FINANCING MASS TRANSPORTATION IN NIGERIA
(A CASE STUDY OF URBAN DEVELOPMENT BANK
OF NIGERIA PLC, MASS TRANSIT SCHEME)

BY

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TABLE OF CONTENTS

CHAPTER FOUR

CHAPTER FIVE

CERTIFICATION

We certify that this project work was carried out by **UWAKWE, BRENDA OGONNA,**

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DEDICATION

This project work is dedicated to Almighty God with whom all things are possible.

And to my Parents who have always wanted the best for me.

ACKNOWLEDGMENT

Firstly, I am grateful to Almighty God for making the programme a success.

It is most desirable to acknowledge the effort of my supervisor, Prince R. O. Badmos for his advice and time taken in seeing this project through.

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ABSTRACT

The aim of the project is to develop an automated Mass-Transit loan scheme for Urban Development Bank of Nigeria Plc.

The existing system which is the manual method has a lot of problems, like inaccurate monthly computation of outstanding balances, inaccurate accrued interest etc. Financing mass transit is capital intensive and involves a lot of transactions, therefore there is a need for a fully automated repayment system to manage the funds better to replace the existing method.

The proposed system will be written, using dBASE IV Programming Language. This is because the programme provides for full relational database environment to users, ease of design and faster execution of object code.

In conclusion, the application of the proposed system will among other advantages enhance efficiency, accuracy and reliability of the organization.

CHAPTER ONE

INTRODUCTION

1.0   The Concept of Mass Transit

Mass transit by definition connotes a high capacity means and modes of transport of moving large number of people within a given network with relatively short-term headway and reasonable turn around time.

Broadly speaking, mass transit comprises mainly of the rapid rail system (i.e. subways, underground rails, metros), light rail system, tramways and monorails, bus system and where feasible, water transport system. Each of these options has its peculiar technical and operational characteristics as well as investment implications. Furthermore, any or a combination of the above systems can be adapted to suit individual urban centres or inter-city network. However, the choice of option or group could be influenced by population, area size and morphology of the city or regional area, their transport demand characteristics and land-use pattern, and any other special or peculiar features.

This conceptual definition leads to the following two basic clarifications on how mass transit is generally mis -constructed in the Nigerian context and in mass transit program appraisal (Bolade 1989) viz:

Whereas all forms or options of mass transit system are public transport, not all forms of Public transport are qualified to be called mass transit system (e.g. taxis and minibuses)

Mass transit system is more relevant in the major urban centres and intra-state and inter-state routes where both population concentration and/or effective demand are high. Given the low and disperse population in rural areas and regions, mass transit as a concept is not really relevant in such areas.

1

By definition, a mass transit system is one that can convey thousands of urban passengers over relatively short periods of morning and evening peak hours at relatively low cost and with reasonable level of comfort. Such a system should be characterized by at least three sets of parameters. First and foremost, it should have an exclusive (or near - exclusive) network, with its own right-of-way, terminals / interchange points and high - occupancy vehicles / conveyors - all of which should assure the elimination of conflicts, with other modes and the attainment of a reasonable speed commensurate with safety, comfort and convenience of the passengers. Consequently, rail rapid systems (surface of subway) and propelled by electricity or diesel engine are the most popular transit modes in the world. Whatever the type of transit network that is in use, the growth of population and, by implication, of demand for urban transportation would always outstrip the expansion of network. This therefore, implies that ingeniously efficient methods of traffic management have to be devised to get more and more traffic, to use is relatively stagnant urban network.

A second distinguishing characteristic of a mass transit system is the form of ownership. Being a very capital-intensive form of investment, often entailing a high level of subsidization, public ownership (in form of central, regional or local governments) is imperative if we are to ensure adequate legal backing and enforcement to a large extent of its spatial coverage and reduction of competition by other conflicting modes (such as the motor car). For the system to be sustained, governmental subsidy would, almost invariably be required.

The third set of parameters could be termed "Level of Service", which embraces such aspects as frequency and regularity of schedules which are widely published, and equitable fare structure that takes account of the ability to pay the vast majority of users, a crop of well trained and motivated operating staff and a high level of safety.

The totality of these three sets of parameters would, over time, produce what can be regarded as an enduring mass transit culture in our cities.

1.1   Objective of Study

The aim of this project work is to computerize Urban Development Bank of Nigeria Plc. Mass Transit Loan Scheme which will process inputs, maintain files of data about the scheme and produce outputs. It is aimed at assisting in carrying out the day-to-day activities of the bank as relates to the scheme. In the banking industry today there is need for accurate record keeping and obtain prompt result is also important. This, therefore, calls for the automation of this important scheme financed by the Bank to be able to meet the demand of the customers.

1.2   Scope and Limitation

This project write-up covers only one major area of operation in Urban Development Bank of Nigeria Plc. namely, the Mass Transit Loan Scheme.

The researcher was not able to expand to some other operations due to some limitations namely, lack of funds, time limitation, dearth of data etc.

1.3   **Methodology**: The fact-finding techniques used therefore are interview, record review and observation.

1.3(I) **Interview:** Interview is used to collect information from individuals or groups. The respondents are generally users of the system and some selected members of staff in the Banking and Finance departments of the Bank who are involved in the scheme. This is frequently the best source of qualitative information (opinions, policies and subjective description of activities and problems). It is however important to have adequate verification of the data through other data collection methods.

1.3(ii) **Record Review**:

Many kinds of records and reports can provide valuable information about organizations and operations. Records include written policy manuals, regulations and standard operating procedures used by most organizations as a guide for Managers and employees. Though they may not show what activities are actually occurring, It helps to understand the system by familiarizing one with what operations must be supported.

3

1.3(iii) **Observation**

This allowed the opportunity to gain information, which could not be obtained by any other fact-finding method.

Definition Of Terms:

Interest: The cost of keeping money borrowed from a lender.

Loan: This is a form of credit (money) granted or lent to an individual or an organization for the purpose of executing a project, on which interest is paid over a given period of time.

Loan Re-payment Scheme: An organized method of returning the money (credit) borrowed From and individual or organization on agreed basis.

Mass Transportation: A public transportation system that involves conveyance/movement Of large number of people from one location to another.

Mass Transit: A high capacity means and modes of transport of moving large number of people within a given network with relatively short-term headway and reasonable turn.

CHAPTER TWO

LITERATURE REVIEW

2.1   The Urban Transportation problems in Nigeria

Human movement is fundamental in the creation, development and growth of settlements. Although most people live in the rural areas of Nigeria today, the major area of change and focus in settlement studies is the city. This is justified. The cities of Nigeria are centres of administrative, industrial, commercial, educational, social and recreational activities. They generate and attract very large number of people - trips daily and because of their multifarious functions, these urban centres are complex in the pattern of their interaction and traffic.

Associated with the rising population and rapidly expanding cities are various urban problems such as unemployment, housing problems, environmental pollution, transportation problems and general inadequacy of infrastructure facilities.

Urban land-use consists of residential, industrial, commercial, recreational, educational and administrative centres, all spatially located within a city. An urban resident must of necessity moves from his area of residence to his place of work. For this functional inter - relationship to exist, cities are served with complex transport facilities. The existence and spatial distribution of these land-use types are traceable to the overwhelming effect of transport. Cities are therefore, creatures of transport. People in the cities also depend on food supply from the rural areas. Food items and raw materials must be conveyed to the different land-use types where they are needed inside the city. Manufactured goods produced must be distributed. The urban residents must be on the move constantly in order to make these activities and functions possible. Cities as we know them today are; therefore, not possible until transport allows the movement of people and goods that makes the city function.

Transport and development are intricately interwoven. Their relationship is more glaring in urban centres where the nature and characteristics of the transport system largely influence the level and rate of development of the cities. It may be noted too that just as transport helps in the development of a city, it could also contribute to the decay of the same city if its transport system is not well planned and coordinated.

The historical evolution of urban centres in Nigeria indicates the dominating role of transport development. In less than half a century, the construction of dense network of roads, and the introduction of the automobile gradually changed the face of these cities and over time, led to the development of complex transport system which enhance the movement of people and goods from one part of the city to the other.

