COMPUTERIZATION OF ROAD TRAFFIC OFFENDERS RECORDS
A
CASE STUDY OF FEDERAL ROAD SAFETY COMMISSION (FRSC) HEADQUARTERS ABUJA.

IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF POST GRADUATE DIPLOMA IN COMPUTER SCIENCE.

BY

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CERTIFICATION

THIS IS TO CERTIFY THAT THIS PROJECT WORK WAS CARRIED OUT BY OTULANA FATIMA AYOOLA UNDER THE SUPERVISION OF DEPARTMENT OF MATHS/COMPUTER OF THE FEDERAL UNIVERSITY OF TECHNOLOGY MINNA. NIGER STATE

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DEDICATION

This project work is dedicated to ALLAH (SWT) who has taught man the use of the pen, and teaches him that which he knew not.

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CHAPTER ONE

1.0 HISTORICAL BACKGROUND OF THE FEDERAL ROAD SAFETY COMMISSION (FRSC)

Prior to the establishment of the federal Road Safety Commission (FRSC), road safety matters were handled by the defunct National Road Safety Commission (NRSC) under the Federal Ministry of Works and Housing with enforcement patrols and logistics under the Nigerian Police Force.

The FRSC came into being on the 18th of February 1988 via sections 2, 2.1, 2.2, 2.3, 6 and 7 of Decree 45 of 1988

- that the Presidency is the supervisory authority of the Commission established directly under the President, who is accordingly vested with the policy control of the paramilitary organisation.

The commission commenced full patrol operations with research on the first of September 1988 operating with five zonal commands namely Zone RS1 - Abuja, Zone RS2 - Benin, Zone RS3 - Kaduna, Zone RS4 - Moniya and Zone RS5 - Aba. There were then no guidelines to be followed as nothing had existed on large scale nationwide before.

The amendment decree 35 of 1992 later conferred on the members of the commission, the same power, authorities and privileges as given by law to members of the Nigerian Police Force including the power to bear firearms.

Today the operations of the commission have expanded rapidly and the present statutory constitution of the Federal Road Safety Commission under the Presidency confers a level of autonomy and independence on the commission which enables it to

determine and operate the following in relation to itself.

i Policies

ii Operational methods and modes

iii Staff development and training

iv Administration

v Salary structure

vi Line of communication

vii Self accounting

viii Bearing of firearms as a paramilitary body

1.1 STATUTORY FUNCTIONS

The Federal Road Safety Commission is charged with the following:

i Preventing or minimising accidents on the highway.

ii Clearing obstructions on any part of the highway .

iii Educating drivers, motorist and other members of the public on the proper use of the highway and appropriate road safety conducts.

iv Giving prompt attention and care to victims of accidents.

v Conducting researches into causes of motor accidents and methods of prevention them and putting use the use results of such researches.

vi ***ENFORCING ROAD TRAFFIC REGULATIONS***

vii Co-operating with bodies, agencies or groups engaged in road safety activities in the prevention of road accidents on the highway.

1.2.0.0 ORGANIZATIONAL STRUCTURE

The commission is headed by the Corps Marshal and Chief Executive (COMACE), who operates from the National headquarters located in Abuja. His office

encompasses other special units like legal, Audit, Protocol Public enlightenment, Corps secretary, intelligence and provost each of which is headed by a deputy director.

The Corps Marshal's office is supported by six directorates namely operation, motor vehicles Administration, Logistics and supplies, Administration and Finance, Research and Statistics and Training each of which is headed by a director.

For operational and administrative convenience, the country is divided into eight

Zonal commands each of which is headed by a zonal commanding office (ZCO). The zones are then subdivided into sector commands representing the states including the federal capital territory, hence there are thirty-seven sector commands in all, The six directorates are replaced by departments in the various sectors. A sector is headed by a sector commander not lower than the rank of Assistant Area Commander.

Each sector is further sub-divided into units which are formations at Local Government areas. There are thirty-nine units in the country.

TABLE ZONES WITH THEIR HEADQUARTERS, SECTOR AND UNIT COMMAND.

Zones	Headquarters/Code		Sector	Command Code	Unit Command	Code
			Code			
RS1	Jos	1.0	Bauchi	1.1	Azare	1.11
			Benue	1.2	Gboko	1.21
			Plateau	1.3	Lantang	1.31
			Nasarawa	1.5	Pankshin	1.32
					Akwanga	1.51
RS2	Benin	2.0	Edo	2.1	Auchi	2.11
			Ondo	2.2	Ore	2.21
			Enugu	2.3	Aba	2.41
			Anambra	2.4	Warri	2.51
			Delta	2.5		
			Ebonyi	2.6		
RS3	Kaduna	3.0	Kaduna	3.1	Kafanchan	3.11
			Kano	3.2	B/Gwari	3.12
			Katsina	3.3	Zaria	3.13
			Gigawa	3.4	Dan batta	3.21
					Funtua	3.31
					Daura	3.32
					Hadeja	3.41
RS4	Lagos	4.0	Oyo	4.1	Ogbomoso	4.11
			Lagos	4.2	Oluyole	4.12
			Kwara	4.3	Badagry	4.21
			Ogun	4.4	Epe	4.22
			Osun	4.5	V/Island	4.23
			Ekiti	4.6	Ijebu Ode	4.41

TABLE

ZONES WITH THEIR HEADQUARTERS, SECTOR AND UNIT COMMAND CONTINUED.

RS5	Owerri	5.0	Rivers	5.1	Aboh-Maise	5.21
			Imo	5.2	Okigwe	5.22
			C/Rivers	5.3	Ogoja	5.31
			A/Ibom	5.4	Ekiti	5.41
			Abia	5.5	Aba	5.51
			Bayelsa	5.6		
RS6	Yola	6.0	Borno	6.1	Biu	6.11
			Adamawa	6.2	Mubi	6.21
			Taraba	6.3	Hong	6.22
			Yobe	6.4	Wukari	6.31
			Gombe	6.5	Potiskum	6.41
RS7	SOKOTO	7.0	SOKOTO	7.1	ZURU	7.21
			KEBBI	7.2		
			ZAMFARA	7.3		
RS8		8.0	F.C.T	8.1	GWAGWALADA	8.11
			NIGER	8.2	KEFFI	8.12
			KOGI	8.3	MOKWA	8.21
					SULEJA	8.22
					KONTAGORA	8.23
					ANKPA	8.31

1.2.0.1 THE DIRECTORATE OF OPERATIONS

This is the directorate that is responsible for the objective of this study. It has the following functions.

I ***PROVISION OF EFFECTIVE AND REGULAR PATROLS ON NIGERIAN ROADS IN ORDER TO ENFORCE ROAD TRAFFIC REGULATIONS.***

ii Supervision of operations, rescue, public enlightenment and special marshal personnel and equipment in the zones, sectors and units.

iii Formulate operational, rescue and public enlightenment and special marshal policy and strategies for the entire commission.

iv Provision of emergency rescue services for victims of road accidents.

v Supervise the National Network of Emergency Road Services (NWERS)

vi Monitoring and controlling the generation of revenue through charges, towing and custody.

vii To maintain through various programmes a good and healthy working relationship with the public (public education and special marshal unit)

viii Any other duties as maybe assigned by the COMACE.

1.2.1 THE RANK STRUCTURE

i The Federal Road Safety Commission operates rank structure of commander and Marshal Cadres similar to the officers and men structure of the military and other para-military organizations. A commander is a graduate member of the corps while a (regular) Marshal is a non-graduate member.

ii There is also a Cadre of volunteers called special marshals that assist the regular marshals who must have satisfied the following:

- Be a Nigerian adult who is above 35yrs of age and not more than 75yrs or a foreigner who has taken up residency in Nigeria and has lived in Nigeria for more than two years.
- Be a person of high integrity in the society as has to been convicted by any law court.

- Must have a Nigerian drivers' license of not less than 7 years old with a clean driving record, free of traffic offence penalties and must be literate.
- Must have a road vehicle of his own and a visible means of livelihood.

ii Road safety clubs in schools are set up to inculcate road safety ethics in our youth as a way of building and enduring road safety culture in our society.

1.3 ACHIEVEMENTS OF COMMISSION.

Amongst the achievements of the FRSC is the quantitative reduction in road traffic accidents estimated by comparing the projected accident rates within the recorded rates over a five year period as follows.

YEAR	RELATIVE REDUCTION
1988	3.8%
1989	18.7%
1990	33.5%
1991	42.0%
1992	43.5%
1993	53.4%
1994	59.8%
1995	66.0%
1996	66.4%

The above was possible through

a maintaining speed limits

b Evacuation and clearing of road accidents scares .

c Prompt rescue attention for rod accident victims.

d An average of about 100,000 vehicle -km highway patrols everyday including weekends and especially on public holidays.

ii On foundations of road safety culture

a Streamlining all matters relating to road traffic system by injecting control and order into the road traffic system through the following.

National driver's licence scheme.

National vehicle licence scheme

National vehicle identification scheme

National vehicle inspection scheme

National motor vehicle administration.

b Design and production of the Revised highway code in 1989 to be culture related, comprehensive and well illustrate. It has been translated and printed in Hausa, Arabic Yoruba, Igbo and has been adopted as basis for the African highway code UN-ECA.

c Production of the National Road traffic regulation in 1997 and CO-ordination of its induction nationwide.

d. Development of road safety significant scheme like the National network of road emergency services, driving school standardization programme and the production of national network guide.

iii On international significance

a Nigeria through the commission serves as the vice chairman of the African sub group of the international Road safety organization.

b FRSC activities and programmes have received acclamation not only within the ECOWAS sub region and the African continent but also on the international scene

c FRSC has active international technical cooperation with India, Belgium and Germany which had already sponsored overseas training for FRSC staff.

d The prevention Routie Internationale in Belgium adopted the FRSC approach as a model for developing countries.

e Some fourteen African countries have requested for copies of the commission's established legislation, road safety materials and programmes to facilitate their own formation.

f FRSC serves as a consultant to Kenya, Ghana and Guinea and has provided action plans for African countries seeking to replicate some unique aspects of the commission like

- The special marshal unit

  the autonomous placement of the FRSC
- The independent enforcement of traffic regulations
- The National driver's licence scheme
- The National vehicle Number plate Scheme.

g The commission has provided references for the following international bodies outside Africa:

- New York state Motor Vehicle department, on single card laminated driver's licence for New York state.
- Olympic games committee, on features National driver's licence.
- Interpol on type and specifications of vehicle plates in Nigeria.
- European Registration plate association, on materials for inclusion in "Registration plates of the world "
- Government of Finland on features of National driver's licence.
- Union of Technical Assistance for vehicles and Road traffic (UNATAC), Geneva,Switzerland
- International Council of Alcohol, drugs and Traffic safety (ICADTS), USA.

