 and Windows ,98 are to be installed.

In addition, for other computer usage, a Wordprocessing Package is required for text processing, a Spreadsheet Package for calculation and a Desktop Publishing Package for designing letter headed paper and memo paper.

Summarily, the required software are:

- Dbase IV
- Windows ,98
- Microsoft Word 2000
- Microsoft Excel 2000

- Microsoft Power Point 2000

4.4 HARDWARE CONFIGURATION AND SPECIFICATION

The new system is designed to work on a stand-alone micro-computer. Specifically, the hardware configuration should include a Micro-Computer, Uninterrupted Power Supply (UPS) and Printers.

The specification and type of each stated below.

COMPUTER HARDWARE

A Micro-computer of a reasonable feature is recommended. This is required in order to meet the future needs of the organisation. The configuration of the computer should not be less than the configuration below.

- Pentium 400MHZ (Megahertz)
- 64 MB RAM (Random Access Memory)
- .4GB Hard Disk
- 3.5" Floppy Disk Drive
- 44X CD-ROM
- SVGA Monitor
- Windows 98 Keyboard
- Mouse + Mouse Pad
- Software pre-installed

UNINTERRUPTED POWER SUPPLY

This facility will ensure constant power supply to the computer hardware. It has capability for automatic provision of power incase there is a sudden power failure while the computer is performing a task. The power sustenance allows for job continuity so that the user can reach a meaningful point and shut than the system instead of ending abruptly as a result of power failure. The recommended UPS is APC Back-Up Pro 1200 VA with the capability of holding power for up to 45 minutes.

PRINTER

A computer printer is an output device use to generate an hard copy result of a computer processing. The required printer, in this case, is to be used for the production of the hard copy reports from the new system. Considering the type of report from the printer, Dot Matrix printer is recommended. The Dot Matrix printer is a line printer capable of printing on computer continuous paper. The printer is to be used directly with the software for the generation of the required report in the system. Specifically, the recommended model is the Epson LQ 2170 given its speed and the volume of to be place on it.

4.5 SYSTEM TESTING

The new system has been tested and confirmed working in accordance with its requirement. A test-run was conducted using data that already exist. In the test analysis, the data were used to execute the program and the computer result was compared with the result obtained originally. With the comparison, it was confirmed that the program is working perfectly.

4.6 SYSTEM CONVERSION

This involves file conversion, file set-up and change-over. File conversion requires changing the old (existing) system files to the format and content required by the new system. File set-up is the process of setting up the converted files on the computer. Changeover is the full replacement of all the old procedures by the new ones.

The changeover could be in any of the three following forms:

- (i) Parallel Changeover
- (ii) Direct Changeover
- (iii) Pilot Changeover.

PARALLEL CHANGEOVER

This require the old and new system to run concurrently for some time using the same inputs. The output of the two systems are compared. This will continue until the new

system is confirmed to be working satisfactorily.

DIRECT CHANGEOVER

This method is the complete replacement of the old system by the new system in one move. It is a bold move. It is a bold move which should be undertaken only when everyone concerned has confidence in the new system.

PILOT CHANGEOVER

This is similar in concept to parallel changeover, it requires changing to the new system on a piece meals.

All the above highlight procedures of a system conversion are required for the new system. It should be noted that the file conversion and file setup can be performed by a computer operator under close supervision. However, with respect to the new system, a parallel changeover method is to be used for conversion. This is chosen mainly because of its reliability and continuity of the operations. In this conversion technique, the old and new systems are in operation for a short while in order to make possible the comparison of their performance and effectiveness.

CHAPTER FIVE

5.1 SYSTEM DOCUMENTATION

System documentation is the description of how a system works. This is required to ensure a better understanding of the system by the users. The documentation of the system provides information on how the system can be started and its operation.

5.1.1 STARTING THE SYSTEM

The execution of the programs required the installation of Dbase IV into the system. The source program would then be copied into a directory (e.g. NASS) on the hard disk (i.e. drive C). To start the system is as follows:

- * Type CD\NASS + <ENTER> key
- * Type DBASE + <ENTER> key
- * At the dot prompt of Dbase IV, type DO NASS + <ENTER> Key

The execution of the above steps allows the first level menu appear on the screen from which the user would select an appropriate choice.

5.1.2 DESCRIPTION OF THE SYSTEM MENU

The first level menu consists of five options as displayed in Chart 1 in the Appendix.

Each of these is itemised and discussed as follows:

- * Personnel Data Management
- * Loans Management

- * Advances Management
- * Report Generation
- * Exit

PERSONNEL DATA MANAGEMENT

This option contains five sub-options as displayed in Chart ii. It is used to manipulate the content of the master file i.e. STAFF.DBF which contain the details of the employees in the organisation. The sub-options are Enter Personnel Detail for entering new personnel record, Change Personnel Detail for changing the existing personnel record, Display personnel Detail for displaying personnel record, Cancel Personnel Detail for deleting personnel record and Submenu Exit for moving out of the sub-option. The screen design for each of these is represented by Chart III - VI in the Appendix.