Cities, therefore, work through the complex interaction of its transport system. The more complex the city in terms of its functional specialization, the more complex its transport needs. Until the beginning of the 19th century, the morphology of the city was dependent upon the mode of movement. In cities where there were canals, the structure was linear as water allowed easy interaction between one place and the other. In cities where this does not exist, the structure was essentially concentric as city plans were done in a way to minimize transport. Such cities had high densities of housing and population. Houses were multipurpose in nature as they provide residence and workshops. Because of lack of mechanized transport, the towns were small, intra-city mobility was low and there were no known problems of transportation. By the middle of the 19th century, and consequent upon the development of transport facilities, cities expanded along city routes. The concentric "food city" gave way to sectoral and multi-nucleic "automobile city". Cities expanded and grew very fast. Such fast growing cities nurtured business and industries, provided jobs and high incomes. They also attracted very large populations that had to be moved from one part of the large city to the other. Obviously cities could not have developed to this stage without the existence of transport.

6

The role of transport in the functioning of cities has empirical evidence. Traditional cities located on navigable waters had greater access to larger food and raw materials and therefore expanded to larger sizes. The rapid growth and development of 18th century London is attributable to its water transport. The development of rails and roads in cities of Europe and America contributed to the rapid development of industries. With these industries, there was influx of a large population. The population needed food and other ancillary facilities. As these were provided, the cities expanded. Transport is therefore, the instrument of city development and functioning.

2.2 Characteristics of Nigeria's Urban Transport problems

Every urban centre, the world over, has its transport problems. The pattern and the severity depend on the morphology of such cities, the level of their transport technology, their social, economic and political environment. Modern urban centres of Nigeria today have more than enough share of mobility problems. Below is a detailed list of the characteristics of urban transport problems in cities of the third world, most of which are relevant in the context of the Nigerian cities; -

a)   High incidence of inadequate attention to and provision for movement needs in planned and unplanned settlements.

b)   Inadequate awareness of transport implications of land-use developments.

c)   Increasing journey distance and travel time, the latter often, due to transport system deficiencies.

d)   Lack of provision of freight movement, one of the key visible outputs of national and urban development.

e)   High accident rate resulting from, amongst other factors, misuses and abuse of an already deficient infrastructure.

f)   Absence of long terms strategic perspectives in transport actions, resulting in reactive rather than prescriptive planning.

g)   Dominance of the highway engineering perception of transport problems resulting

in over concern for increased system efficiency and capacity without adequately addressing the question of who benefits and losses.

h) Application of technical criteria, which insufficiently account for the development context in which they are being applied and of basic services role of transport in fulfillment of development goals.

i) Application of urban and road design standards often without social, cultural and economic realities.

j) Highest aggregate rate of growth in demand for movement from those least able to afford to pay.

k) Setting of inappropriate goals for public agencies operating transport services resulting in their inability to effectively meet existing demand or plan for future.

l) The neglect of non-motorized mode of travel.

m) Perception of informal motorized public transport (e.g. as an undesirable element rather than as a valuable part of the urban scene).

n) Inadequate and often inappropriate educated transport professionals incapable of putting their action in a wider context.

o) Inadequate institutional frameworks for plan formulation and implementation at putting their actions in a wider context.

p) Ineffectiveness, where they exist, of traffic and land use control and regulatory instruments.

q) Lack of national awareness of urban transport needs.

r) A seeming impotence of planning actions, which has a demoralizing, effect on transport professionals amongst others.

s) A seeming impotence of planning actions, which has a demoralizing effect on transport professionals among others

These problems are, however, best viewed and examined from four major perspectives. The first, which is always noticeable, related to the symptoms of urban transport problems. These symptoms include traffic congestion, parking problems, accidents, and environmental pollution among others. The second are the basic reasons and these include route inadequacy, poor traffic management,

8

and human misuse of the roads, increased demand and the poor nature and or absence of transport planning. The third relates to the underlying factors. These have to do with financial constraints, political decisions, absence of data and the poor quality of the existing ones. The fourth is the method of management of urban transport system, which is poor and uncoordinated.

2.3   The need for Urban Transit System in Nigeria

The case for urban mass transit system in Nigeria rests squarely on the ever-growing population of our cities, the low level of car-ownership and disposable income, the ever-widening distance separating work places from residence and the need to reduce urban traffic congestion and air/ noise pollution. Public transport cities has hitherto been characterized by private ownership, low capital base, poor organization, low level of observance of traffic regulations and absence of any form of priority for mass transit vehicles on the limited urban road networks.

In a developing country like Nigeria, the demand for mass transit facilities is exacerbated by the high cost of cars, the low per capital income of the people and the increasing separation of residences from work places as urban expansion progress. Given the inefficiency of the motor car to cope with the demand for the movement of urban population-being able to convey only a few passengers at a time, its flamboyant use of road space vis-à-vis number of passengers carried, It goes without saying that a mass alternative becomes an imperative if urban centers are to function efficiently wit improved flow of traffic, reduced journey time and enhanced safety standards.

2.4   Emergence of Mass Transit

Prior to 1998 when the Federal Urban Mass Transit Programme was introduced, the provision of public transport in the country's major urban centers was mainly in the hand of private operators such as Ekene Dili Chukwu, Osondu, Young shall grow, etc. However, in a few states such as Lagos, Kaduna, Bendel, Oyo, and Rivers, there were public-owned transport operators. For example there had been an organized bus system in Ibadan City Council and later as a joint venture

9

between the city Council and the state government. In Lagos State, the Lagos State Transport Corporation (LSTC) operated mass transit services before 1998. There is no doubt however, that the major urban centers in Nigeria were faced with great transportation crisis.

Concerned efforts towards improving the public transport services in general an d most especially for evolving well organized and modernized urban mass transit services in Nigeria is a post-1998 phenomena when the Federal Assisted Mass Transit Program was initiated. Hitherto, the urban transport sub-sector appeared to be the most neglected aspect of the Nigerian national transport development. The principal causes of the Federal government interventionist roles are not far fetched. These include distressing state of the economy by the mid-1980's and the inevitability of the introduction of the Structural Adjustment Program (SAP), which in turn brought along some pains and adverse consequences on the mobility requirements and supplies in especially the urban centers.

2.5   Option for financing mass transit services in Nigeria

One novel aspect of government intervention in the mass transit is the active encouragement, which the federal Government gave to state governments to public transport companies in the era of trying to roll back the frontiers of government in the economy. The other is its avowed determination to assist the organized private sector transport operators.

2.5(i) Government assistance to the transport sector

Government assistance to transport has been defined as any kind of financial or other government assistance to a carrier or operator. Such would include tax reduction programmes, low costs or no loans, guaranteed paid for research and development programmes that benefit the operators as well as direct cash payments to carriers by government (Harper, 1978). On the other hand, government subsides exist when transport operators do not repay government in full for the expenses incurred in provoking assistance.

10

Thus, operators who benefit from government assistance and pay in full the expenses incurred by government in providing that assistance are receiving non-subsidized government assistance. If they pay in part, they are receiving both subsidized and non-subsidized government assistance, and if they do not pay for any of the expenses incurred, they are receiving assistance that is totally subsidized.

It follows from the above that the mass-transit operators in Nigeria (both publicly and privately – owned Companies) are receiving both subsidized and non-subsidized government assistance, as they do not normally pay in full all the expenses incurred by government in providing assistance to them. The most obvious examples related to cost of providing and maintaining the roadway, highway management expenses (such as inter-city terminals and traffic lights) and expenses on research related activities.

2.5(ii)   Government and Mass Transit System

Government assistance/subsidy in respect of the mass transit in Nigeria, particularly in respect of the bus transit system has been tremendous in resent years. In 1998, under road transport of Mass Transit Program, the federal Government acquired road 939 buses including spare parts and workshop equipment for distribution to states and some educational institutions on soft loan basis. Most State government took advantage of this to re-activate their transport corporation or establish new ones to operate the mass transit programme.

2.5(iii)   Tax Concession

Many mass transit operators have difficulties purchasing buses parts because of import restrictions. Government can reduce the burden of the operators by removing the ban on the importation of some types of vehicles or reduction of import duties on fully –built vehicles, completely knocked down (UDK) and spares.

