COMPUTERIZED CRIME TRACKING INFORMATION SYSTEM

CASE STUDY OFNIGERIAN POLICE, ENUGU

 \mathbf{BY}

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APPROVAL PAGE

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DEDICATION

This project is dedicated first and foremost to the Almighty God, the Holy one whom has made this project a huge success and has been with me all through my stay in school and also to my most loving parents Mr. and Mrs. Ugwoke Thomas .

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My profound and most gratitude goes to the Almighty God who gave me the grace and strength especially during my project work. Also to the loveliest parents in the world, Mr. and Mrs. Ugwoke Thomas. I also want to use this medium to gratefully acknowledge my able supervisor Mrs. Chizoba Ezeme for her contribution towards the success of this project irrespective of her busy schedule, may God bless you. I will not do well if I don't acknowledge my Head of Department, Dr. Arinze Nwaeze and also to all my lecturers, Mr. Ugwu Ejike, Mr. Lawrence Ikpeama.

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ABSTRACT

This project work identifies the challenges facing police departments that seek to implement computerized crime tracking information systems. The project highlights the importance of police departments identifying crime records and then designing systems that accomplish the tasks specific to the needs of their end-users. Data transfer, data integration, system customization, and confidentiality issues are discussed. One of the most significant shortcomings in the delivery of justice is the delay that is encountered by court users which increases the cost of litigation in both time and money, and results in pro-longed criminal trials and over-crowded prisons. Hence the new system designed will aid police in tracking crime records and thereby facilitate timely delivery of judgment by the court. The software was implemented using Visual basic 6.0 and Access database.

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CHAPTER ONE

INTRODUCTION

1.1 BACKGROUND OF THE STUDY

The traditional and age-old system of intelligence and criminal record maintenance has failed to live up to the requirements of the existing crime scenario. Manual processes neither provide accurate, reliable and comprehensive data round the clock nor does it help in trend prediction and decision support. It also results in lower productivity and ineffective utilisation of manpower. The solution to this ever-increasing problem lies in the effective use of Information Technology. Crime Tracking Information System uses computer-generated records as an interface for integrating and accessing massive amounts of location-based information.

Crime tracking system allows police personnel to plan effectively for emergency response, determine mitigation priorities, analyse historical events, and predict future events. Crime tracking system helps identify potential suspects to increase investigators suspect base when no leads are evident. The ability to access and process information quickly while displaying it in a spatial and visual medium allows agencies to allocate resources quickly and more effectively. In the 'mission-critical' nature of law enforcement, information about the location of a crime, incident,

suspect, or victim is often crucial to determine the manner and size of the response. Crime tracking software helps co-ordinate vast amounts of location-based data from multiple sources. It enables the user to layer the data and view the data most critical to the particular issue or mission.

It is used world over by police departments, both large and small, to provide solutions for crime analysis, criminal tracking, traffic safety, community policing, Intranet/Internet mapping, and numerous other tasks.

Crime tracking system helps crime officers determine potential crime sites by examining complex seemingly unrelated criteria and displaying them all in an interface. It also helps them map inmate populations, fixtures, and equipment to provide for the safety of inmates by separating gang members, identifying high-risk or potentially violent inmates, and identifying hazardous locations in an area. It reduces the potential for internal violence by providing better command and control. Traditionally, these activities have been supported by paper and pen. Police officers now have the ability to immediately generate crime report directly relevant to the situation at hand. Police agencies collect vast amounts of data from many sources including called-for-services, arrests, first information reports and daily report. The same information provides a powerful decision making tool for investigators, supervisors, and administrators.

1.2 STATEMENT OF THE PROBLEM

The lack of reliable central case recording systems for Nigerian police meant that cases were in effect impossible to trace without considerable resources, effort and a lot of luck. For criminal cases the impact of this has been felt in the practice of 'holding charge', where people are arrested and charged with capital offences in order to ensure their continued detention, whilst there is little or no evidence of their involvement. This issue has contributed significantly to the visible inefficiency of the Criminal Justice System, particularly the congestion of the prisons and the courts.

To improve the flow of cases and achieve speedier administration of justice, the introduction and deployment of information technology (IT) based case management and tracking systems is needed.

1.3 PURPOSE OF THE STUDY

The purpose of this project is to design and implement a database for storing crime records. This will aid the police in crime tracking and control.

The main objective of the project was to Speed up criminal trials and reduces the length of time Awaiting Trial Prisoners (ATPs) stay in prison by setting up a criminal case tracking system that improves coordination

between justice institutions. The system would ensure a better case flow and efficient data management that would inform better management decisions.

1.4 JUSTIFICATION OF THE STUDY

Implementation of a crime tracking information system by the Nigerian police will help the police and the masses to get useful information on individuals with crime records. The system developed will among other things:

- 1. Maintain a database of all crime records
- 2. Enable a quick search on the database to retrieve crime information
- 3. Enables Enugu police and the Nigerian police to track previous crimes committed by a suspect.
- 4. Improved operational efficiency through the use of a standardized system, searchable digital repository of relevant documents, automated workload distributed and virtual boarding of cases.
- 5. With Case Tracking System (CTS), it is possible to access contact details of the Nigeria police Force (NPF) and the judiciary at a glance and it facilitates quicker and more effective communication between the police and judiciary. With Case Tracking Information System attorney's would spend less time to utilize the information in a manner that is most beneficial to them.

1.5 LIMITATION OF THE PROJECT

Due to time and financial constraint, I was unable to visit most of the police stations in Enugu to gather information on the existing crime tracking information system. Few police stations were visited and the information gathered from the officers in charge forms the basis for the design of the new system.

CHAPTER TWO

Literature Review

2.1 NIGERIA POLICE FORCE

The Nigeria Police Force is designated by Section 194 of the 1979 constitution as the national police of Nigeria with exclusive jurisdiction throughout the country. Constitutional provision also exists, however, for the establishment of separate Nigeria Police Force (NPF) branches "forming part of the armed forces of the Federation or for their protection of harbours, waterways, railways and airfields." One such branch, the Port Security Police, was reported by different sources to have a strength in 1990 of between 1,500 and 12,000.

Nigeria's police began with a thirty-member consular guard formed in Lagos Colony in 1861. In 1879 a 1,200-member armed paramilitary Hausa Constabulary was formed. In 1896 the Lagos Police was established. A similar force, the Niger Coast Constabulary, was formed in Calabar in 1894 under the newly proclaimed Niger Coast Protectorate. In the north, the Royal Niger Company set up the Royal Niger Company Constabulary in 1888 with headquarters at Lokoja. When the protectorates of Northern and Southern Nigeria were proclaimed in the early 1900s, part of the Royal Niger Company Constabulary became the Northern Nigeria Police, and part

of the Niger Coast Constabulary became the Southern Nigeria Police. Northern and Southern Nigeria were amalgamated in 1914, but their police forces were not merged until 1930, forming the Nigeria police Force (NPF), headquartered in Lagos. During the colonial period, most police were associated with local governments (native authorities). In the 1960s, under the First Republic, these forces were first regionalised and then nationalised. The Nigeria Police Force (NPF) performed conventional police functions and was responsible for internal security generally; for supporting the prison, immigration, and customs services; and for performing military duties within or outside Nigeria as directed. Plans were announced in mid-1980 to expand the force to 200,000. By 1983, according to the federal budget, the strength of the NPF was almost 152,000, but other sources estimated it to be between 20,000 and 80,000. Reportedly, there were more than 1,300 police stations nationwide. Police officers were not usually armed but were issued weapons when required for specific missions or circumstances. They were often deployed throughout the country, but in 1989 Babangida announced that a larger number of officers would be posted to their native areas to facilitate police- community relations.