LOANS MANAGEMENT

This option is accessed for proper documentation of loan procedures of the interested employees. It takes care of all the loan proceedings from the point of application to the point approval and repayment. The menu as shown on Chart VII has four sub-options namely: Loan Application for entering information contain on loan form, Loan Approval for entering record of all the loans approved, Loan Repayment for entering details of loan repaid. The screen format for each of these are contained in Charts VIII - X.

ADVANCES MANAGEMENT

This option is accessed for proper documentation of advance procedures of the interested employees. It takes care of all the advances proceedings from the point of application to the point of approval and retirement. The menu as shown on Chart XI has four sub-options namely: Advance Application for entering information contain on Advance Application Form, Advance Approval for entering record of all the advances approved. Advance Retirement for entering details of advance retired. The screen format for each of these are contained in Charts XII - XIV

REPORT GENERATION

This is used to produce reports from the system representing the result of processing. It gives the users the hard copy result.

EXIT

This option is used to move out of the system.

5.2 BENEFIT OF THE NEW SYSTEM

The benefit to be desired from the implementation of the new system are as follows:

- i. It ensures smooth operation of the Loan Unit of the Fiance Department.
- ii. It ensures accurate and efficient storage and retrieval of data.
- iii. It facilitates effective monitoring of all the employees of the National Assembly, Abuja who are indebted to the organisation.

- iv. It checks human errors through the use of computers
- v. It eliminates fraudulent practices in the control and management of loan activities in the organisation.

5.3 CONCLUSION

The realisation of computer application into all areas has made computers relevant in modern days. This forms the basis of computerization and its introduction in order to replace manual procedures in most organisations.

The computer approach becomes necessary because of its features such as reliability, speed, accuracy, efficiency, data security etc.

In this regard, the introduction of computer based system in terms of management and control of loans and advances would further enhance the operation of the National Assembly, Abuja.

5.4 RECOMMENDATION

In order to achieve the benefit of the application of the proposed system, the following recommendations need to be adopted.

TRAINING REQUIREMENT

For a successful implementation and application of a computerized system, the potential users would be required to be trained on various computer application and operation. It is in recognition of this that training is recommended for the would-be users. This would expose the potential users to the facilities of the new system. In addition, a general computer training which would expose the users to computer operations for the purpose of other manipulations.

COMPUTER COMMITTEE

A committee to monitor the installation and operation of the new system in National Assembly, Abuja needs to be set-up. The committee should be given responsibility of ensuring proper implementation of the

SECURITY OF COMPUTER ENVIRONMENT

The expected computer environment should have the necessary controlling facility and security. The security should be designed in such a way that unauthorised users cannot operate the system.

BIBLIOGRAPHY

- AYO C. K. (1998)** : Computer Literacy (operations & Appreciation)
- BADMUS R. (1998)** : System Analysis and Design Lecture Notes for 1997/98 PGD Students in Computer Science, FUT, Minna, Nigeria (Unpublished)
- FAPOHUNDA A (1995)** : Understanding and Using Mirco-computers First Edition Publishers; Alton Ltd., Plot 2095, Herbert Macuaily Way, Wuse, Abuja, Nigeria.
- ISREAL A. (1997)** : Algorithms Lecture Notes for 1997/98 PGD Students in Computer Science, FUT., Minna, Nigeria. (Unpublished)
- Nigerian Law Report** : Volume e, 1960

STAFF DATA MANAGEMENT - ADD DATA

PERSONNEL NO (Press <ENTER> to Exit): PF/0014

SURNAME: SODANGI

FIRST NAME: SAMAILA

OTHER NAMES :

CONTACT ADDRESS : TUNGA LOWCOST, MINNA

DESIGNATION : CHIEF ACCOUNTANT

DEPARTMENT : FINANCE & ADMIN

SAVE DATA? (Y/N) :

CHART III

STAFF DATA MANAGEMENT - CHANGE DATA

PERSONNEL NO (Press <ENTER> to Exit): PF/0014

SURNAME: SODANGI

FIRST NAME: SAMAILA

OTHER NAMES :

CONTACT ADDRESS : TUNGA LOWCOST, MINNA

DESIGNATION : CHIEF ACCOUNTANT

DEPARTMENT : FINANCE & ADMIN

SAVE CHANGES? (Y/N) :

CHART IV

STAFF DATA MANAGEMENT - DISPLAY DATA

PERSONNEL NO (Press <ENTER> to Exit): PF/0014

SURNAME: SODANGI

FIRST NAME: SAMAILA

OTHER NAMES :

CONTACT ADDRESS : TUNGA LOWCOST, MINNA

DESIGNATION : CHIEF ACCOUNTANT

DEPARTMENT : FINANCE & ADMIN

PRESS ANY KEY TO CONTINUE

CHART V

STAFF DATA MANAGEMENT - CANCEL DATA

PERSONNEL NO (Press <ENTER> to Exit): PF/0014

SURNAME: SODANGI

FIRST NAME: SAMAILA

OTHER NAMES :

CONTACT ADDRESS : TUNGA LOWCOST, MINNA

DESIGNATION : CHIEF ACCOUNTANT

DEPARTMENT : FINANCE & ADMIN

DELETE DATA? (Y/N) :