In addition to all these, Road Marshals have recovered and tendered huge sums of money and various valuables found on accident victims, the highest sum being $441,000 and N17,000 found on sixteen dead victims in a Peugeot J5 commuter bus accident along Benin-Asaba road on 2nd October 1991. Several stolen vehicles have also been recovered during highway patrol operation.

CHAPTER TWO

2.0 DISTINCTION BETWEEN LAW ENFORCEMENT AGENCIES SEEN ON THE ROADS.

All the law enforcement agents seen on the roads are primarily charged with helping to maintain law and order in the land, one way or another. Often times they have to work hand in hand in order to achieve this goal. They however have the following basic distinctions.

THE TRAFFIC WARDEN: They are essentially charged with controlling the smooth flow of traffic in the metropolis either to substitute or to supplement the use of traffic lights.

THE POLICE: They are basically responsible for handling all criminal cases on the highway like smuggling.

ROAD SAFETY MARSHALS: Helping to prevent road accidents by checking the excesses of motorist and enforcing road traffic regulations.

2.1 ANTECEDENT OF TRAFFIC LEGISLATION

The traffic rules are as contained in the revised highway code while traffic regulations are as contained in the various traffic legislation enacted by the federal, regional and states of the federation since 1913 when the first of such motor traffic ordinance for the southern protectorate was enacted. Other relevant traffic regulations include:

Federal Highway Act 1971

Federal highway (declaration) order 1971

Right- hand driver change over Act 1972.

Federal highway Ammendment Decree 1973

Road Traffic Regulation of Lagos 1973

Road Traffic Act 1976

Various state traffic laws 1976

Federal Road safety commission Act 1988

Federal Road Safety Commission Ammendment Decree 1992.

2.2 ROAD TRAFFIC OFFENCES

Below is the list of the road traffic offences with their respective codes, penalty points and fines.

i LIGHTS/SIGN VIOLATION (LSV) 2pts /n100

Failure to use headlights, rear light between 1900hrs and 0630 hr. when it is dark when on the highway or failure to use directional signal indicators when required to do so.

ii ROAD OBSTRUCTION VIOLATION (OBS) 2pts / N100

Obstructing the highway by indiscriminate parking, repair of broken down vehicles or obstructing the highway with any other object.

iii ROUTE VIOLATION (RTV) 2pts / N100

Contravention of the provision of any traffic regulation relating to the route to be followed by vehicles generall by a class of vehicle to which the vehicle belongs or the roads which are to be used by such vehicles.

iv This applies to using a vehicle on the highway for purposes that it s not registered for or in a manner that poses danger to other road users for examples, a right hand drive commercial vehicle carrying goods or eight or more passengers.

v SPEED VIOLATION (spv*)* 2pt N100

Driving or riding on the highway in excess of the prescribed speed limits for a category of vehicle or road.

vi VEHICLE LICENCE VIOLATION (NVL) 3 pts / N200

Being on the road with expired vehicle licence or not being in possession of one.

vii DRIVER'S LICENCE VIOLATION (NDL) 3pts / N200

Driving without being in possession of a valid driver's licence for the category of vehicle. The classes of Driver's licence are as follows:

CLASS A motorcycle

CLASS B motor vehicle of less than 3 tonnes gross weight other than motor cycle, taxi, stage carriage or omnibus

CLASS C motor vehicles of less than 3 tonnes gross weight other than motorcycle.

CLASS D motor vehicle other than motor cycle, taxi, stage carriage or omnibus but excluding an articulated vehicle or a vehicle drawing a trailer, agricultural machins and tractors and earth moving vehicles.

CLASS E motor vehicle other than a motocycle, articulated vehicle, agricultural machines tractors and earth moving vehicle.

CLASS F Agricultural machines and tractors

CLASS G Articulated vehicles

CLASS H Earth moving vehicles

CLASS J Special for physically handicapped persons.

vii OVERTAKING VIOLATION(OVT) 3pts / N200

Overtaking a vehicle when it is unsafe to do so for example, brow of a hill and a bend

ix TRAFFIC LIGHT DISOBEDIENCE (TRL) pt / N200

Failure to observe directions at a junction controlled by traffic light or a traffic warden.

x TRAFFIC SIGNS /MARKINGS VIOLATION(TSV) 2pts / N200

Failure to observe road markings, regulatory or mandatory road traffic signs.

xi WARNING SIGN VIOLATION (WSW) 2pts/ N200

Driving a vehicle without carrying reflective warning triangles or failure to display a place properly reflective warning triangles or failure to display and place properly reflective warning triangle signs in the advent of a breakdown vehicle on the highway and failure to report to members f the commission within a reasonable space of time to enable the commission effect the removal of the vehicle.

ix DANGEROUS DRIVING (DGD) 3pts/ =N=200

Driving in a manner that is reckless and poses a threat to the life of oneself and other road users, for example, overtaking at high speed in places of high pedestrian traffic.

xiii ALCOHOL /DRUG INFLUENCE (Ald)3pts / =N=200

Driving under the influence of alcohol or drugs.

xiv FORGED PAPERS AND LICENCES (FPL) 3pts / =N=200

Driving while being in possession of forged driver's licence or vehicle documents.

xv DAMAGE TO PUBLIC PRESENCE (DAM)3pt / =N=200

Unauthorised removal of or tampering with road traffic signs or driving in such a manner a to collide with and damage road barriers, electric and telephone post, fire hydrants etc. This fine does not however remove the responsibility of such persons to pay to the appropriate authority the cost of repairs/replacement of such structures so damaged.

xvi ROAD HARZARD VIOLATION (RHU) 2pts / =N=200

Being on the highway in such a manner as to create a risk to other road users, for example, improper loading of a vehicle with goods, improper towing of another vehicle, spilling of diesel oil along the highway etc.

xvii DO NOT MOVE VIOLATION (DNM) 3pt / =N=200

Moving a vehicle bearing "DO NOT MOVE STICKER. This sticker is reserved for use on a vehicle whose driver is under the effect of alcohol or drugs or a vehicle that is mechanically deficient to be on the road or a wanted vehicle or a vehicle impounded awaiting the arrival towing a towing vehicle.

xviii CONSTRUCTION AREA VIOLATION (CAV) 3pts/ =N=200

Not adhering to warning directional signs and speed limits to be observed at road repairs/construction sites on the highway.

xix FAILURE TO MOVE OVER (FMO) 3pts / =N=200

In the case of slow moving vehicles on a single carriage way failure to move out of the road when four or more vehicles have queued behind and on a dual carriage way, failure to move over to the slow lane for all categories of vehicles.

xx FLYING PARTICLES VIOLATION (FPV) 2pts/ =N=100

Failure to cover securely unstable material such as gravel, sand, refuse and thereby their spillage on the highway

xxi NUMBER PLATE VIOLATION (NPV) 2pts/ =N=100

Failure to display rehulation number plates on vehicles.

xxii OVERLOADING VIOLATION (OVL) 2pts/ =N=200

Being on the highway with a vehicle loaded with passengers or goods over and beyond the prescribed number or weight respectively.

xxiii INADEQUATE CONSTRUCTION WARNING(ICW)3pts/=N=200

Failure of a road construction company t provide adequate warning and directional signs at road repairs or road construction sites.

xxiv OBSTRUCTION MARSHAL'S DUTIES (OMD) 2pts/ =N=100

Unneccessary interference and willful disruption of a road marshal carrying out his duties.

xxv WINDSCREEN VIOLATION (WDV) 2pts /= N=100

Being on the road without a windscreen or with a severely damaged windscreen that impairs vision for safe driving.

xxvi TYRES VIOLATION (TYV) 2pts / =N=100

Driving a vehicle without a spare tyre or with tyres whose threading are worn out.

xxvii PROTECTION LOAD VIOLATION (PLV) 3PTS / =N=200

Driving with a projected load without adequate warning : a red flag at the end of the projection in the daytime or a red warning light at the end of a projection at night.

xxviii MECHANICALLY DEFICIENT VEHICLE (MDV)

Being on the highway with a mechanically deficient vehicle such as emitting dark exhaust fumes that impairs vision, driving a vehicle with bent chassis, driving with incomplete wheels, driving a damaged vehicle etc. This offense has no option of fine except as determined by the court of law. It has to be validated with a vehicle inspection report before court trial.

xxix ASSAULTING MARSHAL ON DUTY (AMD) 4pts

Man handling a road marshal in the course of his duties and causing him bodily harm. This offense has not option of fine except as determined by the court of law. Witnesses are however required for a successful court trial.

xxx ATTEMPTING TO CORRUPT MARSHAL (ATC) 1pt

For traffic offenders who offer bribes to road marshal in order to pervert the course of justice. This offense has no fine except as determined by the court of law. Road Marshals are to ensure that there exist sufficient proof in terms of money offered in denomination and serial number and witnesses to substantiate such claims.

xxxi OTHER VIOLATION / OFFENSES (OVO)

This refers to other road traffic regulation as contained in the various legislation tabled above. The penalties for violation of such regulations are contained in these legislation. The offense has no option of fine except as determined by the court of law. Some of the regulations that are covered in these legislation include the prescribed maximum height of commercial vehicles, the limit of the registration of right hand vehicles, the procedure for carrying extra wide loads on the highway, the extent of projected lad allowed, the design specification of commercial vehicles and so on.

xxxii REPROBATE OFFENDER ALERT SERIES (ROAS)

This is reserved for compulsive traffic offenders, wanted traffic offenders or violent traffic offender.

On contravening any of the above, the offender is booked and an notice of offense is issued. This is a legal document as it maybe tendered in a court. It is only valid for fifteen days after which being in possession of the ticket my lead to instant arrest of offender or the impounding of his vehicle.