The NPF was under the general operational and administrative control of an Inspector General (IGP) appointed by the president and responsible for the maintenance of law and order. He was supported at headquarters in Lagos

by a Deputy Inspector General (DIG) and in each state by police commissioners. The 1979 constitution provided for a Police Service Commission that was responsible for Nigeria Police Force policy, organization, administration, and finance (except for pensions), In February 1989, Babangida abolished the Police Service Commission and established the Nigeria Police Council in its stead, under direct presidential control. The new council was chaired by the president; the chief of General Staff, the minister of internal affairs, and the police inspector general were members. As part of the government reorganization in September 1990, Alhajji Sumaila Gwarzo, formerly SSS director, was named to the new post of minister of state, police affairs.

In late 1986, the Nigeria Police Force was reorganized nationwide into seven area commands, which superseded a command structure corresponding to each of the States of Nigeria. Each command was under a commissioner of police and was further divided into police provinces and divisions under local officers. Nigeria Police Force headquarters, which was also an area command, supervised and coordinated the other area commands. Later these Area Commands were grouped under Zone Commands as follows:

Zone 1, Headquartered Kano, with Kano, Kastina, and Jigaw Commands
Zone 2, Headquartered Lagos, with Lagos, and Ogun Commands

Zone 3, Headquartered Yola, with Adamawa, and Gombe Commands

The 1986 NPF reorganization was occasioned by a public eruption of tensions between the police and the army. A superintendent was suspended for a time for grumbling that the army had usurped police functions and kept police pay low, and there were fights between police and army officers over border patrol jurisdiction. The armed forces chief of staff announced a thorough reorganization of the Nigeria Police Force into the seven new area commands and five directorates (criminal investigations, logistics, supplies, training, and operations) under deputy inspectors general. About 2,000 constables and 400 senior police officers were dismissed by mid-1987, leaving senior police officers disgruntled.

In mid-1989 another Nigeria Police Force reorganization was announced after the AFRC's acceptance of a report by Rear Admiral Murtala Nyako. In 1989 the Nigeria Police Force also created a Quick Intervention Force in each state, separate from the mobile police units, specifically to monitor political events and to quell unrest during the transition to civil rule. Each state unit of between 160 and 400 police was commanded by an assistant superintendent and equipped with vehicles, communications gear, weapons, and crowd control equipment, including cane shields, batons, and tear gas.

A Federal Investigation and Intelligence Bureau (FIIB) was to be set up as the successor to the Directorate of Intelligence and Investigation; three

directorates were established for operations, administration, and logistics, each headed by a deputy inspector general.

The Directorate of Operations was subdivided into four units under a deputy director—operations, training, communications, and the police mobile force. The Directorate of Administration was composed of an administration unit headed by an assistant inspector general (AIG), and of budget and personnel units under commissioners.

The Directorate of Logistics had four units—procurement, workshop/transport, supply, and work/maintenance—under AIGs. The zonal arrangements were retained. However, AIGs were authorized to transfer officers up to the rank of chief superintendent, to set up provost units, to deploy mobile units, and to promote officers between the ranks of sergeant and inspector.

Department - Force Criminal Investigation Department (FCID) is the highest investigation arm of the Nigeria Police NPF. The Department is headed by a deputy Inspector-General (DIG), currently Israel Ajao. Its primary functions include investigation and prosecution of serious and complex criminal cases within and outside the Country. The Department also coordinates crime investigations throughout the Nigerian Police Force (NPF). The Nigeria Police Force (NPF) Criminal Investigation Department

(CID) is divided into sections, with most of them headed by Commissioners of Police. The Sections are:

- i. Administration
- ii. Anti-Fraud Section
- iii. The Central Criminal Registry (CCR)
- iv. Special Anti-Robbery Squad (SARS)
- v. X-Squad
- vi. General Investigation
- vii. Special Fraud Unit (SFU)
- viii. Legal Section
- ix. Forensic Science Laboratory
- x. Interpol Liaison
- xi. Homicide
- xii. Anti-Human Trafficking Unit
- xiii. Special Branch CIB/SIB
- xiv. Force CID Kaduna Annex

2.2 CRIME MAPPING SYSTEM

Computerized crime maps provide crime analysts and departmental planners with a means to spatially relate crime conditions, patterns, and trends. For example, an analyst can search for places where high levels of crime

correlate with relatively low levels of patrol assignments. Patterns can be explored within a mapping system by searching places with elevated levels of crime against patrol deployment patterns across temporal dimensions. Trends can be uncovered by using past patterns to predict the locations of emerging hot spots of crime. Graphic presentations of search findings provide a powerful medium to communicate conditions, patterns, and trends, often creating an avenue for analysts to bring about significant policy changes. In Jersey City, for example, computerized crime mapping capabilities have been used by departmental planners to develop beat boundaries and to help match community service officers with particular ethnic and racial neighborhoods. In another project, the Jersey City Police Department crime mapping system was used to merge crime data with neighborhood characteristics. Boundaries were created to match Census data with police data aggregated to the beat level of analysis. In this project, workload data were merged with indicators of crime (such as emergency calls and arrests) and then mapped along with Census data showing population densities, proportions of youths by district, and other community-level factors that correlated with high or low work loads. Using these maps, the police department embarked upon a restructuring project that precipitated widespread changes to the organizational structure and function of the department. While police department planners and crime

analysts are typically interested in using computerized crime mapping systems to answer broad-based policy questions, street-level problemsolvers use crime mapping to answer different types of questions. Street officers still require mapping tools to examine conditions, patterns and trends in crime problems, but the units of inquiry and their data needs are often quite different from crime analysts' demands. For example, street-level officers tend to explore crime maps to identify the environmental features that are consistent with different types of problems. Bars are often found to be focal points for open-air drug sales (Eck, 1994; Roncek and Maier, 1991; Weisburd and Green, 1994); assault and robbery problems tend to occur along main throughways and, in particular, near bus stops; and prostitution problems are often found along main throughways. Knowing the unique distributions of crime problems for specific categories of crime is critical for street-level problem-solving officers. While crime mapping systems can be used by both street-level officers and citywide crime analysts, many police departments customize their inquiry system to meet the specific demands of one group over another. For example, crime analysts will typically demand a mapping system that can routinize the creation of thematic maps describing the changing patterns of crime across the city over the last six months. By contrast, beat officers will typically demand that their mapping system help them to pinpoint crime patterns for specific categories of crime.

For example, the Jersey City Violent Crimes Unit used their mapping system to identify robbery incident patterns over a two-week period when they suspected that one particular group was involved in a spate of crimes. A mapping system designed to routinize thematic maps using six monthly or yearly blocks of data will frustrate a beat officer asking very different questions and needing more specific time-frame data. Therefore, we suggest that police departments need to identify the primary end-user from the outset, and then prioritize the customization of crime mapping systems accordingly.

2.3 TRACKING SYSEM

Generally tracking is the observing of persons or objects on the move and supplying a timely ordered sequence of respective location data to a model e.g. capable to serve for depicting the motion on a display capability.