CHART VI

NATIONAL ASSEMBLY, ABUJA

LOANS & ADVANCES MANAGEMENT SYSTEM

LOAN MANAGEMENT MENU

- 1 LOAN APPLICATION
- 2 LOAN APPROVAL
- 3 LOAN REPAYMENT
- 4 SUBMENU EXIT

PICK YOUR CHOICE (1, 2, 3, OR 4):

CHART VII

LOAN MANAGEMENT - LOAN APPLICATION

PERSONNEL NO (Press <ENTER> to Exit): PF/0014

SURNAME: SODANGI

FIRST NAME: SAMAILA

OTHER NAMES :

DESIGNATION : CHIEF ACCOUNTANT

DEPARTMENT : FINANCE & ADMIN

AMOUNT APPLIED FOR: # 150,000.00 INSTALMENT NO: 30

PURPOSE: MOTOR VEHICLE LOAN

SAVE DATA? (Y/N):

CHART VIII

LOAN MANAGEMENT - LOAN APPROVAL

PERSONNEL NO (Press <ENTER> to Exit): PF/0014

SURNAME: SODANGI

FIRST NAME: SAMAILA

OTHER NAMES :

AMOUNT APPLIED FOR: # 150,000.00 INSTALMENT NO: 30

PURPOSE: MOTOR VEHICLE LOAN

AMOUNT OF LOAN APPROVED & GRANTED: # 120,000.00

SAVE DATA? (Y/N) :

CHART IX

LOAN MANAGEMENT - LOAN REPAYMENT

PERSONNEL NO (Press <ENTER> to Exit): PF/0014

SURNAME: SODANGI

FIRST NAME: SAMAILA

OTHER NAMES :

PURPOSE: MOTOR VEHICLE LOAN

APPROVED AMT: # 120,000.00 INSTALMENT REM.: 29

AMOUNT REPAY: # 4,000.00 CURRENT BAL: 116,000.00

SAVE DATA? (Y/N):

CHART X

NATIONAL ASSEMBLY, ABUJA

LOANS & ADVANCES MANAGEMENT SYSTEM

ADVANCES MANAGEMENT MENU

- 1 ADVANCES APPLICATION
- 2 ADVANCES APPROVAL
- 3 ADVANCES RETIREMENT
- 4 SUBMENU EXIT

PICK YOUR CHOICE (1, 2, 3, OR 4):

CHART XI

ADVANCE MANAGEMENT - ADVANCE APPLICATION

PERSONNEL NO (Press <ENTER> to Exit): PF/0014

SURNAME: SODANGI

FIRST NAME: SAMAILA

OTHER NAMES :

DESIGNATION : CHIEF ACCOUNTANT

DEPARTMENT : FINANCE & ADMIN

AMOUNT APPLIED FOR: # 65,000.00

PURPOSE: TOURING ADVANCE

SAVE DATA? (Y/N):

CHART XII

ADVANCE MANAGEMENT - ADVANCE RETIREMENT

PERSONNEL NO (Press <ENTER> to Exit): PF/0014

SURNAME: SODANGI

FIRST NAME: SAMAILA

OTHER NAMES :

PURPOSE: TOURING ADVANCE

GRANTED & APPROVED AMOUNT: # 65,000.00

AMT RETIRING: # 65,000.00 BALANCE: # 0.00

SAVE DATA? (Y/N):

CHART XIV

APPENDIX II - SOURCE PROGRAM DOCUMENTATION

MANAGE.PRG

SET SCOR OFF

SET STAT OFF

SET TALK OFF

SET DATE BRIT

SET SAFE OFF

DO WHILE .T.

 CLEAR

 @ 1,15 TO 24,64 DOUB

 @ 1,28 SAY "NATIONAL ASSEMBLY, ABUJA"

 @ 0,27 TO 2,52 DOUB

 @ 4,23 SAY 'LOANS & ADVANCES MANAGEMENT SYSTEM'

 @ 5,23 TO 5,56 DOUB

 @ 7,35 SAY "MAIN MENU"

 @ 6,34 TO 8,44

 @ 20,16 TO 20,63

 @ 10,21 SAY "1 PERSONNEL DATA MANAGEMENT"

 @ 12,21 SAY "2 LOANS MANAGEMENT"

 @ 14,21 SAY "3 ADVANCES MANAGEMENT"

 @ 16,21 SAY "4 REPORT GENERATION"

 @ 18,21 SAY "5 EXIT"

DO WHIL .T.

