

**AUTOMATION OF PERSONNEL MANAGEMENT DEPARTMENT  
OF THE FEDERAL CIVIL SERVICE:  
A CASE STUDY OF THE FEDERAL MINISTRY OF SPORTS AND  
SOCIAL DEVELOPMENT (FMSSD), FEDERAL SECRETARIAT,  
ABUJA**

**BY**

**OGUNDAIRO OLUSEGUN TUNDE**

**(PGD/MCS/99/2000/938)**

**A PROJECT SUBMITTED TO THE DEPARTMENT OF MATHEMATICS/COMPUTER  
SCIENCE OF THE FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA IN  
PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF A POST  
GRADUATE DIPLOMA IN COMPUTER SCIENCE**

## **DEDICATION**

**This project is dedicated to the Almighty God.**

## **CERTIFICATION**

**This Project has been read and approved as meeting the requirements of the award of Post Graduate Diploma in Computer Science, Department of Mathematics and Computer Science, Federal University of Technology, Minna.**

---

**Mallam Yusuf**  
*Supervisor*

---

**Date**

---

**Dr. S. Reju**  
*Head of Department*

---

**Date**

---

**External Examiner**

---

**Date**

## **TABLE OF CONTENTS**

<b>Title Page</b>	<b>i</b>
<b>Certification</b>	<b>ii</b>
<b>Dedication</b>	<b>iii</b>
<b>Acknowledgement</b>	<b>iv – v</b>
<b>Table of Contents</b>	<b>vi - vii</b>
<b>Abstract</b>	<b>viii - ix</b>

### **CHAPTER 1: INTRODUCTION**

<b>1.1 Background Study</b>	<b>1 – 2</b>
<b>1.2 Project Objective</b>	<b>2</b>
<b>1.3 Methodology</b>	<b>2</b>
<b>1.4 Problem Definition</b>	<b>3</b>
<b>1.5 Feasibility Study</b>	<b>3 – 4</b>
<b>1.6 Facts Finding Techniques</b>	<b>4</b>
<b>1.7 Scope and Limitation of Study</b>	<b>5</b>

### **CHAPTER 2 : LITERATURE REVIEW**

<b>2.1 Historical Study of Personnel Management</b>	<b>6 – 7</b>
<b>2.2 Overview of Manual Processing</b>	<b>8 – 10</b>
<b>2.3 Shortcomings of Manual Processing</b>	<b>11</b>
<b>2.4 Benefit of Automated System</b>	<b>11</b>

## **CHAPTER 3 : SYSTEM ANALYSIS AND DESIGN**

<b>3.1</b>	<b>Planning for a Computer Based Personnel Management System</b>	<b>12</b>
<b>3.1.1</b>	<b>Design Strategies for Implementing Computer based Personnel Management</b>	<b>13</b>
<b>3.1.2</b>	<b>Planning System Requirement</b>	<b>13</b>
<b>3.1.3</b>	<b>Potential Hurdles</b>	<b>13 – 14</b>
<b>3.1.4</b>	<b>Solving Potential Problems</b>	<b>14</b>
<b>3.2</b>	<b>Features of Programming Language (Visual Basic 6.0 Enterprise Edition)</b>	<b>14 – 16</b>
<b>3.3</b>	<b>System Flowchart</b>	<b>17 - 18</b>
<b>3.4</b>	<b>Input Specification</b>	<b>19 – 27</b>
<b>3.5</b>	<b>Output Specification</b>	<b>27 – 30</b>
<b>3.6</b>	<b>Input Design</b>	<b>31 – 38</b>
<b>3.7</b>	<b>Output Design</b>	<b>38 – 42</b>

## **CHAPTER 4 : SOFTWARE DEVELOPMENT & IMPLEMENTATION**

<b>4.1</b>	<b>Introduction</b>	<b>43</b>
<b>4.1.1</b>	<b>Algorithm</b>	<b>43</b>
<b>4.2</b>	<b>Program Listing</b>	<b>44</b>
<b>4.3</b>	<b>Program Documentation</b>	<b>44</b>
<b>4.3.1</b>	<b>Hardware Requirement</b>	<b>44 – 46</b>
<b>4.3.2</b>	<b>Software Requirement</b>	<b>47 – 49</b>
<b>4.3.3</b>	<b>Human Resources requirement</b>	<b>50</b>
<b>4.3.4</b>	<b>Procedure</b>	<b>50</b>

<b>4.4</b>	<b>Program Interface</b>	<b>50 – 54</b>
<b>4.5.1</b>	<b>Program Output</b>	<b>54</b>
<b>4.5.2</b>	<b>Output Discussion</b>	<b>54</b>
<b>4.6</b>	<b>Summary</b>	<b>54 – 55</b>

## **CHAPTER 5 : CONCLUSION AND RECOMMENDATION**

<b>5.1</b>	<b>Summary</b>	<b>56</b>
<b>5.2</b>	<b>Conclusion</b>	<b>56</b>
<b>5.3</b>	<b>Recommendation</b>	<b>56 - 57</b>

## **Appendixes**

<b>References</b>	<b>58</b>
-------------------	-----------

**Program Listing**

**Program Output**

## **ACKNOWLEDGEMENT**

To God be the Glory for seeing me through the completion of this programme successfully. I thank the Almighty God –the Elshadai for providing me with the time and wherewithal to complete this course. Thank you Lord.

I appreciate the assistance of my supervisor, Malam Yusuf who gave me both academic and moral support during the period of production of this project work. Thank you very much Sir.

My heartfelt gratitude goes to my Uncle and his Wife Mr. and Mrs. J. O. Adeniyi, who throughout the programme gave me the parental guidance and advise on various issues concerning this programme. I pray the Almighty God will continue to be with you and bless you. Amen. Other members of the family were also terrific in their support they include: Sola , Bunmi, Dapo, Tolu, and Tosin Adeniyi, Daniel Ajayi and last but not the least Adebola Oyeyemi.

At this juncture, I wish to single out Sola Adeniyi for his gist, criticism and for providing my humble self and my friends with accommodation. Thank you very much.

I wish to also thank some of my younger friends, who at various times placed joy and happiness at my disposal during some lonely time during the project work – Akeem Akinola, Peter, Tosin Akide and so on.

My friends and course-mates –Oluwole Olapoju and Emeka Nzeh support and companionship cannot be overemphasized. You are really a friend in need and a friend indeed.

**Finally, I thank all individuals or groups of individuals whose names are not mentioned here, but had contributed in some ways directly or indirectly to the success of this project work.. May God Bless you all (Amen).**

## **ABSTRACT**

Businesses rely on effective Human Resource Management (HRM) to ensure that they hire and keep good employees, and that they are able to respond to conflicts between workers and management. It is also imperative to note that Economists have defined the factor of production to be Land, Labour, Capital and Entrepreneur. The Management of these factors rests squarely on the shoulders of persons who manage these resources.

Human Resource Management can make or break the productivity of any organization. If effectively done and judiciously managed, this could provide a boost in the organization's output while on the other hand imprudent management of human resource can spell doom for its survival and sustainability.

It is in light of the above that an effective, dependable, reliable and efficient system is desirable. The computerization of the Personnel Management Department of any of the Federal Ministries will enable the maximization of her human resources, effective time usage and a fast and reliable information management system.

This project work discussed the Department of Personnel Management in the Civil Service and the existing manual system of Personnel Management. The Automated system is then designed and implemented based on the same manual procedures.

At this age and time, the implementation of such a system is not only desirable and relevant but has since been long overdue.

# **CHAPTER ONE**

## **INTRODUCTION**

### **1.1 BACKGROUND STUDY**

The Department of Personnel in all Federal Ministries is involved with human resource management. Management is defined as the organization and direction of persons in order to accomplish a specified end. This process requires planning, organization, directing, co-ordination, controlling and monitoring of human resources within an organization.

Some of the functions of this department are highlighted below:

- a. Notifying the Federal Civil Service if there is any Vacancy in the Ministry.
- b. Determines the number and types of staffs needed.
- c. Leave Schedule of Staff.
- d. Liaising with the Federal Civil Service for Conducting Promotion Processing.
- e. Training of Staff.
- f. Disciplinary Actions.
- g. Commendation of Staff for distinguished services.
- h. Internal Transfer of Staff as may be necessary from time to time.
- i. Schedule supervision.
- j. Retirement and Dismissal Processing of Staff.

As it is with all governmental agency, a lot of bureaucracy is involved in these processing. Documentations are done on paper file stored in the registry of the ministry.

This approach to record is not only archaic but also prone to errors and accidents such as soiling of records, loss of paper, etc. Space for storing data is also large –usually a big room. Another associated problem is the need to physically go through the rack of files when searching for a record or the whole registry when doing a periodical update. This is not only time consuming but a waste of time, energy and money.

## **1.2 PROJECT OBJECTIVE**

The objective of this project is to develop an application program using a modern Object Oriented programming tool to proffer solutions to associated problem related to the manual personnel administration in any Federal Ministry. The project work established an automated system that is easy to manipulate by trained staff. It is also a more effective and accurate source of information for decision-making.

## **1.3 METHODOLOGY**

The approach of this project was based on the following strategies

- i. Studying the existing systems and procedures
- ii. Identifying areas requiring improvement and modification for computation and generation of reports.
- iii. Develop an underlying system to timely management information system requirement in various areas.
- iv. The new system is to achieve some set goals that have not been embarked upon before in the organization under the present manual system.

## **1.4 PROBLEM DEFINITION**

Personnel Management System was designed with the backdrop that effective management of human resources is the most important aspect of production. It is in line with this premise that the manual system that is slow to give correct and accurate data when needed is reviewed as solution proffered and implement. The personnel administration is thus more accurate, reliable, dependable and timely. It is a source of detecting ghost workers in any organization where the it is systematically adopted.

## **1.5 FEASIBILITY STUDY**

This is a preliminary stage that determines whether or not the proposed project is desirable. Therefore, it involves the study of the existing system in detail in order to provide the management with information about the proposed computerized system.

The feasibility study covers three major areas:

- (a) Designing the computerized system
- (b) Testing and implementing the computerized system

To test project feasibility, the following are to be considered:

- i. **Operational Feasibility:** This relates to the workability of the proposed information system when developed and installed.
- ii. **Technical Feasibility:** This test, seeks to clarify if the proposed project can be done with current equipment, existing software technology and available personnel.

- iii. **Economic Feasibility:** The test for financial feasibility is undertaken to assess the cost of implementing a proposed project, that is, the benefit from implementing the project.

## 1.6 FACTS FINDING TECHNIQUE

Three basic methods were employed to collect data:

- i. **Interview.** It is a fact-finding tool used for collecting information from individual. It involves holding discussion with people that are involved in the day to day operation of the system in order to ascertain their suggestions and comments and also the relevance of any particular report or statement required from the department. Interview is one of the most satisfactory ways of obtaining information about objectives, constraint, allocation of duties, problems and failures in the existing system.
- ii. **Observation.** This involves watching an operation for a period, to see what happens by oneself.
- iii. **Special Purpose Records.** This involves, the examination of records that contains specific records in an organization, which may be files, journals, seminar papers or even textbooks.
- iv. **Questionnaire.** This method uses a predefined question in a form format given to randomly selected member of the sample population to project action pattern of the sample population.

## **1.7 SCOPE AND LIMITATION OF STUDY**

**This project work is limited to the personnel management department of the Federal Ministries. Since similar methods are used in all ministries, the system is designed for use by any of the Federal Ministries.**

**Constraints associated with the system is that it might not work very well with organizations, parastals or agencies that do not strictly follow the Civil Service Act.**

## CHAPTER TWO

### LITERATURE REVIEW

#### 2.1 HISTORICAL STUDY – CIVIL SERVICE

In Rubin C. Vera (1998), "Civil Service is a name generally given to paid nonmilitary service in non-elective office in the executive branch of government. The term does not apply properly to service in the legislative and judicial branches, although some employees of the latter two branches are subject to provisions of the Civil Service Act. In certain countries, notably Great Britain, the term civil service is used to denote only positions in the national government; in others, including France and the United States, the term is applied to governmental positions on all levels, from federal to municipal. Civil service employees in most modern countries are selected by competitive examination.

Until the second half of the 19th century, elected government officials in most countries regarded appointive posts under their jurisdiction as political prizes to be distributed among influential or faithful supporters. The first significant departure from this practice occurred in Great Britain in 1855, when examinations were conducted by government order among selected candidates for certain minor positions. The categories of jobs filled in this fashion were gradually extended, and in 1870 a policy of open competitive examinations for most posts in the British civil service was adopted."

Augustus Adebayo (1992), After independence from the British, the Federal Civil Service whose rules and regulations were fashioned after that of her colonial master was established and institutionalized. Appointments were made on merit and in the early up-to the early 70's the best brains in the Nigerian society take pride in working for the Federal Government. During this period, appointments, deployment and promotions were made on merit.

In order to give a sense of togetherness to the various ethnic nationalities in the country and prevent the dominance of one over the other in the aftermaths of the Nigerian civil war, the Federal Character Commission was established. This shelved the *best first*

principle previously established and instead uses a tribal or geographical method in appointments and promotions now called the *quota system*.

Under this system, a person may be employed based on the fact that he came from certain part of the country, even when there are better candidate for the vacant position from other part of the country –this system is refereed to as the quota system.

### **Civil Service Act**

A study of the 1999 Constitution revealed that the Civil Service Act was promulgated to regulate appointments into the Federal Civil Service. Among the major features of the act are provisions for the selection of civil service personnel by open competitive examinations; guarantees to civil service employees against coercion in any form for political reasons, or solicitation in government buildings or by other federal employees for political purposes; and allocation to the states and territories, in proportion to population, of appointments from lists of eligible applicants to fill positions in the Federal Ministries based on the quota System. Administration of the act was assigned to an appointive board called the Civil Service Commission, which was empowered to frame the necessary rules and regulations. In addition, the President of the Federal Republic of Nigeria was authorized to determine, by executive order, the classes of positions subject to the jurisdiction of the commission.

### **Federal Civil Service Commission**

The activities of the Commission involve administering examinations for positions in the competitive service and establishing qualifications for promotion of federal employees; classifying federal positions according to duties and responsibilities; conducting investigations as to the loyalty, character, and background of applicants for positions; handling insurance, leave, retirement, and incentive-award benefits; coordinating and promoting training activities

## **2.2 OVERVIEW OF MANUAL PERSONNEL MANAGEMENT**

**Due to the unique nature of the operations of the Federal Civil Service, the Literatures on this subject matter are not much in existence, and even where so, are not as authentic as the Public Service Rules. These rules forms the basis of the literature review in this project work and all references henceforth is to the Public Service Rules (Revised in 2000 and signed by the President, Federal Republic of Nigeria.** The handbook contains the guidelines for all the transactions that are carried out by Civil Servants in their day-to-day activities. It consists of rules and procedures of protocols that must be observed, guidelines for writing/sending of memoranda, the hierarchical steps in the Civil Service, Leave Application, Transfer Processing, Employments conditions and Termination Procedure to mention just a few.

Extracts from this handbook are reviewed below:

### **2.2.1 Recruitment into the Civil Service**

Recruitment into the civil service is done by the Federal Civil Service Commission. Employees are recruited after a comprehensive employment test or interview or both. Candidates are supposed to be recruited on merit, but other factors such as geographical place of origin are pertinent in the selection process. This project work does not involve itself with the recruitment process at the Civil Service Commission level but commences after the candidates has been posted to the Ministry when the request for personnel was initialized.