2.3 PATROL PROCEDURE

2.3.0 DEFINITION

i **HIGHWAY PATROL** This is a preventive enforcement technique. Aspects of enforcement are control, surveillance and punishment. The highway patrol then has to do with making road users conform with traffic regulations which specify a decibel pattern of driving behaviour and comportment on the streets and highways. Normal during usually represents a comprise between what one is inclined to do and what the law permits. Many influence violation of traffic laws, the patrol man would in the course of his duties be expected to detect; apprehend, adjudicate and penalise erring road users.

ii **PATROL TEAM:** four members accompanied by bike. It is led by an officer not less in rank then an Assistant Route Commander (ARC). Two bikes can also form a patrol team in a town traffic.

ii **PATROL SQUAD:** This is a collection of patrol teams and it is to be led by an officer not less in rank than a deputy route commander (DRC).

2.3.1 TYPES OF PATROL

i **MOBILE SPEED CONTROL PATROL**: This mode of patrol is especially suited for dual carriage ways. The patrol car or bike maintains a speed of 105 km/hr on the slow lane of the dual carriage way thereby controlling the speed of other vehicle coming behind. Any vehicle that attempts to overtake the patrol vehicle would be waived back but if the driver persist, he would have contravened the speed regulation and would be booked.

ii **STATIC SPEED CONTROL PATROL**: This mode can be utilised on both dual and single carriage way, and involves the use of a patrol car, bike, communication equipment and raider gun is stationed at the end of the patrol car. The radar gun is stationed at the end of a bond and the speed of a vehicle can be picked. The bike is stationed further a head and if a vehicle that has contravened the speed limit is flagged down and he fails to stop, the bike rider can be communicated to pursue the vehicle. In the absence of a bike, the vehicle number should be taken down.

ii **SURVEILLANCE PATROL**. This mode of patrol is utilized in town traffic and on the highways to detect traffic and on the highway to detect traffic violators. It can be at any speed under the limit of the law.

iv **RESCUE MISSION**: This mode of patrol is utilised on being informed of an accident and mobilising the team for rescue of accident victims and freeing the road of obstruction created by the affected vehicles. In this mode the patrol vehicle makes use of the emergency siren and flasher to get to the scene of the accident.

2.3.2 THE PATROL VEHICLE

The patrol car with its distinctive colours, blue light, communication and insignia is a very effective deterrent by making people conscious of the presence of the law enforcement agent and creating an awareness of punitive action. It is the heart of enforcement. FRSC patrol vehicles are painted blue with two white stripes (one solid and a dotted line on the side and another set running from bonnet through the roof of the boot.

CHAPTER THREE

3.0 INTRODUCTION TO SYSTEM ANALYSIS

A system is a set of interacting elements responding to inputs to produce a set of output or an organised method of achieving a function. Business is an example of a system. Analysis is an in depth study of an often complicated process, Hence, system analysis can be said to be an investigation in the method and procedure of operations of the organization understudy, with a view to discovering its inherent problems proffering recommendation on how to improve n the existing situation or replacing it with a new and better one. Systems must be developed to meet the specified needs of the users and must be accepted by them. Those that are saddled with these responsibilities are known as system analyst.

System analysis involves the understanding, interpreting and implementing of user's needs. It requires the system analyst to possess dual knowledge. First and foremost, is a high degree of knowledge and experience in computer technology, usually he is an efficient programmer. Secondly, the analyst must be able to understand and meet users needs. This requires some experience about the business or professional operations of the users on the organization. System analysis involves gathering enough information to define and describe user operation in terms of volume of transaction, number of people involved, turnaround or deadline requirements, methods of storage of accumulated data, current problems and opportunities for improvement. The main technique of gathering information are questionnaires, interviews, observation and collecting sample document.

Questionnaire are employed where little information is required from a great number of people who maybe at different locations. When managers and key people are involved personal interviews are conducted. Observation and sample documents help to identify where data originates and where it is used in an organization. The system analyst is a coordinator who communicates with and meet the needs of both users and computer professionals. He borrows knowledge from

System Maker: to obtain a new system and to study changes.

Business Management: from where to study business

Project Management: Where he carries out all his activities

Communication Skills: Advise or convince who is going to use the system.

System analysis spells out the strength and weakens of a system.

3.1.0 FEASIBILITY STUDY

It is essential to conduct a feasibility study prior to the commencement of the proposed project. This study determines whether the project is realistic in terms of time, cost and resources. The prevents the organisation ending up with a whit elephant project and avoiding unnecessary wastage of valuable time, effort and other limited resources. The objectives whiten the analyst hopes to accomplish at the end of the day are as summarised below:

a Clarification and understanding the project request. The following will be the attainment of this project.

What is being done?

What is required?

b Determining the size of the project

This is necessary, so as to estimate the amount of time and number of people required to develop the project;

c Assessing costs and benefits of the alternative approaches. What is the cost of the project including the cost of training and retraining and users of the system;

d Report the finding to management with recommendation outlining the acceptance or rejection of the proposal.

In order to carryout the above feasibility study has been sub-divided into three classes. They are as follows technical feasibility, operational feasibility and economic feasibility.

TECHNICAL FEASIBILITY: This is basically concerned with the availability of the required equipment, software and all other technology to carryout the proposed project.

ECONOMIC FEASIBILITY: This is to clarify whether the ends which refers to the benefits to be derived from implementing the project would justify the means that is the total cost to be expended in the course of implementing the project.

In relating the proposed system with all the above project feasibility, if the result of testing shows that it is economical, then the project is concluded to be feasible.

3.1.1 TESTING PROJECT FEASIBILITY

TECHNICAL FEASIBILITY: The directorate would require the services of suitable personnel from two other directorates of the commission that employ the use of computer already, that is the motor vehicle administration directorate and the planning research and statistics directorate to handle the training of the personnel on computer literacy. The members of staff that would be directly in charge of handling the computers would have to be giving adequate training on the working of the program and systems.

ECONOMIC FEASIBILITY: Most of the cost required for the project implementation would go to the purchase and installation of the computer system and software development as almost every other thing is either already in place or could be acquired at a negligible cost. When this is weighed against the benefits accruable to the project implementation it seems like an infinitesimal price to pay.

From the preceding analysis it is noted that all the essential ingredient necessary to achieve the project request which is a computer automation of the road traffic offenders records can be easily attained and at a reasonable cost. Also presently there exist no better alternative to the one already suggested. Consequently, it can be concluded that the project is very feasible and is thereby recommended for approval.

3.2.0 AN ANALYSIS OF THE EXISTING SYSTEM

Presently the activities relating to road traffic offenders records are done manually. At the end of the month, each zone is expected to forward data relating to road traffic

offences in their respective zones to the directorate of operations at the headquarters in Abuja.

The data are derived from the offenders register, vehicle impounded register and wanted offenders registers of the various zones. To limit the cumbersomeness of the otherwise bulky data, they are reduced and now presented as traffic offenders summary. As the name implies, this contains mostly summarised figures. It is this offenders summary, sent from the various zones that are collated by the directorate for appropriate action and eventually used to present the terminal reports that are sent to the various zones from the directorate.

3.2.1 PROBLEMS ACCRUABLE TO THE EXISTING SYSTEM.

The existing system though cheap and cost effective in the shortrun and has quick error handling procedures, is however plagued with problems. Among the various problems militating against the system are the following:

1 The system involves overtime, the generation of large volume of papers to be kept, thereby occupying a lot of cabinet and floor space.

2 The summarized nature in which data are sent from the various state commands and zones to the directorate, though bulky, are insufficient for meaningful development.

3 Accessing past information from the existing system is tedious, frustrating, and time consuming.

4 There exist lack of data security and integrity as past records could easily be destroyed or misplaced.

5 Uneasy accessibility to past data make forecasting and planning almost impossible.

6 Ineffective CO-ordination of data of the various unit, sectors and zones.

7 Proximity to errors of omission or commission.

3.3 THE NEW SYSTEM

The proposed system is basically a computer automation. Simply put, the computer is made up of electronic devices that can accept data or input, processes it to give out information or output. The ability of the computer to among other things handle and

information or output. The ability of the computer to among other things handle and process large volume of data at very high speed that would have been humanly impossible has made the computer the most versatile and indispensable tool of the millennium.

To effect the proposed automation, changeover procedure would have to be employed. The common methods of changeover available include direct, parallel running, pilot running and staged changeover. However for this study parallel changeover is recommended. This would involve running both old (manual) and new (computerized) systems concurrently for at least one system cycle using full live data in the operational environment of place, people equipment and time. This allows for the result of the new system to be compared with the old system before the full acceptance by the commission. This way mistakes and oversight made during the designing could be corrected before full acceptability. Although it might involve some extra cost at the beginning due to the fact that two systems are being run simultaneously at the time available for one, this extra cost would have been worth it in the long run.

In addition, for the new system to succeed at all the staff would obviously have to be computer literate. To reduce the total cot of computerisation, the staff training should be done in- house. Computer experts should be temporarily transferred to the directorate of operations from Motor vehicle administration directorate and the directorate of planning, research and statistics that are already making use of computer for most of their operations. A few staff could later be sponsored for specialized courses as or if the new arises.

3.4 SYSTEM DESIGN

Given the required specification of the proposed system, this now has to be interpreted to create a design for a programming system which will satisfy these requirement.
Perhaps the purpose of system design is best explained by the end product that mark its completion. This step concludes with the acceptance of a document called system

copy of this result for future usage or for management decision making. There exist several forms of communicating to help users understand what will be involved in the new system output,. For instance, a print card shows how the printed output will look like. By showing the users this, the chances are being increased that reports and displays generated would be effectively used later.

For the case study, a description of what the output of the program is given in the next chapter and a better illustration the appendix. These output would form the bulk of what would be sent to various units, sector and zone commends of the directorate as either terminal or annual reports.

3 ***FILES:*** This design element is very much linked to input and output. Input is processed against the files to produce the necessary output. Consideration involved in designing files are:

Storage media;

Method of file organisation and access;

File security;

Record layout.

