

**COMPUTERISATION OF PERSONNEL  
MANAGEMENT INFORMATION SYSTEM  
A CASE STUDY OF CHANCHAGA LOCAL  
GOVERNMENT COUNCIL**

**BY**

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PGD/MCS/785**

**A PROJECT SUBMITTED TO THE  
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MANAGEMENT INFORMATION SYSTEM**

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**SEPTEMBER, 2001**

## CERTIFICATION

This is to certify that this project carried out by MALLAM ABDULSALAM .D. ALHASSAN meet the requirement for the award of a Postgraduate Diploma in Computer Science of Federal University of Technology, Minna.

.....  
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DATE

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(HEAD OF DEPARTMENT)

.....  
DATE

.....  
EXTERNAL EXAMINER

.....  
DATE

## **DEDICATION**

This term paper is dedicated to the entire ALHASSAN'S family especially to my beloved mother for her constant intercession to the Almighty Allah on my behalf.



## **ACKNOWLEDGEMENT**

I wish to express my sincere and profound gratitude to the Almighty Allah for guiding me through the period used in writing the project and bestowed upon me the strength, blessings, knowledge, wisdom and mercy before, during and after the write-up (Alhamdu-Lillah).

I also at this juncture wish to express appreciation to my able lecturer, Supervisor in person of **MR. L. N. EZEAKO** who supervised the work and took pain to read through many scripts and making series of corrections. I 'm also grateful to the following people Mallam Hakimi, Alhaji Ibrahim Abdullahi, Mallam Yusuf, Mallam Ibrahim Kiko, Mallam Ibrahim Ministry of Works'), Alhaji Abba Abdullahi, Alhaji Hudu, whose assistance, advice, efforts and encouragement brought about the success of this work.

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Lastly I ever remain indebted and grateful to Hauwa Bababubu, and Kehinde of Law Computer Center Minna Niger State, who beared the responsibility of typing the manuscript. Thank you all. May the almighty Allah in the infinite mercy reward you immensely in this world and next to come. Amen.

ABDULSALAM .D. ALHASSAN.

## **ABSTRACT**

It has been statistically established that recent developments in computer technology - especially in its application to the solution of human – problems – has significantly facilitated personnel management functions in many organizations.

Personnel officers in Chanchaga Local Government Council have had very limited exposure to computers and do computerization of personnel function.

In this project, dbase IV – a classic database management system for micro computers, that allows interaction with data through multiple selections, was used to set up a Personnel Management Information System.

This system provides management with direct information and ensured proper record of the profile and functions of all staff of Chanchaga Local Government Council.

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# CHAPTER ONE

## 1.1 INTRODUCTION

A computer can be defined as a machine which accepts data from an input device, perform arithmetic and logical operations in accordance with a pre-defined program and finally transfer the processed data to an output device either for further processing or in final printed form. It has a further capability of storing data as may be required. Before computer processing can commence, it is necessary to have an input device for the purpose of transferring data into the computer's internal memory. A computer is automatic in operation in the sense that when the program and data for processing have been inputted into it, the required output is produced without manual intervention as all the program instructions are executed automatically.

In view of its enormous capability, the computer as a machine has found itself in all field of human endeavour, especially as related to its application to human problem and human resources management.

In the past, those responsible for the development of a corporate data processing strategy tend to ignore or failed to appreciate the need for a computer based Personnel Management Information System. The



- (4) The menace of ghost workers which had characterized previous government.

The above mentioned phenomenon has further highlighted the need for Chanchaga Local Government to :-

- (a) Have more and update information about the organization most important resources.
- (b) Monitor the current manpower resources.
- (c) Assist in manpower planning and development.

Despite the appreciation of the need for computer based personnel management information system in Chanchaga Local Government Council it has not been easy for the personnel department to appreciate fully what a computer can do for it or how it should go about it.

In order to achieve a good computer based management information system there has to be a greater understanding of the personnel management department and its function by the management services and then together they can harness the technology effectively.

## **1.2 ABOUT CHANCHAGA LOCAL GOVERNMENT**

CHANCHAGA being the headquarter of Minna Local Government derived its name from Gbagyi (Gwari) word 'Min' and 'na' the word 'Min' means spray and 'na' fire. The town originally was on the hill at Sayako and

walls (ganuwa) built around it. There are also Gbagyi towns and villages in and around the present site of the modern Minna.

In the olden days, at a certain period of the year, all villages far and near Min-na town on the hills used to extinguish their fire for the new year fire which was usually fetched from Min-na town.

Though Chanchaga Local Government council, with all the administrative and functional requirements of a full fledged local government. It did not enjoy the federal government recognition until March 1989, as of 1998 the Chanchaga Local Government Council have a staff of 2,014.

The administrative organizational structure of Chanchaga Local Government Council comprises of the following Department :