 C = SPAC(1)

 @ 22,21 SAY "PICK YOUR CHOICE (1, 2, 3, 4, OR 5):" GET C PICT '9'

 READ

 IF C='1' .OR. C='2' .OR. C='3' .OR. C='4' .OR. C='5'

 EXIT

 ENDI

ENDD

DO CASE

 CASE C = '1'

 DO STAFF

 CASE C = '2'

 DO LOAN

 CASE C = '3'

```
DO CHANGE
CASE C = '3'
DO DISPLAY
CASE C = '4'
DO CANCEL
CASE C = '5'
EXIT
ENDC
ENDD
CLEA
RETU
```

ENTER.PRG

```
USE STAFF
DO WHILE .T.
  CLEAR
  @ 1,10 TO 22,69 DOUBLE
  @ 18,11 TO 18,68
  @ 3,24 SAY 'STAFF DATA MANAGEMENT - ADD DATA'
  @ 4,24 TO 4,55 DOUBLE
  MPERSNO = SPACE(7)
  @ 6,12 SAY 'PERSONNEL NO (Press <ENTER> to Exit):' GET MPERSNO
  PICTURE 'PF/9999'
  READ
  IF MPERSNO = SPACE(7)
    EXIT
  ENDIF
  GO TOP
  LOCATE FOR PERSNO = MPERSNO
  IF FOUND()
    @ 20,16 SAY 'PERSONNEL FILE NO ALREADY ENTERED - PRESS ANY
KEY'
    SET CONSOLE OFF
    WAIT
    SET CONSOLE ON
  LOOP
ENDIF
```



```
MSURNAME = SPACE(15)
MFNAME = SPACE(15)
MONAMES = SPACE(35)
MCADDR = SPACE(35)
MDESIGN = SPACE(35)
MDEPT = SPACE(35)
@ 8,12 SAY 'SURNAME:' GET MSURNAME PICTURE '@!'
@ 8,41 SAY 'FIRST NAME:' GET MFNAME PICTURE '@!'
@ 10,12 SAY 'OTHER NAMES : ' GET MONAMES PICTURE '@!'
@ 12,12 SAY 'CONTACT ADDRESS : ' GET MCADDR PICTURE '@!'
@ 14,12 SAY 'DESIGNATION : ' GET MDESIGN PICTURE '@!'
@ 16,12 SAY 'DEPARTMENT : ' GET MDEPT PICTURE '@!'
READ
@ 20,30 SAY 'SAVE DATA? (Y/N):'
DO WHILE .T.
  RESPONSE = ' '
  @ 20,48 GET RESPONSE PICTURE '!'
  READ
  IF RESPONSE = 'Y' .OR. RESPONSE = 'N'
    EXIT
  ENDIF
ENDDO
IF RESPONSE = 'Y'
  APPEND BLANK
  REPLACE PERSNO WITH MPERSNO
  REPLACE SURNAME WITH MSURNAME
  REPLACE FNAME WITH MFNAME
  REPLACE ONAMES WITH MONAMES
  REPLACE CADDR WITH MCADDR
  REPLACE DESIGN WITH MDESIGN
  REPLACE DEPT WITH MDEPT
ENDIF
ENDDO
USE
CLEAR
RETURN
```

CHANGE.PRG

```

USE STAFF
DO WHILE .T.
  CLEAR
  @ 1,10 TO 22,69 DOUBLE
  @ 18,11 TO 18,68
  @ 3,22 SAY 'STAFF DATA MANAGEMENT - CHANGE DATA'
  @ 4,22 TO 4,56 DOUBLE
  MPERSNO = SPACE(7)
  @ 6,12 SAY 'PERSONNEL NO (Press <ENTER> to Exit):' GET MPERSNO
  PICTURE 'PF/9999'
  READ
  IF MPERSNO = SPACE(7)
    EXIT
  ENDIF
  GO TOP
  LOCATE FOR PERSNO = MPERSNO
  IF .NOT. FOUND()
    @ 20,18 SAY 'PERSONNEL FILE DOES NOT EXIST - PRESS ANY KEY'
    SET CONSOLE OFF
    WAIT
    SET CONSOLE ON
    LOOP
  ENDIF
  MSURNAME = SURNAME
  MFNAME = FNAME
  MONAMES = ONAMES
  MCADDR = CADDR
  MDESIGN = DESIGN
  MDEPT = DEPT
  @ 8,12 SAY 'SURNAME:' GET MSURNAME PICTURE '@!'
  @ 8,41 SAY 'FIRST NAME:' GET MFNAME PICTURE '@!'
  @ 10,12 SAY 'OTHER NAMES      : ' GET MONAMES PICTURE '@!'
  @ 12,12 SAY 'CONTACT ADDRESS : ' GET MCADDR PICTURE '@!'
  @ 14,12 SAY 'DESIGNATION      : ' GET MDESIGN PICTURE '@!'
  @ 16,12 SAY 'DEPARTMENT      : ' GET MDEPT PICTURE '@!'
  READ
  @ 20,29 SAY 'SAVE CHANGES? (Y/N):'
  DO WHILE .T.
    RESPONSE = ''