### **2.2.2 Transfer of Employee within the civil service**

Transfer of personnel within the same Ministry is called Internal transfer and this can involve transfer from one department to another or from a geographical location to another. Furthermore, certain grade level and designations are under a pooling system – this is a system where employees can be transferred from one ministry to another. This usually involves personnel in the administrative department and senior management level. On certain considerations, staff can apply for transfer –a married woman for example.

### 2.2.3 Promotion

Promotion is done periodically within the civil service. Different grade levels have different number of years before promotion can be made. For illustration see the table below:

Grade Level	Years before Promotion
01 – 06	2 years
07 – 14	3 years
15-17	4 years

Before a person is promoted, a series of written test and oral interviews are conducted. All candidates are grade. Successful candidates are promoted only when there are vacancies and such promotion will not create imbalances in the quota system i.e. Federal Character System.

### 2.2.4 Increment

Increment is done on a yearly basis. This is usually in June of every year. Every employee whose increment is more than a year old is elevated by a step (when the maximum step for the grade has not been reached). For example,

#### **Grade and step before increment**

Grade 4 Step 5

#### **Grade and step after increment**

Grade 4 Step 6

### 2.2.5 Discipline

A staff is query usually in the form “respond in writing within xx hours where disciplinary actions should not be taken against you”. When the response is satisfactory, the matter is allowed to end there. If not, employee could be issued a warning, a demotion in grade level or step , or for extremely heinous crime, retrenched or sacked.

## **2.2.6 Suspension**

When a grievous allegation is made against a staff either through a petition or otherwise, the employee may be suspended pending the outcome of the committee set up to investigate the charges. If acquitted, no disciplinary action is taken and the suspension is reversed. However, when indicted, necessary disciplinary action will be done. This may include demotion –decrease in Grade Level or Step or both, or termination of appointment by sacking or retrenchment.

## **2.2.7 Termination of Appointment**

A person's employment can be terminated due to one of the following reasons:

1. **Due Retirement:** When a person has worked for more than 35 years or is more than 60 years of age. This type of termination has access to gratuity and pension
2. **Willful Retirement:** When an employee writes to signify his or her intention to stop working for government. Gratuity and pension may or may not be applicable depending on the number of years of service.
3. **Death:** Due to death of an employee. Gratuity may or may not be applicable depending on the number of years of service.
4. **Sacking:** This is when an appointment is terminated due to wrong doing.
5. **Retrenchment:** This is when an employee is forced to stop working and not necessarily by wrong doing but because his/her service is no longer required.
6. **Others:** This could be due to expiration of period of service as applicable to Industrial Trainee and Youth Corpers.

## **2.2.8 Training**

Staffs are sent on training to enhance their efficiency. This could be done internally (within the country) or externally (outside the country). The Government pays for training of staff using funds available to it either by budgeting or through a project being handled by the Ministry.

## **2.3 SHORTCOMINGS OF THE MANUAL PERSONNEL SYSTEMS**

The manual system has a lot of shortcoming, they include:

- Unnecessary duplication of records
- Database enquiries cannot be easily processed
- Inability to use search criteria
- Limitations in the generation of reports
- No definite method of tracking changes
- Susceptibility of records to Natural and Malicious disaster
- Conspiracy to institute ghost workers by operational staff.

## **2.4 BENEFITS OF AN AUTOMATED PERSONNEL MANAGEMENT SYSTEM**

An automated personnel management system would offer the following advantages;

- Finding specific records with little effort by the use of search criteria
- Access to stored information in many different ways
- Generation of multiple reports from databases
- Avoidance of unnecessary duplication of records
- More efficient management of stored information
- Protection of database from authorized access
- Regular back-up of data files
- Data Security through the use of password and privilege to stored data.
- Minimization if not elimination of ghost workers.

# **CHAPTER THREE**

## **SYSTEM ANALYSIS AND DESIGN**

### **3.1 PLANNING OF AN AUTOMATED PERSONNEL MANAGEMENT SYSTEM**

The method selected for the new system is determined by the present set of document used, which is fairly adequate to be modified with the design of new formats to form the basis for the computerized information system. The files and programs are kept as simple as possible to be users friendly in relation to computerization of a pension administration system.

The initial step toward system design is the identification of system requirements and the formulation of design alternative. The requirements are those factors or details that have to be incorporated into the proposed system to provide desired output. The following are borne in mind during this system design:

- Identifying areas that require improvements and/or modifications for computerization by the organization (Personnel Record of Staff)
- Development of an underlying system to achieve the computerization requirements.
- Ensuring that the proposed system is easy to operate, and comprehended by all user staff, by designing onscreen forms to look and feel like paper forms.

In designing the system, the following strategies are adopted:

### **3.1.1 Design Strategies For Implementing Computer Personnel Record**

#### **Management**

- ⇒ Identification of current system requirements
- ⇒ Selection and Organization of the data that needs to be stored
- ⇒ Planning for system Efficiency and Reliability
- ⇒ Economic Cost comparison: Determination of the cost of implementing the proposed system

### **3.1.2 Planning System Requirement**

- ⇒ Determination of the information or data to be keep track off.
- ⇒ Organization strategy of the required information
- ⇒ Determination of the capacity of current hardware and software that the proposed system would use.
- ⇒ Determination of the user of the proposed system and the capability of such user.
- ⇒ Projection of future database needs.

### **3.1.3 Potential Hurdles**

- ⇒ Apathy of users to computerized systems, leading to the exhibition of system under-utilization.
- ⇒ Over dependency leading to the assumptions that the computerized system is fail-prove.
- ⇒ Unauthorized access to stored data and information.
- ⇒ Data lost due to user lack of maintenance culture

- ⇒ System malfunctioning.
- ⇒ User adaptation to old system.

### **3.1.4 Solving Potential Problems**

- ⇒ Adequate training of operators, users and all personnel concerned with the use of the new system.
- ⇒ Periodic/Routine backup of stored information.
- ⇒ Access control and user verification methods should be built into the software.
- ⇒ Management Control: Management should always summarize information; observe trends and performance in order to put up necessary checks and balances.

## **3.2 FEATURES OF PROGRAMMING LANGUAGE USED (VISUAL BASIC 6.0)**

The proposed system would be developed with modern Object Oriented Programming Tools (Visual Basic) and would very much help in enhancing any standard operations.

The Visual Basic has a number of features, which in turn are incorporated into the proposed system, this feature includes:

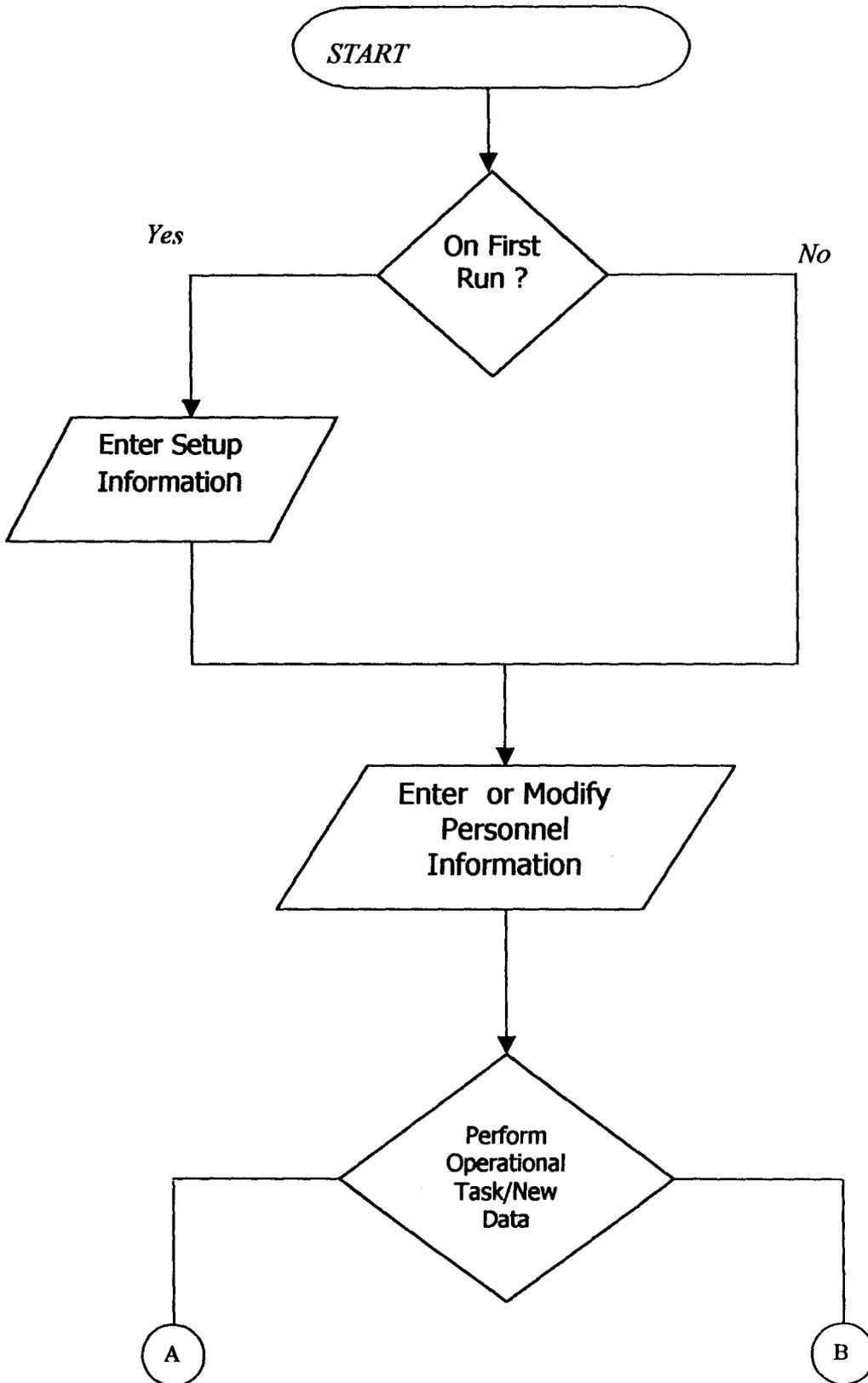
### **FEATURES**

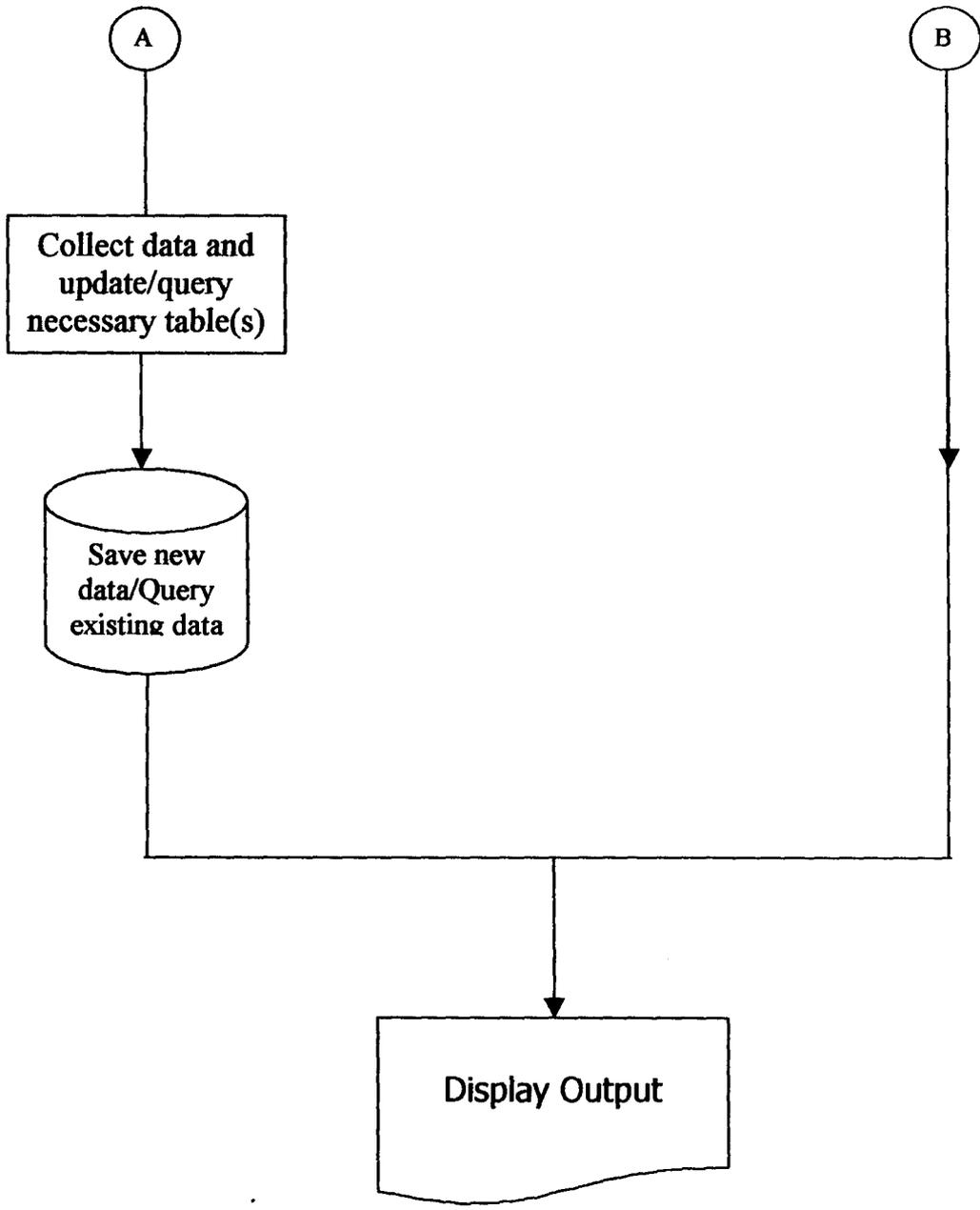
- **Full Windows Compatibility:** the software is designed to run in the Ms Windows Operating and any compatible environment, which is the standard for any modern software.
- **Mouse Support :** apart from keyboard invocations of commands, the software we develop supports the use of the mouse, hence, it is easier to navigate through the software environment and tasks can be executed at the click of a button.

- ***Menu and Event Driven:*** the software incorporate Pull Down menus, windows compatible dialogue boxes, prompts and command buttons. This has the added advantage of making the software more user-friendly and interactive.
- ***Connectivity with other Windows based application:*** the software has the ability for Dynamic Data Exchange (DDE) and Dynamic Link Library (DLL) for Shared files, with other Ms Windows based software. As such data can be exported or imported to and from it (i.e. communication with other window based software is totally effective).
- ***Improved Multiple Database Structure:*** the database structure of any new software developed by us uses the Microsoft Open Database Connectivity (ODBC) style that supports the creation of multiple tables in a single database. This allows for better handling of large volume of related data items while still compact.
- ***Security:*** the software is designed such that only valid and authorized users can only gain access; thereby protecting the integrity of your data and the source code of your program being tampered with, which is one of the problems you faced with uncompileable program. Also the databases in the software could encrypted such that they can only be manipulated by the software alone.
- ***Client-Server Network System (Optional):*** the software is designed to work on Network environment of any architecture. It makes database access in the multi-user environment totally efficient, protecting data Integrity and Redundancy.
- ***Output Control:*** the software controls the output to Screen, Printer or directly to a file in the format of any Ms Windows base standard software. (E.g. Access, Excel, Ms Word)
- ***Practical WYSIWYG (What-You-See-Is-What-You-Get) Report Display:*** the display screen shows you exactly what your final report will look like when your print

- **Multiple Size Page Views:** View as many report pages at Actual, Double or Half size.
- **Pictorial Data Representation:** data charting in our software gives view enhancement.
- **Multi-Media Effects:** Visual and Audio multi-media are available optionally, also they use all your current Operating System Settings like Sound, Screen Color, Date & Time etc.
- **Utility Features:** pop-up on screen Calculator & Calendar.
- **Communication (Internet):** automatic E-mailing of Report/Data available as an additional report route.
- **Online-Help:** Help is available for users on virtually every command of our software. Appropriate error trapping messages are included in our systems.