11

2.5(iv)   Access to Foreign Exchange

Some of the mass transit operators; especially the private bus operators are constrained by foreign exchange in the purchase of new vehicles and spares, especially where there is a wide gap between the official exchange rate and the parallel market rate. Here again government can aid the operator by making foreign exchange available to them. The Federal Government has, indeed made foreign exchange available to organized motor transport unions to import vehicles and spare parts.

2.5(v) Purchase of vehicles for distribution to private versus loans guarantee

It has been suggested that one way to help private mass transit operators is for government to buy vehicles and distribute to these operators, for they are expected to pay back. This is similar to government purchase of buses for public transport companies.

2.5(vi)   Improvement in cost-effectiveness

Evidence seems to suggest that publicly owned mass transit companies do sustain losses because they are not sufficiently managed. Problems of fare evasion and revenue leakage often confront them. Hence, encouraging public transport corporations to improve cost effectiveness could enable them generate sufficient returns to support further investment in additional transit vehicles.

2.5(vii)   Some deregulation of fares

While a complete free-for-all situation in fare setting is not being advocated, government should lessen its control on fare determination by the mass transit operators, especially the public ones. It has been argued that besides being a means of raising additional revenue, freedom to set fares, coupled with free access to market is likely to result in provision of bus services that meet the needs of the public at the public at competitive prices. These operators to take a reasonable return, thereby encouraging the supply of bus services and investment in expansion.

2.6   Background to urban Development Bank of Nigeria Plc (UDBN)

Urban Development Bank of Nigeria plc. Was established by Decree No. 51 of 1992 and incorporated under the companies and Allied Matters Decree of 1990. General Badamosi Babangida, the then President and Commander-in-Chief of the Armed Forces of the Federal Republic of Nigeria commissioned the bank on 2nd November 1992. The Bank has its head quarter at Abuja, two Regional Offices, located at Abuja and Lagos office reports to Abuja Regional office which oversees the banks projects in the Northern States while Enugu Liaison office reports to the Lagos Regional office that oversees the projects of the Bank in the southern parts of the country.

2.7   Urban development and infrastructure

Any program of urban Development must contain provision, maintenance and systematic expansion and upgrading of various categories of Infrastructure. It is thus not without reason that Decree No. 51 of 1992 which established this Bank (UDBN) stated categorically (section 3) that the object of the Bank shall be to "foster the rapid development of urban infrastructure throughout the federation through the provision of finance and banking services". To appreciate what this object of the Bank entail, it is necessary to try and understand the nature of infrastructure.

Infrastructure is essentially social overhead capital, which needs to be distinguished from directly productive activities. According to Hirshmann, social overhead capital exhibits the following three characteristics.

The services they provide or are in some sense basic to the carrying on of a great variety of economic activities.

These services are provided in practically all countries by public agencies or by private agencies subject to some public control: they are provided free of charge or at rates regulated by public agencies. The services cannot be imported.

13

Social overhead capital has both a wide and a narrow meaning, the latter focusing attention away from such items as health, education towards highways, waterworks, port installation, electricity project and so on. When used in the narrow sense, therefore, social overhead capital exhibits a forth characteristics.

The investment needed to provide the services is characterized by "Lumpiness" (technical indivisibilities) as well as by a high capital – output ratio (provided the output is at all measurable).

2.8   Urban Development Bank Of Nigeria Plc. And Its Existence

The decision to set up the Bank according to the Head of State's speech during the commissioning emanated from an urgent need to arrest the rapidly deteriorating situation of our urban centers and inner cities. It was opined that infrastructure development has failed to keep pace with the demand for employment, the good life and sophistication of the cities. Furthermore, manufacturing industries, which provide much employment opportunities are usually in the urban areas and will grow if they do not have adequate infrastructure facilities. The statement went further that the massive urban population from which they source their work force also put immense pressure on these amenities. And these are now accentuated with the multiplication of urban centers and more problematic by the fact those returns on investment made in providing amenities are usually not easily visible.

The above problems and others mentioned here according to M. K. O. Abiola, during the inauguration of the Bank, has convinced the Federal Government of the need to establish a permanent financial institution that is technically equipped to mobilize and manage the resources available for the development of urban infrastructure which has been satisfied by the commissioning of the Bank

2.9   Mission and mandate of urban Development Bank of Nigeria Plc.

The key mission of the Bank according to the article establishing it is to foster the rapid development of urban infrastructure in the federation. However, the operational objectives of the Bank in the urban sector are:

- To provide facilities for the construction, rehabilitation, maintenance and systematic upgrading of essential urban services;
- To initiate and implement projects that would facilitate functional urban growth and development;
- To offer technical assistance to State and Local Government as well as other corporate bodies in the preparation, implementation/establishment and maintenance of priority urban infrastructure projects and services;
- To enhance the generation of satisfactory return on investment and ensure the replicability of relevant infrastructure projects and service facilities;
- To assist State and Local Government to generate funds from the Capital Market and other local/off-shore sources of urban project
- To provide any activities that contributes towards the improvement of the living conditions of the urban populace.

Accordingly, the mandate of the bank is to provide resources to both public and private sectors that would aid the development and provision of:

- **Urban Dwelling:** This involves provision of not less than ten dwelling units.
- **Mass Urban Transportation:** Inter-city urban transport system with not less than five vehicles at a time.
- **Commercial Ventures:** Motor parks, Amusement parks, Abattoirs, Sports stadia, Private Hospitals, Solid and Industrial waste Disposal.
- **Public Utilities:** Markets, Water Resources Development, Sewerage and Drainage Construction, Urban Roads and Street Lighting.

Consequently, it is patent to state that the Bank is a development agency whose duties touch the very living condition of the people.

2.10   Operation of urban Development Bank of Nigeria Plc Mass Transit Loan Scheme

Any State that is interested in having banking relationship i.e. borrowing money from UDBN for mass transit first of all writes an application letter to the Bank telling them about their intention. The Bank on receiving this letter sends the list of requirement to the State. The State now replies by complying with all the requirements listed.

Many models of buses have been tested on Nigeria roads found suitable for operation either for city or intercity bus services. Buses like Mercedes Benz, Macopols, Nissan, Toyota, Mitsubishi, Bedford and few others have proved to be especially reliable and durable when properly maintained. One important factor to be taken into consideration before deciding on the types of vehicles for use in the public passenger operation is the initial capital outlay to be invested in the purchase of the buses and locally assembled ones are recommended because a huge investment in imported buses is not always justifiable for the buses are very expensive, although perhaps because of glamour, Nigerians travelers usually have preference for the imported buses. UDBN however, patronizes Mercedes Benz (ANAMCO, Emene-Enugu.

The Bank calculates how much it would cost to buy the buses required and also the Insurance (Comprehensive Insurance policies) and the money is given to the State as a soft loan with low interest rates. This loan is amortized over a period of four years and the interest is calculated monthly.

The State pays back the money borrowed through their national allocation. The Ministry of Finance credit and debit the accounts of the State and the Bank as required. There are therefore not many stories about defaulters. I

16

A state could however, want to close its banking relationship with the Bank. The State is expected to pay up the remaining balance in bulk.

Other decisions like the operation of the buses, maintenance, and servicing, training of drivers and conductors etc. are taken care of solely by the states involved.

CHAPTER THREE

SYSTEM ANALYSIS AND DESIGN

3.1 Introduction

The objective of the system Analysis is to determine the efficiency of the current system, its procedures, information flow and methods of work and organizational control. It spells out the strength and weaknesses of the existing system. The design is to show the suggested alternative programme concepts recommended to improve on the inefficiency of the existing programme. The scope of the design is limited to Urban Mass Transit Loan Scheme alone as operated in Urban Development Bank of Nigeria Plc. And alternative proposals were made.

3.2 Feasibility Study

The aim carrying out a feasibility study in any system development is to find out facts about the operations of the organization, processes that take place, the problem that are encountered e.t.c. The first step in a feasibility study is usually to obtain information about the existing organization and systems. There is need to collect information about all relevant parts of the existing system. It must be analyzed so that system problems can be identified, the validity of user objectives confirmed, and the feasibility of an acceptable solution is finally determined.