Tracking in virtual space

In virtual space technology, a tracking system is generally a *system* capable of rendering virtual space to a *human observer* while tracking the observer's body *coordinates*. For instance, in dynamic virtual auditory space simulations, a real-time head tracker provides feedback to the central processor, allowing for selection of appropriate *head-related transfer*

functions at the estimated current position of the observer relative to the environment.

Within the real world, there are a variety of technologies employed within asset tracking systems. Some are 'lag time' indicators, that is, the data is collected after an item has passed a point for example a bar code or choke point or gate. Others are 'real-time' or 'near real-time' like Global Positioning Systems depending on how often the data is refreshed. There are bar-code systems which require a person to scan items and automatic identification. For the most part, the tracking worlds are composed of discrete hardware and software systems for different applications. That is, bar-code systems are separate from Electronic Product Code (EPC) systems, Global Positioning Service (GPS) systems are separate from active real time locating systems for example, a passive system would be used in a warehouse to scan the boxes as they are loaded on a truck - then the truck itself is tracked on a different system using Global Positioning Service with its own features and software.

2.4 INFORMATION SYSTEM

An information system is any combination of information technology and people's activities that support operations, management and decision making. In a very broad sense, the term *information system* is frequently

used to refer to the interaction between people, processes, data and technology. In this sense, the term is used to refer not only to the information and communication technology (ICT) that an organization uses, but also to the way in which people interact with this technology in support of business processes, Kroenke, (2008).

Some make a clear distinction between information systems, computer systems, and business processes. Information systems typically include an Information and Communication Technology (ICT) component but are not purely concerned with Information and Communication Technology (ICT), focusing in instead, on the end use of information technology. Information systems are also different from business processes. Information systems help to control the performance of business processes, O'Brien, (2003)

Alter argues for an information system as a special type of work system. A work system is a system in which humans and/or machines perform work using resources to produce specific products and/or services for customers. An information system is a work system whose activities are devoted to processing (capturing, transmitting, storing, retrieving, manipulating and displaying) information.

As such, information systems inter-relate with data systems on the one hand and activity systems on the other. An information system is a form of communication system in which data represent and are processed as a form of social memory. An information system can also be considered a semi-formal language which supports human decision making and action.

Information systems are the primary focus of study for the information systems discipline and for organizational informatics, Beynon-Davies (2009).

2.5 CASE TRACKING SYSTEM IN ENUGU.

The delay in the administration of criminal justice in Enugu state led to the setting up a sector-wide criminal Case Tracking System (CTS) which enables criminal cases to be monitored throughout the entire criminal justice process. Under the system the Ministry of Justice (MOJ) coordinates the efforts of 5 institutions – Directorate of Public Prosecutions (DPP), Police, Prison Service, High Courts and Magistrates Courts. An electronic databank of information is kept about every accused that is remanded to prison custody by the Magistrates or High Courts. The system identifies each accused by a unique reference number, tracks key events in the progress of his case, and provides a search facility to enable the current status, location and history of the case to be established at any time. The system also incorporates an 'Alert' system to give early warning of approaching deadlines or key milestones in a case, enables the production of sector-wide,

institutional, case and individual 'performance data' and reports and has enhanced ability to locate any case/accused in the criminal justice system at any time and indicate the cur-rent status.

The main objective of the project was to: 'Speed up criminal trials and reduce the length of time Awaiting Trial Prisoners (ATPs) stay in prison by setting up a criminal case tracking system that improves coordination between justice institutions. The system would ensure a better case flow and efficient data management that would inform better management decisions.' The project was designed to address the short-comings of the criminal justice system in the state, such as lack of responsibility for cases, poor communication among the criminal justice institutions, and the lack of reliable central case recording system and the prolonged de-lay of cases generally.

Implementation of the Case Tracking System (CTS) began in earnest in November 2005 and was expected to last 18 months. It was extended on two occasions and eventually concluded and was fully handed over to the Ministry of Justice (MOJ) in December 2008.

The stakeholders created a multi-institution management team known as the Development and Management Team (DMT) which served as a coordinating unit to ensure that all the participating agencies work together

in a concerted manner. All the partner institutions had at least two positions on the Development and Management Team (DMT).

Apart from technical advice, funded refurbishment of offices, provision of equipment, training of staff, development of software and manual forms, funding of Information Technology (IT) support staff and provision of consumables. The Enugu state government made a substantial contribution. The main focus of the project was the creation of an automated system to enable the management and tracking of all criminal cases in the State throughout the entire criminal justice process. The project was under the management of a part-time international consultant supported by a full-time local Deputy Project Manager.

Through an Awaiting Trial Prisoner (ATP) exercise attached to this project to deal with cases of long term Awaiting Trial Prisoners (ATPs), the cases of 672 ATPs were covered. Out of these, by the time the project was fully taken over by the Ministry of Justice (MOJ) in December 2008, the cases of 537 Awaiting Trial Prisoners (ATPs) had been resolved either through completion of their cases or their release from custody. This means the lives of many long-term Awaiting Trial Prisoners (ATPs) have been improved (those that have been released) or at least their cases resolved (those whose cases have reached conclusion), resulting in an increase in the quality of

justice for the poorer members of society who constitute the overwhelming majority among the Awaiting Trial Prisoners (ATPs).

A functioning case tracking system is in place, as an automated system containing records of all prisoners sent to the custody of the Nigerian Prisons Service since November 2006. The system includes:

- a) A customized case tracking software developed and installed in the five institutions
- b) Case Tracking Units in each institution (Ministry of Justice (MOJ), Nigerian Police Force (NPF) and Magistrate Court), including refurbished and well equipped offices, and the Central Collating Unit (CCU) at the Ministry Of Justice (MOJ), although maintenance and resource challenges mean that some of these units are already showing signs of becoming inactive
- c) A database listing all long-term Awaiting Prisoners (ATPs) pre-November 2006. Hundreds of staff from each institution has been trained in the completion of forms, use of the Information Technology (IT) system and purpose and objectives of the Case Tracking System (CTS).

Users of the system are able to locate prisoners on the Case Tracking System (CTS) and view basic information about their cases; and performance reports have been produced (albeit the data they contain so far cannot be considered wholly reliable because of shortcomings in data entry in institutions other than the Nigerian Prisons Service).

A functioning Development and Management Team (DMT) is in place and functioning, comprising representatives of the five justice institutions involved, although its true influence (in relation to being able to change existing practices in the institutions) is so far marginal.

The initiative has brought about a number of positive changes which include:

- a) Realization by members of the Data Management Team (DMT) and many officers from the institutions of the necessity for coordination and cooperation.
- b) Senior officers of some institutions (e.g. Attorney-General) have become more aware of the potential impact the data on the system and the performance re-ports could have on the delivery of criminal justice
- c) Greater levels of acceptance of the need to speed up cases and the consequences of not doing so.
- d) Increasing understanding of the significant increase in accountability that will result from the successful functioning of the Case Tracking System

- (CTS), although perversely, this may be one of the reasons for its failure to be fully implemented as many officers perceive it is a threat to their way of working.
- e) Increase in levels of understanding of many officers in all institutions of the potential of automated systems (and greater understanding of the effort required to develop and maintain them)
- f) Greater interest in data collection, improved use of Information Technology (IT) solutions in criminal justice matters, greater accountability by institutions at least to fellow institutions and remarkably better perception of the Criminal Justice System of Enugu state. All these may well be the seeds needed for more fundamental impacts such as greater efficiency in the disposition of the cases of Awaiting Trial Prisoners (ATPs). But they require careful nurturing.