### 3.3 SYSTEM FLOWCHART





### 3.4 INPUT SPECIFICATION

The input requirements of an Automated Personnel Record Management system is extensively analyzed below. The Database was designed to meet the third Normal Form specifications and unnecessary duplication of fields have thus been eliminated. These database was created using the Access 2000 DBMS software. The Database is called Employee.mdb and its constituent part is made up of the following tables:

**Table Name: EMPLOYEE**

**Purpose** : To store the bio-data and official data of employees

**Primary Key** : Indexed on EmpID – a unique field as is required

Field Name	Field Type	Field Width	Description
EmpID	Text	10	Employees' Personnel Record File No.
FirstName	Text	20	Employee's First name
LastName	Text	20	Employee's Last name
OtherNames	Text	20	Employee's Other names
DOB	Date	8	Date of Birth
Fdate	Date	8	First Date of appointment
Pdate	Date	8	Present Date of appointment i.e. promotion
LastIncrement	Date	8	Last Date Increment was made
ConfirmDate	Date	8	Date of employment confirmation
GradeLevel	Number	2	Salary Grade Level
Step	Number	2	Salary Step
Sex	Yes/No		Gender –Male is Yes and Female is No
Location	Text	3	Code for the geographical Location of employee
Department	Text	3	Code for department in the organization
StateCode	Text	2	Code for Employee's State of origin
LGACode	Text	3	Code for Employee's Local Government
Category	Text	10	Category of Staff within organization
MaritalStatus	Text	10	Marital Status
Designation	Text	5	Code for Employee's designation
Leave	Yes/No		Flag to signify is employee is on leave
Suspension	Yes/No		Flag to signify if employee is on suspension
Active	Yes/No		Flag to signify employee in active service (helps in archiving of records)

**Table Name: GradeLevel**

**Purpose** : To the available Grade Levels and steps in the organization.

**Primary Key** : Indexed on GradeLevel and Step.

Field Name	Field Type	Field Width	Description
GradeLevel	Number	2	Salary Grade level
Step	Number	2	Grade Level Steps

**Table Name: Locations**

**Purpose** : To the geographical location of the organization offices.

**Primary Key** : Code.

Field Name	Field Type	Field Width	Description
Code	Text	3	Code for this Geographical location
Location	Text	3	Full Name of the location
Address	Text	30	Organization address at the location
PhoneNo.	Text	11	Telephone number of location

**Table Name: Departments**

**Purpose** : To the available departments within the organization.

**Primary Key** : Code.

Field Name	Field Type	Field Width	Description
Code	Text	2	Code for Department
Description	Text	20	Full Name of Department
Function	Text	50	The functions of the Department

**Table Name: State**

**Purpose** : This table stored the states of the federation.

**Primary Key** : Code.

Field Name	Field Type	Field Width	Description
Code	Text	2	Code for State
State	Text	15	Full name of state
Capital	Text	15	Capital City of state

**Table Name: LGA**

**Purpose** : This table stored the LGA of the federation.

**Primary Key** : Code and LGACode.

Field Name	Field Type	Field Width	Description
Code	Text	2	Code for State
LGACode	Text	2	Code of LGA within State
LGA	Text	15	Full name of LGA

**Table Name: Category**

**Purpose** : This table stored the states of the federation.

**Primary Key** : Code.

Field Name	Field Type	Field Width	Description
Permanent	Yes/No		A flag to signify is staff is permanent or not
Category	Text	10	Full name of category

**Table Name: Designation**

**Purpose** : This table stored the states of the federation.

**Primary Key** : Code.

Field Name	Field Type	Field Width	Description
Code	Text	5	Code for designation within organization
Designation	Text	15	Full name of designation

**Table Name: Spouse**

**Purpose** : This table stores the bio-data of the spouse of every married employees staff.

**Primary Key** : EmpID (This is a referential integrity key).

Field Name	Field Type	Field Width	Description
EmpID	Text	10	This key must exist in the Employee table before entry can be allowed (referential integrity)
FirstName	Text	15	First name of spouse
LastName	Text	15	Last name of spouse
DOB	Date	8	Date of birth of spouse
Ophone	Text	11	Office Phone Number of spouse
Rphone	Text	11	Residential Phone number of spouse
Address	Text	20	Office address of spouse

**Table Name: Children**

**Purpose** : This table stores the bio-data of children of staff.

**Primary Key** : EmpID and ChildID. (more than one child possible)

Field Name	Field Type	Field Width	Description
ChildID	AutoNumber	1	The number of this child of the employee
EmpID	Text	10	This key must exist in the Employee table before entry can be allowed (referential integrity)
FirstName	Text	15	First name of child
LastName	Text	15	Last name of child
DOB	Date	8	Date of birth of child

**Table Name: NextofKin**

**Purpose** : This table stores the bio-data of people to contact in case of emergency i.e. next of kin.

**Primary Key** : EmpID and KinID. (More than one next of kin allowed)

Field Name	Field Type	Field Width	Description
KinID	AutoNumber	1	The number of this Kin of the employee
EmpID	Text	10	This key must exist in the Employee table before entry can be allowed (referential integrity)
FirstName	Text	15	First name of next of kin
LastName	Text	15	Last name of next of kin
DOB	Date	8	Date of birth of next of kin

**Table Name: EducationHistory**

**Purpose** : This table stores the bio-data of children of staff.

**Primary Key** : ID.

Field Name	Field Type	Field Width	Description
ID	Number	1	The number of schools attended
EmpID	Text	10	This key must exist in the Employee table before entry can be allowed (referential integrity)
Institution	Text	15	Name of institution attended
Type	Text	3	Code for type of Institution attended
FromDate	Date	8	Date of commencement of study
ToDate	Date	8	Date of graduation
CertObtained	Text	10	Name of cert obtained, eg. Bsc, PGD, etc.

**Table Name: EducationType**

**Purpose** : This table stores the types of education institutions attended.

**Primary Key** : EducationType .

Field Name	Field Type	Field Width	Description
EducationType	Text	15	Type of institution, e.g. Primary, Secondary, Tertiary, Post Graduate
Priority	Number	1	The order of importance of certificate obtained

**Table Name: WorkHistory**

**Purpose** : This table stores the work history of staffs.

**Primary Key** : EmpID and ID.

Field Name	Field Type	Field Width	Description
ID	AutoNumber	1	The serial number of this employment history.
EmpID	Text	10	This key must exist in the Employee table before entry can be allowed (referential integrity)
Organization	Text	25	Then name of the organization
PostHeld	Text	15	The position held
FromDate	Date	8	Date of appointment
ToDate	Date	8	Date of disengagement
Responsibility	Text	50	Responsibilities handled

**Table Name: TrainingHistory**

**Purpose** : This table stores the history of training courses attended by staffs.

**Primary Key** : EmpID and ID.

Field Name	Field Type	Field Width	Description
ID	AutoNumber	1	The serial number of this training course.
EmpID	Text	10	This key must exist in the Employee table before entry can be allowed (referential integrity)
Coursename	Text	25	Then course title
PlaceHeld	Text	15	The organization/venue of training
FromDate	Date	8	Date of commencement of training
ToDate	Date	8	Date of completion
Course Benefit	Text	50	Responsibilities handled

**Table Name: Transfer**

**Purpose** : Storage of Transfer records of staffs.

**Primary Key** : EmpID and EffectiveDate.

Field Name	Field Type	Field Width	Description
EmpID	Text	10	This key must exist in the Employee table before entry can be allowed (referential integrity)
Code	Text	5	Department Code previously occupied
LCode	Text	5	Location Code previously situated
Approvedby	Text	10	EmpID of Approving officer
EffectiveDate	Date	8	Date of transfer

**Table Name: Promotion**

**Purpose** : Storage of Promotion records of staffs.

**Primary Key** : EmpID and Date.

Field Name	Field Type	Field Width	Description
EmpID	Text	10	This key must exist in the Employee table before entry can be allowed (referential integrity)
Date	Date	8	Date entry made in the database.
EffectiveDate	Date	8	Date Promotion took effect
ToGrade	Number	2	New Salary GradeLevel
ToStep	Number	2	New Salary Step
Designation	Text	7	Code for the promoted designation
Approvedby	Text	10	EmpID of Approving officer

**Table Name: LeaveType**

**Purpose** : Storage of Types of Leaves available in the organization.

**Primary Key** : LeaveType.

Field Name	Field Type	Field Width	Description
LeaveType	Text	10	Type of Leave available in organization

**Table Name: Leave****Purpose** : Storage of Leave record of staff.**Primary Key** : EmpID and EffectiveDate.

Field Name	Field Type	Field Width	Description
EmpID	Text	10	This key must exist in the Employee table before entry can be allowed (referential integrity)
DateFrom	Date	8	Date of commencement of leave
DateDue	Date	8	Date Staff is due for resumption
DateResume	Date	8	Date Staff actually resumed work
Approvedby	Text	10	EmpID of Approving officer

**Table Name: Discipline****Purpose** : Storage of Disciplinary records of staffs.**Primary Key** : ID and EmpID

Field Name	Field Type	Field Width	Description
ID	Number	1	The serial number of disciplinary action
EmpID	Text	10	This key must exist in the Employee table before entry can be allowed (referential integrity)
Date	Date	8	Date of disciplinary action was issued
WarnedFor	text	40	Text of warning/query
Response	Text	40	Response of staff to warning/query
Acquitted	Yes/No		Yes if Acquitted and No if indicted
Approvedby	Text	10	EmpID of Approving officer

**Table Name: Suspension****Purpose** : Storage of records of staffs on suspension.**Primary Key** : EmpID and EffectiveDate.

Field Name	Field Type	Field Width	Description
EmpID	Text	10	This key must exist in the Employee table before entry can be allowed (referential integrity)

<b>EffectiveDate</b>	Date	8	Date of commencement of suspension
<b>DateDue</b>	Date	8	Date Staff is due for resumption of work duty (When not indefinite suspension)
<b>DateReversed</b>	Date	8	Date Staff actually resumed work
<b>SRemark</b>	Text	40	Reason for suspension of staff
<b>RRremark</b>	Text	40	Why suspension was reversed
<b>Approvedby</b>	Text	10	EmpID of Approving officer

**Table Name: Security**

**Purpose** : This table stored the username, password and privileges

**Primary Key** : Username.

<b>Field Name</b>	<b>Field Type</b>	<b>Field Width</b>	<b>Description</b>
<b>UserName</b>	Yes/No	15	Name of software user
<b>Password</b>	Text	10	Password
<b>Privilege</b>	Number	1	Privilege level of user

### 3.5 OUTPUT SPECIFICATION

Since a system is judge by the relevance of information it generated. This automated personnel record management system has several report for different level of management staff. The specification for these reports were generated by extracting the necessary from tables specified in the input specification. The programming language used allows for only a single report to be viewed either on screen or printed at a time. Thus the same used to store the extracted fields. The structure of the table is dynamically created and erased used programming codes. The name of the Table used is OutputFile. The different specifications adoptable by this table is given below:

**Table Name: OutPutFile**

- Purpose** : This table is used to generate the following reports:
- a. Nominal roll of staff arranged alphabetically, departmentally, by grade level, geographical location, state and local government of origin, etc.
  - b. List of due for promotion.
  - c. List of staff who have been warned.
  - d. List of Staffs due for retirement.
- Primary Key** : Indexed on EmpID – a unique field as is required

Field Name	Field Type	Field Width	Description
EmpID	Text	10	Employees' Personnel Record File No.
FullName	Text	20	Employee's First name
LastName	Text	20	Employee's Last name
OtherNames	Text	20	Employee's Other names
DOB	Date	8	Date of Birth
Fdate	Date	8	First Date of appointment
Pdate	Date	8	Present Date of appointment i.e. promotion
LastIncrement	Date	8	Last Date Increment was made
ConfirmDate	Date	8	Date of employment confirmation
GradeLevel	Number	2	Salary Grade Level
Step	Number	2	Salary Step
Sex	Yes/No		Gender –Male is Yes and Female is No
Location	Text	3	Code for the geographical Location of employee
Department	Text	3	Code for department in the organization
StateCode	Text	2	Code for Employee's State of origin
LGACode	Text	3	Code for Employee's Local Government
Category	Text	10	Category of Staff within organization
MaritalStatus	Text	10	Marital Status
Designation	Text	5	Code for Employee's designation
Leave	Yes/No		Flag to signify if employee is on leave
Suspension	Yes/No		Flag to signify if employee is on suspension

**Table Name: OutPutFile**

**Purpose** : This table is used to generate the report on Status of Staff on Leave, for example date of resumption, etc

**Primary Key** : Indexed on EmpID – a unique field as is required

Field Name	Field Type	Field Width	Description
EmpID	Text	10	This key must exist in the Employee table before entry can be allowed (referential integrity)
DateFrom	Date	8	Date of commencement of leave
DateDue	Date	8	Date Staff is due for resumption
Approvedby	Text	10	EmpID of Approving officer

**Table Name: OutPutFile**

**Purpose** : This table is used to generate the report on History of Staff Promotion and designation record, for example Date Last Promoted, etc.

**Primary Key** : Indexed on EmpID – a unique field as is required

Field Name	Field Type	Field Width	Description
EmpID	Text	10	EmpID for the queried staff.
Date	Date	8	Date entry made in the database.
EffectiveDate	Date	8	Date Promotion took effect
ToGrade	Number	2	New Salary GradeLevel
ToStep	Number	2	New Salary Step
Designation	Text	7	Code for the promoted designation

**Table Name: OutPutFile**

**Purpose** : This table is used to generate the report on History of Staff Departmental and Location record.

**Primary Key** : Indexed on EmpID – a unique field as is required

Field Name	Field Type	Field Width	Description
EmpID	Text	10	EmpID for the queried staff.
Department	Text	5	Department Code previously occupied
Location	Text	5	Location Code previously situated
Approvedby	Text	10	EmpID of Approving officer
EffectiveDate	Date	8	Date of transfer

**Table Name: OutPutFile**

**Purpose** : This table is used to generate the about addresses of people to contact in case of Emergency.

**Primary Key** : Indexed on EmpID – a unique field as is required

Field Name	Field Type	Field Width	Description
KinID	AutoNumber	1	The number of this Kin of the employee
EmpID	Text	10	This key must exist in the Employee table before entry can be allowed (referential integrity)
FirstName	Text	15	First name of next of kin
LastName	Text	15	Last name of next of kin
DOB	Date	8	Date of birth of next of kin

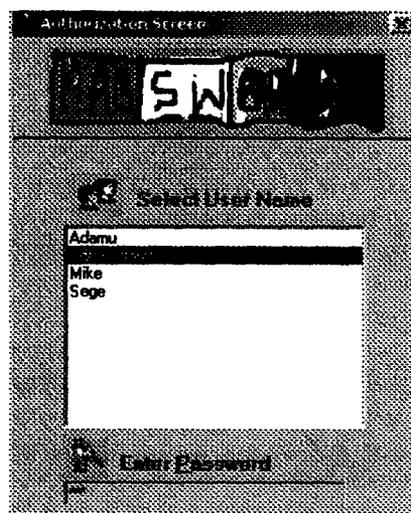
### 3.6 INPUT DESIGN

In contrast to traditional programming language that uses the procedural approach to writing code. Event driven programming language with Object Oriented Programming (OOP) Capabilities like Visual Basic 6.0 unlike these other traditional programming languages is one in which the program constantly evaluates and responds to sets of events, such as key presses or mouse movements. The screen called a form is the user interface and is designed using controls (objects that resembles the one available in the Microsoft Windows Environment). Each control is program to respond to events (such as mouse clicking, text typing, movement of keys, etc.).