```

```

MPERSNO = SPACE(7)
@ 6,12 SAY 'PERSONNEL NO (Press <ENTER> to Exit):' GET MPERSNO
PICTURE 'PF/9999'
READ
IF MPERSNO = SPACE(7)
  EXIT
ENDIF
GO TOP
LOCATE FOR PERSNO = MPERSNO
IF .NOT. FOUND()
  @ 20,18 SAY 'PERSONNEL FILE DOES NOT EXIST - PRESS ANY KEY'
  SET CONSOLE OFF
  WAIT
  SET CONSOLE ON
  LOOP
ENDIF
MSURNAME = SURNAME
MFNAME = FNAME
MONAMES = ONAMES
MCADDR = CADDR
MDESIGN = DESIGN
MDEPT = DEPT
@ 8,12 SAY 'SURNAME:' GET MSURNAME PICTURE '@!'
@ 8,41 SAY 'FIRST NAME:' GET MFNAME PICTURE '@!'
@ 10,12 SAY 'OTHER NAMES      : ' GET MONAMES PICTURE '@!'
@ 12,12 SAY 'CONTACT ADDRESS : ' GET MCADDR PICTURE '@!'
@ 14,12 SAY 'DESIGNATION      : ' GET MDESIGN PICTURE '@!'
@ 16,12 SAY 'DEPARTMENT       : ' GET MDEPT PICTURE '@!'
CLEAR GETS
@ 20,29 SAY 'DELETE DATA? (Y/N):'
DO WHILE .T.
  RESPONSE = ' '
  @ 20,49 GET RESPONSE PICTURE '!
  READ
  IF RESPONSE = 'Y' .OR. RESPONSE = 'N'
    EXIT
  ENDIF
ENDDO
IF RESPONSE = 'Y'

```

```
DELE
PACK
ENDIF
ENDDO
USE
CLEAR
RETURN
```

LOAN.PRG

```
DO WHIL .T.
```

```
  CLEA
```

```
  @ 2,15 TO 23,64 DOUB
```

```
  @ 2,28 SAY "NATIONAL ASSEMBLY, ABUJA"
```

```
  @ 1,27 TO 3,52 DOUB
```

```
  @ 5,23 SAY 'LOANS & ADVANCES MANAGEMENT SYSTEM'
```

```
  @ 6,23 TO 6,56 DOUB
```

```
  @ 8,30 SAY "LOAN MANAGEMENT MENU"
```

```
  @ 7,29 TO 9,50
```

```
  @ 19,16 TO 19,63
```

```
  @ 11,21 SAY "1 ..... LOAN APPLICATION"
```

```
  @ 13,21 SAY "2 ..... LOAN APPROVAL"
```

```
  @ 15,21 SAY "3 ..... LOAN REPAYMENT"
```

```
  @ 17,21 SAY "4 ..... SUBMENU EXIT"
```

```
DO WHIL .T.
```

```
  C = SPAC(1)
```

```
  @ 21,22 SAY "PICK YOUR CHOICE (1, 2, 3, OR 4):" GET C PICT '9'
```

```
  READ
```

```
  IF C='1' .OR. C='2' .OR. C='3' .OR. C='4'
```

```
    EXIT
```

```
  ENDI
```

```
ENDD
```

```
DO CASE
```

```
  CASE C = '1'
```

```
    DO LOAN1
```

```
  CASE C = '2'
```

```
    DO LOAN2
```

```
  CASE C = '3'
```

```
DO LOAN3
CASE C = '4'
EXIT
ENDC
ENDD
CLEA
RETU
```

LOAN1.PRG

```
SELECT 1
USE STAFF
SELECT 2
USE LOAN
SELECT 1
DO WHILE .T.
CLEAR
@ 1,10 TO 23,69 DOUBLE
@ 19,11 TO 19,68
@ 2,23 SAY 'LOAN MANAGEMENT - LOAN APPLICATION'
@ 3,23 TO 3,56 DOUBLE
MPERSNO = SPACE(7)
@ 5,12 SAY 'PERSONNEL NO (Press <ENTER> to Exit):' GET MPERSNO
PICTURE 'PF/9999'
READ
IF MPERSNO = SPACE(7)
EXIT
ENDIF
GO TOP
LOCATE FOR PERSNO = MPERSNO
IF .NOT. FOUND()
@ 21,18 SAY 'PERSONNEL FILE DOES NOT EXIST - PRESS ANY KEY'
SET CONSOLE OFF
WAIT
SET CONSOLE ON
LOOP
ENDIF
MSURNAME = SURNAME
```

```

MFNAME = FNAME
MONAMES = ONAMES
MDESIGN = DESIGN
MDEPT = DEPT
MAPPLY = 0
MINS = 0
MPURPOSE = SPACE(45)
@ 7,12 SAY 'SURNAME:' GET MSURNAME PICTURE '@!'
@ 7,41 SAY 'FIRST NAME:' GET MFNAME PICTURE '@!'
@ 9,12 SAY 'OTHER NAMES      : ' GET MONAMES PICTURE '@!'
@ 11,12 SAY 'DESIGNATION      : ' GET MDESIGN PICTURE '@!'
@ 13,12 SAY 'DEPARTMENT       : ' GET MDEPT PICTURE '@!'
CLEAR GETS
@ 15,12 SAY 'AMOUNT APPLIED FOR: #'
@ 15,33 GET MAPPLY PICTURE '999,999,999.99'
@ 15,50 SAY 'INSTALMENT NO:' GET MINS PICTURE '999'
@ 17,13 SAY 'PURPOSE:' GET MPURPOSE PICTURE '@!'
READ
@ 21,30 SAY 'SAVE DATA? (Y/N):'
DO WHILE .T.
    RESPONSE = ' '
    @ 21,48 GET RESPONSE PICTURE '!'
    READ
    IF RESPONSE = 'Y' .OR. RESPONSE = 'N'
        EXIT
    ENDIF
ENDDO
IF RESPONSE = 'Y'
    SELECT 2
    APPEND BLANK
    REPLACE PERSNO WITH MPERSNO
    REPLACE SURNAME WITH MSURNAME
    REPLACE FNAME WITH MFNAME
    REPLACE ONAMES WITH MONAMES
    REPLACE DESIGN WITH MDESIGN
    REPLACE DEPT WITH MDEPT
    REPLACE APPLY WITH MAPPLY
    REPLACE INS WITH MINS
    REPLACE PURPOSE WITH MPURPOSE