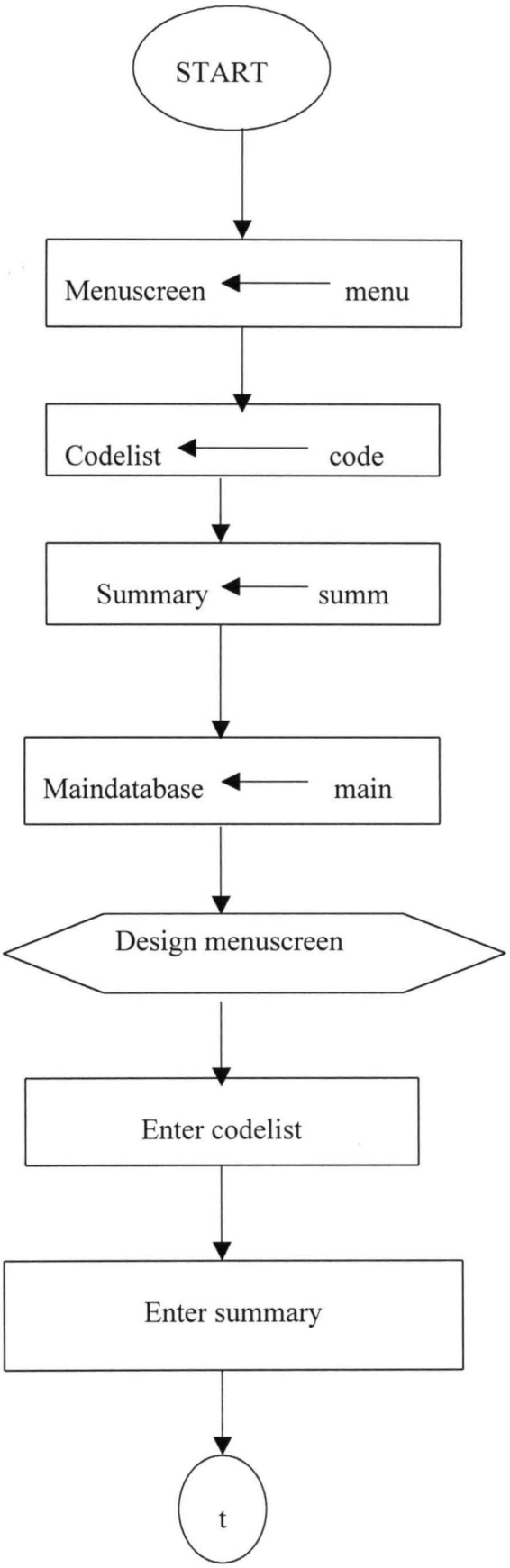
4 ***PROCEDURES:*** This provides the operational details of the system in a stepwise

approach. It maybe given as simple algorithm, pseudo codes, flow chart or program. They are the steps that unify the whole process to be carried out. They normally begin with the origination of the source document and end with output document being distributed.

For our case study, a program flow chart is given in the next chapter and a listing of the coded program is given in the appendix.

5 ***PEOPLE:*** The success of the proposed system depends on how involved users are with the design of the system. It is critical that the application development team identifies with the personnel required to implement the new system.

4.3.0 PROGRAM FLOW CHART



It is for this same reason amongst other that a user friendly package (Dbase iv) was used for development of the software. Hence the newly trained personnel should have no problem with the design of the system.

3.5 COST AND BENEFIT ANALYSIS

A COST ANALYSIS

Development Cost

5 PC (Pentium 586p)	200,000	
1 Printer (HP Desk Jet 895 Cxi)	35,000	
2 Air conditioners	120,000	
1 stabilizer	25,000	
software	80,000	
1 scanner	28,000	
staff training	40,000	
Installation cost	15,000	
Miscellaneous	10,000	
		550,000

OPERATIONAL COST

UPS	16,800	
Diskettes	5,000	
Stationeries	23,000	
Furniture	30,000	
Fax modern with voice	5,200	
		80,000
		630,000

Total cost Analysis = Development Cost + Operational Cost

Total Cost Analysis = N630,000

B BENEFIT ANALYSIS

i The large volume of data from the various units, sector and zonal commands can be handled easily.

ii Easy accessibility to past data make forecasting and planning simpler.

iii Data security and protection will be ensured.

iv Comparative analysis can now easily be made from available data since data would now be centrally controlled.

v Data can be processed faster than was formally done.

A HARDWARE REQUIREMENT

1 PROCESSOR: A minimum of 286 processor

2 MEMORY At 2 megabyte of Random Access Memory (RAM)

3 STORAGE CAPACITY : A minimum of 4.5 MB

4 Display a coloured monitor

5 Input device

- a Disk drive: 3.5" floppy disk drive
- b Keyboard standard keyboard (IBM)

6 Printer Hp desk jet 895 CXI

7 Power saver 650 KVA UPS

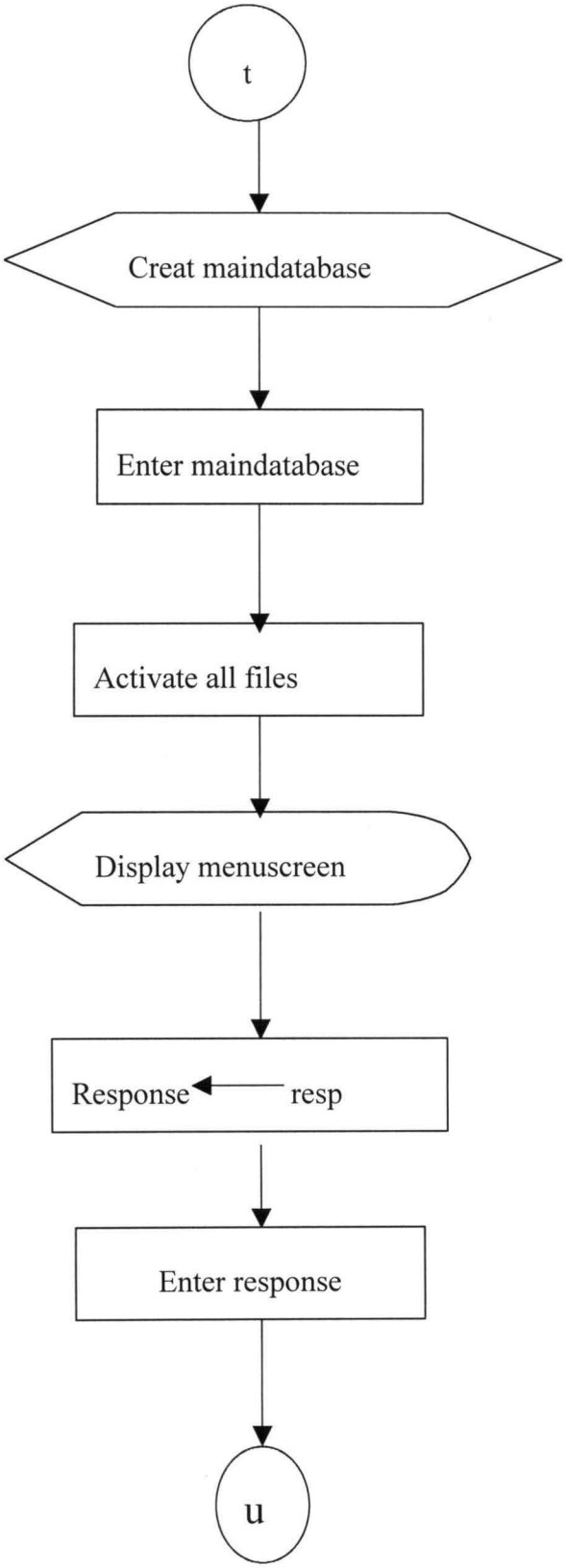
8 Stabilizer up to 1000V

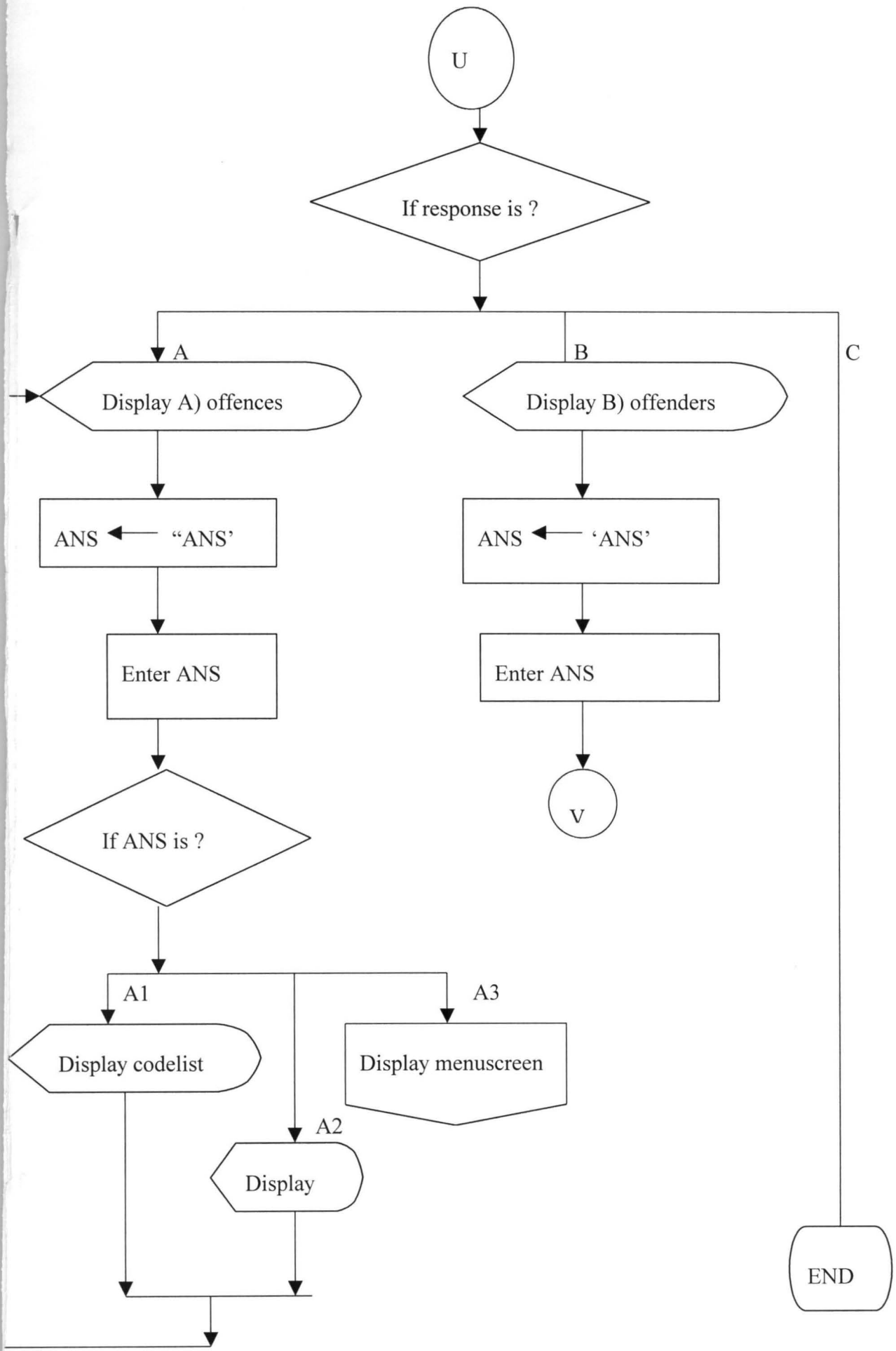
B SOFTWARE REQUIREMENT

1 dBASE IV PACKAGE

2 Microsoft disk operating system.

3 "TRAOFFEND' (the developed program)


t
Creat maindatabase
Enter maindatabase
Activate all files
Display menuscreen
Response
resp
Enter response
u


U
If response is ?
A
B
C
Display A) offences
Display B) offenders
ANS ← "ANS'
ANS ← 'ANS'
Enter ANS
Enter ANS
V
If ANS is ?
A1
A3
Display codelist
Display menuscreen
A2
Display
END

4.2 PROGRAM DESCRIPTION

To access the program, insert the floppy diskette containning the program in to the disk drive. Then change change the drive to A.