The following are some of the input design interface used in capturing data, query criteria and reporting.

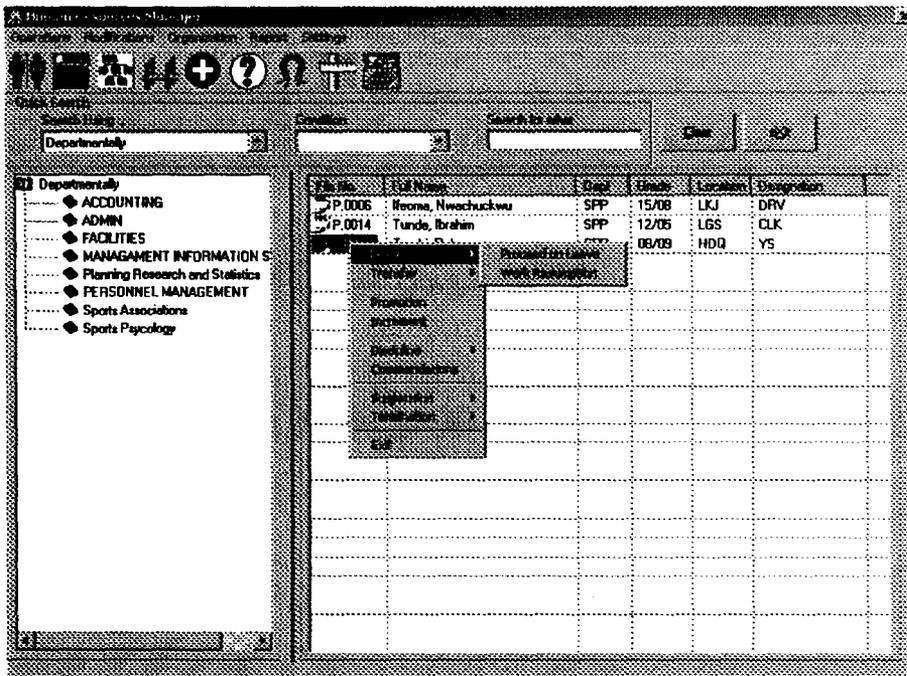
#### FRMSECURITY.FRM

**Function:** This form is to authenticate user for this package. No user is allow to access the program without due authorization. The users are given privileges that specify the part of the system that can be accessed.



## FRMMAINMENU.FRM

**Function:** This is the most important form of the system. It consist of vertical main menu and horizontal pop-up menus. The form displays the list of the employee arranged in an organized format (alphabetically, departmentally, by grade level, designation, state of origin or specified search criteria) in order to make it easier to perform many of the routine tasks of the department. It also has a context sensitive popup menu that provides for easy choice operational tasks.



*The main menu showing the toolbar, and the context sensitive popup menu.*

## FRMLEAVE.FRM

This form records the leave for staff, the summary sheet gives the summary of number of days entitled to and the Leave history lists the dates staff has gone on leave for the current calendar year.

Leave Settings

**Ifeoma, Nwachuckwu**  
P.0006, SPP. 15/08

Leave Data | Summary Sheet | Leave History

Leave Type: Annual

From: Monday, September 03, 2001

To: Monday, September 03, 2001

Public Holidays: 1

Total No. of Days: 1

To Resume On: Monday, September 03, 2001

Approved by: Ogundaro, Olusegun

Update Cancel Exit

**FRMEMPLOYEE.FRM**

This form is used to enter new record of employee. It has 7 tabs consisting of bio-data, official data, Dependent data (Spouse and Children), Emergency Contacts, Academic Record history, In-House Training and Employment History. The first two tabs are shown below.

Employee's Bio-Data

Enter or modify the Biological data of this employee

Bio Data | Official | Dependents | Emergency | Academic Records | In-House Trainings | Work History

Last Name: Bassey

First Name: Doris

Date of Birth: January 01, 1977

Sex: Female | Marital: Single

State: ENUGU | LGA: ENUGU WEST

Residential Address: Plot 124, Nwazara Close, Abuja

Residential Phone: 232323 | Mobile:

E-mail Address: 2323

Navigation buttons: Back, Forward, Home, Stop, Refresh, Print, Close

Employee's Bio-Data  
Enter or modify the Biological data of this employee

[Bio-Data](#) | [Profile](#) | [Demographics](#) | [Emergency](#) | [Academic Records](#) | [InHouse Training](#) | [Work History](#)

File No.	P 0024		
Category			
Department	FACILITIES		
Location	HEADQUARTERS		
Staff Category	IT		
Grade Level	10	Step	3
First Appointment on	January 01, 2001		
Present Appointment on	January 01, 1999		
Discontinuation Date	December 12, 2000		
Phone No.	09-5230248		
Extension	123		

**FRMTRANSFER.FRM**

This form is used to record the transfer of staff from one department to another or from one geographical location to another.

Intra-Office Transfer

**Garba, Akeem**  
P.6826, 06/07

[Transfer](#) | [Department History](#) | [Location History](#)

Current Department	ACC
New Department	MANAGEMENT INFORMATION
Current Location	KJ
New Location	IBADAN
Effective Date	Monday, September 03, 200
Approved by	

## FRMPROMOTION.FRM

This is used to record the promotion of staff from one level to another.

The screenshot shows a window titled "Staff Promotion" for employee "Mamuna, Hadiza" (ID: P.0017, 03/04). The window has tabs for "Promote", "Promotion History", and "Promotion History". The "Promote" tab is active, showing the following fields:

Prev Grade:	B3	Prev Step:	B4
New Grade:	4	New Step:	1
Prev Designation:	GL		
New Designation:	Driver Mechanic		
Promoted On:	Monday, September 03, 2001		
Effective Date:	Monday, September 03, 2001		
Approved by:	Bilal Imch		

Buttons at the bottom: Update, Cancel, Exit.

## FRMINCREMENT.FRM

Setting of annual increment

The screenshot shows a window titled "Salary Increment" with the subtitle "Periodic Increment of Employee Salary". It has two tabs: "Increment Settings" and "Affected Employees". The "Increment Settings" tab is active, showing the following fields:

Increment Step(s)	1
Last Increment Over	
<input type="radio"/> 1 Month	
<input checked="" type="radio"/> 3 Months	
<input type="radio"/> 6 Months	
<input type="radio"/> 1 Year	
<input type="radio"/> Specify Period	06-September-2001

Buttons on the right: Update, Cancel, Exit.

**FRMDISCIPLINE.FRM**

This form is used to record disciplinary action such as warning or queries

The screenshot shows a window titled "Discipline of Staff" with the main heading "Disciplinary Action(s)" and the instruction "Select Employee to be queried or warned". The form contains the following fields:

- File No: [Text input field]
- Full Name: [Text input field]
- Discipline Type: [Dropdown menu]
- Query Text: [Text input field]
- Response: [Text input field]

At the bottom of the window are three buttons: "Update", "Cancel", and "Exit".

**FRMSUSPENSION.FRM**

Suspension of staff entry form.

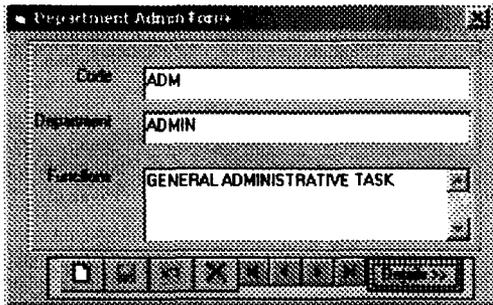
The screenshot shows a window titled "Discipline of Staff" with the main heading "Disciplinary Action(s)" and the instruction "Select Employee to be suspended". The form contains the following fields:

- File No: [Text input field]
- Full Name: [Text input field]
- Reason for Suspension: [Text input field]
- Suspension Type: Two radio buttons, "Indefinite Suspension" and "Definite Suspension".
- Definite Suspension Date: [Date input field with value "11-Sep-2001"]

At the bottom of the window are three buttons: "Update", "Cancel", and "Exit".

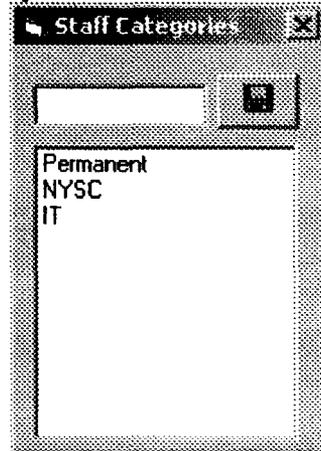
**FRMDEPARTMENT.FRM**

**Function:** Input screen for code and description of departments in the organization.



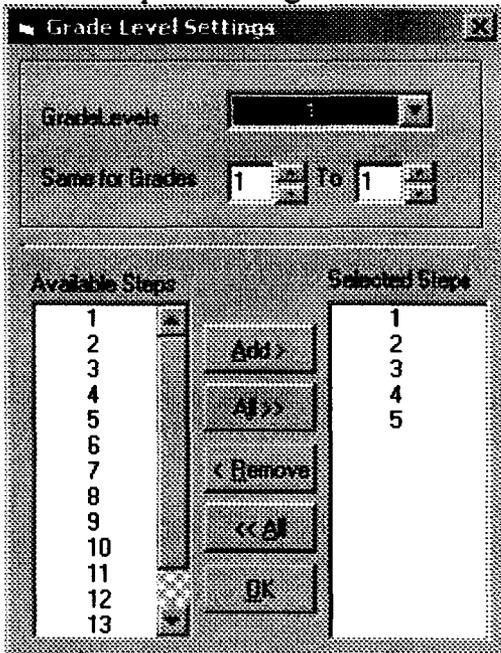
**FRMCATEGORIES.FRM**

**Function:** Input Screen for Categories of employment



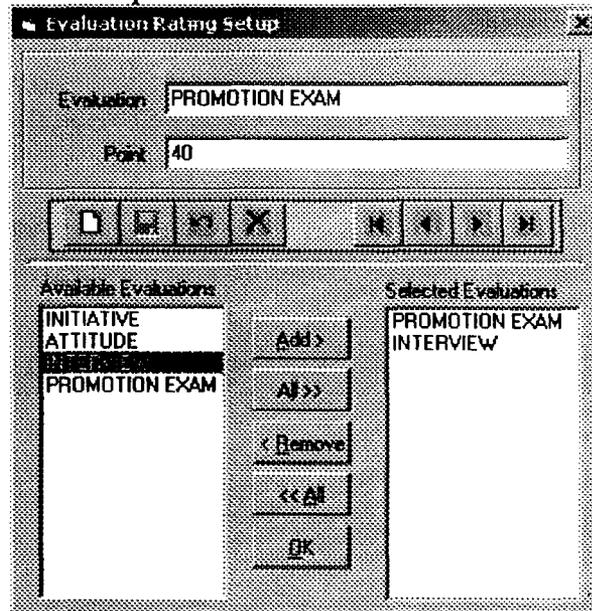
**FRMGRADELEVELSTEP.FRM**

**Function:** This form is used to set grade levels and steps in the organization.



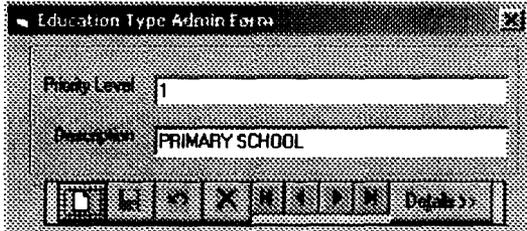
**FRMEVALUATIONSETUP.FRM**

**Function:** Entry of criteria used in determining if an employee has passed the exam for promotion.



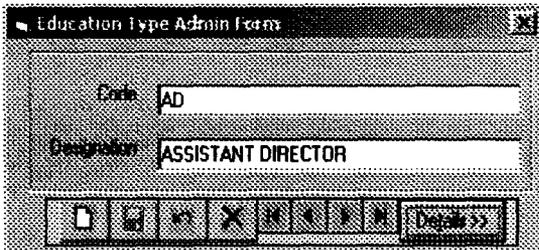
### FRMEDUCATIONTYPE.FRM

Function: Entry form for education types and priority or order of importance.



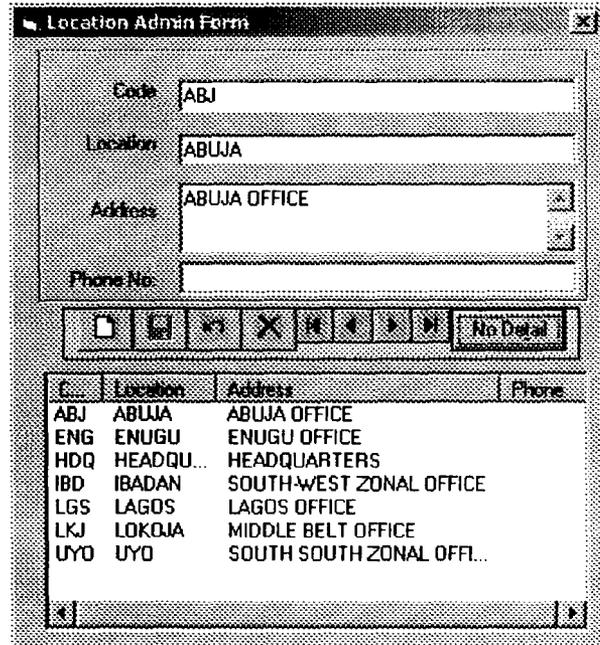
### FRMDESIGNATION.FRM

Function: Entry form for codes and Designations used in the organization.



### FRMLOCATION.FRM

Function: Input Screen for coding the geographical location of the organization.



C...	Location	Address	Phone
ABJ	ABUJA	ABUJA OFFICE	
ENG	ENUGU	ENUGU OFFICE	
HDQ	HEADQU...	HEADQUARTERS	
IBD	IBADAN	SOUTH-WEST ZONAL OFFICE	
LGS	LAGOS	LAGOS OFFICE	
LKJ	LOKOJA	MIDDLE BELT OFFICE	
UYO	UYO	SOUTH SOUTH ZONAL OFFI...	

## 3.7 OUTPUT DESIGN

The strength or weakness of custom built software or even so any management information system is measured by the number, relevance and speed at which information can be generated. The output design displayed below can be view on screen (as shown in this project) or printed on paper. The target audience varies thus the level of details of the reports have been streamlined to meet end-users requirements. These reports were designed using a software development tool called Crystal Report.

**Report Name :** NominalRoll.RPT

**Function :** To display the nominal roll. This can be arranged alphabetically, by grade levels, departmentally, by state of origin, or any specified criteria.