CHAPTER THREE

METHODOLOGY AND SYSTEM ANALYSIS

3.1 METHODOLOGY

Methodology is the underlying principles and rules that govern a system method; on the other hand it is a systematic procedure for a set of activities. Thus, from these definitions a methodology encompasses the methods used within a study.

Structured Systems Analysis and Design Method (SSADM) is a systems approach to the analysis and design of information systems. Structured System Analysis and Design Method (SSADM) is a waterfall method by which an Information System design can be arrived at. Structured System Analysis and Design Method (SSADM) can be thought to represent a pinnacle of the rigorous document-led approach to system design, and contrasts with more contemporary Rapid Application Development methods such as DSDM.

System design methods are a discipline within the software development industry which seek to provide a framework for activity and the capture, storage, transformation and dissemination of information so as to enable the economic development of computer systems that are fit for purpose.

3.2 ANALYSIS OF THE EXISTING SYSTEM

One can categorise crimes depending on the related punishment, with sentencing tariffs prescribed in line with the perceived seriousness of the offence. Thus fines and noncustodial sentences may address the crimes seen as least serious, with lengthy imprisonment or (in some jurisdictions) capital punishment reserved for the most serious.

The following classes of offences are used, or have been used, as legal terms of art:

- Offence against the person
- Violent offence
- Sexual offence
- Offence against property

Researchers and commentators have classified crimes into the following categories, in addition to those above:

- Forgery, impersonation and cheating
- Firearms and offensive weapons
- Offences against the State/Offences against the Crown and Government Political offences
- Harmful or dangerous drugs

- Offences against religion and public worship
- Offences against public justice Offences against the administration of public justice
- Public order offence
- Commerce, financial markets and insolvency
- Offences against public morals and public policy
- Motor vehicle offences
- Conspiracy, incitement and attempt to commit crime
- Inchoate offence
- Juvenile Delinquency

With the case of those involving crime the suspect will be arrested and detained. The suspect will be given a suspect form under investigation to fill in which the suspect data will be captured and the suspect will write statement. All these data will be written in the record book and kept in the archives. The suspect will be detained in the counter or cell as the case may be, while the divisional crime officer assigns an investigating police officer (IPO) the investigation to be conducted. Bailing as the case may be, maybe granted to the suspect depending on the seriousness of the case. If bail is granted the suspect will be expected to report to the police station on a daily bases whenever needed. When the investigation has been concluded, the details of the investigation will be documented on the crime diary booklet

by the investigating police officer, and then the suspect will be charged and arrayed in the court where the judge will hear and give the final verdict. The suspect or accused will be referred to as a criminal if after the court hearing the suspect is found guilty.

3.2.1 Reference to Written Text

Reference was also made to some existing documents and case files in the police station. Some materials were also downloaded from internet for the purpose of reviewing the work.

3.3 METHOD OF DATA COLLECTION

3.3.1 Interview Method

This was done between the researcher and some of the officers of the Nigerian Police in Enugu State. Information on criminal charges and trial was gathered.

3.4 INPUT, PROCESS AND OUTPUT ANALYSIS

3.4.1 Inputs Analysis

The various system inputs include the following input systems.

- i. Witness /Suspect Statement
- ii. Case File

This is used to capture suspect statement. Immediately a criminal is convicted, a case file is open for the criminal. It contains the brief fact of criminal matters.

3.4.2 Process Analysis

The crime information collected is stored in a database for future retrieval.

Also some processing is carried out on the case file to determine the frequency of the occurrence of a particular crime.

3.4.3 Output Analysis

This is an output form hardcopy of the particulars of conviction. This is generated after court has decided criminal matter and it is usually kept at the police station.

3.5 INFORMATION FLOW DIAGRAM

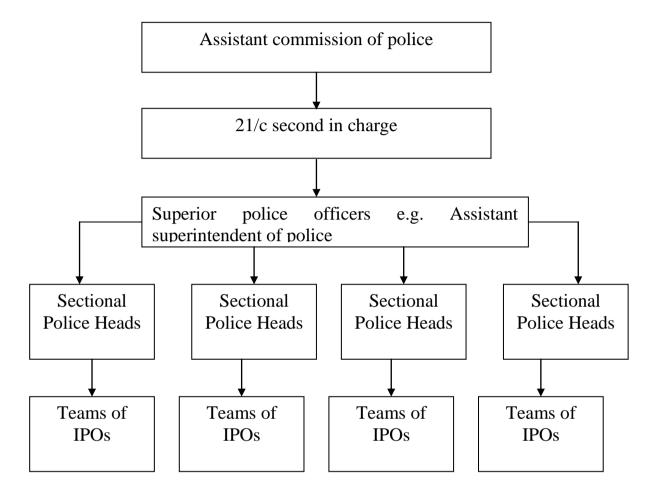


Fig 3.1:1 Information Flow Diagram

3.6 PROBLEMS OF THE PRESENT SYSTEM

Due to the manual means being used by the Nigerian police force, in keeping information about crime and entering records of it into record books instead of it being in form of data input into computer storage system, problems arise and there problems have plagued the Nigerian police force and affected the policing system in the country. Some of these problems are enumerated below.

a) Insufficient Equipment

Almost all police units in the country especially the Enugu state police lack equipment such as computer system. If these systems are provided, there will be good report generated, communication links among different police units (when networked) and this in-turn will enhance decision Making and ultimately facilitate the fighting of crime because good and valuable information yield's good results.

(b) Keeping Of Record Books For Different Cases That Come In Daily.

This presents a lot of problems to the policing system because the record books are always voluminous and in trying to keep all these, some vital information might be lost. This also makes the office look very clumsy and untidy since most files are covered with dust.

(c) Loss Of Important Information

Due to damages that occur on record books and files, when pages are lost, some vital information is also lost

(d) Inaccuracy –Due to the manual method of handling information a lot of human error are noticed in processed information.

(e) Time lapses

Due to the manual method, there is always a slow response- time when the law court requires information about particular cases.

(f) Insecurity

There can be no proper security of information.

3.7 JUSTIFICATION FOR THE NEW SYSTEM

The new system will help sanities crime tracking system in Nigeria. The software will be of immense benefit to government. The software will among other things:

- 1. Facilitate crime tracking system
- 2. Information management
- 3. Trial
- 4. Fast retrieval of documents

CHAPTER FOUR

SYSTEM DESIGN, IMPLEMENTATION AND TESTING

4.1 OUTPUT SPECIFICATION AND DESIGN

The output form is designed to generate printable reports from the database. The output is placed on a database grid and contains crime information. The output produced can be printed on a hard copy or viewed on the screen. The output generated includes:

- 1. Crime Report
- 2. Female Crime Report
- 3. Male Crime Report
- 4. Crime Report by Date
- 5. Crime Report By Crime Nature

4.2 DATABASE FILE DESIGN

In any good database design, effort should be made to remove completely or at worst reduce redundancy. The database design in the software is achieved using Microsoft access database. Bellow is the structure of the file designed in the database.