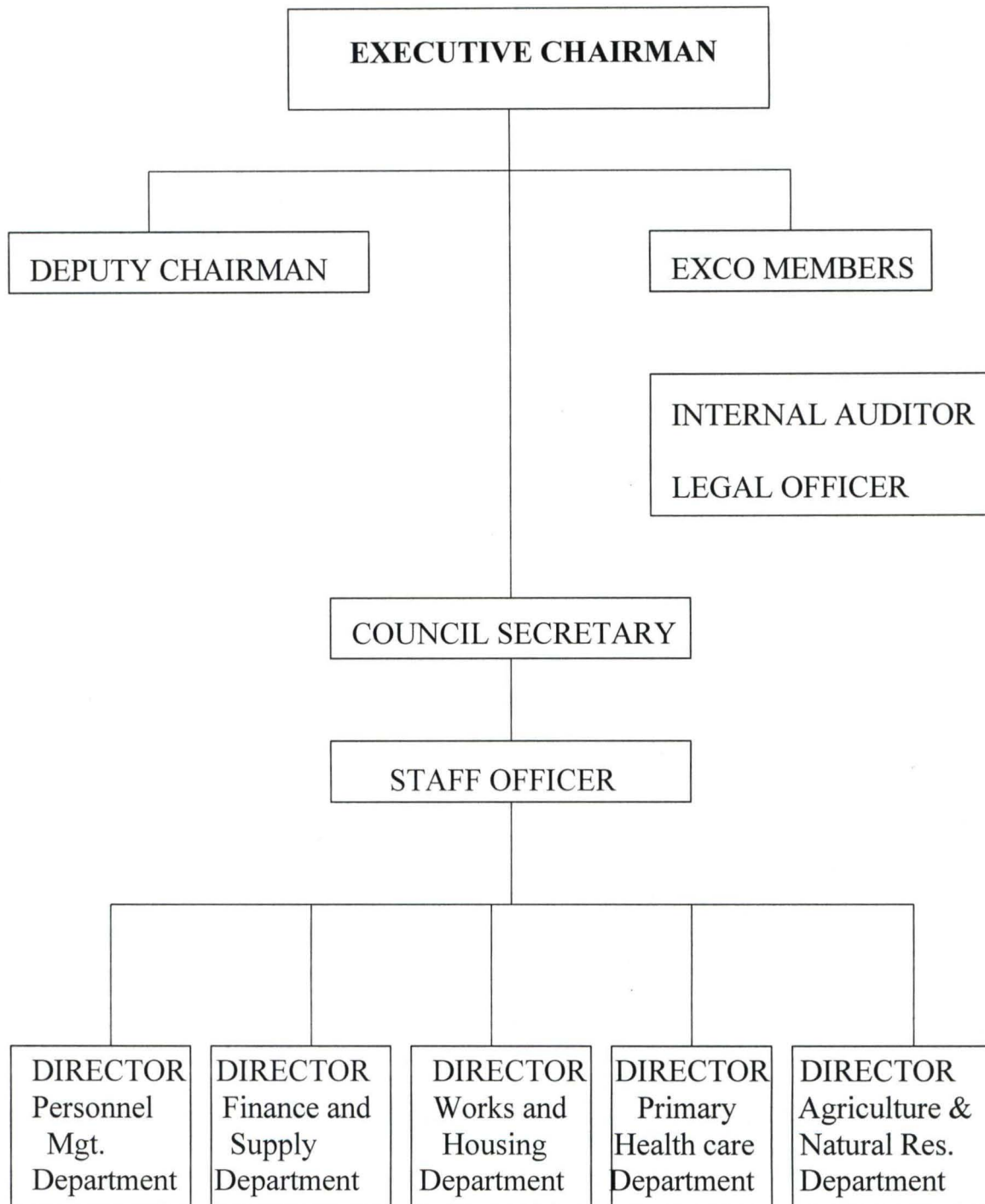
- (1) Personnel Management Department.
- (2) Primary Health Care Department.
- (3) Agriculture and Natural Resource Department.
- (4) Finance and Supply Department.
- (5) Works and Housing Department.

The administrative organization structure of Chanchaga Local Government Council comprises the following Department :-

- (1) Personnel Management Department.
- (2) Finance and Supply Department.
- (3) Primary Health Care Department.
- (4) Works and Housing Department.
- (5) Agriculture and Natural Resource Department.

The above Departments are each headed by a Director. There are several division that come under these Department. However, since our major interest of this research is personnel department. The Personnel Department keeps the record of all the personnel working in the Chanchaga Local Government Council. It is the data generated from these record that form the basis of the propose new personnel management information system.

**ORGANIZATION CHART**



### **1.3 SCOPE OF THE STUDY**

The Research will be limited in scope and coverage to the computerization of personnel management information system of Chanchaga Local Government Council. The computer based personnel management information system to be introduced would be comprehensive. It will be capable to keep tracts of employees working life into retirement holding basic data such as Name, Sex, allowance, data of Birth, Date of first appointment, date of retirement, Date of last promotion, Detail of all vacancy and applicants training record, Type of leave, service entitlement.

### **1.4 AIMS AND OBJECTIVES OF THE STUDY**

Every Research, publication or whatever human beings embark on must have purpose or reason. The recent improvement in the application of computer in solving human problem call for critical study of the problem created in Chanchaga Local Government Council, the menace of ghost workers as well as inefficient out ineffective of the existing manual system of keeping personnel records with a view to searching for possible solution to rectify the anomaly. The aims and objective of this project can be outline as follows :-



- (a) To study in detail the Personnel Management Information System in Chanchaga Local Government. Its problem and prospect and to offer some useful suggestion for possible improvement.
- (b) Design means and strategies required to effect computerization of personnel management information system on theoretical basis. So that in the near future, this can be used for the same project.
- (c) Engage in academic exercise beneficial to human intellectual development and gain.

### **1.5 THE NEED FOR COMPUTERIZATION OF THE PERSONNEL MANAGEMENT**

There is every need for computerization in every organization especially the personnel management information system based on the following reasons :-

- (1) To achieve accurate information or record.
- (2) To provide security for such information.
- (3) To process DATA or information at high speed.
- (4) To provide for easy retrieval of information when the need arise.



(5) To be able to add or update record/information when the need arise.

Going by these need, they are tailored towards saving of time, reliability, effectiveness, efficiency and security of information.

Bearing in mind all these, there are certain characteristics that one expected with any good computerized personnel management information system such good virtues are :-

1. Recording information
2. Classification of information
3. Sorting of information
4. Calculation of DATA
5. Summarization of DATA
6. Reporting of information.

# CHAPTER TWO

## 2.1 GENERAL HISTORY OF COMPUTERS

Electronic computers are linked to a chain of calculating inventions that stretches back to pre-historic times.

The development of tools aid in calculating began with early civilization. People first used stick, stones, shell, notches on a stick, marks in the sand, or knots in a rope to aid in counting. Later, fingers were used to perform simple computations.

One of the earliest calculating devices created by man is ABACUS. This ancient calculating instrument has been used for the past 2000 years.

In the 17<sup>th</sup> century, (1617) John Nappier - developed an ingenious devices for multiplying and dividing. The device, called Nappier Bone, was used for many years.

In 1642, the first practical calculating machine was built by a 19 years old French-man named called Balise Pascal's calculator was limited to performing only addition and subtraction.