FEDERAL MINISTRY OF SPORTS AND SOCIAL DEVELOPMENT  
Floor 2, Wing D, Federal Secretariat, Abuja  
Nominal Roll

Printed on: 24-Jan-1996

File No	Full Name	Date of Birth	Sex	First Appoint Date	Grade Level	Designation
P.0022	Turaki, Raheem	01-Jan-1975	Male	01-Jan-2000	14	YS
P.0021	Akin, Akinjide	01-Jan-1974	Male	01-Jan-1999	13	YS
P.0007	Yusuf, Malami	01-Jan-1960	Male	01-Jan-1985	11	DRM
P.0006	Ifoma, Nwachuckwu	01-Jan-1959	Female	01-Jan-1984	10	DRV
P.0005	Amina, Ciroma	01-Jan-1958	Female	01-Jan-1983	9	CH
P.0020	Guba, Akem	01-Jan-1973	Male	01-Jan-1998	9	SEC
P.0023	Maduka, Maitida	01-Jan-1976	Female	01-Jan-2001	9	IT
P.0004	George, Adache	01-Jan-1957	Male	01-Jan-1982	8	PTO
P.0019	Mustapha, Abdul	01-Jan-1972	Male	01-Jan-1997	8	DRM
P.0018	Adeniji, Buzmi	01-Jan-1971	Female	01-Jan-1996	7	D

**Report Name :** LeaveList.RPT

**Function :** To display the list of staff on leave.

FEDERAL MINISTRY OF SPORTS AND SOCIAL DEVELOPMENT  
Floor 2, Wing D, Federal Secretariat, Abuja  
List of Staff on Leave

Printed on: 24-Jan-1996

File No	Full Name	Leave Type	Start Date	Due Date
P.0005	Amina, Ciroma	Annual	03-Sep-2001	12-Sep-2001
P.0005	Amina, Ciroma	Maternity	25-Apr-2001	28-Sep-2001
P.0016	Isa, Ahmed	Sick	03-Sep-2001	10-Nov-2001

**Report Name :** SuspensionList.RPT  
**Function :** To display the list of staff on suspension.  
**Report Name :** PromotionList.RPT  
**Function :** To display the list of due for promotion

**FEDERAL MINISTRY OF SPORTS AND SOCIAL DEVELOPMENT**  
 Floor 7, Wing D, Federal Secretariat, Abuja  
 List of Employee Due for Promotion

Printed on: 24-Jan-1996

File No.	Full Name	Grade	Recruited On	Last Promotion on
P.0007	Yusuf, Malami	11	01-Jan-1985	01-Apr-1997
P.0006	Ifeoma, Nwachuckwu	10	01-Jan-1984	01-Mar-1995
P.0005	Amina, Ciroma	9	01-Jan-1983	01-Feb-1990
P.0004	George, Adache	8	01-Jan-1982	01-Jan-1996
P.0002	David, Adams	6	01-Jan-1980	01-Jan-1997
P.0008	Isa, Ibrahim	1	01-Jan-1986	01-May-1994

Page 1 of 24    Total 24    100%

**Report Name :** RetirementList.RPT  
**Function :** To display the list of staff due for retirement.

**FEDERAL MINISTRY OF SPORTS AND SOCIAL DEVELOPMENT**  
 Floor 7, Wing D, Federal Secretariat, Abuja  
 List of Employee Due for Retirement

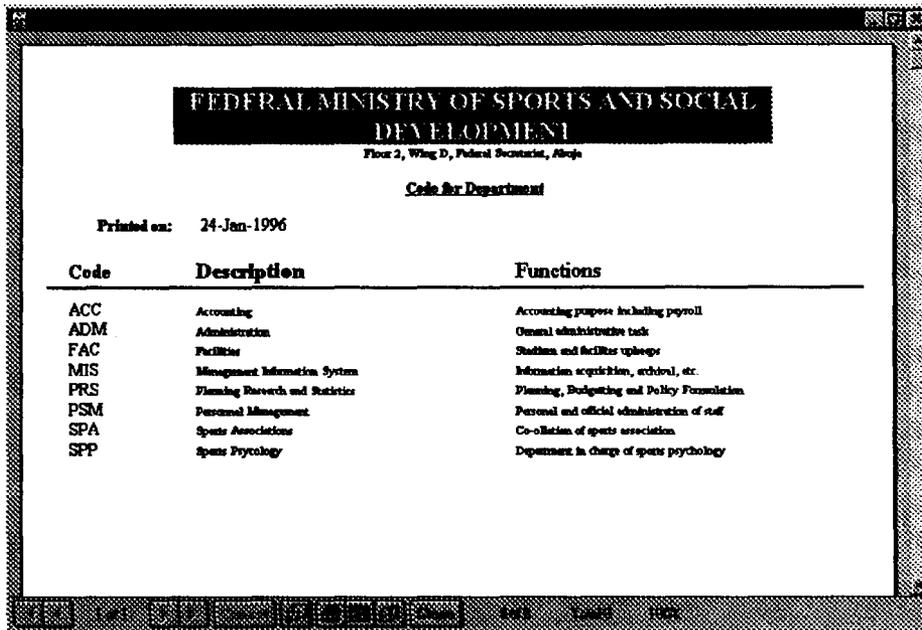
Printed on: 24-Jan-1996

File No.	Full Name	Grade	Recruited On	Date of Birth
P.0007	Yusuf, Malami	11	01-Jan-1985	01-Jan-60
P.0006	Ifeoma, Nwachuckwu	10	01-Jan-1984	01-Jan-59
P.0005	Amina, Ciroma	9	01-Jan-1983	01-Jan-58
P.0004	George, Adache	8	01-Jan-1982	01-Jan-57
P.0003	Bill, Imoh	7	01-Jan-1981	01-Jan-56
P.0002	David, Adams	6	01-Jan-1980	01-Jan-55

Page 1 of 24    Total 24    100%

**Report Name :** DepartmentList.RPT

**Function :** To display the code, description and functions of departments.



FEDERAL MINISTRY OF SPORTS AND SOCIAL DEVELOPMENT  
Floor 2, Wing D, Federal Secretariat, Abuja

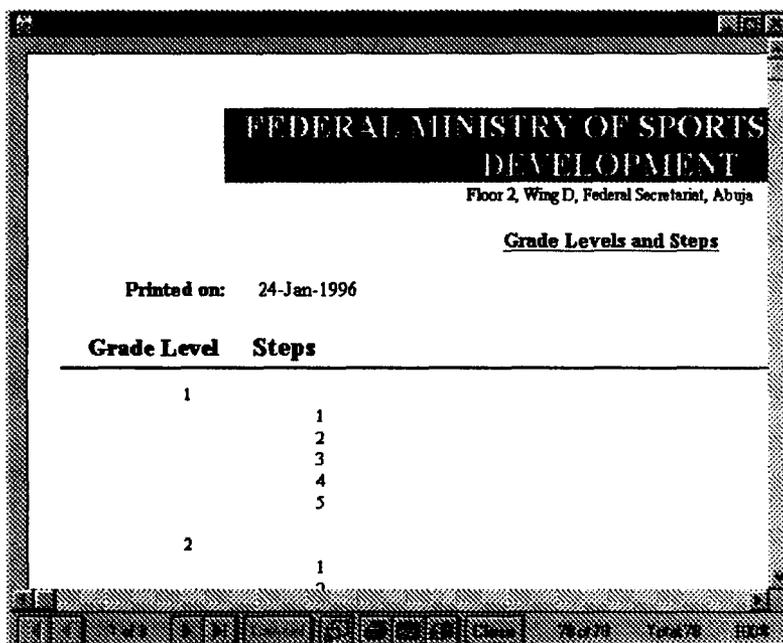
Code for Department

Printed on: 24-Jan-1996

Code	Description	Functions
ACC	Accounting	Accounting purposes including payroll
ADM	Administration	General administrative tasks
FAC	Facilities	Stadium and facilities upkeep
MIS	Management Information System	Information acquisition, archival, etc.
PRS	Planning Research and Statistics	Planning, Budgeting and Policy Formulation
PSM	Personnel Management	Personnel and official administration of staff
SPA	Sports Associations	Co-ordination of sports association
SPP	Sports Psychology	Department in charge of sports psychology

**Report Name :** GradeLevels.RPT

**Function :** To display the list of available grade levels and steps



FEDERAL MINISTRY OF SPORTS AND SOCIAL DEVELOPMENT  
Floor 2, Wing D, Federal Secretariat, Abuja

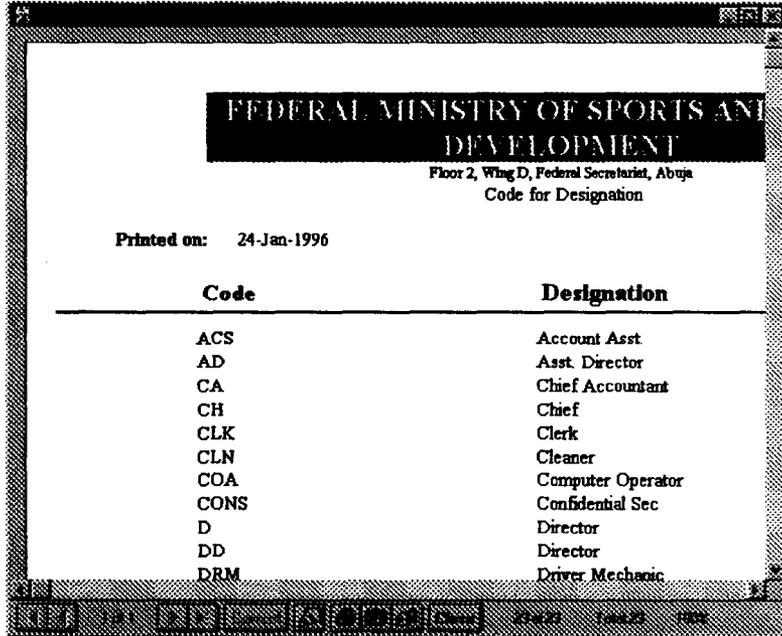
Grade Levels and Steps

Printed on: 24-Jan-1996

Grade Level	Steps
1	1
	2
	3
	4
	5
2	1
	2

**Report Name :** DesignationList.RPT

**Function :** Displays codes and designations.



The screenshot shows a window with a title bar and a menu bar. The main content area displays the following text:

**FEDERAL MINISTRY OF SPORTS AND DEVELOPMENT**  
Floor 2, Wing D, Federal Secretariat, Abuja  
Code for Designation

Printed on: 24-Jan-1996

Code	Designation
ACS	Account Asst
AD	Asst Director
CA	Chief Accountant
CH	Chief
CLK	Clerk
CLN	Cleaner
COA	Computer Operator
CONS	Confidential Sec
D	Director
DD	Director
DRM	Driver Mechanic

The window has a standard Windows-style interface with a title bar, menu bar, and toolbar. The status bar at the bottom shows the date and time: 24-Jan-96 10:44:23 AM.

# CHAPTER FOUR

## SOFTWARE DEVELOPMENT AND IMPLEMENTATION

### 4.1 INTRODUCTION

Software Development is the phase of system analysis where codes are written, debug, tested and documented. Implementation on the other hand is application of the developed system for the purpose the desired purpose. System implementation involves the development of quality assurance procedures, including data security, back-up, recovery and system control system implementation objective is to complete the orderly and unobtrusive installation of the new system. During the system implementation, the new system is installed and users have the opportunity to operate the new system in “parallel” with the existing system.

The system application comprises the following task:

- ⇒ Application system installation
- ⇒ Documentation to provide user manuals
- ⇒ Users Training on the new system
- ⇒ Parallel system testing
- ⇒ Data conversion/migration
- ⇒ Acceptance of Testing
- ⇒ System setup

#### 4.1.1 ALGORITHM

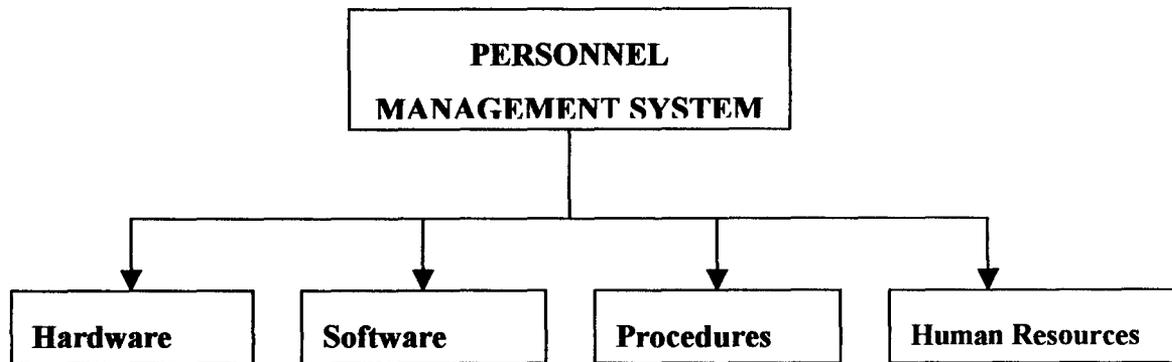
This project used the “divide and rule” method of software development. The individual modules and forms and isolated, analyzed and designed. The designed procedure (form in this case) is then tested with live data. After passing the quality assurance test, the next dependent procedure is developed and so on. All these procedures are then put together to form an integrated, graphically enhanced user interface. This procedure can also be described as the bottom-up approach.

## 4.2 PROGRAM LISTING

(See Appendix A)

## 4.3 PROGRAM DOCUMENTATION

### REQUIREMENT FOR IMPLEMENTATION AN AUTOMATED PERSONNEL MANAGEMENT SYSTEM



#### 4.3.1 HARDWARE REQUIREMENT

The Hardware requirement for implementing the Computer Based Personnel Management System is consists of micro-computers popular referred to as Personal Computer PC and associated accessories. This system can be implemented on a standalone system or in a network environment.

A standalone system consists of isolated computer system not physically linked to other computers close to it in proximity. Data entry, processing, querying and report generation is done on this single computer.

In a network environment, however, the personal computers are linked together to form either a Local Area Network LAN (computers in very close geographic location physically lined together eg. Schools, Hospitals, etc.) or Wide Area Network or WAN (computers are linked together across a widely spread geographical region e.g. Nationwide or Worldwide) the database would be stored on the Server and data entry can be made from any of the workstations. Queries and Report generations as well as other routine task can be carried out on the database.