Type “CD Dbase.”

Change the drive back to C and enter the Dbase environment.

i.e. Type “CD Dbase”

At the Dot prompt, set Default to A.

Type "DO TRAOFEND"

An introductory message is displayed. After which the screen clears and a menu screen Traofend is seen as shown below

:

TRAOFEND

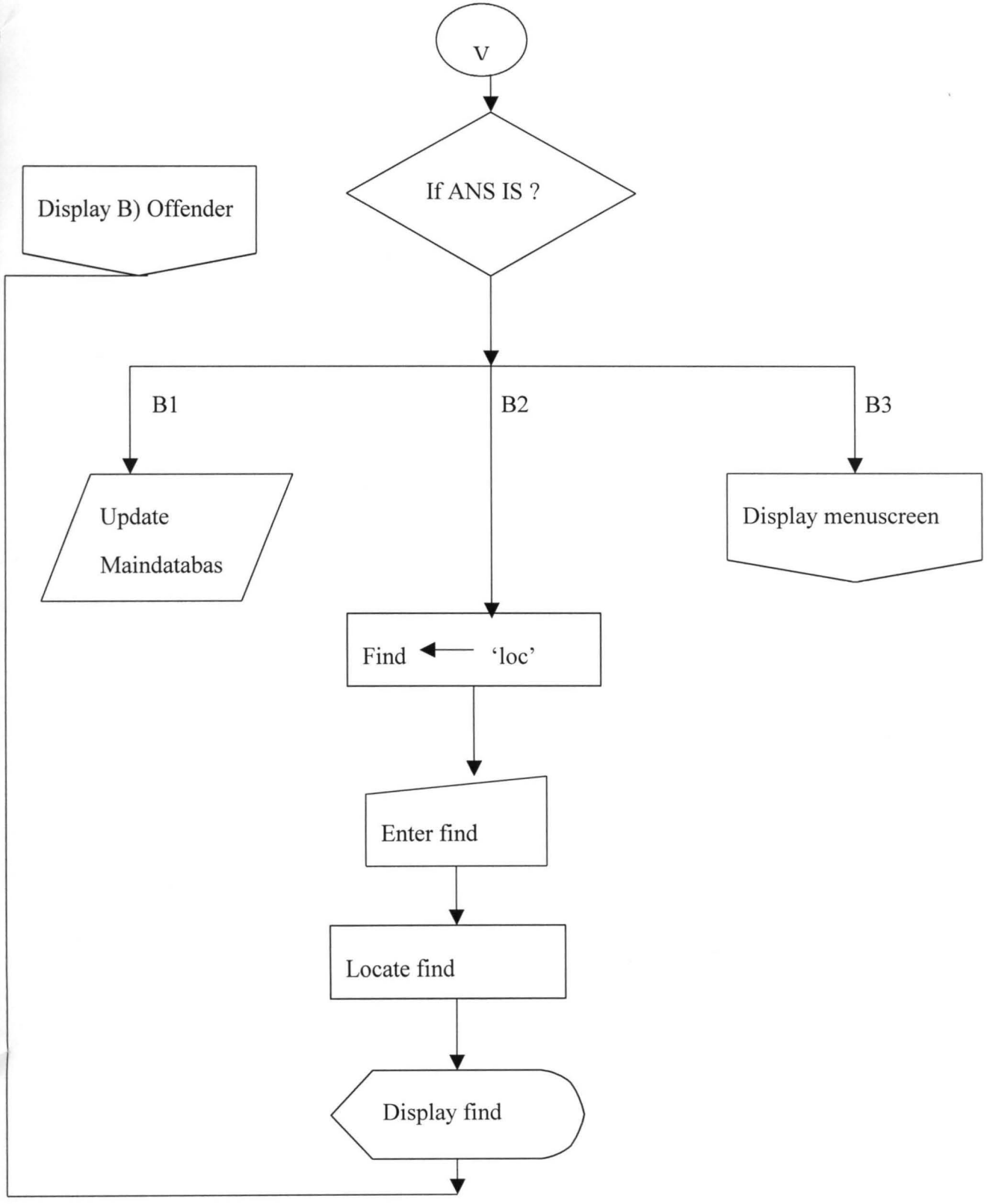
OFFENCE OFFENDER QUIT

Highlight and press enter key.

On highlight any of options a sub-menu comes into view. If offence is highlighted a sub-menu with options;

codelist, summary and exist is seen. Highlight codelist now shows a table showing the names of the various offences, with their codes and points. Highlighting summary presents one with a detailed summary of what constitute the various offences while exit takes one back to the main menu. If offender is selected another pull down menu with options update, locate and exist comes to view. Selecting update allows one to add. more records to Mastertr file, selecting locate allows one to find a particular record from Mastertr while exit one back to the main menu.

Quit allows one to either go to dot prompt or back to the DOS prompt


V
If ANS IS ?
Display B) Offender
B1
B2
B3
Update
Maindatabas
Display menuscreen
Find
'loc'
Enter find
Locate find
Display find

4.4.0 PROGRAM IMPLEMENTATION

This encompasses the activities needed to get the system ready for use. It involves establishing all computer related requirement are in place before the system becomes operational.

The main activity is the preparation and testing of programs for the new system.

The methodology employed into section or modules. Each module is tested as it is written. As connecting modules are completed, testing extends to sets of module and eventually the entire program.

Other implementation activities embarked upon include the performance of complete system test after the program is ready. This is the actual operation of the computer system by both the users and the analyst using real application data. The data used had however been processed previously under the existing system and the result already known from previous processing. This serves to ensure that the users understand and are satisfied with the result that would be delivered:

The summary of the steps involved are as follows.

Preparation of an implementation schedule;

Preparation and presentation of management briefing in order to educate and train staff on the new system;

Getting and installing the specified software

Design the required software

Documenting all instruction for the use of the new program for the users.

Perform for the users.

Perform complete system test and establish new procedures.

Plan and organise the conversion

HANDOVER THE SYSTEM TO USERS

SUPERVISION FROM TIME TO TIME.

4.5.0 PROGRAM DOCUMENTATION

This is the process to describing the way the program works. There are two forms of documentation external and internal.

External documentation refers to explanation given about the working of the program,. often printed out as reference manuals.

Internal documentation refers to comments inscribed within the program to describe what is happening at a particular time. This method is employed more in the development of the software for this study. This was to make it possible for any other programmer to be able to understand the program so as to carry out modifications as at when due.

Effort was also made to ensure that the documentations are readable and the language very simple. To promote better communication within the organisation it is recommended that professionals henceforth use the same standard for design and documentation.

Finally enhancement of a program is a requirement built into the very nature of computer systems. As soon as a new system becomes operational, it is usually soon subjected to modifications either to meet new regulations or to capitalise on newly discovered opportunities. An undocumented program would soon be redundant as it would be unable to do this.

4.6.0 PROGRAM MAINTENANCE.

Maintenance begins as soon as the system becomes operational and last as long as it is in use, meet needs or provides enhanced value for the existing systems. Some of the steps to be taken in order to maintain the system include:

Putting procedure in place to guard against both misuse and obsolescent of programs and supporting documents once the system has been handed over;

Establishing and maintain record for every disk or tape within the data library.

Ensuring that source programs are checked out to only authorised people who must account for everything they do to the program. Any changes must lead to ammendment of the master and distributed copies of code documentation and manuals.

Hardware peripherals should be well maintained as specified in their manufacturer's manual.

CHAPTER FIVE

5.0 SUMMARY

The study introduces the Federal Road Safety Commission (FRSC) giving its historical background, statutory functions, structures and achievements so far. The commission is made up of six directorates namely; Motor Vehicle Administration; Logistics nd supplies; Administration and Finance; Training and Planning; Research and statistics and the directorate of operations which is saddled with the responsibility of road traffic offender which is the main concern.

The study also gives an insight into what constitutes the various road tragic offences and their liable penalties, as well as the various types of patrols and patrol produces that are involved in the operation.

Also the manual system being presently utilised by the operations directorate is investigated and analysed, taking cognisance of its merits and numerous demerits. The information obtained is then used in the development of a program using dbase iv programming language for the computer automation of the road traffic offenders records.

5.1 CONCLUSION

In a developing country like Nigeria, the importance of a commission like the Federal Road Safety Commission and in particular the operations directorate to handle issues related to road traffic offences can not be overemphasized. It should be noted however that, although defaulters face some penalties, the role of the commission is basically corrective not punitive, since their ultimate goal is to ensure that our roads are accident-free and safe.

There are however some obstacles militating against the achievement of this goal, they include the following:

-Insufficiency of patrol vehicles, even the few existing ones have almost broken down and are seriously in need of servicing;

-Inadequate funding. This can be regarded as the major problem as it carries with it a lot of associated problems like inadequate patrol equipment and insufficient materials for accident victims;

-Inadequate public enlightenment campaigns;

-Most of the roads are bad and UN-motor able without adequate road signs;

-Most of the cars used by commercial drivers are old and not road-worthy.