About 30 years later, a German mathematician named Lebeniz developed a similar machine that could also multiply and divide. The first machine to perform basic arithmetic operation well enough for commercial

use was the ARITHMETER, built by Charles Xavier Thomas in 1820. Charles Babbage, an English mathematician designed the ANALYTICAL Engine in 1833, which was the fore-runner of the modern digital computer.

In the 19<sup>th</sup> century several key-driven machines were developed. Including the first commercially adding machines were developed. Including the first commercially adding machine invented in 1884 by William borrougns. It was not until about 20 years after Charles Babbage's death that the use of punched card patterns in Textiles looms. In 1887 Herman Hollerith, an employee of the U.S. Bureau of the census, used punched card equipment to process the 1890 census. In 1907, James Powers developed a punched card system to process the 1910 census. These machine were fore runner of electro mechanical data processing system.

In the year 1939 – 1944, Harvard University, led a group of engineers in the design of the ASCC (Automatic Controlled Calculator) also called the Mark I. This large machine used a program to guide it through a long series of calculations. By 1941 Konvad Zuse had completed three relay calculator that incorporated many of the ideas of automatic computing in 1942, John V. Attanasoft and his assistant, Clifford Beely devised the first digital computer

to work by electronic means, the ABC (Atanasoft – Beev Computer) called Colossus.

The first large scale, general purpose electronic digital computer called ENIAC (Electronic Numerical Integrated and Computer) used to compute firing and ballistic tables for Army Artillery guns was put into operation.

In 1946 at the University of Pennsylvania (U.S.A.) by John Mauchly and J. Prosper Eckert.

The first stored program computers were completed in 1949, EDSAC in England and BINAC in the U.S. The EDSAC (Electronic Delay Storage Automatic Calculator) was designed and constructed at Cambridge University in England by Maurice V. Wilkes and his associates while BINAC (Binary Automatic Computer) was built by ECKERT and Mauchly.

In 1954, an improved model of EDVAC (Electronic Discrete Variable Automatic Computer) which was smaller, more versatile, and more flexible machine than ENIAC was designed and became a true stored program binary machine using numbers for both instruction and data.

The first computer designed with eventual real-time applications in mind was developed by the Massachusetts Institute of Technology in 1945 and called WHIRL WIND I. Completion of this project resulted in the



development of magnetic core memory, the primary internal storage used in all computers until 1964.

The first business data processing system, UNIVAC I was developed to the United State Bureau of Census in 1951. UNIVAC I was developed by Eckert and Mauchly and contained 500 vacuum tubes. UNIVAC I could read, compute, and write information simultaneously. Not long after developed to help people use these machines. These techniques have since become programming languages that one used extensively in solving problem on modern computer.

IBM (formed in 1911) moved continuously into the computing market with US first commercial computer, the 701, in 1952 IBM has been in an ideal position to dominate the computer market, which it has done consistently.

## **2.2 HISTORY OF COMPUTER IN NIGERIA**

Nigeria started it tinkering with computers in the early 60's when the then industrial giants introduced the first set of computer into the country. The first in the introduction of computer was Nigeria Tobacco Company (NTC) and was later followed by Nigeria Railways Corporation (NRC). These computers were mainly used for personnel records. University of

Ibadan later followed with a slight invention of using the computer in the area of scientific research and application.

Today, the situation has changed. According to Ogis and Ododo (Computer user directory, 1988) there are about 800 or more computer installation with due regard to capability. Talking in the 90's will mean a different thing entirely. The records posted by Ogi and Ododo may not even speak of the true position of things since the record did not take care of the privately procured ones that were not reported.

Assumption is that installation would have been in the region of million but records has it that investment in the industry now stand at about N30 billion. In Nigeria today computer has find a place in our homes, corporate organization, government organizations and medical profession for the purpose of management, scientific research, auditing, payroll, accounting, agriculture and diagnostic purpose etc.

### **2.3 RESEARCH METHODOLOGY**

There are several investigation techniques, among which a researcher must employ in his/her attempt to undertake a research. In practical terms, the researcher is hardly able to employ a single investigation techniques in his attempt.



According to Hill-way and Iyrus in 1964 in their book titled “*Introduction to research*” in any given investigation, it may be necessary (infact frequently desirable) to use two or more of these general types of research in combination. There is no reason for instance, why one should not seek the solution of the problem by studying its history through an examination of document (content analysis) and then determine its present status by some sort of survey.

This research work employed the following fact finding techniques: Lecture handout, published papers, text books and oral interview of the official of the personnel department of Chanchaga Local Government Council.

**Interview** are by far the most common and most satisfactory way of obtaining information, particularly to obtain information about objectives, constraints, allocation of duties, and problem and in the failure of the existing system.

The underlisted guidelines were followed, in order to conduct a successful interview :-

- (1) Prepare for the interview by learning about the individual to be interviewed and the overall function of the organization.

- (2) Outline the purpose and scope of the study, making sure that all questions are answered.
- (3) Bring up specific question about procedure that might lead to information about area of improvement.
- (4) Limit the amount of role taking in order to avoid distracting the person being interviewed.
- (5) At the end of the interview, analysed and summarized the information gathered.

#### **2.4 ANALYSIS OF PROPOSED NEW SYSTEM**

The proposed new system implies the application of computer system to the manually maintained data processing with specific to personnel management information system. The proposed system will be analysed using the following method :-

- (a) Method of data/information generation
- (b) Method of data processing
- (c) Method of file organization and storage
- (d) File movement
- (e) Security and safety of files.

The method of data/information generation is near similar to the one used by the old system since it is generated from individual application letter

and attached document. The information are collected and inputed into the computer by the operators.

The method of data processing adopted here is that each personnel is given an identification number from which he/she is uniquely identified in the database to be extracted. Once given the I.D. number of all other data are supplied and attached to the I.D. number of the personnel. This process is repeated several time for each personnel. So instead of having separate file for each personnel on the same type of data information, you have one single file for all. This often is referred to as the database file. After all the data information has been entered, you then sort the records accordingly.