Feasibility study must be both quantified and qualified. Information is needed about the organization, the various categories of staff involved in the scheme, who takes what decision and who is responsible for an action. Information flows including volumes, patterns and all kinds of data processed through the system.

Rules and procedures governing computerization of the mass transit loan scheme must be understood and where not available verified. Written procedures must be derived from a study of the system in action.

The resources used in running the system must be identified such as the people, machines, materials and their costs. During the study, selected members of staff from the Banking and Finance departments of the bank were interviewed and some document reviewed.

It is also necessary to examine the historical information. Past data volumes, trends and previous system changes which have led to the present situation and which may be helpful both in having a clearer understanding of the present procedures and in making estimates about the future.

3.3 Operation of the Existing System

The Bank has many departments each handling different project/operations and most of them are computerized (stand alones).

More than 20 States have borrowed money from the Bank under the Mass Transit Loan Scheme which would last for 4 years and at the end of each month, the monthly interest receivable is calculated and added to the monthly principal repayments (rarely) these are all added to get the total amount outstanding which is the amount that the State is expected to pay that particular month. At the end of each month the Bank gets in touch with the Ministry of Finance to make sure that the amount due is transferred into the Bank's Account. There are two departments involved in this scheme and the documents are handwritten though the record would be transferred into the computer later to update the Accounts of the different states and a print out made.

3.4 Problem with the Existing System

- Occasional loss data.
- Leakage of information from the stored records to unauthorized people.
- Long search for information resulting in time wastage.
- Duplication of records and inconsistencies.

3.5 Benefit of the System

The proposed system has many benefits to offer which include the following;

i). The proposed system has a facility for making payments. The balances in the account are verified and the remaining loan amount is easily verified.

ii). There is a facility for updating accounts-deleting, editing e.t.c. There is also facility to call up the account to make some corrections.

iii). There is facility for calculating the monthly interest based on the interest rate for every state.

iv). The use of "PASSWORDS" in the system helps to make sure that only authorized users have access to the system.

3.6 Testing Project Feasibility

In considering project feasibility, some parameters must be assessed; these are operational, technical and economic feasibility of the system being designed.

i). Operational feasibility is concerned with the workability of the proposed system when developed and installed. It is aimed at determining whether this new system will produce any effect. The proposed system could cause no harm to the user but will rather improve performance. The project therefore can be said to be operationally feasible.

ii). Technical feasibility seeks to clarify if the proposed project can be done with current equipment, existing software technology and available personnel. UDBN Plc already has met all these conditions and what the proposed project will offer is to improve on the system already in existence for efficient performance.

iii). Economic feasibility is undertaken to assess cost of implementing a proposed project vis-à-vis the benefits derived from implementing the project. The costs and benefits are usually listed and weighed to determine whether it is financially advisable to continue with the proposed project. In this case, it is financially feasible because the cost is nothing compared to the benefits to be derived.

3.7   System Design

The primary aim of this system design is to automate most of the components of the existing records for increased efficiency, accuracy and reliability. The system generation would make use of Dbase IV Program. This programme is chosen because of its provision for full relational database environment to users, ease of design and faster execution of object codes.

3.8   Design of Output

This is the result of information generated by a system. It is actually the main reason for developing the system and the basis on which the usefulness of the application is evaluated.

The following were accomplished;

- The information to present was determined.
- It was decided whether it will be displayed on the screen or printed.
- The acceptable format of presentation was used.
- The Bank already determines the distribution of the outputs to intended recipients.

The format of column headings, totals and subtotals of monthly transactions were to make for easy interpretation of reports.

3.9   Design of Input.

The following input design were consider, what data to input, which data item to include in record format within the file, length of each record based on characteristics of the data items on which it is based and the sequence of arrangement of records within the file as shown below:

Field Name	Field Type	Width	Dec.
Name of company	Character	30	
Amount Granted	Numeric	15	2
Date Granted	Date	8	
Rate (%)	Numeric	3	2
Duration (Month)	Numeric	2	

The system is design to be on-line which include a dialogue or conversation between the user and the system. Through the dialogue, users request system services and tell the system to perform a certain function.

The arrangement of messages and comments as well as the placement of data, heading, titles on display screen or source documents, which is also part of the input design is well considered. The system is fully menu driven and is user friendly.

3.10 Design of Control

It is assumed that mistakes will be made in entering data or in requesting the performance of certain functions. Some mistakes may be very minor and inconsequential, while some can be so serious that they could result to the erasure of data or improper use of the system.

The following were taken into consideration;

a) Before a record is deleted it must be displayed on the screen for the user to see whether it is the right one to be deleted and whether the amount and interest has been paid up. If not the system will tell the user that the record cannot be deleted. In case of wrong entry such records could be recalled and corrections made before saving.

b) Introduction of "PASSWORD" to ensure that only authorized users accesses the system.

3.11 Change Over Method

Changeover is an activity that requires covering the old system into the new one, having been satisfied with the execution, efficiency and cost requirement of the propose system. A changeover method is necessary considering the fact that the new system should be put into use and its efficiency is tested. The changeover may be achieved in a number of ways. The most common methods are; direct, Parallel Running, Pilot Running and Staged changeover.

a) **Direct Changeover:** This method is the complete replacement of the old system by the new, in one move. This method is potentially the least expensive but the most risky. For security reasons, the old system may be held in abeyance, including people and equipment. In the event of a major failure of the new system, the organization would revert to the old system.

b) **Parallel Running:** This method involves processing current data by both the old and new systems to cross check the result.

Its main advantage is that the old system is kept alive and operational until the new system has been proved for at least one system cycle, using full live data in the real operational environment of the place, people, equipment and time. It promotes confidence because the results of the new system can be compared with that of the old. Its main disadvantage the extra cost, the difficulty and (sometimes) the impracticality, of user staff having to carry out the different clerical operations for two systems in the time available for one.

c) **Pilot Running:** This is similar to Parallel running. Data from previous periods for the whole or part of the system is run on the new system after results have been obtained from the old system, and new results are compared with the old. It is not as disruptive as parallel operation, since timing is less critical. It may be considered a more practical form of changeover for an organization.

d) **Stage Changeover:** This method involves a series of limited – size direct changeovers. The new system is introduced in peace-meal. A complete part, or logical section is committed to the new system while the remaining parts or sections are processed by the old system. This system reduces the risk inherent in direct changeover. It also enables the analyst and users to learn from mistakes made as the changeover processes.

Some disadvantages associated with the system are how to control the selected parts of the old and new system and implementation period is also prolonged.

In case of the situation at hand, a "Parallel Running" (PR) changeover method is recommended in adopting the system so as to be able to keep the old files intact while computer based data be being used at the same time. This method allows the comparison of the old data with the new ones. Besides it is less risky and the old files can serve as backup.

3.12 Requirement Specification for the Proposed System

For the new system, the need the type of data flow within the organization would be considered. The requirement for the user of the system will be taken into consideration when the current system is evaluated with a view to producing a logical and reasonable model of the proposed system. All the computers in the Bank have between 4 – 8 MB RAM, 118 MB to 1.2 GB Total Hard disk space and are Standard 486 DX and 586 SX with minimum of 150MHZ Microprocessor speed.

A standard Printer (Preferably a Line Printer – Dot Matrix), Dbase IV and software, High Density Diskettes and Un-interruptible Power Supply system among others.

3.13 Program Files (*PRG)

Program files were generated for the following:

- Introductory Screen Program
- Password Program
- System Main Menu Screen Program

a) The Password Program

This is the entry programme into the design. It is designed to ensure the security of the data and programme from unauthorized users. Every user or operator would be assigned a password, which would be coded into the space provided in the entry screen before access can be gained to the programme. The code name would be the choice of the user and cannot be more or less than six (6) characters. The

password programme allows a user to make three attempts in entering his password at the end of which if an incorrect password is entered, he is logged out as an illegal user. To further ensure the security of the programme, the actual characters of the password does not appear on the screen, instead asterisk (*) are shown when the user types in his password. The letters of the password must be in capital letter i.e. it is case sensitive. On typing the correct password, the user can move to introductory screen, else the programme returns to the system prompt.

b) The Main-Menu Screen

The screen consists of input files, which are programmed individually for the purpose of carrying out specific operation designed for the various records as the input programme. On highlighting any of the items, certain instructions are displayed at the bottom of the screen for what to do next in order to gain access to the input data fields. Records can be added onto, edited, printed and records can be searched using specific key-fields. The user has the option of remaining or leaving the programme at any time by pressing escape key, and confirms the edit intention by pressing "O".