5.2 RECOMMENDATIONS

1. More funds should be provided to the directorate which should be specifically used for purchasing more patrol vehicles and repairing old ones and purchasing other necessary equipment like suveillance cameras.
2. The government should repair all the bad roads and place adequate road signs where necessary.
3. There should be stiff legislation, bending all old and unroad worthy vehicles especially for commercial drivers.
4. More public enlightenment campaigns should be organised especially during festive periods for commercial drivers.
5. For effectiveness of the computer automation process the program should be amended to suit the directorates needs as the need arises.
6. Staff should be sent for further computer training to expose and to update their knowledge, so a to be able to use the latest technology to their utmost advantage.
7. The computer automation process should in the nearest future, be extended to the various zonal, sector and unit commands. In during only system compatible with the ones in the headquarters should be purchased. As the most ideal system for the commission would be an integrated system.

```
*TRAOFEND

*TRAOFEND IS A COMPUTER AUTOMATION OF ROAD TRAFFIC OFFENDERS RECORDS*
*DESIGNED FOR THE FEDERAL ROAD SAFETY COMMISSION (FRSC) BY*
*OTULANA A.F. PGD/MCS/608/97/98/ IN PARTIAL FULFILMENT OF PGD IN *
*COMPUTER SCIENCE PROGRAMME AT F.U.T. MINNA*
set talk off
set scoreb off
set statu off
SET deli to "[]"
CLEA

*PROGRAMME INTRODUCTION*
@10,7 SAY "TRAOFEND IS A COMPUTER AUTOMATION OF ROAD TRAFFIC OFFENDERS RECORDS"
@11,7 SAY "DESIGNED FOR THE FEDERAL ROAD SAFETY COMMISSION (FRSC) BY"
@12,7 SAY "OTULANA A.F. PGD/MCS/608/97/98/ IN PARTIAL FULFILMENT OF PGD IN "
@13,7 SAY "COMPUTER SCIENCE PROGRAMME AT F.U.T. MINNA"
WAIT
CLEA

M1="OFFENCE"
M2="OFFENDER"
M3="FREQUENCY"
M4="QUIT"
R=6
clear
set colo to
set colo to rgb+/gb,rg/n,b
*TO DESIGN MAIN MENU*
@2,25 say "FEDERAL ROAD SEFETY COMMISSION"
@3,25 TO 3,55 DOUB
@4,30 SAY "WELCOME TO TRAOFEND"
@0,1 to 23,78 panel
DEFINE MENU TRAOFEND
DEFINE PAD PAD1 OF TRAOFEND PROMPT M1 AT R,3 MESSAGE "Highlight and Press Enter"
DEFINE PAD PAD2 OF TRAOFEND PROMPT M2 AT R,21MESSAGE "Highlight and Press Enter"
*DEFINE PAD PAD3 OF TRAOFEND PROMPT M3 AT R,41 MESSAGE "Highlight and Press Enter"
DEFINE PAD PAD4 OF TRAOFEND PROMPT M4 AT R,61 MESSAGE "Highlight and Press Enter"
ON SELECTION PAD PAD1 OF TRAOFEND DO OFFENCE
ON SELE PAD PAD2 OF TRAOFEND DO OFFENDER
*ON SELE PAD PAD3 OF TRAOFEND DO FREQUENCY
ON SELE PAD PAD4 OF TRAOFEND DO KQUIT
ACTIVATE MENU TRAOFEND
RETURN


PROC OFFENCE
DEFINE POPUP POL1 FROM 7,3 TO 11,14
DEFINE BAR 1 OF POL1 PROMPT "CODE LIST"
DEFINE BAR 2 OF POL1 PROMPT "SUMMARY"
DEFINE BAR 3 OF POL1 PROMPT "EXIT"
ON SELE POPUP POL1 DO CODESUM
ACTIVATE POPUP POL1
RETU


PROC CODESUM
DO CASE
CASE BAR()=1
DO LLIST
CASE BAR()=2
DO MARRY
CASE BAR()=3
@7,5 CLEA TO 9,18
DEACT1 POPUP
ENDCASE
RETU

PROC LLIST
DEFINE POPUP POL11  FROM 9,14 TO 12,23
DEFINE BAR 1 OF POL11 PROMPT "DISPLAY   " MESSAGE "Display to Screen or Printer"
```

```
DEFINE POPUP POL2 FROM 7,21 TO 11,30
DEFINE BAR 1 OF POL2 PROMPT "UPDATE" MESSAGE "Append more Records"
DEFINE BAR 2 OF POL2 PROMPT "LOCATE" MESSAGE "TO LOCATE A SPECIFIED RECORD"
DEFINE BAR 3 OF POL2 PROMPT "EXIT" MESSAGE "Back to main menu"
ON SELE POPUP POL2 DO UPLOC
ACTI POPUP POL2
REtU


PROC UPLOC
DO CASE
 CASE BAR()=1
  DO UUPDATE
 CASE BAR()=2
  DO ULOCATE
 CASE BAR()=3
  @7,21 CLEA TO 11,30
  deactivate popup
ENDCASE
RETU


*TO DESIGN SUB MENU FOR FREQUENCY*
PROC FREQUENCY
DEFINE POPUP POL3 FROM 7,41 TO 11,68
DEFINE BAR 1 OF POL3 PROMPT "Highest numb of offences" MESSAGE "PRINT or VIEW"
DEFINE BAR 2 OF POL3 PROMPT "Offences per Command" MESSAGE "PRINT or VIEW"
DEFINE BAR 3 OF POL3 PROMPT "EXIT" MESSAGE "Back to the main menu"
ON SELE POPUP POL3 DO FREQ
ACTIV POPUP POL3
RETU

PROC FREQ
 DO CASE
  CASE BAR()=1
   DO HIGHEST
  CASE BAR()=2
   DO CCOMMAND
  CASE BAR()=3
   @ 6,41 CLEA TO 10,65
   DEACTIVATE POPUP
 ENDCASE
RETURN



PROC kquit
DEFINE POPUP POL8 FROM 7,60 TO 11,75
DEFINE BAR 1 OF POL8 PROMPT "Exit to Dot" MESSAGE "Exit to Dot prompt"
DEFINE BAR 2 OF POL8 PROMPT "Exit to DOS" MESSAGE "Exit to DOS Prompt"

ON SELE POPUP POL8 DO gquit
ACTIV POPUP POL8
RETU

PROC gquit
 DO CASE
  CASE BAR()=1
   cancel
   set colo to
   clea
  CASE BAR()=2
   quit
   clea
 endcase
RETURN
```

```
RETU

PROC PICKOPT
DO CASE
CASE BAR()=1
DO PVIEW
CASE BAR()=2
DO PUPDATE
CASE BAR()=3
DO PDEL
ENDCASE
RETU


PROC pview
DEFINE POPUP POLt  FROM 10,24 TO 13,35
DEFINE BAR 1 OF POLt PROMPT "TO SCREEN  " MESSAGE "Display Code List to Screen "
DEFINE BAR 2 OF POLt PROMPT "TO PRINTER " MESSAGE "Display Code List to Printer"
ON SELE POPUP POLt DO pdisp
 ACTIVATE POPUP POLt
RETU

PROC pdisp
DO CASE
CASE BAR()=1
DO Pscrreen
CASE BAR()=2
DO Pprinter
endCASE
RETU


PROC MARRY
DEFINE POPUP POL12 FROM 9,15 TO 13,25
*DEFINE BAR 1  OF POL12 PROMPT "VIEW"
DEFINE BAR 2 OF POL12 PROMPT "UPDATE"
DEFINE BAR 3 OF POL12 PROMPT "DELETE"
ON SELE POPUP POL12 DO PICKCH
ACTIVATE POPUP POL12
RETU

PROC PICKCH
DO CASE
CASE BAR()=1
DO MVIEW
CASE BAR()=2
DO MUPDATE
CASE BAR()=3
DO MDELETE
ENDCASE
RETU


PROC mview
DEFINE POPUP POLtt  FROM 11,24 TO 14,35
DEFINE BAR 1 OF POLtt PROMPT "TO SCREEN  " MESSAGE "Display Summary List to Screen "
DEFINE BAR 2 OF POLtt PROMPT "TO PRINTER " MESSAGE "Display Summary List to Printer"
ON SELE POPUP POLt DO mdisp
 ACTIVATE POPUP POLtt
RETU

PROC mdisp
DO CASE
CASE BAR()=1
DO mscreen
CASE BAR()=2
DO mprinter
endCASE
RETU
```

```
*MUPDATE
*PROGRAM TO UPDATE SUMMARY FILE
SET TALK OFF
SET STAT OFF
USE SUMMARY.DBF


*INITIALISING MEMORY VARIABLE
MOFFENCE= SPACE(35)
MPOINT=SPACE(3)
MFINE=0
MCODE=SPACE(3)
MDETAIL=SPACE(254)



*FORMATING DATA ENTERY SCREEN
CLEA
SET COLO TO
SET COLO TO RGB+/GB,RG/N,B
@0,1 TO 23,78 PANEL
@2,5 SAY "FEDERAL ROAD SAFETY COMMISSION (OPERATION`S DIRECTORATE)"

*TO ENTER DATA
DO WHILE .T.
 @9,5 SAY "ENTER THE NEW CODE " GET MCODE PICT "@!"
 @8,5 SAY "ENTER THE NEW TITLE" GET MOFFENCE PICT "@!"
 @10,5 SAY "ENTER THE NEW POINT"  GET MPOINT PICT "99"
 @11,5 SAY "ENTER THE NEW FINE " GET MFINE  PICT "999"
 @12,5 SAY "ENTER THE NEW DETAILS"GET MDETAIL
READ
LOCATE FOR CODE=MCODE
IF FOUND()
REPL TITLE WITH MOFFENCE
REPL CODE WITH MCODE
REPL POINTS WITH MPOINT
REPL FINE  WITH MFINE
REPL DETAIL WITH MDETAIL
ENDIF

@2,0 CLEA

@5,4 SAY "TITLE="
@5,12 SAY TITLE
@6,4 SAY "CODE="
@6,9 SAY CODE
@7,4 SAY "POINTS="
@7,12 SAY POINTS
@8,4 SAY "FINE="
@8,8 SAY FINE
@9,4 SAY "DETAIL"
@9,12 SAY DETAIL
WAIT


 CH=SPACE(1)
 @18,25 SAY "TO UPDATE ANOTHER? (Y/N)" GET CH PICT "!"
 READ
 IF CH="Y"
  LOOP
 ELSE
  EXIT
 ENDIF
ENDDO
CLOSE DATABASES
SET TALK ON
SET STAT ON
RETU
```

```
*UUPDATE
*PROGRAM TO ADD MORE RECORDS TO THE MASTER FILE
SET TALK OFF
SET STAT OFF
SET CENTURY ON
SET DATE BRITISH
USE MASTERTR.DBF
APPEND BLANK


*INITIALISING MEMORY VARIABLE
MDATE=CTOD("  /  /    ")
MZONE= SPACE(3)
MCOMMAND= SPACE(6)
MNAME=SPACE(26)
MLICENCE=SPACE(10)
MVEHICLE=SPACE(8)
MREGNO=SPACE(10)
MUSAGE=SPACE(1)
MCODE=SPACE(3)

*FORMATING DATA ENTERY SCREEN
CLEA
SET COLO TO
SET COLO TO RGB+/GB,RG/N,B
@0,1 TO 23,78 PANEL
@2,5 SAY "FEDERAL ROAD SAFETY COMMISSION (OPERATION`S DIRECTORATE)"
@4,30 SAY "NOTICE OF OFFENCE"


*TO ENTER DATA
DO WHILE .T.
 @8,5 SAY "ENTER DATE" GET MDATE
 @9,5 SAY "ENTER ZONE" GET MZONE PICT "@!"
 @10,5 SAY "ENTER COMMAND"  GET MCOMMAND PICT "@!"
 @11,5 SAY "ENTER NAME " GET MNAME PICT "@!"
 @12,5 SAY "ENTER DRIVER`S LICENCE"  GET MLICENCE PICT "@!"
 @13,5 SAY "ENTER VEHICLE MAKE" GET MVEHICLE PICT "@!"
 @14,5 SAY "ENTER USAGE Government,Private or Commercial (G,P OR C)" GET MUSAGE PICT "!"
 @15,5 SAY "ENTER VIOLATION CODE "GET MCODE PICT "@!"
 @16,5 SAY "ENTER VEHICLE REGISTRATION NUMBER" GET MREGNO PICT "@!"
 READ
REPL NDATE WITH MDATE
REPL ZONE WITH MZONE
REPL NCOMMAND WITH MCOMMAND
REPL NAME WITH MNAME
REPL D LICENCE WITH MLICENCE
REPL VEHICLE WITH MVEHICLE
REPL USAGE WITH MUSAGE
REPL V CODE WITH MCODE
REPL REG_NUMB WITH MREGNO


 CH=SPACE(1)
 @18,25 SAY "TO CONTINUE (Y/N)" GET CH PICT "!"
 READ
 IF CH="Y"
  LOOP
 ELSE
  EXIT
 ENDIF
ENDDO
CLOSE DATABASES
SET TALK ON
SET STAT ON
SET CENTURY OFF
SET DATE AMERICAN
RETU
```