Method of file organization and storage is that a single database is created for the whole personnel with a given name to the file. The name of the file is what is required all the time to load it to the computer memory any time a specific information is sorted after. Hence, the file name describes the cabinet, while the contents describe the file contained.

The effect file movement, information dissemination, you can adopt two methods. The first one is either that you have the file view the information on the display by issuing queries that will actually lead you to the specific information requirement or in the alternative, issue query as at when necessary and print the requested information on paper.

## **2.5 ADVANTAGES OF THE PROPOSED NEW SYSTEM**

The advantages of the proposed new computer based personnel management information system are outlined below :-

- (1) High speed of processing information.
- (2) Lesser personnel as operators.
- (3) High degree of efficiency.
- (4) Reduction in space occupied by file and cabinet.
- (5) Better personnel management information system.
- (6) A more effective department.
- (7) High degree of accuracy.
- (8) Reduction in time spent in searching and moving data.



# CHAPTER THREE

## 3.1 ANALYSIS OF OPERATION OF EXISTING SYSTEM

The existing system as is being used today was critically appraised using the following approaches :-

- (1) Method of information generation
- (2) Method of data processing
- (3) Method of file organization and storage
- (4) File movement
- (5) Security and safety of file.

The method adopted in data/information generation is simple. All operation from day of first appointment to date of retirement are manually done in Chanchaga Local Government Council. The applicant submit application letter for employment and attached to it photocopies of his credential to the personnel department for onwards processing and consideration. Immediately after the submission of the application, a file is opened for the applicant with a number for due processing.

After the necessary approval is obtained and letter of offer of appointment issued and accepted, the new employed is expected to resume work in the local government. On resumptions on second file (secret) is

opened in his name and number. When these initial formalities of documentation are completed the files are kept in the secret registry.

Open files which are staff (employee) personal file are kept in a metal filing cabinet in the open registry. While the secret file are locked inside the metal filing cabinet under lock for safety and security. The method of file organization for the 2 registries is serial.

When the need arose for an information or references have to be made a particular file, the file is traced manually, one after the other until the desired file is reached. When the desired file is located, it is removed and minute on the officer requesting for it. When the file is returned to the registry, it is placed in its former position. File sorting, personnel file are sorted manually and arranged according to department.

### **3.2 PROBLEMS OF THE EXISTING SYSTEM**

Usual problem of this type of manually maintained basic personnel records are :-

- (1) Employ large number of people resulting in high wages bill.
- (2) Data processing is always very slow
- (3) Poor file handling result in destruction or mutilation of vital document.
- (4) Occupies a lot of space



- (5) Poor security and safety of files
- (6) Operation are prone to error
- (7) Reported cases of missing files.

### **3.3 SCOPE OF THE FEASIBILITY STUDY**

The scope of the data collected for the feasibility study is restricted to the following areas :-

- (1) Personnel data
- (2) Method of data processing
- (3) File movement
- (4) Method of file organization and storage
- (5) Time constraint
- (6) Security and safety of files
- (7) Efficiency and effectiveness.

### **3.4 REPORT OF THE STUDY**

During the period of investigation, a lot of information were gathered on the operation of the existing system. In total, the balance sheet of the report on the information gathered or generated confirmed our fear that present personnel management information system has outlined its usefulness because of the following basic factors :

- (1) The existing system allowed too much room for error
- (2) No adequate data security and safety
- (3) The speed to which data are collected and processed is not fast enough to meet the challenges of today
- (4) Information on personnel matters are not readily available and when available, is always too late.

### **OPERATIONAL FEASIBILITY**

The operational feasibility of the proposed system was conducted during which it was discovered that the new system envisaged is operationally feasible because of the following :-

- (1) To management have accepted the idea of computerization.
- (2) There was ecstasy that the office is going computerized.
- (3) There was yawning need for a change to more effective means of data processing.

### **TECHNICAL FEASIBILITY**

It was discovered during investigation that the system can be handled with the current equipment, existing software technology and available personnel through indoor training or sent for computer training in one of the numerous computer institutes in town.

## **FINANCIAL FEASIBILITY**

The cost of implementing the proposed system would be quite affordable as the required computers are available locally and the council can afford the financial cost of the new system.

### **3.5 BENEFITS OF THE PROPOSED SYSTEM**

The likely benefit of the proposed system might be highlighted as follows :-

- (1) Avoid duplication of effort
- (2) Fast means of data processing and information presentation
- (3) A more effective and efficient department
- (4) Reduction in staff strength within the personnel department
- (5) Reduction in space occupied by file and cabinet
- (6) High degree of accuracy
- (7) Reduction in time spent in searching and storing data.

# CHAPTER ONE

## 1.1 INTRODUCTION

A computer can be defined as a machine which accepts data from an input device, perform arithmetic and logical operations in accordance with a pre-defined program and finally transfer the processed data to an output device either for further processing or in final printed form. It has a further capability of storing data as may be required. Before computer processing can commence, it is necessary to have an input device for the purpose of transferring data into the computer's internal memory. A computer is automatic in operation in the sense that when the program and data for processing have been inputted into it, the required output is produced without manual intervention as all the program instructions are executed automatically.

In view of its enormous capability, the computer as a machine has found itself in all field of human endeavour, especially as related to its application to human problem and human resources management.

In the past, those responsible for the development of a corporate data processing strategy tend to ignore or failed to appreciate the need for a computer based Personnel Management Information System. The



Personnel Management was also slow to appreciate the benefit which such a system could yield over and about manual system of record keeping.

However, the renewed effort to develop a computer based Personnel Management Information System became evident in the later half of 1970s. The system was intended to enable personnel management to manage more efficiently and effectively and to provide more positive service to all organization.

The appreciation of the need for a computer based personnel management information system in Chanchaga Local Government has come about because of the following factors.

- (1) The inadequacy of the existing manual system of file organization and processing.
- (2) The emphasis on increased productivity from the existing work forces.
- (3) The current rationalization (re-structure) of the federal, state and local government with a view of not only identifying redundancies by also cutting down on the staff strength so as to reduce to the bearest minimum government expenditure on staff monthly salary (wage) which has over stretched most local government meager allocation from the federal account.