4.3 CRIMINAL FILE

Field Name	Data Type	Field Size
Case No	Text	50
Name	Text	50
Crime	Text	50
Address	Text	50
State of origin	Text	25
LGA	Text	25
Sex	Text	6
Age	Integer	4
IPO	Text	50
Town	Text	40
Court	Text	100
Verdict	Text	100
Cell No	Double	8
Arrest date	Date/Time	8
Date Convicted	Date/Time	8

Fig 4.3:1 Criminal File.

4.4 PROCEDURE CHART

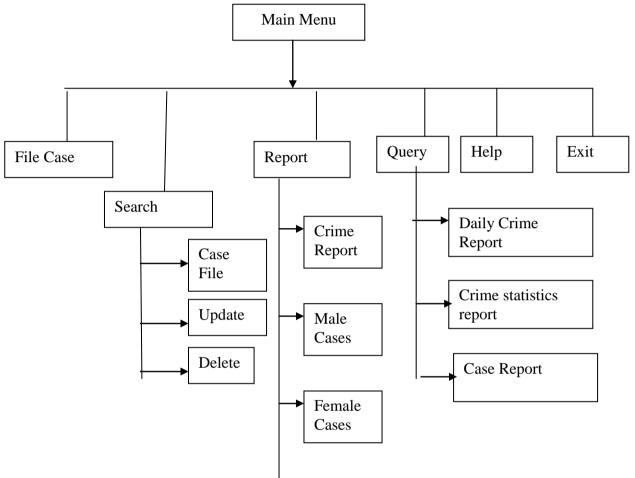


Fig 4.5 Procedure chart.

4.5 SYSTEM FLOWCHARTS

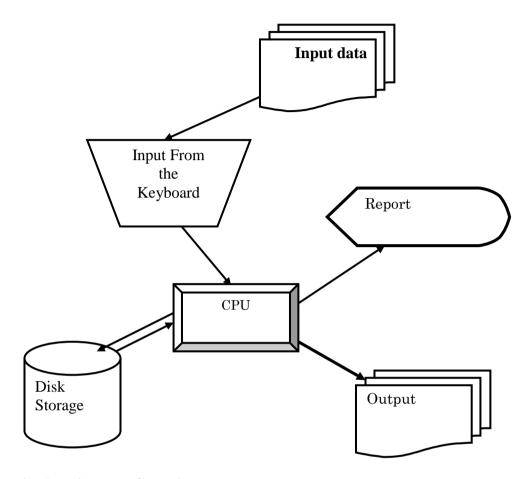


Fig 4.5: System flowcharts.

4.6 SYSTEM REQUIREMENTS

In order to realize this project, the following software and hardware components were used:

4.6.1 Hardware Requirements

In the cost of the design, the software developed needed the following hardware for an effective and efficient operation of the new system.

- 1. Pentium IV
- 2. 1GB RAM.

- 3. Enhanced keyboard.
- 4. At least 40GB hard disk.
- 5. E.G.A/V.G.A, a coloured monitor.
- 6. An uninterruptible power supply (UPS) units
- 7. LaserJet or DeskJet printer.

4.6.2 Software Requirements

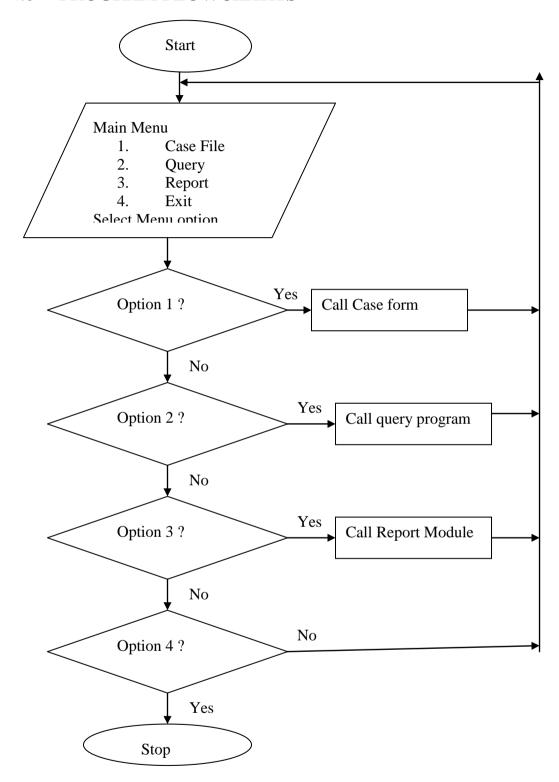
The software requirements includes:-

- A window 98 or higher version for faster processing
- Microsoft Access
- Visual Basic integrated development environment (version 6.0).

4.7 PROGRAMMING LANGUAGE USED

The new system is implemented using Microsoft Visual Basic programming language. This is because the programming language has the advantage of easy development. Flexibility and it has the ability of providing the developer/programmer with possible hints and it produces a graphical user interface.

4.8 **PROGRAM FLOWCHARTS**



CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 SUMMARY

While police organizations have existed as long as government itself, the idea of a computerised crime tracking system by police force is relatively modern concept. Max Weber famously argued that the state is that which controls the legitimate monopoly of the means of violence. The military and police carry out enforcement at the request of the government or the courts. The term failed state refers to states that cannot implement or enforce policies; their police and military no longer control security and order and society moves into anarchy, the absence of government. But with the implementation of the crime tracking system designed I this project, it will be much easier for police to keep track of crime information in other to have control over the state.

5.2 RECOMMENDATION

It is recommended that the nigerian police be adquetly trained on the use of Information Technology in crime tracking. Computer litracy program should be organized for the nigerian police. This can be carried out set by set. At the end of the training, it is recommended that the crime tracking

system be deployed to every police station for recording crime information.

5.3 CONCLUSION

The complexity and anonymity of computer systems may help criminal camouflage their operations. The victims of the most costly scams include banks, brokerage houses, insurance companies, and other large financial institutions.

Most people guilty of embezzlement do not have criminal histories. Embezzlers tend to have a gripe against their employer, have financial problems, or simply an inability to resist the temptation of a loophole they have found. Screening and background checks on perspective employees can help in prevention; however, many laws make some types of screening difficult or even illegal. Fired or disgruntled employees sometimes sabotage their company's computer system as a form of "pay back". This sabotage may take the form of a logic bomb, a computer virus, or creating general havoc.

Some police stations have developed measures in an attempt to combat and prevent crime. Police sometimes implement security measures such as cameras, fingerprint records of crimes, and background checks. Not only do these methods help prevent crime, but they help police to keep track of crimes and maintain a database of criminal records.