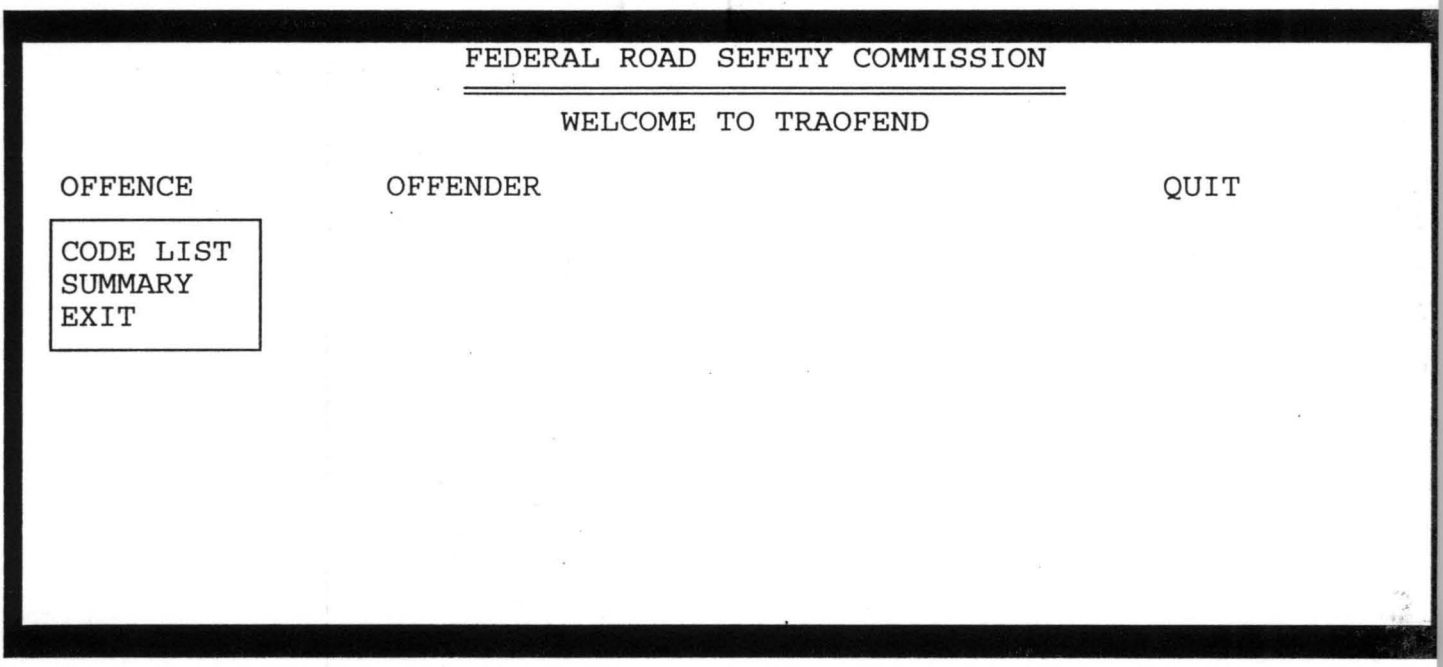
```
*PUPDATE
*PROGRAM TO UPDATE CODE LIST FILE
SET TALK OFF
SET STAT OFF
USE CODELIST.DBF


*INITIALISING MEMORY VARIABLE
MNUMB=0
MOFFENCE= SPACE(35)
MPOINT=SPACE(3)
MFINE=0
MCODE=SPACE(3)



*FORMATING DATA ENTERY SCREEN
CLEA
SET COLO TO
SET COLO TO RGB+/GB,RG/N,B
@0,1 TO 23,78 PANEL
@2,5 SAY "FEDERAL ROAD SAFETY COMMISSION (OPERATION`S DIRECTORATE)"

*TO ENTER DATA
DO WHILE .T.
 @8,5 SAY "ENTER THE NEW CODE LIST" GET MCODE PICT "@!"
 @9,5 SAY "ENTER THE NEW OFFENCE" GET MOFFENCE PICT "@!"
 @10,5 SAY "ENTER THE NEW POINT"  GET MPOINT PICT "99"
 @11,5 SAY "ENTER THE NEW FINE " GET MFINE  PICT "999"
 READ
LOCATE FOR CODE=MCODE
IF FOUND()
*REPLACE NUMB WITH MNUMB
REPL OFFENCE WITH MOFFENCE
REPL CODE WITH MCODE
REPL POINT WITH MPOINT
REPL FINE  WITH MFINE
ENDIF

@2,0 CLEA
@4,4 SAY "NUMBER="
@4,11 SAY NUMB
@5,4 SAY "OFFENCE="
@5,12 SAY OFFENCE
@6,4 SAY "CODE="
@6,9 SAY CODE
@7,4 SAY "POINTS="
@7,12 SAY POINT
@8,4 SAY "FINE="
@8,8 SAY FINE_NAIRA
WAIT


 CH=SPACE(1)
 @18,25 SAY "TO UPDATE ANOTHER? (Y/N)" GET CH PICT "!"
 READ
 IF CH="Y"
  LOOP
 ELSE
  EXIT
 ENDIF
ENDDO
CLOSE DATABASES
SET TALK ON
SET STAT ON
RETU
```

```
*PPRINTER
*PROGRAM TO DISPLAY CODE LIST ON PRINTER
SET TALK OFF
SET STAT OFF
SET BELL OFF
USE CODELIST.DBF
SET SCOR OFF
SET DEVICE TO PRINTER
CLEA
*INTIALISING MEMMORY VARIABLE
PNUMB=0
POFFENCE=SPACE(34)
PCODE=SPACE(3)
PPOINT=0
PFINE=0

*FORMATING THE SCREEN
@2,23 SAY "FEDERAL REPUBLIC OF NIGERIA"
@3,23 TO 3,50
@5,5 SAY "FEDERAL ROAD SAFETY COMMISSION/(OPERATIONS DIRECTORATE)"
@6,5 TO 6,60
@7,25 SAY "CODE LIST SUMMARY"
@8,25 TO 8,41
@9,3 TO 23,75
@9,4 TO 23,10
@9,10 TO 23,48
@9,48 TO 23,55
@9,55 TO 23,63
@9,63 TO 23,75
*TO INSERT HEADINGS
@10,5 SAY "NUMB"
@10,28 SAY "OFFENCE"
@10,50 SAY "CODE"
@10,57 SAY "POINT"
@10,64 SAY "FINES(NAIRA)"
R=11
GO TOP
DO WHILE .NOT. EOF()
IF R=22
WAIT
R=11
ENDIF

NUMB=NUMB
POFFENCE=OFFENCE
PCODE=CODE
PPOINT=POINT
PFINE=FINE_NAIRA

 @R,7 SAY  PNUMB
 @R,12 SAY  POFFENCE
 @R,51 SAY PCODE
 @R,57 SAY PPOINT
 @R,65 SAY PFINE
 SKIP

ENDDO
CLOSE DATABASES


SET TALK ON
SET BELL ON
SET STAT ON
SET DEVICE TO SCREEN
RETU
```