### **3.6 THE PROGRAMMING LANGUAGE**

Choice of the programming language is an important factor to be considered when developing a system.

Dbase IV was chosen as the high level programming language to be used in the development of this system. It was chosen because of its powerful and useful features it possesses.

These are some of the features :-

- (1) Programming command : Its commands are short, easy to coordinate and remember.
- (2) Information storage and retrieval: Dbase IV handles storage, retrieval and organization of information in an efficient manner better than other microcomputer based DBMS.
- (3) User friendly : Dbase IV facility for the user query language in processing information stored.
- (4) Report generation : It allows for customizing of reports.
- (5) Debugging Dbase IV includes some features for tracking un-worked program bugs. Few programming languages offer such facilities.

## INTRODUCTION TO DBASE IV

Dbase Management System (DBMS) is a software that constructs, expands and maintained data in a database. It also provides the interface between the user and data in such a way that it enables the user to record, organize, select, summarize, extract, report on and otherwise, manage the data contained in a database.

Dbase IV was designed to provide the user and developer with most, if not all, of the features of the many competing database products and the wide array of products that have been developed as add-on for dBase **III** and dBase **III** plus. It is said to be one of the most popular and powerful DBMS available for personal **computers**.

**Dbase IV organize data in** database file. A database file is a collection of related records. It is in form of a two dimensional table consisting of number of rows and columns. Each row represents a record of database file. Therefore, a database file is made up of some components which are record and fields. A record is all the information about a single item, while a field is a unit of information within each record of a database file. When applied to personnel records, a database file can be set up to keep the records of employees. This is done such that each employees information such as Employees Number, Name, Age, Sex, Department,

Rank, Grade, Level, Annual leave, Date of appointment, Types of appointment etc. are provided for each of these will be regarded as a field in the database file while the collective information of all these fields an employee will be referred to as record.

#### **METHOD OF PROCESSING DATA IN DBASE IV**

dBASE IV has two types of methods of processing data stored in database files. These are interactive processing mode and batch processing mode.

In the interactive processing method, tow options are available namely :-

Control centre mode and Dot prompt mode. In the control centre mode, commands are supplied to dBASE IV by the selection of options available in the menu provided by the control centre.

In the Dot prompt mode, command are supplied by the user by typing them from the keyboard. In each case, the commands are interpreted and executed b dBASE IV to produce result.

For the Batch processing methods, the commands are stored in the form of a program and are executed in a group.



## DESCRIPTION OF THE CONTROL CENTRE

The new user interface, called the dBASE IV centre, allows you to interact with the program in most of the areas where such interaction is necessary to design, analyse, and print reports, labels, and items. It is a graphics environment that provides an easy way to manage and access files. It serves as the gateway to accessing the dBASE IV menu system.

The control centre is useful to various computer users. It enables a non-computer professional to manage a database with less training.

The control centre provides you with a substantial amount of information. The top left point of the screen is known as the menu bar.

There are three menu items in this bar namely :-

- (1) Catalog
- (2) Tools
- (3) Exit

A catalog is a group of related files which may include database, view, reports, forms, labels, and programs. Therefore, the catalog menu allows you to select and modify data files and other related files to be used in the application.

The tools menu provide you with useful unity for data management for import and export of data, for continue of file through DOS (Disk Operating System) functions and for the way to interact with program.

Finally, the Exit menu allows you the option of quitting DBASE IV or jumping to the DOT prompt mode.

### **DESCRIPTION OF THE PANEL**

- (A) DATA PANEL : Database files are created in this panel. They contain the data that will be used in a database management environment.
- (B) QUERY PANEL : A query file is created to filter out records from the database. In this case, the query parameter are specified in the query file so as to be able to list out records that meet the specified condition.
- (C) FORM PANEL : The form panel enable the user to create customized screen, design an appealing data entry screen and arranged in a manner that will be fascinating.
- (D) REPORT PANEL : A report is a print-out containing information from a database file. A report file, therefore, contain information used for generating a report.

(E) LABEL PANEL : This is used to create labels which will generated information from a database file.

(F) APPLICATION PANEL : This is used by advance dBASE IV users to either enter instructions in form of program or for application.

### 3.7 COMPUTER REQUIREMENT

(1) **HARDWARE** : The hardware of a computer refers to the various mechanical, magnetic, electrical and electronic parts of a computer.

The powerful the features of the hardware system, the better the utilization of the system. For the hardware requirement a computer with the following will be idea;

1. IBM PC or compatible

Intel 80486 Sx/33 MHz EISA Processor- Tower case

4 MB RAM (Expandable to 64MB)

200 MB IDE HARD DISK, 15MS Seek time

2 Serial 1 parallel ports

4 free expansion slots

3.5" floppy disk drive

5.25" floppy disk drive

MONITOR

14" Colour SVGA (1024 x 768 PIXEL 0.28)

**PRINTER**

LASER JET PRINTER

**BACK DEVICE**

External Tape Drive

APC Smart Un-interruptible power supply (UPS)

In order to avoid unnecessary interruption of power supply which may eventually lead to loss of information. An un-interrupted power supply of about 500VA will suit the purpose of this system. Acquisition of back-up equipment is recommended to this effect.

**(2) SOFTWARE REQUIREMENT**

The software of a computer system is a collection of program that are responsible for controlling of the activities of the computer. The software requirement are essential for the operation of the proposed system are as follows:-

(1) MS – DOS Operating System version 6.0

Tailored program

DBASE IV

(2) CONSUMABLE



SONNY DATA CARTRIDGE

3.5" HD DISKETTES

5.25" HD DISKETTES

(3) ACCOMMODATION AND FURNITURE

- i. Computer chair and table
- ii. Air conditioner

**3.8 SYSTEM CHANGE-OVER**

The change-over plan include a description of all the activities that must occur to implement the new system into operation. It identifies the person responsible for each activity and include a time table indicating when each activity will occur.