**This case study uses a standalone Personal Computer (PC) and emphasis will thus be placed on the implementation of the system using this approach.**

**Personal Computer (PC) are machine capable of repetitively and quickly performing calculations and instructions. Designed to be used by a single person, a PC is smaller, less expensive, and easier to use than other classes of computers, such as supercomputers, mainframe computers, and workstations.**

**PCs have revolutionized entertainment, science, the media, art, medicine, education and business because they provide computational abilities at a low cost to people with no extensive programming experience. PCs enable artists to envision and manipulate images. Musicians use them for learning, creating and recording music. Businesses track finances and forecast company performance using PCs. Foreign correspondents can compose news stories on portable PCs, called laptops, and electronically submit these stories from remote locations. Many people work at home and communicate with fellow workers via their PCs in a practice known as telecommuting. PCs are also able to interface with worldwide communication networks, such as the Internet, and the graphics-based information database known as the World Wide Web to find information on any subject.**

**PCs consist of electronic circuitry called a microprocessor, such as the central processing unit (CPU), that directs logical and arithmetical functions and runs computer programs. A PC also has electronic memory to temporarily store programs and data and mass storage devices such as hard, floppy, and compact disc (CD-ROM) drives – to permanently store programs and data. Information and commands are entered by the user via a keyboard or a pointing device called a mouse. Information from the PC is displayed on a video monitor or on a liquid crystal display (LCD) video screen, or it can be printed on laser, dot-matrix, or inkjet printers**

**With the continuous manufacturing of Microprocessors of higher computing strength by major processor manufacturers such as Intel inc. AMD (Advance Micro Devices) and Cyrix Technologies Corp., the power of PCs have grown sporadically in recent times. PCs have gradually grown from stand alone and single user computers to system that can support a network for multi user access. PC has gradually encroached into areas hitherto**

used to be exclusive domain of Minis and mainframe computers. With the entry of newer processor models like the Intel Pentium III series, AMK K62-3D and others the market the computing strength of PCs would continue to be on the increase.

## HARDWARE SPECIFICATION

The hardware specification gives the target type of hardware that could be used to implement the system. It is categorized as minimum hardware requirement and recommended hardware requirement. The minimum requirement specifies the least hardware configuration that can be used to implement the system irrespective of speed of data processing while the recommended system specification gives the configuration of a system that can optimally perform all the processing of the designed system.

Minimum Hardware Requirement	Requirement Hardware Requirement
Intel Pentium II 233 MMX	Intel Pentium III 800
32 MB Synchronous DRAM	128 MB Synchronous DRAM (128 MB recommended)
4 GB Hard Disk Drive	20 GB Hard Disk Drive
52x CD-ROM	52x CD-ROM
1.4 MB 3.5" Floppy Disk Drive	1.4 MB 3.5" Floppy Disk Drive
SVGA VGA Adaptor	8 MB AGP Set
14" Super VGA Monitor	15" Super VGA Monitor
Minitower AT Casing.	Minitower ATX Casing.
IOMEGA 100 MB Zip Disk (for system Backup)	IOMEGA 250 MB Zip Disk (for system Backup)
Microsoft PS/2 Mouse	Microsoft PS/2 Mouse
Widows PS/2 Keyboard	Widows PS/2 Keyboard

Other Accessories are:

- Laser Printer (HP 1100C recommended) or DeskJet Printer (DeskJet 1200C recommended).
- HP 5230C Scanner
- APC 650 Smart UPS.

### **4.3.2 SOFTWARE REQUIREMENT**

The software consists of the system software, application software and custom built software. This system needs the three type of software viz: Operating System, the custom-built application package called Human Resource Manager and A Database Management software (DBMS). Other utility programs like hardware driver, antiviral programs and other application packages are also desirable.

#### ***Operating System***

The operating system is defined as collection of system programs that controls and manages the operations of a computer system. The operating system has three major functions: It coordinates and manipulates computer hardware, such as computer memory, printers, disk, keyboard, mouse, and monitor; it organizes files on a variety of storage media, such as floppy disk, hard drive, compact disc, and tape; and it manages hardware errors and the loss of data.

Operating systems control different computer processes, such as running a spreadsheet program or accessing information from the computer's memory. One important process is the interpretation of commands that allow the user to communicate with the computer. Some command interpreters are text oriented, requiring commands to be typed in. Other command interpreters are graphically oriented, requiring commands to be typed in. Other command interpreters are graphically oriented and let the user communicate by pointing and clicking on an icon, an on-screen picture that represents a specific command. Beginners generally find graphically oriented interpreters easier to use, but many experienced computer users prefer text-oriented command interpreters because they are more powerful.

Operating systems are either single-tasking or multitasking. The more primitive single-tasking operating systems can run only one process at a time. For instance, when the computer is printing a document, it cannot start another process or respond to new commands until the printing is completed.

Proliferation of operating system has lead to astrological development in the past two decades since the personal computer was designed. The archaic method of using the

Character Based Interface (CBI) where commands are entered at the command prompt has now evolved into a rich graphical interface known as Graphical User Interface (GUI) –a more user friendly environment involving the use of mouse, menu, icons and windows. The GUI has icon to represent task and is thus easier to operate.

This system thus uses the latter approach and specifically the Windows family of Operating System software. Any of the Win32 based kernel operating system would do and it consists of a wide variety which includes: Windows 95, Windows 98, Windows ME (Millennium Edition) and Windows 2000 Professional, Server or Advanced Server.

For the implementation of this system, the Windows 2000 Professional version is recommended because of its built-in security features and less cumbersome administrative and operational features compared to the Server and Advanced Server versions.

### ***Custom-built Personnel Management Software***

This software was designed using information gathered during the system analysis and design phase. Efforts were made to ensure that all the manual operations were transferred into screen-form that looks and feels like the manual forms being used. It is a customized software because it was designed after an extensive study of Federal Ministries and tailored to amend abnormality associated with this system.

As it is with all software design, it is characterized by:

- ⇒ The reflection of the manual operation in a more effective and efficient format.
- ⇒ User friendliness – it is easy to operate and manipulate the system to meet the design objective. This was implement through a rich graphical interface similar to the more familiar windows environment.
- ⇒ Reliability – designed to meet the design objectives.

## *Application Software – Database Management Software*

Because this system require the storage and manipulation of data, a Database Management System is a pre-requisite for its successful implementation and deployment.

A database is any collection of data organized for storage in a computer memory and designed for easy access by authorized users. The data may be in the form of text, numbers or encoded graphics. Databases have become so important in industrial societies that they can be found in almost every field of information. Government, military, and industrial database are often highly restricted, and professional databases are usually of limited interest. A wide range of commercial, governmental, and non-profit databases are available to the general public, however, and may be used by anyone who owns or has access to the equipment that they require.

Relational Database, is a type of database management system that stores information in tables - rows and columns of data – and conducts searches by using data in specified columns of one table to find additional data in another table. In a relational database, the rows of a table represent records (collections of information about separate items) and the columns represent fields (particular attributes of a record). Microcomputer database are typically relational.

Popular examples of database software are:

- Microsoft Access
- Microsoft FoxPro
- Borland Paradox
- Oracle etc.

The Microsoft Access 2000 version is used as the data engine for this new system and is required on the host system.

### **4.3.3 HUMAN RESOURCES REQUIREMENT**

It should be noted here that just as the project work is focused on personnel management, and as has been discussed in this project, inadequacy on the part of the preparedness of the operational staff of the system will lead to its failure.

In as much as new staff is not needed to be recruited since it is common knowledge that staff currently working on the manual operation can be converted to work on this automated system, it should be noted that basic computer operational skills are required and extensive training of the designed system can not be over-emphasized.

A user manual and on-line help system could also be designed to complement the above mentioned training (see discussion below).

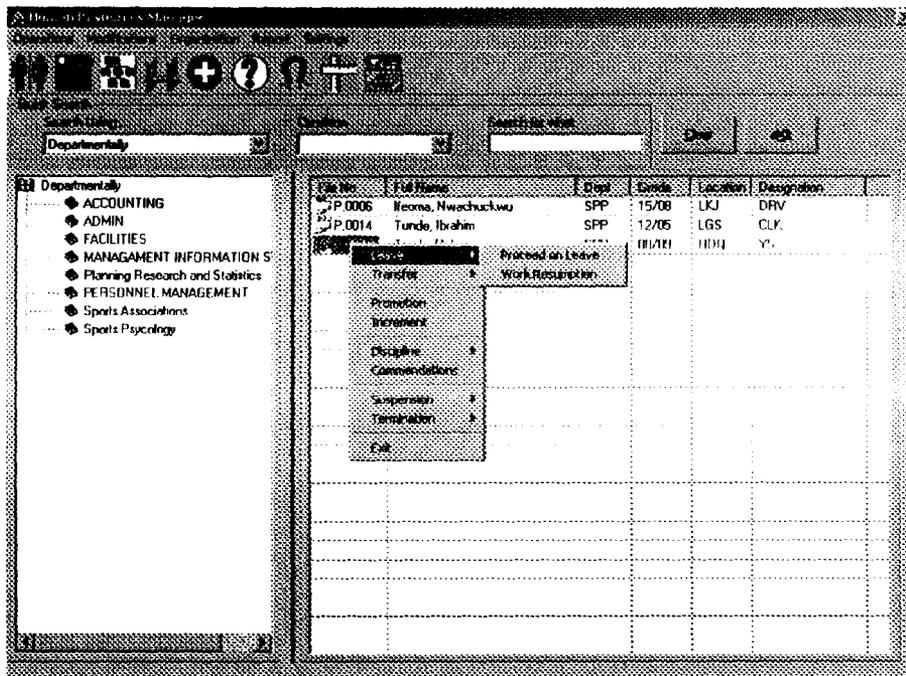
### **4.3.4 PROCEDURES**

Procedures are step-by-step method(s) of using a system to be able to achieve results. A procedure in the context of this project is a physical component because they are provided in a physical form such as manual and instruction booklets. The major types of procedures that are required are:

- User instructions
- Instruction for preparation of input
- Operating instructions for the compute center personnel.

## **4.4 PROGRAM INTERFACE**

The authorization screen whereby users right to access the software are checked is followed by the main menu. This is the engine of the software and contains options for the entire task that can be performed by the user (ones he/she has privilege to perform).



*The main menu showing the toolbar, and the context sensitive popup menu.*

The main menus and the supporting sub-menu are listed below.

## OPERATIONS

- ⇒ **Recruitment:** Option for data entry for new staff.
- ⇒ **Leave:** Option for setting of leave and resumption from leave
- ⇒ **Transfer:** This option is used for the transfer of employee from one department to the other or from a geographical location to the other.
- ⇒ **Promotion:** This option records the promotion of staff from one grade level to the other.
- ⇒ **Increment:** This is used to specify the grade level increment for staff records.
- ⇒ **Discipline:** Used to record warnings or queries to staff.
- ⇒ **Commendation:** Citation for excellence of work performance is accessed through this menu.
- ⇒ **Suspension:** Access to record suspension from work for wrong doings or for further investigation, also used to reverse suspension where applicable.
- ⇒ **Termination:** used in case of termination from work either due to retirement, sacking, retrenchment, or expiration of contract (NYSC or IT).

- ⇒ **Log off:** Used to allow another user to log-in with a different privilege without exiting the program
- ⇒ **Exit:** used to quit the application.

## MODIFICATIONS

This menu is used to edit or delete records of staff. This records could be one of the following:

- ⇒ **Personal Records**
- ⇒ **Official Records**
- ⇒ **Spouse Data**
- ⇒ **Children Records**
- ⇒ **Next of Kin Records**
- ⇒ **Education History**
- ⇒ **Training History**
- ⇒ **Work History**
- ⇒ **Address**

## ORGANIZATION

- ⇒ **Departments:** This option is to enter the departmental code, description and functions.
- ⇒ **Staff Categories:** This option is to input the types of categories of staff and their status (Permanent (with gratuity) or temporary (without gratuity))
- ⇒ **Grade Level/Steps:** Setting of available grade levels and steps within the organization.
- ⇒ **Designations:** Entry form of the designation codes, and description is made through this menu option.
- ⇒ **Marital Status:** This enable the entry of different marital status
- ⇒ **Education Types:** This is where the education types and priority are entered
- ⇒ **Leave Types:** This menu is where the different form of leave types are entered.

⇒ **Locations:** accessing this menu to enter the geographical codes and locations of the organization

## REPORT

⇒ **Nominal Roll:** This report is used to give a list of all employees or selected employees in alphabetical, departmental, grade level, geographical location, state/local government of origin, etc.

⇒ **Record of Service:** This gives a full detail of the employee records, including promotion dates, transfer dates, etc.

⇒ **Directory Listing:** This report is the list of addressed and phone numbers of staff within the organization

⇒ **Promotion List:** This report is the list of staff who are due for promotion

⇒ **Retirement List:** This report on the employees who are due for retirement.

⇒ **Final Warning List:** Employees who have received more than 3 warnings are listed and letters printed to them to inform them of their current status

⇒ **Suspension List:** List of employee who have been suspended for various offences or allegations pending determination of the accusations

⇒ **Staff on leave:** The report lists employees who are currently on leave either casual, annual, maternity, etc.

⇒ **Staff on Training:** Staff who are currently on training courses are listed here

⇒ **Statistics:** Statistical data like the ratio of staff by grade levels, sex, department, geographical locations, etc

⇒ **Organization data:** Accessed to print such report as categories of staff, designation codes and description, grade levels and steps, departmental codes, description and functions, geographical codes and location, etc.

## SETTINGS

⇒ **Configurations:** Configuration data such as States in the Federation; Local Government; Options such as the name of the organization, phone number, e-mail

address, Settings such as frequency of promotion, Number of days for leave, Number of years before promotions, etc. are set here.

⇒ **Security:** This where users are added, and privileges set for the operator of the package.

#### **4.5.1 PROGRAM OUTPUT**

**(See Appendix B)**

#### **4.5.2 OUTPUT DISCUSSION**

From the Sample Program output listed above, it would be observed that the type of information and level of details varies. This is because different level of management requires different level of details of information. The reports are made in such a way that only the necessary information needed by a user is printed.

#### **4.6 SUMMARY**

The change over from old to new system may take place when the system has been proved to the satisfaction of the new System Analyst and the other implementation activities have been completed.

The method and approach used for the change over is the parallel running system. The parallel system testing means processing current data by both the old and new system concurrently, to cross check the result and compares them. The main advantage is that the old system is kept alive and operational until the new system has been proved for at least one system circle. Using 'real-live' data in the real operational environment of the equipments, people and data, the results of the new system will be compared with old system to ensure the efficiency, capability and durability before acceptance by the user.

Once the change over ends, the user staff complete their training and the parallel system testing are successful, the conversion of records of the old system to the file format of the new system, which involve data entry/capture of several forms of data using the data entry of extracted data (called Data Migration), is necessary.

## **CHAPTER FIVE**

### **SUMMARY, CONCLUSION AND RECOMMENDATION**

#### **5.1 SUMMARY**

Since the gains of the computerized system far surpass any bottleneck associated with it, it is this writer's opinion that all effort should be made to implement this system.

#### **5.2 CONCLUSION**

The computer system is an indispensable tool in any sphere of human endeavor. With the advent of this machine many cumbersome and sometime impossible tasks can now be flawlessly done.

This is the age of information technology. A common saying in this industry is that 'a company or organization that uses yesterday's tools in today's technology will not be in business tomorrow'. Today's tool in this context is a well designed and reliable system fashioned after extensive study of an existing manual system to remove all bottlenecks associated with it as illustrated in this project work. In order for the Federal Ministries to remain relevant tomorrow, the implementation of this new system is thus a boost and a right step in the right direction.

#### **5.3 RECOMMENDATIONS**

Since man is the determining factor in effective management of any system as highlighted in this project work. It is imperative that the following recommendations are indoctrinated into the management system of this organization. The recommendations are as follows:

- a. Mechanisms should be established to ensure that all equipments (hardware) and software are in good operating conditions.
- b. Maintenance of the hardware system should be institutionalized in order to guide against system failure.