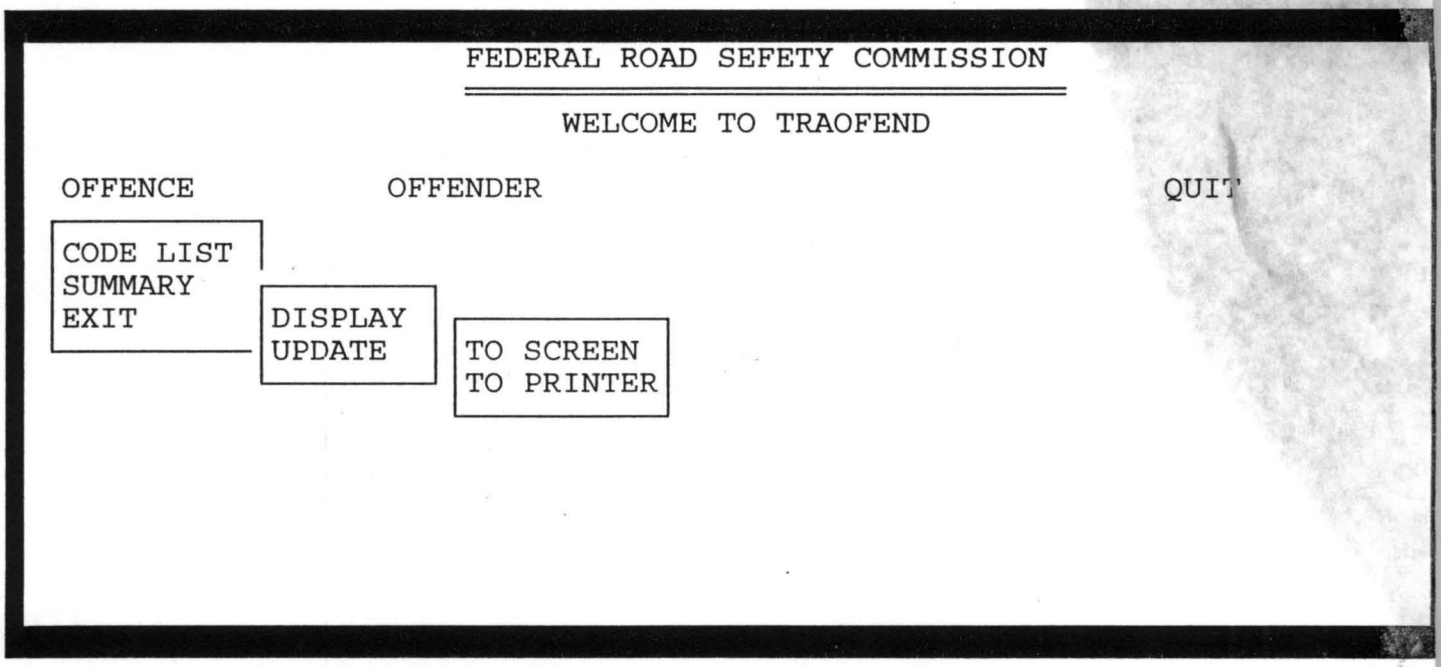
```
*PSCRREEN
*PROGRAM TO DISPLAY CODE LIST ON SCREEN
SET TALK OFF
SET STAT OFF
SET BELL OFF
USE CODELIST.DBF
SET SCOR OFF
CLEA
*INTIALISING MEMMORY VARIABLE

POFFENCE=SPACE(34)
PCODE=SPACE(3)
PPOINT=0
PFINE=0

*FORMATING THE SCREEN
@2,23 SAY "FEDERAL REPUBLIC OF NIGERIA"
@3,23 TO 3,50
@5,5 SAY "FEDERAL ROAD SAFETY COMMISSION/(OPERATIONS DIRECTORATE)"
@6,5 TO 6,60
@7,25 SAY "CODE LIST SUMMARY"
@8,25 TO 8,41
@9,3 TO 23,75
@9,4 TO 23,10
@9,10 TO 23,48
@9,48 TO 23,55
@9,55 TO 23,63
@9,63 TO 23,75
*TO INSERT HEADINGS

@10,28 SAY "OFFENCE"
@10,50 SAY "CODE"
@10,57 SAY "POINT"
@10,64 SAY "FINES(NAIRA)"

R=11
GO TOP
DO WHILE .NOT. EOF()
IF R=22
WAIT
R=11
ENDIF
POFFENCE=OFFENCE
PCODE=CODE
PPOINT=POINT
PFINE=FINE_NAIRA


 @R,12 SAY  POFFENCE
 @R,51 SAY PCODE
 @R,57 SAY PPOINT
 @R,65 SAY PFINE
 SKIP
R=R+1
ENDDO
CLOSE DATABASES

SET TALK ON
SET BELL ON
SET STAT ON
RETU
```

```
* MSCREEN
*PROGRAM TO DISPLAY CODE LIST ON SCREEN
SET TALK OFF
SET STAT OFF
SET BELL OFF
USE CODELIST.DBF
SET SCOR OFF
CLEA
*INTIALISING MEMMORY VARIABLE
PNUMB=0
POFFENCE=SPACE(34)
PCODE=SPACE(3)
PPOINT=0
PFINE=0

*FORMATING THE SCREEN
@2,23 SAY "FEDERAL REPUBLIC OF NIGERIA"
@3,23 TO 3,50
@5,5 SAY "FEDERAL ROAD SAFETY COMMISSION/(OPERATIONS DIRECTORATE)"
@6,5 TO 6,60
@7,25 SAY "CODE LIST SUMMARY"
@8,25 TO 8,41
@9,3 TO 23,75
@9,4 TO 23,10
@9,10 TO 23,48
@9,48 TO 23,55
@9,55 TO 23,63
@9,63 TO 23,75
*TO INSERT HEADINGS
@10,5 SAY "NUMB"
@10,28 SAY "OFFENCE"
@10,50 SAY "CODE"
@10,57 SAY "POINT"
@10,64 SAY "FINES(NAIRA)"

PNUMB=NUMB
POFFENCE=OFFENCE
PCODE=CODE
PPOINT=POINT
PFINE=FINE_NAIRA
R=11
GO TOP
DO WHILE .NOT. EOF()
 @R,7 SAY  PNUMB
 @R,12 SAY  POFFENCE
 @R,51 SAY PCODE
 @R,57 SAY PPOINT
 @R,65 SAY PFINE
 SKIP
 IF R=23
  WAIT
R=11
@R,0 CLEA
  ENDIF
ENDDO
CLOSE DATABASES


*SET TALK ON
*SET BELL ON
*SET STAT ON
**
RETU
```

TRAOFEND IS A COMPUTER AUTOMATION OF ROAD TRAFFIC OFFENDERS RECORDS
DESIGNED FOR THE FEDERAL ROAD SAFETY COMMISSION (FRSC) BY
OTULANA A.F. PGD/MCS/608/97/98/ IN PARTIAL FULFILMENT OF PGD IN
COMPUTER SCIENCE PROGRAMME AT F.U.T. MINNA
Press any key to continue...



Highlight and Press Enter



Display Code List to Screen

FEDERAL ROAD SEFETY COMMISSION

WELCOME TO TRAOFEND

OFFENCE OFFENDER QUIT

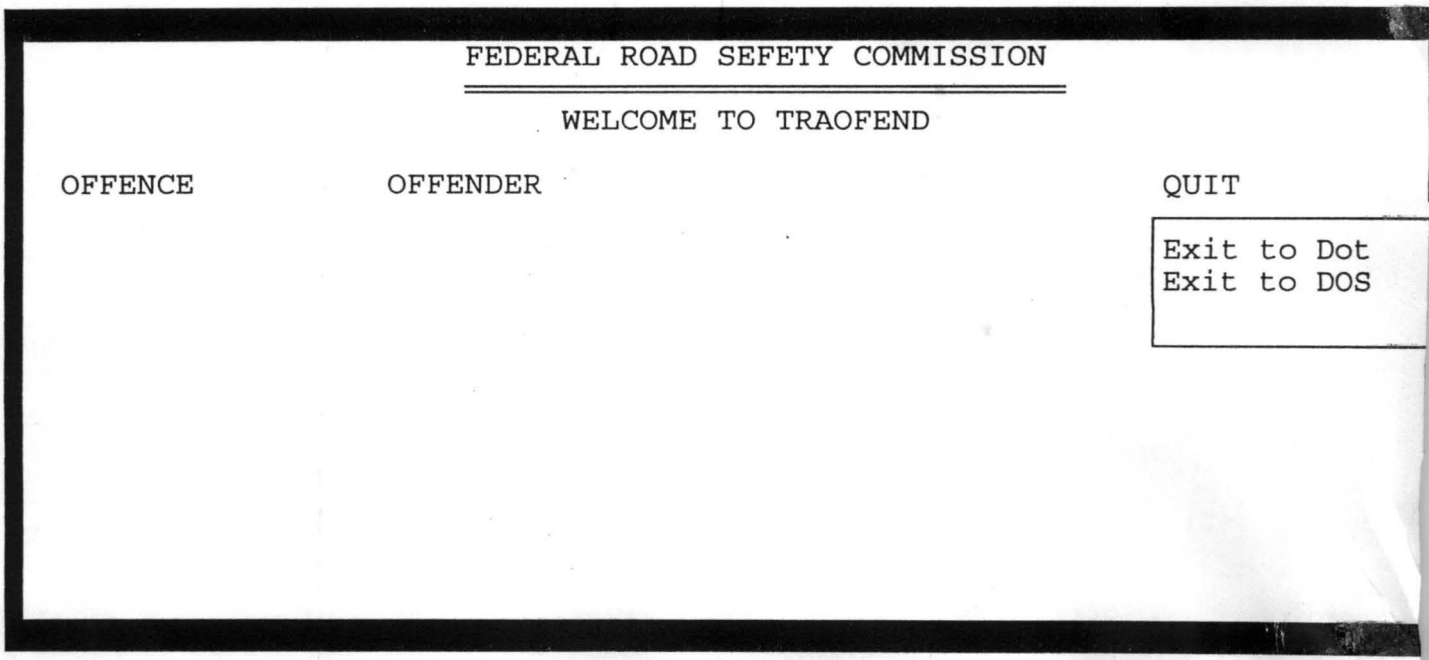
UPDATE
LOCATE
EXIT

Append more Records

FEDERAL ROAD SAFETY COMMISSION (OPERATION`S DIRECTORATE)

NOTICE OF OFFENCE

ENTER DATE / /
ENTER ZONE
ENTER COMMAND
ENTER NAME
ENTER DRIVER`S LICENCE
ENTER VEHICLE MAKE
ENTER USAGE_Government,Private or Commercial (G,P OR C)
ENTER VIOLATION CODE
ENTER VEHICLE REGISTRATION NUMBER



Exit to Dot prompt