**James A.S (1989)** advised that during the pre-implementation stage, when the change-over is being planned, analyst should assemble a list of tasks, including the following :

- (1) Verify conversion schedules
- (2) Identify all controls to be used during conversion. Establish procedure for **cross checking** the old and new system. Determine how team members will know if something has not been completed properly.

- (3) List all files for conversion
- (4) List all new documentation and procedure that go into use during conversion.

The change over scheduled should anticipate possible problems and ways to deal with them. Among the most frequently occurring problems are missing documents, mixed data format, error in data translation, missing data or lost files and situation that were over looked during system development. The conversion manager must guard against the omission of steps in the conversion process. Personnel absences must also be expected and adequate fallback plans specified. Changeover timing is challenging since there are so many aspect of the conversion, ranging from the installation of equipment to the ordering of forms and supplies.

When many persons are involved in the conversion as further suggest by James (1989). Someone from the organization systems department should be appointed as conversion manager. This individual is to serve as contact person (co-ordinator) for outside vendors and for management, and user personnel. The conversion manager is also responsible for checking all arrangement, reviewing conversion plans, verify the delivery of equipment, software, forms supplies and preparing the site or computer room.

It is envisaged that the system change over will not be whole scale but will be done in phase (parallel running). This means processing current data by both the old and new system.

It is (parallel running) main attraction is that old system is kept allure and operational until the new system has been proved for at least on system cycle, using full live data in the real operational environment of place, people, equipment and time. It allows the result of the new system to be compared with the old system before acceptance by the user, thereby promoting user confidence. The advantage of this method is that there is a back-up system available in case of any disaster or system bread down.

# CHAPTER FOUR

## 4.1 INTRODUCTION

As contained in the previous chapters the analysis of details collected during system investigation had confirmed the necessity for the introduction of a new computer based personnel management information system. As such we would now proceed with next line of action. The new system is envisaged to :-

- (a) Embrace the existing organisational arrangement already in place so as to support to its performance.
- (b) Be reliable and easy to be used by the personnel of the organization.
- (c) Meet all other users requirement
- (d) Take care of the uniqueness of the individual personnel.
- (e) Cover the entire Chanchaga Local Government personnel records.

## 4.2 HOW TO RUN THE PROGRAM dBASE IV

At the DOS (Diskette Operating System) prompt, change directory to dBASE sub-directory or set DOS path to the dBASE directory if is not



already set in your AUTO EXEC.BAT file (refer to DOS manual for more information on the usage of path).

i. **At the DOS prompt**

Type dBASE and press the <ENTER KEY>

Wait for some few seconds, dBASE IV will be loaded and present you with the DOT prompt.

Insert your program disk in either drive A: or B: and change default to the drive where your program resides by typing the following command at the DOT prompt.

. SET DEFAULT TO A: OR B:

(ii) **AT THE DOT PROMPT**

Type DO MENU and press the ENTER KEY.

DBASE IV will execute the program file called MENU PROGRAM.

During the execution, the program will clear the screen, and present the user with the main menu consisting of listed options.

**MENU PROGRAM**

Menu program is the main program file that display the menu options. In a rectangular box at the centre of the screen called operating menu. Options provided are described below.

### EXIT TO DOS

By choosing this option from the menu the program will quit and passes return to DOS prompt. A message will be displayed on the screen reminding the user to make a BACK-UP copy of all database files.

All variable names used in the program will be released. The set on and set off commands used in the program will be reset back to their defaults.

### ADD PRG

Choosing this option, the program will execute another procedure called **Add** program. The procedure will enable the user to add new records to the database file. The data entries form will be presented to the user to enable him input some records. The entered records does not go to the database file directly in order to maintain database integrity. At the end of entering a record the program will pause and present the user with the message "Are these entries OK (Y/N) ?". This will enable him/her to validate the entered record. If the user **choose 'N'** denoting that the entered record is not correct, the database to enable the user to effect the desired changes or correction. On the other hand, if the user **choose 'Y'** meaning that the entered records is correct, the program will then write the record from the variable field in the database file. After the record has been written

to the file, the program will again present the user with the text “**Do you want to add more records (Y/N) ?**” The will enable the user to decide whether he/she wants to continue to add more record or not.

### **EDIT RECORD**

This option will enable the user to effect changes to the existing records in the database file. The program will display a text Edit **Enter Staff No:** and pause for the user to input then search the database file for a match with the Staff No. entered. If a match is found the corresponding records to that staff No. entered will be displayed on the screen and the cursor will be in the first field of the form to enable the user to effect the desired changes. Also a message will be displayed asking the user if she/he want to modify more record or not.

### **SORTING OF FILE**

Sorting is taken to be a more efficient way of organizing data records. The sorting operation can use one or more fields as key fields on which to generate an sorted file that contain the key field entries and their corresponding record in an Ascending or Descending order on the sort key field i.e Grade leve or Staff number, Sex, etc.

**Ascending** : -      Sorting in ascending order will arrange the record serially with the smallest grade level above.

**Descending**:-      Sorting in descending order arranges records serially with the highest grade level above and the smallest below :-

The format of creating a sort file is given below:

SORT ON < Name of key field > to <Name of sort file >

For instance -

SORT ON STAFF NO TO CLASSV NDX.

For multiple field indexing operation the command can be given as:-

SORT ON GRADE LEVEL X AGE TOTO CLASS.DBF.

### **MISCELLANEOUS MENU**

The miscellaneous menu provide the user with a sub-menu to the opening menu consist of the following options:-

#### **EXIT OT OPENING MENU**

By choosing this option the program will return back to the opening menu.



## DELETING OF A RECORD

The program to delete a record is similar to that of editing or modify program, because the record has to be searched for before the deleting procedure can be activated.

DBASE IV uses the combination of Delete and Pack commands to accomplish this task. AT the beginning of the running of the program a text will be displayed on the screen to enable the user enter the staff number to be deleted. The program searches the database file for the corresponding staff number if a match is found the record will be displayed on the screen to enable the user view the record he want to delete, at the same time the message “**Delete this record (Y/N) ?**” will be displayed at the bottom of the record. If the user chooses (N) denoting that he do not want the record to be deleted the program will write the record back to the database file. If the user chooses (Y) meaning he want the record to be deleted the program will permanently remove the record from database file.