- c. **The software should from time to time be subjected to modification as changes are made in the organization. This is inline with the fact that no system is perfect and that “change is the only constant factor”.**
- d. **Training of operational staff should be done adequately as this will dictate the success or failure of the system.**
- e. **Efforts should be made to implement the system on a network environment. This will make it possible for ‘privileged’ management staff to have access to information that relate to their sphere of operation.**
- f. **In order to ensure a more dependable system, the primary key should be changed to the National ID card number. This will go a long way in arresting the ghost worker syndrome.**
- g. **The system can also be deployed on the organizations Intranet (if one exist) to provide organizations wide information e.g. The Intercom number of staff, birthdays, etc.**
- h. **That the Federal Government should endeavor to have a complete database of all her staff stored on a single database that would be in a databank located in the Heads of Service Office of the Federation. This will facilitate good planning such as accommodation, transferring of staff from place to place, etc. Budgeting would also be more realistically done since projections would be done on correct estimate instead of on guesses.**

## REFERENCES

- Anderson R. G., (1998), *Data Processing and Management Information System:VOL ,***  
**M & E Book, London.**
- Andrew L. Friedman, Dominic S. Comford (1992), *Computer Systems Development,***  
**John Wiley & Sons Inc.**
- Augustus Adebayo (1992), *Principles and Practice of Public Administration in Nigeria,***  
**Spectrum Books Limited.**
- Harold Kootz (1975), *Management,*** McGraw Hill International Inc.
- Robert L. Barber (1991), *Error Free Software,*** John Wiley & Sons.
- Rubin C. Vera (1998), *Encarta 98 Encyclopedia,*** Microsoft Inc.
- Civil Service Act (1999), *The Nigerian Constitution,*** Federal Ministry of Information  
Press.
- Microsoft Encarta (1998), *Microsoft Incorporation.***
- Microsoft Bookshelf (1998), *Microsoft Incorporation.***
- Public Service Rule (2000), *Public Service Rules,*** Federal Government Press.

Program Name: Sub Main.bas  
Purpose: Initialising of Variables and authorization

```
Public strEmpID As String
Public strFullName As String
Public strDept As String
Public strLocation As String
Public strDesignation As String
Public strGrade As String
Public lngTop As Long
Public lngFormTop As Long
Public lngLeft As Long
Public db As Connection
Public rst As Recordset
Public rstTemp As Recordset
Public rstT As Recordset
Public Sqlstr As String
Public blStart As Boolean
Public resp As Boolean
```

Sub Main()

```
Set db = New Connection
db.CursorLocation = adUseClient
db.Open "PROVIDER=Microsoft.Jet.OLEDB.4.0;Data Source=" + App.Path + "\Employee.mdb" + ";"
frmUsers.Show 1
' frmTransferIn.Show 1
' frmMainMenu.Show 1
' frmPromotion.Show 1
' frmLeave.Show 1
' frmResumption.Show 1
' frmIncrement.Show 1
' frmPrint.Show 1
```

End Sub

Function MaxStep(Grade As Byte)

```
Set rst = New Recordset
rst.Open "Select Step From GradeLevel Where GradeLevel=" + Str(Grade) + " Order by Step", db,
adOpenDynamic, adLockOptimistic
If Not rst.EOF Then
    rst.MoveLast
    MaxStep = rst!Step
End If
rst.Close
```

End Function

Function NextGrade(Grade As Byte)

```
Set rst = New Recordset
rst.Open "Select Distinct GradeLevel From GradeLevel Where GradeLevel>" + Str(Grade) + " Order
by GradeLevel", db, adOpenDynamic, adLockOptimistic
If Not rst.EOF Then
    rst.MoveFirst
    NextGrade = rst!GradeLevel
Else
```

```

    NextGrade = 0
End If
rst.Close
End Function
Function MaxGrade(Grade As Byte)
    Set rst = New Recordset
    rst.Open "Select Distinct GradeLevel From GradeLevel Where GradeLevel>" + Str(Grade) + " Order
by GradeLevel", db, adOpenDynamic, adLockOptimistic
    If Not rst.EOF Then
        rst.MoveLast
        MaxGrade = rst!GradeLevel
        MaxGrade = 0
    End If
    rst.Close
End Function
Function MinStep(Grade As Byte)
    Set rst = New Recordset
    rst.Open "Select Step From GradeLevel Where GradeLevel=" + Str(Grade) + " Order by Step", db,
adOpenDynamic, adLockOptimistic
    If Not rst.EOF Then
        rst.MoveFirst
        MinStep = rst!Step
    End If
    rst.Close
End Function
Public Function Upper(txtIn As String)
Dim Nos As Byte, start As Byte
Dim N As Byte, t As Byte
Dim sstr As String, stemp As String

If Len(txtIn) < 1 Then Exit Function
txtIn = Trim(txtIn) + " "
Nos = Len(txtIn)
start = 1
t = 0
For i = 1 To Nos
    If Mid(txtIn, i, 1) = " " Then t = t + 1
Next i
stemp = ""
For i = 1 To t
    N = InStr(start, txtIn, " ", vbBinaryCompare)

    sstr = Trim(Mid(txtIn, start, N - start))
    stemp = stemp + " " + Trim(UCase(Left(ssr, 1)) + LCase(Right(ssr, Len(Trim(ssr)) - 1)))
    start = N + 1
Next i
Upper = Trim(stemp)
End Function

```

'Program Name: frmMainmenu.frm  
'Purpose : This is the main menu that calls other  
'progrmans when choices are made

```

Dim Node1 As Node
Dim List1 As ListItem

```

```
Private Sub Combo1_Change()  
    Combo2.Clear  
    Combo2.AddItem "Starts with"  
    Combo2.AddItem "Containing"  
    Combo2.AddItem "Is Equal To"
```

```
trvArrangeby.Nodes.Clear
```

```
Select Case Trim(Combo1.Text)  
    Case "Alphabetically"  
        Call EmpAlpha  
    Case "Departmentally"  
        Call EmpDept  
    Case "by Grade Levels"  
        Combo2.Clear  
        Combo2.AddItem "Is Greater Than"  
        Combo2.AddItem "Is Less Than"  
        Combo2.AddItem "Is Equal To"  
  
        Call EmpGrade  
    Case "by Designation"  
        Call EmpDesignation  
    Case "by State of Origin"  
        Call EmpState  
    Case "by Location"  
        Call EmpLocation  
    Case "by Staff Category"  
        Call EmpCategory
```

```
End Select  
lvEmployee.ListItems.Clear
```

```
End Sub
```

```
Private Sub Combo1_Click()
```

```
    Call Combo1_Change
```

```
End Sub
```

```
Private Sub Command1_Click()
```

```
    lvEmployee.ListItems.Clear
```

```
End Sub
```

```
Private Sub Command2_Click()
```

```
    Unload Me
```

```
End Sub
```

```
Private Sub Form_Activate()
```

# FEDERAL MINISTRY OF SPORTS AND SOCIAL DEVELOPMENT

Floor 2, Wing D, Federal Secretariat, Abuja  
List of Employee Due for Promotion

nted on: 11-Sep-2001

No.	Full Name	Grade	Recruited On	Last Promotion on
07	Yusuf, Malami	11	01-Jan-1985	01-Apr-1997
006	Ifeoma, Nwachuckwu	10	01-Jan-1984	01-Mar-1995
005	Amina, Ciroma	9	01-Jan-1983	01-Feb-1990
004	George, Adache	8	01-Jan-1982	01-Jan-1996
0002	David, Adams	6	01-Jan-1980	01-Jan-1997
0008	Isa, Ibrahim	1	01-Jan-1986	01-May-1994

# **PROGRAM OUTPUT**

# FEDERAL MINISTRY OF SPORTS AND SOCIAL DEVELOPMENT

Floor 2, Wing D, Federal Secretariat, Abuja  
List of Employee Due for Retirement

n: 11-Sep-2001

<b>Full Name</b>	<b>Grade</b>	<b>Recruited On</b>	<b>Date of Birth</b>
Yusuf, Malami	11	01-Jan-1985	01-Jan-60
Ifeoma, Nwachuckwu	10	01-Jan-1984	01-Jan-59
Amina, Ciroma	9	01-Jan-1983	01-Jan-58
George, Adache	8	01-Jan-1982	01-Jan-57
Bill, Imoh	7	01-Jan-1981	01-Jan-56
David, Adams	6	01-Jan-1980	01-Jan-55
Okwuduri, Emeka	3	01-Jan-1989	01-Jan-64
Isa, Ibrahim	1	01-Jan-1986	01-Jan-61
Uloma, Nwosu	1	01-Jan-1987	01-Jan-62
Ige, Oluseyi	1	01-Jan-1988	01-Jan-63

# FEDERAL MINISTRY OF SPORTS AND SOCIAL DEVELOPMENT

Floor 2, Wing D, Federal Secretariat, Abuja

## Nominal Roll

Printed on: 11-Sep-2001

File No	Full Name	Date of Birth	Sex	First Appoint Date	Grade Level	Designation	Location	State	LGA
P.0022	Turaki, Raheem	01-Jan-1975	Male	01-Jan-2000	14	YS	HDQ	KD	KAD/M
P.0021	Akin, Akinjide	01-Jan-1974	Male	01-Jan-1999	13	YS	LGS	BH	BH M
P.0007	Yusuf, Malami	01-Jan-1960	Male	01-Jan-1985	11	DRM	LGS	KN	KAN/M
P.0006	Ifeoma, Nwachuckwu	01-Jan-1959	Female	01-Jan-1984	10	DRV	LKJ	KD	KAD/M
P.0005	Amina, Ciroma	01-Jan-1958	Female	01-Jan-1983	9	CH	ABJ	BH	BH M
P.0020	Garba, Akeem	01-Jan-1973	Male	01-Jan-1998	9	SEC	LKJ	GB	GB/W
P.0023	Madueke, Maltida	01-Jan-1976	Female	01-Jan-2001	9	IT	HDQ	KN	KAN/M
P.0004	George, Adache	01-Jan-1957	Male	01-Jan-1982	8	PTO	ENG	GB	GB/W
P.0019	Mustapha, Abdul	01-Jan-1972	Male	01-Jan-1997	8	DRM	ABJ	EN	EN/S
P.0018	Adeniji, Bunmi	01-Jan-1971	Female	01-Jan-1996	7	D	ENG	OY	OY/W
P.0003	Bill, Imoh	01-Jan-1956	Male	01-Jan-1981	7	CL	UYO	EN	EN/S
P.0002	David, Adams	01-Jan-1955	Male	01-Jan-1980	6	AD	IBD	OY	OY/W
P.0017	Mamuna, Hadiza	01-Jan-1970	Female	01-Jan-1995	6	CL	UYO	OS	IFE/C
P.0014	Tunde, Ibrahim	01-Jan-1967	Male	01-Jan-1992	6	CLK	LGS	KD	KAD/M
P.0015	Abubakar, Abudllahi	01-Jan-1968	Male	01-Jan-1993	5	CLK	HQ	KN	KAN/M
		01-Jan-1969	Male	01-Jan-1994	5	DRV			

# FEDERAL MINISTRY OF SPORTS AND SOCIAL DEVELOPMENT

Floor 2, Wing D, Federal Secretariat, Abuja

## List of Staff on Leave

Printed on: 11-Sep-2001

Sl. No.	Full Name	Leave Type	Start Date	Due Date
	Amina, Ciroma	Annual	03-Sep-2001	12-Sep-2001
	Amina, Ciroma	Maternity	25-Apr-2001	28-Sep-2001
	Isa, Ahmed	Sick	03-Sep-2001	10-Nov-2001

```

If blStart Then
    Call ListEmp
End If
End Sub

Private Sub Form_Initialize()

    blStart = False

    Combo1.AddItem "Alphabetically"
    Combo1.AddItem "Departmentally"
    Combo1.AddItem "by Grade Levels"
    Combo1.AddItem "by Designation"
    Combo1.AddItem "by Location"
    Combo1.AddItem "by Staff Category"
    Combo1.AddItem "by State of Origin"

    Combo1.ListIndex = 0

    Call MakeColumn

End Sub

Private Sub lvEmployee_ColumnClick(ByVal ColumnHeader As MSCComctlLib.ColumnHeader)
    lvEmployee.SortKey = ColumnHeader.Index - 1
    lvEmployee.Sorted = True
End Sub

Private Sub lvEmployee_MouseDown(Button As Integer, Shift As Integer, X As Single, Y As Single)
If Button < 2 Then Exit Sub
If lvEmployee.ListItems.Count = 0 Then Exit Sub
If lvEmployee.SelectedItem.Text = "" Then Exit Sub
    ind = lvEmployee.SelectedItem.Index
    strEmpID = lvEmployee.ListItems(ind).Text
    strFullName = lvEmployee.ListItems(ind).SubItems(1)
    strDept = lvEmployee.ListItems(ind).SubItems(2)
    strGrade = lvEmployee.ListItems(ind).SubItems(3)
    strLocation = lvEmployee.ListItems(ind).SubItems(4)
    strDesignation = lvEmployee.ListItems(ind).SubItems(5)
    mnuEmpAdm.Visible = False
    mnuLogoff.Visible = False
' mnuBarexit.Visible = False
    mnuRot11.Visible = False

    PopupMenu mnuOperations

    mnuEmpAdm.Visible = True
    mnuLogoff.Visible = True
' mnuBarexit.Visible = True
    mnuRot11.Visible = True

End Sub