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APPENDIX 1 SOURCE CODE

Private Sub cfd_Click()

Frame3. Visible = True

DTPicker3.Value = Date

End Sub

Private Sub cic_Click()

Frame4. Visible = True

End Sub

Private Sub cmdok1_Click()

frmDataEnv.Data1.Recordset.MoveFirst

Do Until frmDataEnv.Data1.Recordset.EOF

frmDataEnv.Data1.Recordset.Edit

If frmDataEnv.Data1.Recordset.Fields("Filing Date") = DTPicker3.Value

Then

```
frmDataEnv.Data1.Recordset.Fields("View") = "Yes"
Else
frmDataEnv.Data1.Recordset.Fields("View") = "No"
End If
frmDataEnv.Data1.Recordset.Update
frmDataEnv.Data1.Recordset.MoveNext
Loop
frmDataEnv.Data1.Refresh
frmDataEnv.Data2.Refresh
Frame 3. Visible = False
With frmDataEnv.Data3
    .DatabaseName = App.Path & "\file.mdb"
     .RecordSource = "SELECT * FROM Recordfile"
                                                    .Refresh
  End With
With frmDataEnv.Data3
    .DatabaseName = App.Path & "\file.mdb"
     .RecordSource = "SELECT * FROM Report"
   .Refresh
  End With
 DataEnvironment1.Connection1.Open
```

DataEnvironment1.Command1

DataEnvironment1.Connection1.Close

DataEnvironment1.Connection1.Open

DataEnvironment1.Command1

DataReport1.Title = "Crime Reports on " + Str(DTPicker3.Value)

DataReport1.Show

End Sub

Private Sub cmdok2_Click()

frmDataEnv.Data1.Recordset.MoveFirst

Do Until frmDataEnv.Data1.Recordset.EOF

frmDataEnv.Data1.Recordset.Edit

If frmDataEnv.Combo5.Text = frmDataEnv.Data1.Recordset.Fields("Case

Type") Then

frmDataEnv.Data1.Recordset.Fields("View") = "Yes"

Else

frmDataEnv.Data1.Recordset.Fields("View") = "No"

End If

frmDataEnv.Data1.Recordset.Update

frmDataEnv.Data1.Recordset.MoveNext

Loop

frmDataEnv.Frame4.Visible = False

frmDataEnv.Data1.Refresh

```
frmDataEnv.Data2.Refresh
```

With frmDataEnv.Data3

.DatabaseName = App.Path & "\file.mdb"

.RecordSource = "SELECT * FROM Recordfile" .Refresh

End With

With frmDataEnv.Data3

.DatabaseName = App.Path & "\file.mdb"

.RecordSource = "SELECT * FROM Report" .Refresh

End With

DataEnvironment1.Connection1.Open

DataEnvironment1.Command1

DataEnvironment1.Connection1.Close

DataEnvironment1.Connection1.Open

DataEnvironment1.Command1

DataReport1.Title = "Crime Statistics Report on " +

frmDataEnv.Combo5.Text

DataReport1.Show

End Sub

Private Sub Combo3_Click()

On Error Resume Next

If frmDataEnv.Option1.Value = True Then

```
frmDataEnv.Data1.Recordset.MoveFirst
```

Do Until frmDataEnv.Data1.Recordset.EOF

If frmDataEnv.Combo3.Text = frmDataEnv.Data1.Recordset.Fields("Case No") Then

frmDataEnv.Text1.Text = frmDataEnv.Data1.Recordset.Fields("Case No")

frmDataEnv.Combo1.Text = frmDataEnv.Data1.Recordset.Fields("Case
Type")

frmDataEnv.DTPicker1.Value

frmDataEnv.Data1.Recordset.Fields("Filing Date")

frmDataEnv.DTPicker2.Value = frmDataEnv.Data1.Recordset.Fields("Date of conviction")

frmDataEnv.Text4.Text = frmDataEnv.Data1.Recordset.Fields("IPO")

frmDataEnv.Text6.Text = frmDataEnv.Data1.Recordset.Fields("Name")

frmDataEnv.Combo4.Text = frmDataEnv.Data1.Recordset.Fields("Sex")

frmDataEnv.Combo2.Text = frmDataEnv.Data1.Recordset.Fields("State of origin")

frmDataEnv.Text3.Text = frmDataEnv.Data1.Recordset.Fields("Address")

frmDataEnv.Text3.Text = frmDataEnv.Data1.Recordset.Fields("LGA")

frmDataEnv.Text2.Text = frmDataEnv.Data1.Recordset.Fields("Town")

frmDataEnv.Text10.Text = frmDataEnv.Data1.Recordset.Fields("Cell no")

frmDataEnv.Text5.Text = frmDataEnv.Data1.Recordset.Fields("court")

=

frmDataEnv.Text7.Text = frmDataEnv.Data1.Recordset.Fields("Verdict") frmDataEnv.Frame2.Visible = False frmDataEnv.Frame1.Visible = True Exit Do Else frmDataEnv.Data1.Recordset.MoveNext End If Loop End If If frmDataEnv.Option2.Value = True Then frmDataEnv.Data1.Recordset.MoveFirst Do Until frmDataEnv.Data1.Recordset.EOF frmDataEnv.Data1.Recordset.Edit If frmDataEnv.Combo3.Text = frmDataEnv.Data1.Recordset.Fields("Case No") Then frmDataEnv.Data1.Recordset.Fields("View") = "Yes" Else frmDataEnv.Data1.Recordset.Fields("View") = "No" End If frmDataEnv.Data1.Recordset.Update frmDataEnv.Data1.Recordset.MoveNext

```
Loop
```

frmDataEnv.Frame2.Visible = False

With frmDataEnv.Data3

.DatabaseName = App.Path & "\file.mdb"

.RecordSource = "SELECT * FROM Recordfile" .Refresh

End With

frmDataEnv.Data1.Refresh

frmDataEnv.Data2.Refresh

With frmDataEnv.Data3

.DatabaseName = App.Path & "\file.mdb"

.RecordSource = "SELECT * FROM Report"

.Refresh

End With

DataEnvironment1.Connection1.Open

DataEnvironment1.Command1

DataEnvironment1.Connection1.Close

DataEnvironment1.Connection1.Open

DataEnvironment1.Command1

DataReport1.Title = "Case Record"

DataReport1.Show

End If

End Sub

Private Sub Command4_Click()

On Error GoTo 200

Dim t As String

If frmDataEnv.Text1.Text = "" Or frmDataEnv.Text4.Text = "" Or

frmDataEnv.Text6.Text = "" Then GoTo 200

frmDataEnv.Data1.Recordset.MoveFirst

Do Until frmDataEnv.Data1.Recordset.EOF

If frmDataEnv.Text1.Text = frmDataEnv.Data1.Recordset.Fields("Case

No") Then

t = MsgBox("Please the case number is already existing. Change the case

No.", vbOKOnly, "Error")

GoTo 300

Exit Do

Else

frmDataEnv.Data1.Recordset.MoveNext

End If

Loop

frmDataEnv.Data1.Recordset.AddNew

frmDataEnv.Data1.Recordset.Fields("Case No") = frmDataEnv.Text1.Text

frmDataEnv.Data1.Recordset.Fields("Case Type") =frmDataEnv.Combo1.Text Date") frmDataEnv.Data1.Recordset.Fields("Filing frmDataEnv.DTPicker1.Value frmDataEnv.Data1.Recordset.Fields("Date conviction") of =frmDataEnv.DTPicker2.Value frmDataEnv.Data1.Recordset.Fields("IPO") = frmDataEnv.Text4.Text frmDataEnv.Data1.Recordset.Fields("Name") = frmDataEnv.Text6.Text frmDataEnv.Data1.Recordset.Fields("Sex") = frmDataEnv.Combo4.Text frmDataEnv.Data1.Recordset.Fields("State of origin") = frmDataEnv.Combo2.Text frmDataEnv.Data1.Recordset.Fields("Address") = frmDataEnv.Text8.Text frmDataEnv.Data1.Recordset.Fields("LGA") = frmDataEnv.Text3.Text frmDataEnv.Data1.Recordset.Fields("Town") = frmDataEnv.Text2.Text frmDataEnv.Data1.Recordset.Fields("Cell no") = frmDataEnv.Text10.Text frmDataEnv.Data1.Recordset.Fields("court") = frmDataEnv.Text5.Text frmDataEnv.Data1.Recordset.Fields("Verdict") = frmDataEnv.Text7.Text frmDataEnv.Data1.Recordset.Fields("num") = 1 frmDataEnv.Data1.Recordset.Fields("View") = "Yes"