## RECALL .A. RECORD

At he running of this procedure the program will displayed a message to enable the user to enter the desired staff number to be recalled, the program will search the database file for the entered staff number if match is found the filter condition that hide the record will be set off. On the other

hand if a match is not found the program will display an error message “**RECORD NOT FOUND**” The user should press any key to continue.

### **SUSPEND A STAFF**

The suspend of a staff option will enable the user to temporarily remove the name (record) of the suspended staff from the database. At the turning of this option the next suspend what staff number will be displayed on the screen to enable the user input the staff number. Searched in the database file. If a match is found the record will be set to meet the filter condition.

### **REPORT GENERATION**

The report generation menu has three options viz:-

- [0] EXIT TO Opening menu.
- [1] GENERAL Staff List
- [2] VIEW Suspended/Terminated staff.

### **4.3 ANALYSIS OF THE PROGRAM**

The entire program is menu driven at the running of the program a menu is displayed on the screen consisting of the file option as follows:

- [0] ADD NEW RECORD
- [1] EDIT OLD RECORD
- [2] DELETE OLD RECORD
- [3] SORTING
- [4] EXIT

Above listed options are sub-programs to main program which executive when desired option is selected from the menu (As describe above in 4.2).

### **4.4 INPUT/OUTPUT SPECIFICATION**

**INPUT:** The input to the program are name of staff working in the various department of Chanchaga Local Government Council via the standard input device key board.

**OUTPUT:** The output from the file are record of staffs working in the mentioned organization. The reports could either be in a hard copy or visual on the standard output device (Monitor).

#### **4.5 PROGRAM USER MANUAL**

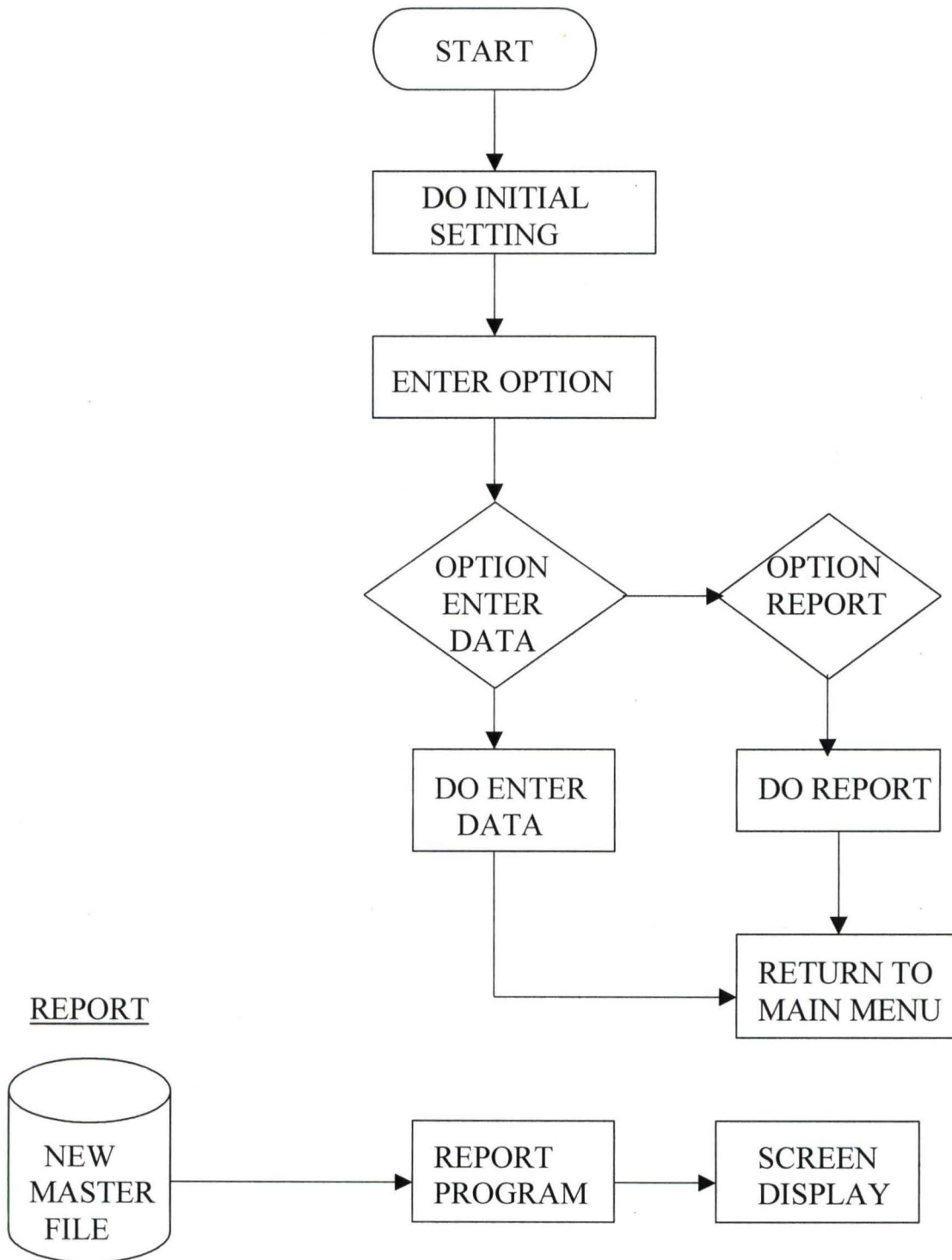
The program Staff PRG is written in dBASE IV tailored towards the result from investigation of the existing system of management information system in Chanchaga Local Government Council. This program will replace the manual operation of preparation of nominal roll etc. as well as the maintenance of dBASE file.