3.14 Cost and Benefit Analysis of the Proposed System

a) Development Cost

A cost estimated for the development of new programme is as highlighted. The training method is In-house, to last for one week and for four number operators and a system Administrator.

		N :
	Consultancy fee	10,000.00
-	1 No. HD diskette pack	850.00
-	Training Manuals (10 copies Trainer/Trainee and Complementary copies for the organization)	15,000.00
-	Allowances for the trainees @ N 500.00 for four operators and N 1,000.00 for the Administrator persons	3,000.00
-	Miscellaneous/Logistics	10,000.00
	TOTAL	**38,850.00**

b) Benefits Analysis:

This can be viewed in the area of development and running of the new system. A lot of benefits will accrue to UDBN through the new system. The proposed system's processing operation is very fast and it would save time in storing, accessing records and editing records. The programmes are users friendly and the computer is able to ask questions and allows the user to answer as appropriate.

There is no need for the bank to new computer system because the ones available are appropriate. Single diskettes can be used or the programme can be copied onto the system and back-up copies are recommended in case of a crash.

26

CHAPTER FOUR

PROGRAMMING AND IMPLEMENTATION.

4.1   Introduction

Programming implementation deals with putting into use of a newly created information system and its ongoing operation. This involves the implementation of how to translate the system design and specifications into instructions that can be interpreted and executed by the computer. This, of, course, is the programming phase of the systems development process. With the introduction of new languages, it has become possible to reduce the number of instructions required to perform tasks and made the instructions easier to comprehend and code. However, the programming phase of system development and implementation process produces the following:

- System specification review
- Program identification and description
- Programming coding, testing, and documentation.

4.2   Language Chosen

The programming language used is Dbase IV. As a language that provides relational features, Dbase IV is an important package in Database Management Systems. Among its numerous features is that it provides infrastructure on which other organizational information systems are built. Organizational systems such as transaction processing System are built. Organizational information systems such as transaction processing System, management information system, and decision support systems. Relative to database system, these are applications programme that derive data from the database via Data Base Management System.

Apart from the above, Dbase IV has an improved Control Center through which without the use of command language, database can be designed, manipulated and editing of records and files are possible. Also reports can be generated, database query can be carried out, browse and design labels.

Data fields can be specified with default values as well as valid ranges. Furthermore, data can be verified automatically as they are entered into fields. Up to 255 fields can be specified per record and a database can be related to more than two other databases and up to 99 files can be opened at a time. Pop-up menus and Windows can be design in Dbase IV.

4.3   How to Start the System

Dbase IV programme files are loaded (installed) directly into the Hard Disk of the computer. In order to access the programs, the following steps would be taken:

A.   At the C:\>prompt change to the directory, i.e.

    a) Type; CD\DBASE

    b) Press Enter key

    c) Type Dbase

    d) Press Enter key (the control center appears)

B.   At the control center,

    a) Press F10 to access the menu

    b) Using the arrow keys, move to "Exit"

    c) Chose "Exit To Dot Prompt"

4.4   To start the new programme   (Be sure that the new programme has been loaded into the hard disk too, and program file with extension PRG is present e.g "MTRS.PRG").

- Type DO MTRS.PRG

- Press Enter Key

The programme can be run also from a diskette under a Dbase environment.

- At the prompt;

- Type SET DEFAULT TO A:\   (To enable the computer use the diskette as The default storage unit where the files can Be located).

- Repeat step C above.

4.5   To Quit the Programme

A Quit/Exit feature is provided at the main menu screen, which when highlighted takes the user out to Dos/Dot Prompt base on the option accepted.

In all cases, started the programme has to pass through the password interphase, before access can be gained to the programme. If the password is entered correctly the user gains access to the introductory display which shows the name, registration number of the programmer and the title of the programme. (The sample password for this project is "BRENDA")

After this section, the Main Menu is shown which when chosen the sub menus are displayed. These main menus include edit, delete, and search, print accounts e.t.c. Choosing the option as shown in the flow chart can access each submenu.

4.6   Staff Training

The category of staff that would be trained for the programme are operators who will be associated with or affected by the system so that their roles would be clearly defined to them. Also system Administration will be trained too to enhance efficient supervision and maintenance of the proggramme.

4.7   Maintenance of the Programme

There is need for the development of information system. However, making changes and adjustments do not necessarily signal correction of errors or the occurrence of problems.

Often the need will arise to capture additional data for storage in database or in transaction file or, perhaps it will be necessary to add error detection features to prevent system users from inadvertently making unwanted mistakes.

These are realities of application maintenance. When they occur, however, it shows that the system is being used. The author will maintain the system for a period of three years before handover to the organization.

29

CHAPTER FIVE

SUMMARY AND RECOMMENDATIONS

5.1   Summary

Financing mass transit is capital intensive and accurate, reliable and secure system of accounting or record keeping is needed. The present system, which involves manual record keeping and ha a lot of loopholes would be improved upon with the introduction of the new system. The new system is proposed to the organization considering the shortcoming of the present system as highlighted in the feasibility study.

The method of changeover also recommended is the parallel running method which has the advantage that the old system would still be retained while the new one is being tried out so that if there is any problem the organization can still revert back to the old system. The new system is less costly and less risky in terms of security of files, staff training and general management of the files. The sub-menu options are designed in such a way to save time that would have been wasted if manual system were used in editing, addition, deleting and searching for records.

The control inculcated in the new system is superb. The programme is used to secure the records. No record can be deleted mistakenly. A record can only be deleted if the payments have been completed. An alert message is displayed at the bottom of the screen to inform the user that the account cannot be deleted because the payment has not been completed.

5.2   Findings

The following are some of the findings made during the study;

- While UDBN Plc has done a lot to improve the urban transport situation, the problem of inadequate funding of urban mass transit still lingers on.
- Options to improve the financing of urban mass transit services include tax concession, access to foreign exchange e.t.c.

- The current economic downturn and the depreciation of the Naira have greatly constrained the availability of resources form the conventional sources of financing mass transit.

- Enormous resources have been sunk in the provision of road infrastructure in order to ease transportation problem in Nigeria.

5.3   Recommendations

Having achieved the set goals of developing a Database Management System that automates the Mass Transit Loan Scheme, it is therefore recommended that it should be used to achieve efficiency.

Urban Development Bank Plc should invest more money in supporting mass transit in Nigeria so as to alleviate the suffering of the masses.

From the way the mass transit is being operated by Urban Development Bank of Nigeria Plc, only state governments are benefiting from the scheme right now. It is therefore recommended that the facility be extended also to local Governments and private transporters.

5.4   Conclusion

Due to the fact that human movement is fundamental in the creation, development and growth of settlements, transportation is a very important factor. The cities of Nigerian are growing at a very fast rate, both in population and in spatial terms and the demand for transport services is very high. The percentage of citizens that own private cars are few and if mass-transit financing is left only in the hands of the private people little can be done to solve the transportation problem experience in the country.