```

```
SELECT 1
ENDIF
ENDDO
CLOSE ALL
CLEAR
RETURN
```

LOAN2.PRG

```
USE LOAN
DO WHILE .T.
  CLEAR
  @ 1,10 TO 22,69 DOUBLE
  @ 18,11 TO 18,68
  @ 3,24 SAY 'LOAN MANAGEMENT - LOAN APPROVAL'
  @ 4,24 TO 4,54 DOUBLE
  MPERSNO = SPACE(7)
  @ 6,12 SAY 'PERSONNEL NO (Press <ENTER> to Exit):' GET MPERSNO
  PICTURE 'PF/9999'
  READ
  IF MPERSNO = SPACE(7)
    EXIT
  ENDIF
  GO TOP
  LOCATE FOR PERSNO = MPERSNO
  IF .NOT. FOUND()
    @ 20,17 SAY 'PERSONNEL NO. DOES NOT EXIST - PRESS ANY KEY'
    SET CONSOLE OFF
    WAIT
    SET CONSOLE ON
  LOOP
ENDIF
MSURNAME = SURNAME
MFNAME = FNAME
MONAMES = ONAMES
MAPPLY = APPLY
MINS = INS
MPURPOSE = PURPOSE
```

```
MAPPROVE = 0
@ 8,12 SAY 'SURNAME:' GET MSURNAME PICTURE '@!'
@ 8,41 SAY 'FIRST NAME:' GET MFNAME PICTURE '@!'
@ 10,12 SAY 'OTHER NAMES : ' GET MONAMES PICTURE '@!'
@ 12,12 SAY 'AMOUNT APPLIED FOR: #'
@ 12,33 GET MAPPLY PICTURE '999,999,999.99'
@ 12,50 SAY 'INSTALMENT NO:' GET MINS PICTURE '999'
@ 14,13 SAY 'PURPOSE:' GET MPURPOSE PICTURE '@!'
CLEAR GETS
@ 16,14 SAY 'AMOUNT OF LOAN APPROVED & GRANTED: #'
@ 16,50 GET MAPPROVE PICTURE '999,999,999.99'
READ
@ 20,30 SAY 'SAVE DATA? (Y/N):'
DO WHILE .T.
    RESPONSE = ' '
    @ 20,48 GET RESPONSE PICTURE '!
    READ
    IF RESPONSE = 'Y' .OR. RESPONSE = 'N'
        EXIT
    ENDIF
ENDDO
IF RESPONSE = 'Y'
    REPLACE PERSNO WITH MPERSNO
    REPLACE SURNAME WITH MSURNAME
    REPLACE FNAME WITH MFNAME
    REPLACE ONAMES WITH MONAMES
    REPLACE APPROVE WITH MAPPROVE
    REPLACE APPROVE2 WITH MAPPROVE2
ENDIF
ENDDO
CLOSE ALL
CLEAR
RETURN
```

LOAN3.PRG

```
USE LOAN
DO WHILE .T.
```



```

CLEAR
@ 1,10 TO 22,69 DOUBLE
@ 18,11 TO 18,68
@ 3,24 SAY 'LOAN MANAGEMENT - LOAN REPAYMENT'
@ 4,24 TO 4,55 DOUBLE
MPERSNO = SPACE(7)
@ 6,12 SAY 'PERSONNEL NO (Press <ENTER> to Exit):' GET MPERSNO
PICTURE 'PF/9999'
READ
IF MPERSNO = SPACE(7)
  EXIT
ENDIF
GO TOP
LOCATE FOR PERSNO = MPERSNO
IF .NOT. FOUND()
  @ 20,17 SAY 'PERSONNEL NO. DOES NOT EXIST - PRESS ANY KEY'
  SET CONSOLE OFF
  WAIT
  SET CONSOLE ON
  LOOP
ENDIF
MSURNAME = SURNAME
MFNAME = FNAME
MONAMES = ONAMES
MINS = INS
MINS = MINS-1
MPURPOSE = PURPOSE
MAPPROVE = APPROVE
MAPPROVE2 = APPROVE2
MREPAY = 0
MBAL = 0
@ 8,12 SAY 'SURNAME:' GET MSURNAME PICTURE '@!'
@ 8,41 SAY 'FIRST NAME:' GET MFNAME PICTURE '@!'
@ 10,12 SAY 'OTHER NAMES   : ' GET MONAMES PICTURE '@!'
@ 12,13 SAY 'PURPOSE:' GET MPURPOSE PICTURE '@!'
@ 14,12 SAY 'APPROVED AMT: #'
@ 14,27 GET MAPPROVE PICTURE '999,999,999.99'
@ 14,48 SAY 'INSTALMENT REM.:' GET MINS PICTURE '999'
CLEAR GETS