```

```
Private Sub mnubeginleave_Click()  
    frmLeave.Show 1  
End Sub
```

```
Private Sub mnudepts_Click()  
    frmDepartment.Show 1  
End Sub
```

```
Private Sub mnudesign_Click()  
    frmDesignation.Show 1  
End Sub
```

```
Private Sub mnuEducTyp_Click()  
    frmEducation.Show 1  
End Sub
```

```
Private Sub mnuEmpAdm_Click()  
    frmEmployee.Show 1  
End Sub
```

```
Private Sub mnuEvlCls_Click()  
    frmEvaluationSetup.Show 1  
End Sub
```

```
Private Sub mnugradlev_Click()  
    frmGradeLevel.Show 1  
End Sub
```

```
Private Sub mnuincrement_Click()  
    frmIncrement.Show 1  
End Sub
```

```
Private Sub mnuinternaltransfer_Click()  
    frmTransferIn.Show 1  
End Sub
```

```
Private Sub mnuLevTyp_Click()  
    frmLeaveType.Show 1  
End Sub
```

```
Private Sub mnuLocatino_Click()  
    frmLocation.Show 1  
End Sub
```

```
Private Sub mnupromotion_Click()  
    frmPromotion.Show 1  
End Sub
```

```
Private Sub mnuproonsusp_Click()  
    frmSuspension.Show 1  
End Sub
```

```
Private Sub mnuQuery_Click()  
    frmWarning.Show 1  
End Sub
```

```
Private Sub mnuReturn_Click()  
    frmResumption.Show 1  
End Sub
```

```
Private Sub mnurevsuspen_Click()  
    frmReverseSuspention.Show 1  
End Sub
```

```
Private Sub mnustaffcat_Click()  
    frmStaffCategory.Show 1  
End Sub
```

```
Private Sub Text1_KeyPress(KeyAscii As Integer)  
If KeyAscii <> 13 Then Exit Sub  
If Trim(Combo1) = "" Or Trim(Combo2) = "" Or Trim(Text1) = "" Then Exit Sub
```

```
sql2 = ""  
If Trim(Combo1.Text) = "by Grade Levels" Then  
    If Val(Text1) <= 0 Then  
        MsgBox "You should Enter a Number for GradeLevel Search", vbInformation, "InfoBox"  
        Text1.Text = ""  
        Text1.SetFocus  
        Exit Sub  
    End If  
End If  
Select Case Trim(Combo2)
```

```
Case "Starts with"  
    sql2 = " Like " + Trim(Text1) + "%"
```

```
Case "Containing"  
    sql2 = " Like '%" + Trim(Text1) + "%"
```

```
Case "Is Equal To"  
    sql2 = "=" + Trim(Text1) + ""  
    sql3 = "=" + Trim(Text1)
```

```
Case "Is Greater Than"  
    sql3 = ">" + Trim(Text1)
```

```
Case "Is Less Than"  
    sql3 = "<" + Trim(Text1)
```

```
End Select
```

```
Select Case Trim(Combo1.Text)
```

```
Case "Alphabetically"  
    SQL = "Select * from Employee Where LastName " + sql2
```

```
Case "Departmentally"  
    SQL = "Select * from Employee, Departments Where Employee.Department=Departments.Code  
AND TRIM(Departments.Description) " & sql2 & " Order by LastName"
```

```
Case "by Grade Levels"  
    SQL = "Select * from Employee Where GradeLevel " & sql3 & " Order by LastName"
```

```
Case "by Designation"  
    SQL = "Select * from Employee Where Designation " & sql2 & " Order by LastName"
```

```
Case "by State of Origin"  
    SQL = "Select * from Employee Where State " & sql2 & " Order by LastName"
```

```
Case "by Location"  
    SQL = "Select * from Employee Where Location " & UCase(sql2) & " Order by LastName"
```

```

Case "by Staff Category"
    SQL = "Select * from Employee Where Category " & UCase(sql2) & " Order by LastName"
End Select
Sqlstr = SQL
Call ListEmp
End Sub

Private Sub trvArrangeby_BeforeLabelEdit(Cancel As Integer)
    Cancel = True
End Sub

Private Sub trvArrangeby_Collapse(ByVal Node As MSCComctlLib.Node)
    Node.Image = "Closed"
    lvEmployee.ListItems.Clear
End Sub

Private Sub trvArrangeby_Expand(ByVal Node As MSCComctlLib.Node)
    Node.Image = "Open"

    Call Pick(Node)

End Sub

Private Sub trvArrangeby_NodeClick(ByVal Node As MSCComctlLib.Node)
If Node.Tag = "" Then Exit Sub
    Call Pick(Node)
End Sub

Sub ListEmp()
On Error Resume Next
Dim rstT As Recordset
Set rstT = New Recordset
rstT.Open Sqlstr, db, adOpenDynamic, adLockOptimistic
If rstT.EOF Then rstT.Requery
lvEmployee.ListItems.Clear
Do While Not rstT.EOF
    Set List1 = lvEmployee.ListItems.Add(, rstT!empid, "View", "View")
    List1.SubItems(1) = Trim(rstT!LastName) + ", " + Trim(rstT!FirstName)
    List1.SubItems(2) = rstT!Department
    List1.SubItems(3) = Trim(Format(rstT!GradeLevel, "0#")) + "/" + Trim(Format(rstT!Step, "0#"))
    List1.SubItems(4) = rstT!Location
    List1.SubItems(5) = Trim(rstT!Designation)
    rstT.MoveNext
Loop
rstT.Close
End Sub

Private Sub MakeColumn()
lvEmployee.ColumnHeaders.Clear
lvEmployee.ColumnHeaders.Clear
lvEmployee.ColumnHeaders.Add , , "File No.", 1000
lvEmployee.ColumnHeaders.Add , , "Full Name", 2500
lvEmployee.ColumnHeaders.Add , , "Dept", 700
lvEmployee.ColumnHeaders.Add , , "Grade", 800
lvEmployee.ColumnHeaders.Add , , "Location", 800
lvEmployee.ColumnHeaders.Add , , "Designation", 1500
End Sub

```

```

Sub Pick(Node As Node)
Select Case Node.Tag
Case "Dept"
    sql2 = Node.Key
    Sqlstr = "Select * from Employee, Departments Where Employee.Department=Departments.Code
AND TRIM(Departments.Code)='" & sql2 & "' Order by LastName"

Case "Grade"
    SQL = Right(Node.Key, Len(Node.Key) - 1)
    Sqlstr = "Select * from Employee Where GradeLevel= " & SQL & " Order by LastName"
Case "Level"
    SQL = Right(Node.Parent.Key, Len(Node.Parent.Key) - 1)
    Lt = InStr(1, Node.Key, "L")
    sql2 = Right(Node.Key, Len(Node.Key) - Lt)
    Sqlstr = "Select * from Employee Where GradeLevel= " & SQL & " AND STEP =" + sql2 + "
Order by LastName"

Case "LGA"
    SQL = Node.Parent.Key
    Lt = InStr(1, Node.Key, "0")
    sql2 = Right(Node.Key, Len(Node.Key) - Lt)
    Sqlstr = "Select * from Employee Where State=' " & SQL & "' AND LGA=' " + sql2 + "' Order by
LastName"
Case "Place"
    SQL = Trim(Node.Key)
    Sqlstr = "Select * from Employee Where Location =' " & UCase(SQL) & "' Order by LastName"

Case "Alpha"
    SQL = Trim(Node.Key)
    Sqlstr = "Select * from Employee Where Left(Trim(LastName),1)='" & Trim(SQL) & "' Order by
LastName"
Case "State"
    SQL = Node.Key
    Sqlstr = "Select * from Employee Where State=' " & SQL & "' Order by LastName"
Case "Post"
    SQL = Node.Key
    Sqlstr = "Select * from Employee Where Designation =' " & SQL & "' Order by LastName"
Case "Type"
    SQL = Trim(Node.Key)
    Sqlstr = "Select * from Employee Where Category =' " & UCase(SQL) & "' Order by LastName"

Case Else
    Exit Sub
End Select
Call ListEmp
End Sub

Sub EmpDept()

Set rstTemp = New Recordset
rstTemp.Open "Select Description,Code from Departments order by Code", db, adOpenDynamic,
adLockOptimistic

Set Node1 = trvArrangeby.Nodes.Add(, "Root", "Departmentally", "Closed")

```

```

Node1.Tag = "Root"

Do While Not rstTemp.EOF

    Set Node1 = trvArrangeby.Nodes.Add("Root", tvwChild, Trim(rstTemp!Code), rstTemp!Description,
"Closed")
        Node1.Tag = "Dept"
        strkey = Trim(rstTemp!Description)

        Sqlstr = "Select EmpID,LastName, FirstName,Department from Employee Where Department =" +
Trim(rstTemp!Description) + " Order by LastName"
        Set rst = New Recordset
        rst.Open Sqlstr, db, adOpenDynamic, adLockOptimistic
        Do While Not rst.EOF

            Set Node1 = trvArrangeby.Nodes.Add(strkey, tvwChild, Trim(rst!empid), Trim(rst!LastName + ", "
+ rst!FirstName), "View")

                rst.MoveNext
                Loop

            rstTemp.MoveNext

        Loop

    End Sub
    Sub EmpGrade()

        Set rstTemp = New Recordset
        Sqlstr = "Select Distinct Gradelevel from Employee"
        rstTemp.Open Sqlstr, db, adOpenDynamic, adLockOptimistic
        Set Node1 = trvArrangeby.Nodes.Add(, "Root", "by GradeLevels", "Closed")
        Node1.Tag = "Root"

        Do While Not rstTemp.EOF

            strkey = "G" + Trim(Str(rstTemp!GradeLevel))
            Set Node1 = trvArrangeby.Nodes.Add("Root", tvwChild, strkey, rstTemp!GradeLevel, "Closed")
            Node1.Tag = "Grade"
            Sqlstr = "Select Distinct Step from Employee Where GradeLevel =" & Trim(Str(rstTemp!GradeLevel))
& " Order by Step"
            Set rst = New Recordset
            rst.Open Sqlstr, db, adOpenDynamic, adLockOptimistic

            Do While Not rst.EOF
                tt = "G" + Trim(Str(rstTemp!GradeLevel)) + "L" + Trim(Str(rst!Step))
                Set Node1 = trvArrangeby.Nodes.Add(strkey, tvwChild, tt, rst!Step, "Closed")
                Node1.Tag = "Level"
                Set rst1 = New Recordset
                Sqlstr = "Select EmpID, LastName,FirstName From Employee Where GradeLevel=" +
Trim(Str(rstTemp!GradeLevel)) + " AND Step =" + Trim(Str(rst!Step))
                rst1.Open Sqlstr, db, adOpenDynamic, adLockOptimistic

                Do While Not rst1.EOF

```

```
Set Node1 = trvArrangeby.Nodes.Add(tt, tvwChild, Trim(rst1!empid), Trim(rst1!LastName + ",  
" + rst1!FirstName), "View")  
rst1.MoveNext  
Loop
```

```
rst.MoveNext  
Loop
```

```
rstTemp.MoveNext
```

```
Loop
```

```
End Sub
```

```
Sub EmpDesignation()  
Set rstTemp = New Recordset  
rstTemp.Open "Select Code from Designation order by Code", db, adOpenDynamic, adLockOptimistic
```

```
Set Node1 = trvArrangeby.Nodes.Add(, "Root", "by Designation", "Closed")
```

```
Node1.Tag = "Root"
```

```
Do While Not rstTemp.EOF
```

```
Set Node1 = trvArrangeby.Nodes.Add("Root", tvwChild, Trim(rstTemp!Code), rstTemp!Code,  
"Closed")
```

```
Node1.Tag = "Post"  
strkey = Trim(rstTemp!Code)
```

```
Sqlstr = "Select EmpID,LastName, FirstName,Department from Employee Where Designation ='" +  
Trim(rstTemp!Code) + "' Order by LastName"
```

```
Set rst = New Recordset  
rst.Open Sqlstr, db, adOpenDynamic, adLockOptimistic  
Do While Not rst.EOF
```

```
Set Node1 = trvArrangeby.Nodes.Add(strkey, tvwChild, Trim(rst!empid), Trim(rst!LastName + ", "  
rst!FirstName), "View")
```

```
rst.MoveNext  
Loop
```

```
rstTemp.MoveNext
```

```
op
```

```
End Sub
```

```
Sub EmpAlpha()
```

```
rstTemp = New Recordset  
str = "Select Distinct left(trim(LastName),1) as Tit from Employee "  
emp.Open Sqlstr, db, adOpenDynamic, adLockOptimistic
```

```
Node1 = trvArrangeby.Nodes.Add(, "Root", "Alphabetically", "Closed")  
e1.Tag = "Root"
```

Do While Not rstTemp.EOF

```
strkey = Trim(rstTemp!Tit)
Set Node1 = trvArrangeby.Nodes.Add("Root", tvwChild, strkey, Trim(rstTemp!Tit), "Closed")
```

```
Node1.Tag = "Alpha"
```

```
Sqlstr = ""
```

```
Set rst = New Recordset
```

```
rst.Open "Select * from Employee Where Left(Trim(LastName),1)=" + Trim(rstTemp!Tit) + " Order by  
LastName", db, adOpenDynamic, adLockOptimistic
```

Do While Not rst.EOF

```
Set Node1 = trvArrangeby.Nodes.Add(strkey, tvwChild, , Trim(rst!LastName + ", " +  
rst!FirstName), "View")
```

```
rst.MoveNext
```

```
Loop
```

```
rstTemp.MoveNext
```

```
Loop
```

```
End Sub
```

```
Sub EmpLocation()
```

```
Set rstTemp = New Recordset
```

```
rstTemp.Open "Select Code,Location from Locations order by Location", db, adOpenDynamic,  
adLockOptimistic
```

```
Set Node1 = trvArrangeby.Nodes.Add(, "Root", "by Location", "Closed")
```

```
Node1.Tag = "Root"
```

Do While Not rstTemp.EOF

```
Set Node1 = trvArrangeby.Nodes.Add("Root", tvwChild, Trim(rstTemp!Code), rstTemp!Location,  
"Closed")
```

```
Node1.Tag = "Place"
```

```
strkey = Trim(rstTemp!Code)
```

```
Sqlstr = "Select EmpID,LastName, FirstName,Location from Employee Where trim(Location) =" +  
Trim(strkey) + " Order by LastName"
```

```
Set rst = New Recordset
```

```
rst.Open Sqlstr, db, adOpenDynamic, adLockOptimistic
```

Do While Not rst.EOF

```
Set Node1 = trvArrangeby.Nodes.Add(strkey, tvwChild, Trim(rst!empid), Trim(rst!LastName + ", "  
rst!FirstName), "View")
```

```
rst.MoveNext
```

```
Loop
```

```
stTemp.MoveNext
```

Loop

End Sub

Sub EmpState()

Set rstTemp = New Recordset

Sqlstr = "Select Distinct State.State as Stat,Code From Employee, State Where  
trim(Employee.State)=trim(State.Code) order by State.State"

rstTemp.Open Sqlstr, db, adOpenDynamic, adLockOptimistic

Set Node1 = trvArrangeby.Nodes.Add(, "Root", "by State of Origin", "Closed")

Node1.Tag = "Root"

Do While Not rstTemp.EOF

strkey = Trim(rstTemp!Code)

Set Node1 = trvArrangeby.Nodes.Add("Root", tvwChild, strkey, rstTemp!Stat, "Closed")

Node1.Tag = "State"

Sqlstr = "Select Distinct LGA from Employee Where State ='" & Trim(rstTemp!Code) & "' Order by  
LGA"

Set rst = New Recordset

rst.Open Sqlstr, db, adOpenDynamic, adLockOptimistic

Do While Not rst.EOF

tt = Trim(rstTemp!Code) + "0" + Trim(rst!LGA)

Set Node1 = trvArrangeby.Nodes.Add(strkey, tvwChild, tt, rst!LGA, "Closed")

Node1.Tag = "LGA"

Set rst1 = New Recordset

Sqlstr = "Select EmpID, LastName,FirstName From Employee Where State='" +  
Trim(rstTemp!Code) + "' AND LGA ='" + Trim(rst!LGA) + "'"

rst1.Open Sqlstr, db, adOpenDynamic, adLockOptimistic

Do While Not rst1.EOF

Set Node1 = trvArrangeby.Nodes.Add(tt, tvwChild, Trim(rst1!empid), Trim(rst1!LastName + "  
" + rst1!FirstName), "View")

rst1.MoveNext

Loop

rst.MoveNext

Loop

rstTemp.MoveNext

Loop

End Sub

Sub EmpCategory()

Set rstTemp = New Recordset

rstTemp.Open "Select Category From StaffCategory", db, adOpenDynamic, adLockOptimistic

Set Node1 = trvArrangeby.Nodes.Add(, "Root", "by Staff Category", "Closed")

**Node1.Tag = "Root"**

**Do While Not rstTemp.EOF**

**Set Node1 = trvArrangeby.Nodes.Add("Root", tvwChild, Trim(rstTemp!Category), rstTemp!Category, "Closed")**

**Node1.Tag = "Type"**

**strkey = Trim(rstTemp!Category)**

**Sqlstr = "Select EmpID,LastName, FirstName,Location from Employee Where trim(Category) = " + Trim(strkey) + " Order by LastName"**

**Set rst = New Recordset**

**rst.Open Sqlstr, db, adOpenDynamic, adLockOptimistic**

**Do While Not rst.EOF**

**Set Node1 = trvArrangeby.Nodes.Add(strkey, tvwChild, Trim(rst!empid), Trim(rst!LastName + ", " + rst!FirstName), "View")**

**rst.MoveNext**

**Loop**

**rstTemp.MoveNext**

**Loop**

**End Sub**