Urban Development Bank of Nigeria Plc is an organization with a wide range of operations, mass-transit financing inclusive. Accurate record keeping and security is important for the progress and development of any organization. The adoption of this is recommended.
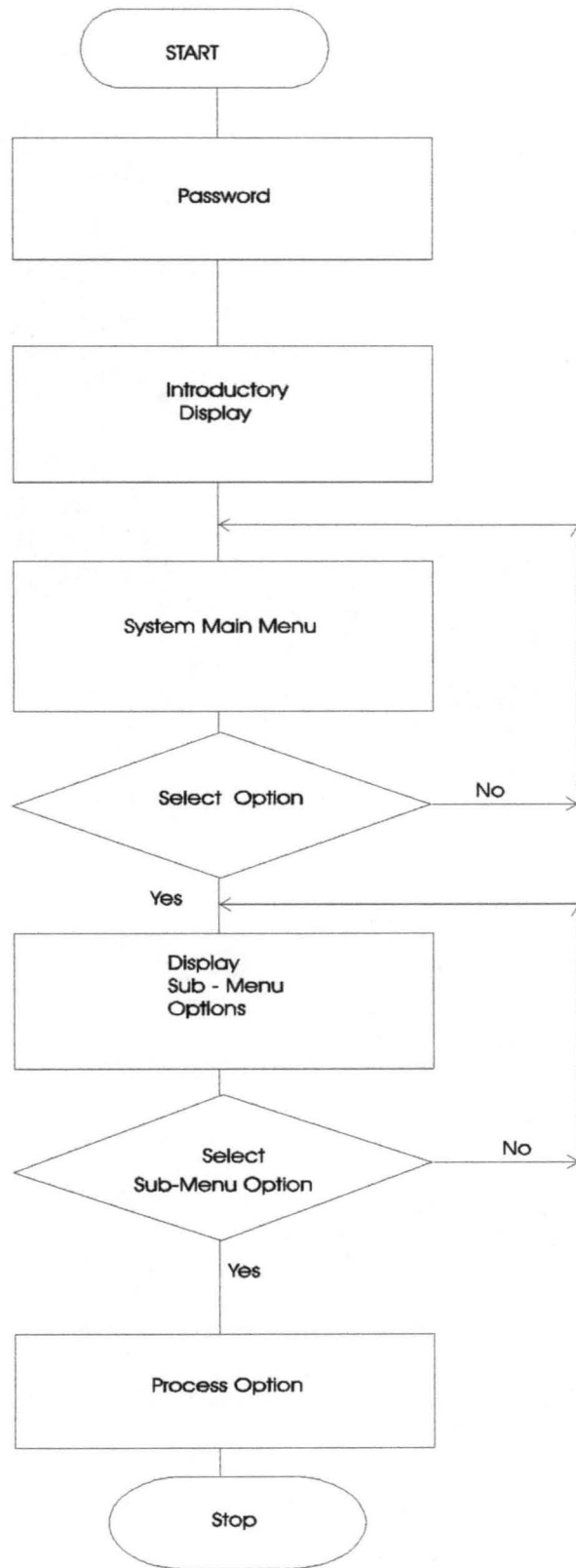
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SEQUENCE OF PROGRAMMING OPTION/EXCECUTION

```
                    ┌──────────────┐
                    │    START     │
                    └──────────────┘
                           │
                    ┌──────────────┐
                    │   Password   │
                    └──────────────┘
                           │
                    ┌──────────────┐
                    │ Introductory │
                    │   Display    │
                    └──────────────┘
                           │
                    ┌──────────────┐
            ┌──────►│System Main Menu│◄──────┐
            │       └──────────────┘         │
            │              │                 │
            │           ╱────────╲           │
            │          ╱  Select  ╲    No    │
            │          ╲  Option  ╱──────────┘
            │           ╲────────╱
            │              │ Yes
            │       ┌──────────────┐
            │       │   Display    │◄─────────┐
            │       │  Sub - Menu  │          │
            │       │   Options    │          │
            │       └──────────────┘          │
            │              │                  │
            │           ╱────────╲            │
            │          ╱ Select   ╲    No     │
            │          ╲Sub-Menu  ╱───────────┘
            │           ╲ Option ╱
            │            ╲──────╱
            │              │ Yes
            │       ┌──────────────┐
            │       │Process Option│
            │       └──────────────┘
            │              │
            │       ┌──────────────┐
            │       │    Stop      │
            │       └──────────────┘
```

FLOWCHART SHOWING MENU/SUB-MENU
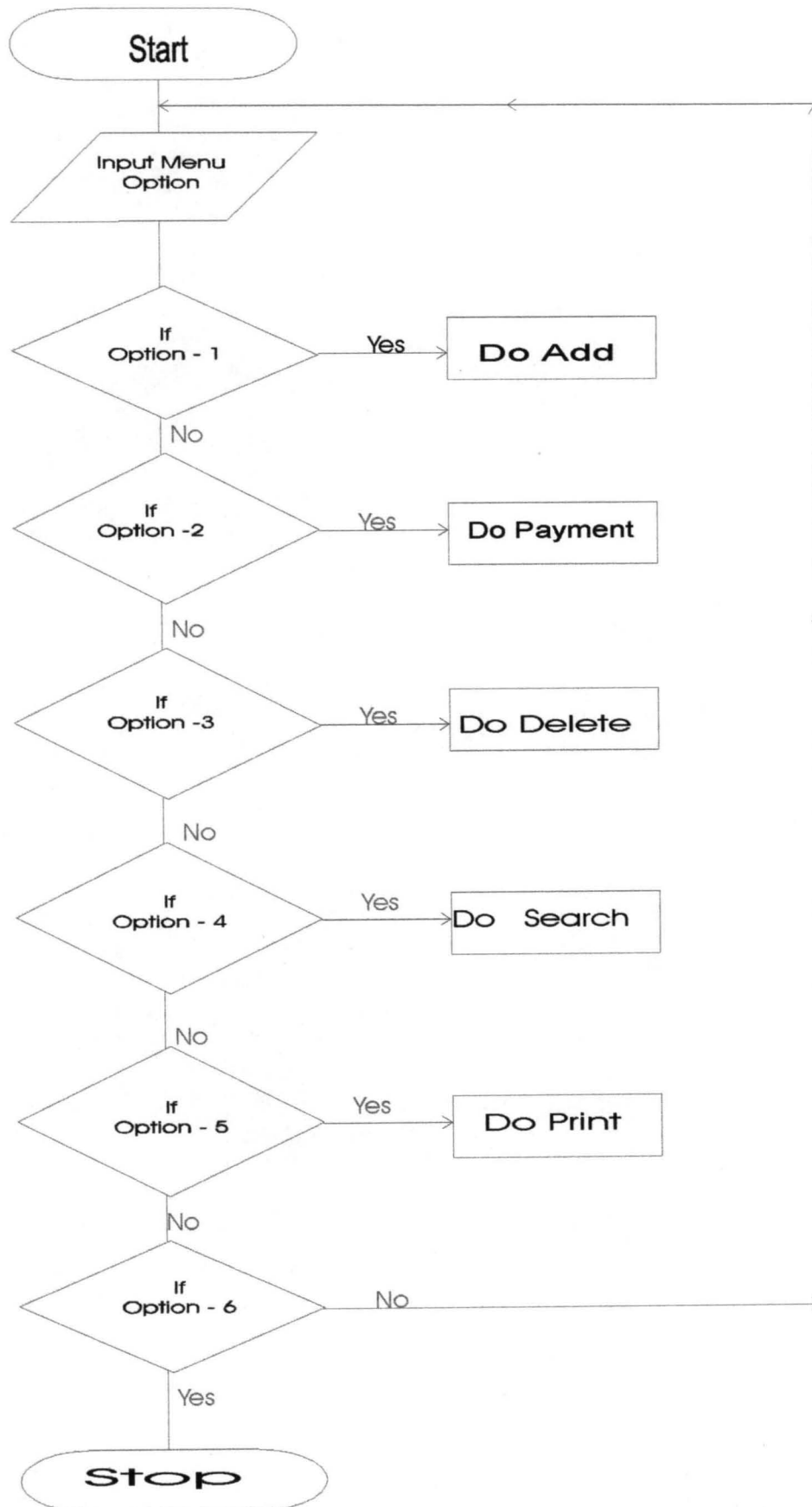
```
PROCEDURE INTRO
CLEAR
SET TALK OFF
SET STATUS off
SET CURSOR On
SET SAFETY ON
SET BELL ON
@ 1,2 TO 23,75 DOUBLE COLOR R+
@ 7, 19 SAY "FINANACING MASS TRANSPORTATION IN NIGERIA" color w+
@ 8, 18 SAY "(A Case Study Of Urban Development Bank of" color w+
@ 9, 21 SAY "Nigeria Plc, Mass Transit Loan Scheme)"color w+
@ 12, 36 SAY "BY" COLOR w+
@ 15, 28 SAY "UWAKWE OGONNA BRENDA" color G+
@ 16, 26 SAY "REG. NO. PGD\MCS\97\351" COLOR W+
@ 17, 21 SAY "DEPARTMENT OF MATHS/COMMPUTER SCIENCE"
@ 18, 24 SAY "FEDERAL UNIVERSITY OF TECHNOLOGY"
@ 19, 31 SAY "MINNA, NIGERIA"
@ 23, 35 SAY ""
wait
RETURN
 

PROCEDURE PASWRD
CLEAR
SET TALK OFF
SET INTENSITY ON
SET DELIMITERS TO "{}"
SET DELIMITERS ON
SET STATUS OFF
SET CURSOR ON
* SET PATH TO A:\
STORE SPACE (6) TO code
c_alert = "GR+/R,B/W,R/G"
c_alert2 = "GR+/BG,B/W,R/GR"
DEFINE WINDOW access FROM 4,22 TO 9,54 PANEL COLOR &c_alert
DEFINE WINDOW disp  FROM 1,16 TO 12,59 PANEL COLOR &c_alert2
@ 14,29 SAY REPLICATE (CHR(219),18)
@ 15,29 SAY REPLICATE (CHR(219),18)
@ 16,29 SAY REPLICATE (CHR(219),18)
@ 17,29 SAY REPLICATE (CHR(219),18)
@ 19,18 TO 23,58 PANEL
@ 21,35 TO 22,40
ACTIVATE WINDOW disp
ACTIVATE WINDOW access
@ 1,0 SAY "ENTER YOUR PASSWORD!" GET code FUNCTION "!"
READ
```

```
  IF code = "BRENDA" .OR. code = "brenda"
   DEACTIVATE WINDOW access
   DEACTIVATE WINDOW disp
   RETURN
   ELSE
   @ 2,0 SAY "ARE YOU AUTHORIZED..?" COLOR W+*
   pause = INKEY(8)
   RELEASE pause
   @ 3,0 SAY "TRY AGAIN..OR QUIT..!" GET CODE FUNCTION "!" COLOR GR+
  endif
  READ
  IF CODE = "BRENDA" .OR. code = "brenda"
   DEACTIVATE WINDOW access
   DEACTIVATE window disp
   RETURN
  ENDIF
 RETURN
```