frmDataEnv.Data1.Recordset.Update

frmDataEnv.Text1.Text = ""

```
frmDataEnv.Text2.Text = ""
frmDataEnv.Text3.Text = ""
frmDataEnv.Text4.Text = ""
frmDataEnv.Text5.Text = ""
frmDataEnv.Text6.Text = ""
frmDataEnv.Text7.Text = ""
frmDataEnv.Text8.Text = ""
frmDataEnv.Text10.Text = ""
frmDataEnv.Combo1.Text = ""
frmDataEnv.Combo2.Text = ""
frmDataEnv.Combo4.Text = ""
GoTo 300
200 t = MsgBox("Please Make correct entries.", vbOKOnly, "Error")
300
End Sub
Private Sub Command5_Click()
frmDataEnv.Text1.Text = ""
frmDataEnv.Text2.Text = ""
frmDataEnv.Text3.Text = ""
frmDataEnv.Text4.Text = ""
frmDataEnv.Text5.Text = ""
```

frmDataEnv.Text6.Text = "" frmDataEnv.Text7.Text = "" frmDataEnv.Text8.Text = "" frmDataEnv.Text10.Text = "" frmDataEnv.Combo1.Text = "" frmDataEnv.Combo2.Text = "" frmDataEnv.Combo4.Text = "" **End Sub** Private Sub Command6_Click() frmDataEnv.Frame1.Visible = False End Sub Private Sub cr_Click() On Error GoTo 60 frmDataEnv.Combo3.Clear frmDataEnv.Data1.Recordset.MoveFirst Do Until frmDataEnv.Data1.Recordset.EOF frmDataEnv.Combo3.AddItem frmDataEnv.Data1.Recordset.Fields("Case No") frmDataEnv.Data1.Recordset.MoveNext Loop frmDataEnv.Option2.Value = True

```
frmDataEnv.Frame2.Visible = True
frmDataEnv.Frame2.Caption = "Select the Case File Number"
60
End Sub
Private Sub del_Click()
frmDataEnv.Data1.Recordset.MoveFirst
Do Until frmDataEnv.Data1.Recordset.EOF
If frmDataEnv.Combo3.Text = frmDataEnv.Data1.Recordset.Fields("Case
No") Then
frmDataEnv.Data1.Recordset.Delete
frmDataEnv.Text1.Text = ""
frmDataEnv.Text2.Text = ""
frmDataEnv.Text3.Text = ""
frmDataEnv.Text4.Text = ""
frmDataEnv.Text5.Text = ""
frmDataEnv.Text6.Text = ""
frmDataEnv.Text7.Text = ""
frmDataEnv.Text8.Text = ""
frmDataEnv.Text10.Text = ""
frmDataEnv.Combo1.Text = ""
frmDataEnv.Combo2.Text = ""
```

```
frmDataEnv.Combo4.Text = ""
Exit Do
Else
frmDataEnv.Data1.Recordset.MoveNext
End If
Loop
End Sub
Private Sub ext_Click()
Dim r As String
r = MsgBox("Exit the Application", vbYesNo, "Exit")
If r = vbYes Then End
End Sub
Private Sub fc_Click()
frmDataEnv.Text1.Text = ""
frmDataEnv.Text2.Text = ""
frmDataEnv.Text3.Text = ""
frmDataEnv.Text4.Text = ""
frmDataEnv.Text5.Text = ""
frmDataEnv.Text6.Text = ""
frmDataEnv.Text7.Text = ""
frmDataEnv.Text8.Text = ""
```

frmDataEnv.Combo1.Text = "" frmDataEnv.Combo2.Text = "" frmDataEnv.Frame1.Visible = True End Sub Private Sub fcf_Click() On Error GoTo 10 frmDataEnv.Combo3.Clear frmDataEnv.Data1.Recordset.MoveFirst Do Until frmDataEnv.Data1.Recordset.EOF frmDataEnv.Combo3.AddItem frmDataEnv.Data1.Recordset.Fields("Case No") frmDataEnv.Data1.Recordset.MoveNext Loop frmDataEnv.Option1.Value = True frmDataEnv.Frame2.Visible = True frmDataEnv.Frame2.Caption = "Select the Case File Number" 10 End Sub Private Sub Form_Load() frmDataEnv.Hide

frmSplash.Show

```
End Sub
```

Private Sub male_Click()

frmDataEnv.Data1.Recordset.MoveFirst

Do Until frmDataEnv.Data1.Recordset.EOF

frmDataEnv.Data1.Recordset.Edit

If frmDataEnv.Data1.Recordset.Fields("Sex") = "Male" Then

frmDataEnv.Data1.Recordset.Fields("View") = "Yes"

Else

frmDataEnv.Data1.Recordset.Fields("View") = "No"

End If

frmDataEnv.Data1.Recordset.Update

frmDataEnv.Data1.Recordset.MoveNext

Loop

frmDataEnv.Data1.Refresh

frmDataEnv.Data2.Refresh

With frmDataEnv.Data3

.DatabaseName = App.Path & "\file.mdb"

.RecordSource = "SELECT * FROM Recordfile" .Refresh

End With

With frmDataEnv.Data3

.DatabaseName = App.Path & "\file.mdb"

.RecordSource = "SELECT * FROM Report"

.Refresh End With

DataEnvironment1.Connection1.Open

DataEnvironment1.Command1

DataEnvironment1.Connection1.Close

DataEnvironment1.Connection1.Open

DataEnvironment1.Command1

DataReport1.Title = "Male Cases Report"

DataReport1.Show

End Sub

Private Sub pen_Click()

frmDataEnv.Data1.Recordset.MoveFirst

Do Until frmDataEnv.Data1.Recordset.EOF

frmDataEnv.Data1.Recordset.Edit

If frmDataEnv.Data1.Recordset.Fields("Sex") = "Female" Then

frmDataEnv.Data1.Recordset.Fields("View") = "Yes"

Else

frmDataEnv.Data1.Recordset.Fields("View") = "No"

End If

frmDataEnv.Data1.Recordset.Update

frmDataEnv.Data1.Recordset.MoveNext

```
Loop
frmDataEnv.Data1.Refresh
frmDataEnv.Data2.Refresh
With frmDataEnv.Data3
    .DatabaseName = App.Path & "\file.mdb"
     .RecordSource = "SELECT * FROM Recordfile"
  .Refresh
  End With
With frmDataEnv.Data3
    .DatabaseName = App.Path & "\file.mdb"
    .RecordSource = "SELECT * FROM Report" .Refresh
  End With
DataEnvironment1.Connection1.Open
DataEnvironment1.Command1
DataEnvironment1.Connection1.Close
DataEnvironment1.Connection1.Open
DataEnvironment1.Command1
DataReport1.Title = "Female Cases Report"
DataReport1.Show
```