```

```
@ 16,12 SAY 'AMOUNT REPAY: #'
@ 16,27 GET MREPAY PICTURE '999,999,999.99'
@ 16,44 SAY 'CURRENT BAL: #'
@ 16,56 GET MBAL PICTURE '9,999,999.99'
CLEAR GETS
@ 16,27 GET MREPAY PICTURE '999,999,999.99'
READ
MBAL = MAPPROVE2-MREPAY
@ 16,56 GET MBAL PICTURE '9,999,999.99'
CLEAR GETS
@ 20,30 SAY 'SAVE DATA? (Y/N):'
DO WHILE .T.
    RESPONSE = ' '
    @ 20,48 GET RESPONSE PICTURE '!'
    READ
    IF RESPONSE = 'Y' .OR. RESPONSE = 'N'
        EXIT
    ENDIF
ENDDO
IF RESPONSE = 'Y'
    REPLACE PERSNO WITH MPERSNO
    REPLACE SURNAME WITH MSURNAME
    REPLACE FNAME WITH MFNAME
    REPLACE ONAMES WITH MONAMES
    REPLACE APPROVE WITH MAPPROVE
    REPLACE APPROVE2 WITH MBAL
    REPLACE INS WITH MINS
    REPLACE REPAY WITH MREPAY
ENDIF
ENDDO
CLOSE ALL
CLEAR
RETURN

ADVANCE.PRG

DO WHIL .T.
    CLEA
```

```
@ 2,15 TO 23,64 DOUB
@ 2,28 say "NATIONAL ASSEMBLY, ABUJA"
@ 1,27 TO 3,52 DOUB
@ 5,23 SAY 'LOANS & ADVANCES MANAGEMENT SYSTEM'
@ 6,23 TO 6,56 DOUB
@ 8,28 SAY "ADVANCES MANAGEMENT MENU"
@ 7,27 TO 9,52
@ 19,16 TO 19,63
@ 11,21 SAY "1 ..... ADVANCES APPLICATION"
@ 13,21 SAY "2 ..... ADVANCES APPROVAL"
@ 15,21 SAY "3 ..... ADVANCES RETIREMENT"
@ 17,21 SAY "4 ..... SUBMENU EXIT"
DO WHIL .T.
  C = SPAC(1)
  @ 21,22 SAY "PICK YOUR CHOICE (1, 2, 3, OR 4):" GET C PICT '9'
  READ
  IF C='1' .OR. C='2' .OR. C='3' .OR. C='4'
    EXIT
  ENDI
ENDD
DO CASE
  CASE C = '1'
    DO ADVANCE1
  CASE C = '2'
    DO ADVANCE2
  CASE C = '3'
    DO ADVANCE3
  CASE C = '4'
    EXIT
ENDC
ENDD
CLEA
RETU
```

ADVANCE1.PRG

```
SELECT 1
USE STAFF
```

```

SELECT 2
  USE ADVANCE
SELECT 1
DO WHILE .T.
  CLEAR
  @ 1,10 TO 23,69 DOUBLE
  @ 19,11 TO 19,68
  @ 2,20 SAY 'ADVANCE MANAGEMENT - ADVANCE APPLICATION'
  @ 3,20 TO 3,59 DOUBLE
  MPERSNO = SPACE(7)
  @ 5,12 SAY 'PERSONNEL NO (Press <ENTER> to Exit):' 'GET MPERSNO
PICTURE 'PF/9999'
  READ
  IF MPERSNO = SPACE(7)
    EXIT
  ENDIF
  GO TOP
  LOCATE FOR PERSNO = MPERSNO
  IF .NOT. FOUND()
    @ 21,18 SAY 'PERSONNEL FILE DOES NOT EXIST - PRESS ANY KEY'
    SET CONSOLE OFF
    WAIT
    SET CONSOLE ON
    LOOP
  ENDIF
  MSURNAME = SURNAME
  MFNAME = FNAME
  MONAMES = ONAMES
  MDESIGN = DESIGN
  MDEPT = DEPT
  MAPPLY = 0
  MINS = 0
  MPURPOSE = SPACE(45)
  @ 7,12 SAY 'SURNAME:' GET MSURNAME PICTURE '@!'
  @ 7,41 SAY 'FIRST NAME:' GET MFNAME PICTURE '@!'
  @ 9,12 SAY 'OTHER NAMES      : ' GET MONAMES PICTURE '@!'
  @ 11,12 SAY 'DESIGNATION      : ' GET MDESIGN PICTURE '@!'
  @ 13,12 SAY 'DEPARTMENT       : ' GET MDEPT PICTURE '@!'
  CLEAR GETS