ROCEDURE MTS

```
 SET TALK OFF
 SET STATUS OFF
 SET DATE TO BRITISH
 CLEAR
 do paswrd
 do intro
 DO MDEFINE
 USE ACCOUNTS
 DEFINE POPUP REPTPOP FROM 5,50 PROMPT FIELD NOCS
 ON SELECTION POPUP REPTPOP BLANK DO GETPRMPT
 USE
 CHK = "N"
 DO WHILE CHK = "N"
  CLEAR
  @3,21 SAY "URBAN DEVELOPMENT BANK OF NIGERIA PLC."
  @4,19 SAY "MASS TRANSIT REPAYMENT SCHEDULE (ACCOUNTS)"
  @5,19 SAY "******************************************"
  @7,28 TO 19,50 DOUBLE
  ACTIVATE MENU MMENU
 ENDDO
RETURN


PROCEDURE MDEFINE
 DEFINE MENU MMENU
 DEFINE PAD NEWRCD OF MMENU PROMPT " ADD " AT 8,32 message "Select To Add New
Customer"
 DEFINE PAD REPMTS OF MMENU PROMPT " REPAYMENTS " AT 10,32 MESSAGE "Select
To View Customer Repayment Details"
 DEFINE PAD DELAC OF MMENU PROMPT " DELETE " AT 12,32 Message "Select To Delete
Cutomer Records"
 DEFINE PAD SEARCH OF MMENU PROMPT " SEARCH " AT 14,32 Message "Select To
Search/Edit Customer Ledger"
 DEFINE PAD REPRTS OF MMENU PROMPT " PRINT " AT 16,32 Message "Press Enter Key To
Send Output To The Printer"
 DEFINE PAD BYEBYE OF MMENU PROMPT " QUIT " AT 18,32 Message "Quit To DBASE
Prompt"
 ON SELECTION PAD NEWRCD OF MMENU DO DRCTN
 ON SELECTION PAD REPMTS OF MMENU DO DRCTN
 ON SELECTION PAD DELAC OF MMENU DO DRCTN
 ON SELECTION PAD SEARCH OF MMENU DO DRCTN
 ON SELECTION PAD REPRTS OF MMENU DO DRCTN
```

```
 ON SELECTION PAD BYEBYE OF MMENU DO DRCTN
RETURN

PROCEDURE DRCTN
 DO CASE
  CASE PAD() = "NEWRCD"
  NR = "N"
  USE ACCOUNTS
  DO WHILE NR = "N"
   CLEAR
   STORE SPACE(30) TO NCS
   STORE 0 TO AMG
   STORE SPACE(10) TO DTG
   STORE 0 TO RTE, DTN
   * @    TO    DOUBLE
   @6,21 SAY "URBAN DEVELOPMENT BANK OF NIGERIA PLC."
   @7,19 SAY "MASS TRANSIT REPAYMENT SCHEDULE (ACCOUNTS)"
   @9,36 SAY "NEW LOAN"
   @10,36 SAY "========"
   @12,10 SAY "Name of Company/State"
   @14,5 SAY "Amount Granted (=N=)"
   @14,45 SAY "Date Granted "
   @16,5 SAY "Rate (%) "
   @16,45 SAY "Duration (Months) "
   @12,33 GET NCS
   READ
   IF NCS = SPACE(30)
    CLOSE DATABASES
    CLEAR
    RETURN TO MASTER
   ENDIF
   @14,28 GET AMG PICT "9999999999.99"
   @14,59 GET DTG
   @16,15 GET RTE PICT "99"
   @16,64 GET DTN PICT "99"
   READ
   STORE "N" TO ANS
   @18,15 SAY "Certify as Correct (Y/N) " GET ANS PICT "!";
       VALID ANS $ "Y,N";
       DEFAULT "N"
   READ
   IF ANS = "N"
    LOOP
    ELSE
     APPEND BLANK
     REPLACE NOCS WITH NCS
     REPLACE AMT_GRANTD WITH AMG
     REPLACE DT_GRANTD WITH DTG
     REPLACE RATE WITH RTE
     REPLACE DURATN WITH DTN
     REPLACE O_P_RPMT WITH AMG
     REPLACE T_A_OUST WITH AMG
     REPLACE M_P_RPMT WITH AMG/DTN
     REPLACE M_I_RCVB WITH 0
     REPLACE A_P_RPMT WITH 0
     REPLACE A_I_RPMT WITH 0
     REPLACE O_I_RPMT WITH 0
   ENDIF
   LOOP
  ENDDO
```

```
CASE PAD() = "REPMTS"
CLEAR
USE ACCOUNTS ORDER NOCS
HDRCLB = "W+*/R"
HDRCL = "W+/R"

AP = "N"
DO WHILE AP = "N"
 CLEAR
 STORE SPACE(30) TO NCS
 STORE 0 TO MRP
 STORE 0 TO NUMDAYS, NMIRCVB, NAPRPMT, NAIRPMT, NOPRPMT
 STORE 0 TO NOIRPMT, NTAOUST, ANMIRCVB
 @2,21 SAY "URBAN DEVELOPMENT BANK OF NIGERIA PLC."
 @3,19 SAY "MASS TRANSIT REPAYMENT SCHEDULE (ACCOUNTS)"
 @5,36 SAY "REPAYMENTS"
 @7,10 SAY "Name of Company/State"
 ACTIVATE POPUP REPTPOP
 IF NCS = " FINISH"
  CLOSE DATABASES
  CLEAR
  RETURN TO MASTER
 ENDIF
 SEEK NCS
 @7,33 SAY NCS
 @9,35 SAY M_P_RPMT
 @10,5 SAY "Monthly Principal Repayment " GET MRP
    PICT "99999999.99";
    MESSAGE "Press <Enter> to accept the suggested e"
 READ
 IF MRP = 0
  STORE M_P_RPMT TO MRP
 ENDIF
 @9,35 SAY MRP
 @12,5 SAY "DATE"
 STORE { / / } TO CINTDATE, TDATE
 STORE SPACE(10) TO TCDATE, INTDAT
 STORE 0 TO MNT, YYYY, DMNT
 @12,19 SAY "MONTH (01 - 12)"
 @12,40 SAY "YEAR (1998)"
 SMNT = MONTH(DATE())
 @13,20 GET MNT PICT "99"
 READ
 IF MNT = 0
  STORE SMNT TO MNT
  @13,20 SAY MNT
 ENDIF                          IGHT((TRIM(STR(YEAR(DATE())))),2)
 TCDATE = "01/" + TRIM(STR(                TRIM(STR(YEAR(DATE()))))),2)
 TDATE = CTOD(TCDATE)
 @13,10 SAY CMONTH(TDA
 @13,42 GET YYYY PICT "9
 READ
 IF YYYY = 0
  YYYY = YEAR(DATE(
  @13,42 SAY YYYY
 ENDIF              GET ANS PICT "!";
 STORE "N" TO ANS
 @15,15 SAY " Confi
    VALID ANS $ "
```

```
READ
IF ANS = "N"
 LOOP
 ELSE