End Sub

Private Sub trt_Click()

```
frmDataEnv.Data1.Refresh
```

frmDataEnv.Data1.Recordset.MoveFirst

Do Until frmDataEnv.Data1.Recordset.EOF

frmDataEnv.Data1.Recordset.Edit

frmDataEnv.Data1.Recordset.Fields("View") = "Yes"

frmDataEnv.Data1.Recordset.Update

frmDataEnv.Data1.Recordset.MoveNext

Loop

With frmDataEnv.Data3

.DatabaseName = App.Path & "\file.mdb"

.RecordSource = "SELECT * FROM Recordfile"

.Refresh

End With

With frmDataEnv.Data3

.DatabaseName = App.Path & "\file.mdb"

.RecordSource = "SELECT * FROM Report"

.Refresh

End With

frmDataEnv.Data1.Refresh

frmDataEnv.Data2.Refresh

DataEnvironment1.Connection1.Open

DataEnvironment1.Command1

DataEnvironment1.Connection1.Close

DataEnvironment1.Connection1.Open

DataEnvironment1.Command1

DataReport1.Title = "Crime Report"

DataReport1.Show

End Sub

Private Sub ug_Click()

Dim t As String

t = MsgBox("To Use this porgram, the password is police", vbOKOnly,

"Users Guide")

End Sub

Private Sub up_Click()

frmDataEnv.Data1.Recordset.MoveFirst

Do Until frmDataEnv.Data1.Recordset.EOF

If frmDataEnv.Combo3.Text = frmDataEnv.Data1.Recordset.Fields("Case

No") Then

frmDataEnv.Data1.Recordset.Edit

frmDataEnv.Data1.Recordset.Fields("Case No") = frmDataEnv.Text1.Text

frmDataEnv.Data1.Recordset.Fields("Case

Type")

=

frmDataEnv.Combo1.Text

```
frmDataEnv.Data1.Recordset.Fields("Filing
                                                   Date")
                                                                    =
frmDataEnv.DTPicker1.Value
frmDataEnv.Data1.Recordset.Fields("Date
                                            of
                                                   conviction")
frmDataEnv.DTPicker2.Value
frmDataEnv.Data1.Recordset.Fields("IPO") = frmDataEnv.Text4.Text
frmDataEnv.Data1.Recordset.Fields("Name") = frmDataEnv.Text6.Text
frmDataEnv.Data1.Recordset.Fields("Sex") = frmDataEnv.Combo4.Text
frmDataEnv.Data1.Recordset.Fields("State
                                              of
                                                      origin")
                                                                    =
frmDataEnv.Combo2.Text
frmDataEnv.Data1.Recordset.Fields("Address") = frmDataEnv.Text8.Text
frmDataEnv.Data1.Recordset.Fields("LGA") = frmDataEnv.Text3.Text
frmDataEnv.Data1.Recordset.Fields("Town") = frmDataEnv.Text2.Text
frmDataEnv.Data1.Recordset.Fields("Cell no") = frmDataEnv.Text10.Text
frmDataEnv.Data1.Recordset.Fields("court") = frmDataEnv.Text5.Text
frmDataEnv.Data1.Recordset.Fields("Verdict") = frmDataEnv.Text7.Text
frmDataEnv.Data1.Recordset.Fields("View") = "Yes"
frmDataEnv.Data1.Recordset.Update
frmDataEnv.Text1.Text = ""
frmDataEnv.Text2.Text = ""
frmDataEnv.Text3.Text = ""
```

frmDataEnv.Text4.Text = ""

```
frmDataEnv.Text5.Text = ""
frmDataEnv.Text6.Text = ""
frmDataEnv.Text7.Text = ""
frmDataEnv.Text8.Text = ""
frmDataEnv.Text10.Text = ""
frmDataEnv.Combo1.Text = ""
frmDataEnv.Combo2.Text = ""
frmDataEnv.Combo4.Text = ""
Exit Do
Else
frmDataEnv.Data1.Recordset.MoveNext
End If
Loop
Option Explicit
Public LoginSucceeded As Boolean
Private Sub cmdCancel_Click()
  LoginSucceeded = False
  Me.Hide
End Sub
Private Sub cmdOK_Click()
  If txtPassword = "police" Then
```

```
LoginSucceeded = True

Me.Hide

frmDataEnv.Show

Else

MsgBox "Invalid Password, try again!", , "Login"

txtPassword.SetFocus

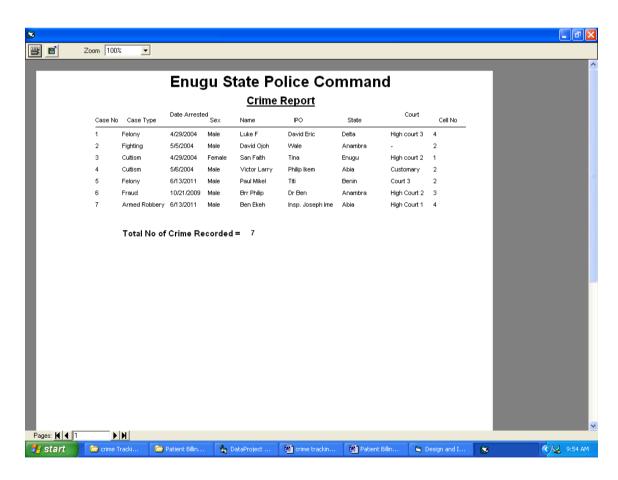
SendKeys "{Home}+{End}"

End If

End Sub
```

APPENDIX II

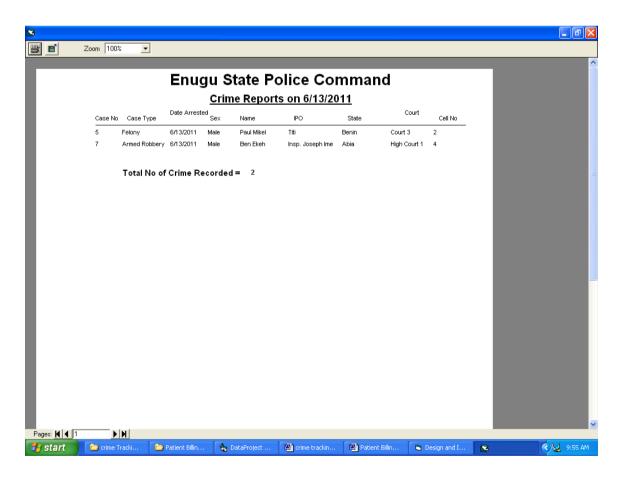
CRIME TRACKING REPORT



Picture 1: Crime Tracking Report

APPENDIX III

CRIME REPORT BY DATE



Picture 2: Crime Report by Date

APPENDIX IV

INPUT DESIGN AND SPECIFICATION

The input to the new system is the crime record file, which is entered through the keyboard. The input form design takes the format bellow.

Crime Case File		
Case No 7 Date Arrested 6 /13/2011	Case Type Armed Robbery Date of Conviction 6 /30/2011 ▼	
IPO Insp. Joseph Ime Name Ben Ekeh	Court High Court 1 Vedict Sentenced to 4yrs in prison	Save
Address 2 Agbani Rd Enugu	State of Origin Abia LGA Umuahia	Cancel
Sex Male	Town Ibeko Cell No 4	Close