```

```
@ 15,12 SAY 'AMOUNT APPLIED FOR: #'
@ 15,33 GET MAPPLY PICTURE '999,999,999.99'
@ 17,13 SAY 'PURPOSE:' GET MPURPOSE PICTURE '@!'
READ
@ 21,30 SAY 'SAVE DATA? (Y/N):'
DO WHILE .T.
    RESPONSE = ' '
    @ 21,48 GET RESPONSE PICTURE '!'
    READ
    IF RESPONSE = 'Y' .OR. RESPONSE = 'N'
        EXIT
    ENDIF
ENDDO
IF RESPONSE = 'Y'
    SELECT 2
    APPEND BLANK
    REPLACE PERSNO WITH MPERSNO
    REPLACE SURNAME WITH MSURNAME
    REPLACE FNAME WITH MFNAME
    REPLACE ONAMES WITH MONAMES
    REPLACE DESIGN WITH MDESIGN
    REPLACE DEPT WITH MDEPT
    REPLACE APPLY WITH MAPPLY
    REPLACE INS WITH 'MINS
    REPLACE PURPOSE WITH MPURPOSE
    SELECT 1
ENDIF
ENDDO
CLOSE ALL
CLEAR
RETURN
```

ADVANCE2.PRG

```
USE ADVANCE
DO WHILE .T.
    CLEAR
    @ 1,10 TO 22,69 DOUBLE
```

```

@ 18,11 TO 18,68
@ 3,21 SAY 'ADVANCE MANAGEMENT - ADVANCE APPROVAL'
@ 4,21 TO 4,57 DOUBLE
MPERSNO = SPACE(7)
@ 6,12 SAY 'PERSONNEL NO (Press <ENTER> to Exit):' GET MPERSNO
PICTURE 'PF/9999'
READ
IF MPERSNO = SPACE(7)
  EXIT
ENDIF
GO TOP
LOCATE FOR PERSNO = MPERSNO
IF .NOT. FOUND()
  @ 20,17 SAY 'PERSONNEL NO. DOES NOT EXIST - PRESS ANY KEY'
  SET CONSOLE OFF
  WAIT
  SET CONSOLE ON
  LOOP
ENDIF
MSURNAME = SURNAME
MFNAME = FNAME
MONAMES = ONAMES
MAPPLY = APPLY
MINS = INS
MPURPOSE = PURPOSE
MAPPROVE = 0
@ 8,12 SAY 'SURNAME:' GET MSURNAME PICTURE '@!'
@ 8,41 SAY 'FIRST NAME:' GET MFNAME PICTURE '@!'
@ 10,12 SAY 'OTHER NAMES : ' GET MONAMES PICTURE '@!'
@ 12,12 SAY 'AMOUNT APPLIED FOR: #'
@ 12,33 GET MAPPLY PICTURE '999,999,999.99'
@ 12,50 SAY 'INSTALMENT NO:' GET MINS PICTURE '999'
@ 14,13 SAY 'PURPOSE:' GET MPURPOSE PICTURE '@!'
CLEAR GETS
@ 16,14 SAY 'AMOUNT OF ADVANCE APPROVED & GRANTED: #'
@ 16,53 GET MAPPROVE PICTURE '999,999,999.99'
READ
MAPPROVE2 = APPROVE2
@ 20,30 SAY 'SAVE DATA? (Y/N):'

```

```
DO WHILE .T.
  RESPONSE = ' '
  @ 20,48 GET RESPONSE PICTURE '! '
  READ
  IF RESPONSE = 'Y' .OR. RESPONSE = 'N'
    EXIT
  ENDIF
ENDDO
IF RESPONSE = 'Y'
  REPLACE PERSNO WITH MPERSNO
  REPLACE SURNAME WITH MSURNAME
  REPLACE FNAME WITH MFNAME
  REPLACE ONAMES WITH MONAMES
  REPLACE APPROVE WITH MAPPROVE
  REPLACE APPROVE2 WITH MAPPROVE2
ENDIF
ENDDO
CLOSE ALL
CLEAR
RETURN
```

ADVANCE3.PRG

```
USE ADVANCE
DO WHILE .T.
  CLEAR
  @ 1,10 TO 22,69 DOUBLE
  @ 18,11 TO 18,68
  @ 3,20 SAY 'ADVANCE MANAGEMENT - ADVANCE RETIREMENT'
  @ 4,20 TO 4,58 DOUBLE
  MPERSNO = SPACE(7)
  @ 6,12 SAY 'PERSONNEL NO (Press <ENTER> to Exit):' GET MPERSNO
  PICTURE 'PF/9999'
  READ
  IF MPERSNO = SPACE(7)
    EXIT
  ENDIF
GO TOP
```

```
EXIT
ENDIF
ENDDO
IF RESPONSE = 'Y'
  REPLACE PERSNO WITH MPERSNO
  REPLACE SURNAME WITH MSURNAME
  REPLACE FNAME WITH MFNAME
  REPLACE ONAMES WITH MONAMES
  REPLACE APPROVE WITH MAPPROVE
  REPLACE APPROVE2 WITH MBAL
  REPLACE REPAY WITH MREPAY
ENDIF
ENDDO
CLOSE ALL
CLEAR
RETURN
```