 IF MNT = 1 .OR. MNT = 3 .OR. MNT = 5 .OR. MNT = 7 .OR. MNT = 8;
   .OR. MNT = 10 .OR. MNT = 12
  NUMDAYS = 31
  ELSE
  IF MNT = 4 .OR. MNT = 6 .OR. MNT = 9 .OR. MNT = 11
   NUMDAYS = 30
   ELSE
   IF MNT = 2
    IF MOD(YEAR(DATE()),4) <> 0
    NUMDAYS = 28
    ELSE
    NUMDAYS = 29
   ENDIF
  ENDIF
 ENDIF
ENDIF
DMNT = MNT + 1
IF DMNT = 13
 YYYY = YYYY + 1
 DMNT = 1
ENDIF
INTDATE = "01/" + LTRIM(STR(DMNT)) + "/" + RIGHT((TRIM(STR(YYYY))),2)
CINTDATE = CTOD(INTDATE) - 1
INTDAYS = CINTDATE - LASTINT
IF INTDAYS > 31
 ANMIRCVB = ((O_P_RPMT - M_P_RPMT) * (RATE/100) * (INTDAYS/365))
 NMIRCVB = ((O_P_RPMT - M_P_RPMT) * (RATE/100) * (NUMDAYS/365))
 NOIRPMT = O_I_RPMT + (ANMIRCVB - NMIRCVB)
 ELSE
 NMIRCVB = ((O_P_RPMT - M_P_RPMT) * (RATE/100) * (NUMDAYS/365))
 NOIRPMT = O_I_RPMT
ENDIF
NAPRPMT = A_P_RPMT + M_P_RPMT
NAIRPMT = A_I_RPMT + M_I_RCVB
NOPRPMT = O_P_RPMT - M_P_RPMT
NTAOUST = NOPRPMT + NOIRPMT
REPLACE M_P_RPMT WITH MRP
REPLACE M_I_RCVB WITH NMIRCVB
REPLACE A_P_RPMT WITH NAPRPMT
REPLACE A_I_RPMT WITH NAIRPMT
REPLACE O_P_RPMT WITH NOPRPMT
REPLACE O_I_RPMT WITH NOIRPMT
REPLACE T_A_OUST WITH NTAOUST
REPLACE LASTINT WITH CINTDATE
@11,1 CLEAR TO 24,79
@11,1 TO 11,79 DOUBLE
@12,32 SAY "CURRENT STATUS" COLOR &HDRCL
@13,32 SAY "=============="
@14,2 SAY  "Name of Company/State:   " + NOCS
@15,2 SAY  "Amount  Granted:         " + STR(AMT_GRANTD)
@15,40 SAY "Date  Granted:        " + DT_GRANTD
@16,2 SAY  "Rate: (%)           " + TRIM(STR(RATE))
@16,40 SAY "Monthly Prin. Repmt.    " + TRIM(STR(M_P_RPMT))
@17,2 SAY  "Monthly Int. Receivable: " + TRIM(STR(M_I_RCVB))
@17,40 SAY "Accum. Prin. Repmt.    " + TRIM(STR(A_P_RPMT))
@18,2 SAY  "Accum. Int. Repmt.     " + TRIM(STR(A_I_RPMT))
```

```
  CASE PAD() = "SEARCH"
   STORE "N" TO SCH
   DO WHILE SCH = "N"
    USE ACCOUNTS ORDER NOCS
    CLEAR
    @2,21 SAY "URBAN DEVELOPMENT BANK OF NIGERIA PLC."
    @3,19 SAY "MASS TRANSIT REPAYMENT SCHEDULE (ACCOUNTS)"
    @5,34 SAY "STATUS REPORT"
    STORE SPACE(30) TO NCS
    ACTIVATE POPUP REPTPOP
    IF NCS = " FINISH"
     CLOSE DATABASES
     CLEAR
     RETURN TO MASTER
    ENDIF
    SEEK NCS
    @7,10 SAY "Name of Company/State: " + NOCS
    @9,2 SAY  "Amount  Granted:        " + STR(AMT_GRANTD)
    @9,40 SAY "Date  Granted:         " + DT_GRANTD
    @11,2 SAY  "Rate: (%)           " + TRIM(STR(RATE))
    @11,40 SAY "Monthly Prin. Repmt.    " + TRIM(STR(M_P_RPMT))
    @13,2 SAY  "Monthly Int. Receivable: " + TRIM(STR(M_I_RCVB))
    @13,40 SAY "Accum. Prin. Repmt.     " + TRIM(STR(A_P_RPMT))
    @15,2 SAY  "Accum. Int. Repmt.      " + TRIM(STR(A_I_RPMT))
    @15,40 SAY "Outs'dg Prin. Repmt.    " + TRIM(STR(O_P_RPMT))
*   @15,77 SAY "*" COLOR &HDRCLB
    @17,2 SAY  "Outs'dg Int. Repmt.      " + TRIM(STR(O_I_RPMT))
*   @17,38 SAY "*" COLOR &HDRCLB
    @17,40 SAY "Date of Last Interest    " + DTOC(LASTINT)
    @21,20 SAY "Total Amount Outstanding : " + TRIM(STR(T_A_OUST))
* COLOR &HDRCL
   WAIT
   LOOP
   ENDDO


  CASE PAD() = "REPRTS"
   USE ACCOUNTS
   CLEAR
   HDR1 = "Name of Company/State: Amount   Date  Rate:(%)  Monthly      Monthly      Accum.
   Prin. Accum. Int.  Outs'dg.   Outs'dg.     Total Amount Outstanding"
   HDR2 = "              Granted  Granted        Prin. Repmt. Int. Receivable  Repmt.    Repmt.
   Prin. Repmt. Int. Repmt.    Outstanding"
   _ppitch = "Condensed"
  SET CONSOLE OFF
  SET PRINTER ON
  *eject
   ? HDR1
   ? HDR2
   DO WHILE .NOT. EOF()
   IF NOCS = " FINISH  (Select to Exit)"
    SKIP
    LOOP
   ENDIF
    ? NOCS
    ?? " " " + STR(AMT_GRANTD)
    ?? " " " + DT_GRANTD
    ?? " " " + TRIM(STR(RATE))
    ?? " " " + TRIM(STR(M_P_RPMT))
```

```
    ?? " " + TRIM(STR(M_I_RCVB))
    ?? " " + TRIM(STR(A_P_RPMT))
    ?? " " + TRIM(STR(A_I_RPMT))
    ?? " " + TRIM(STR(O_P_RPMT))
    ?? " " + TRIM(STR(O_I_RPMT))
    ?? " " + TRIM(STR(T_A_OUST))
    SKIP
    LOOP
   ENDDO
* WAIT
   CLEAR
  SET PRINTER OFF
  SET CONSOLE ON
   RETURN TO MASTER

   CASE PAD() = "BYEBYE"
    CLEAR
    * QUIT
    CHK = "Y"
    SET STATUS ON
    RETURN TO MASTER
  ENDCASE
 RETURN

 PROCEDURE GETPRMPT
  NCS = PROMPT()
   DEACTIVATE POPUP
  RETURN
    +++++++++++++++++++++++++++++++++ END OF PROGRAM +++++++++++++++++++++++++
```