#### **4.6 FLOWCHART OF THE PROPOSED SYSTEM**

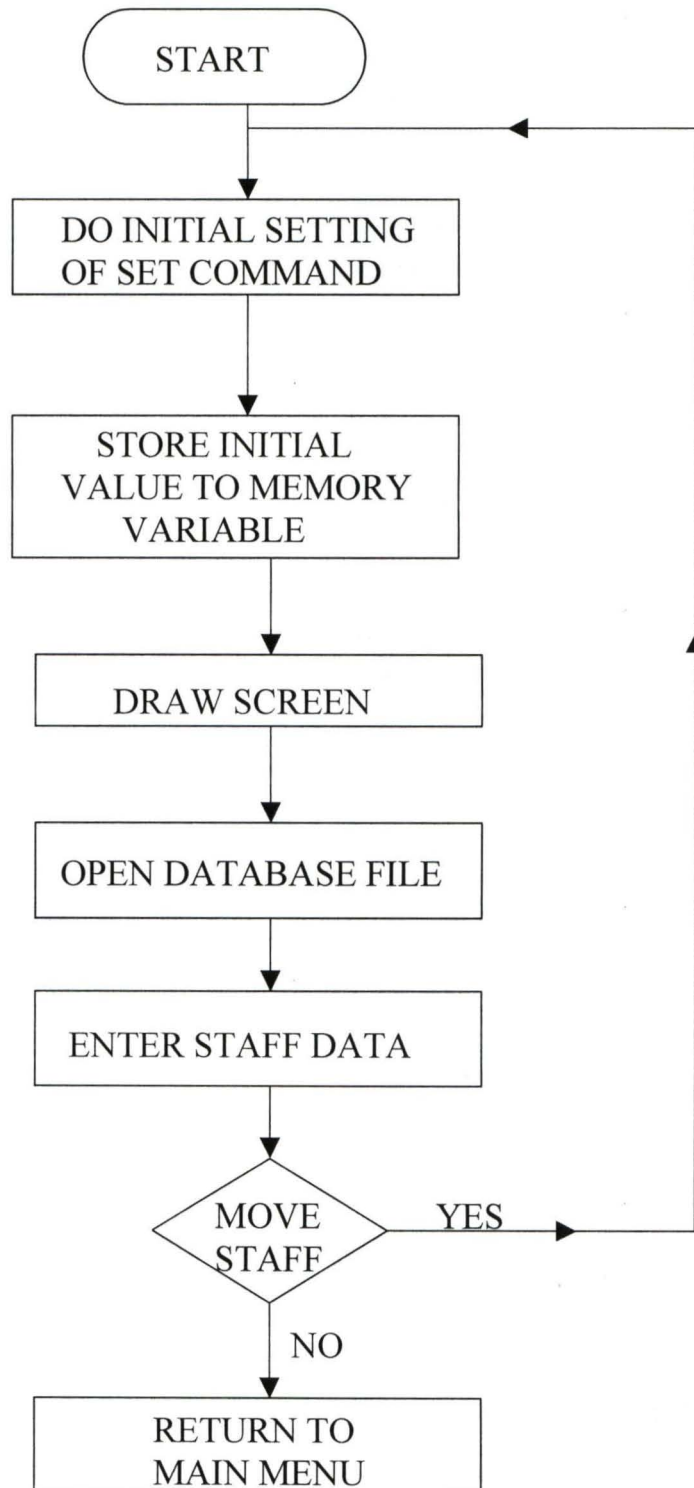
Flowchart is a pictorial (graphic) representation of steps taken to solve a specific problem.



PROGRAM FLOWCHART – MAIN MENU



**FLOWCHART - ENTERING NEW STAFF RECORD**



#### **4.7 SYSTEM IMPLEMENTATION**

System implementation includes all the activities to be carried out when converting an old to new system since the time the decision to computerize was taken down to the time when the new system is fully operational. The implementation stages covers of the following:

##### **TRAINING NEEDS**

The existing personnel would be given an in-house training to enable them have basic knowledge on how to operate computer system and its peripheral devices. Emphasis would be given to data entering and other relevant aspect of computer operation.

##### **SYSTEM INSTALLATION**

The installation of the equipment (as specified in chapter 3) to be used is done by the computer or hardware expert. The equipment which may comprises of IBM PC or compatible double floppy or hard disk.

Computer printer and the software necessary to be used.

##### **SYSTEM MAINTENANCE**

In order to protect against interruption of computer services hardware require regular maintenance. In large installation, preventive maintenance should be carried out a specific time that is allotted for this purpose. If so,

maintenance personnel may be assigned to the installation on full-time basis, or may be given maintenance check once a week or be “on call” basis.

### **PROGRAM MAINTENANCE**

Program maintenance involves updating program for necessary change. Programs tends to be dynamic for necessary changes. Program tends to be dynamic and most of them are subject to periodic revision. Some programs are subject to frequent modification. Sometimes, when revision are extensive, an organization consider completely re-programming the job instead. Specific programmer could be assigned to the job of program maintenance.

### **SECURITY METHOD**

Information in a database file is highly essential for the day-to-day running of the organization, so precautions have to be taken in order to protect the data from unauthorized persons. Method of data security include the following:-

- (i) Introduction of password to the database which is known only to the database manager and the computer operators.



- (ii) Locking-up device bays :- The device bays can be locked up so as to prevent unauthorized copying or data entry.
- (iii) Back-up system : refers to the copy of the database kept away from the main database. The prevention is necessary in case the main database is tampered with or destroyed. The back-up copies act as stand by in case of unexpected failure or destruction of the database.  
  
The back-up copies can be written, documented, copied on floppy diskette, copies on CD ROM.
- (iv) Installing Anti-Virus packages which are capable of detecting virus diskettes and also cleaning up of virus that might be introduced to the system.

## CHAPTER FIVE

### 5.1 ACHIEVEMENT OF THE STUDY

The research conducted on computerization of personnel management information system in Chanchaga Local Government Council has achieved tremendous success in the following

- (A) Reduction in staff strength within the personnel department achieved prior to the computerization personnel management information system more hand (staffs) were required in the personnel department to carry out staffs record keeping, more than 20 staffs were responsible for the maintenance and updating of staff records manually. The computerization of personnel management information system, very few people (staffs) are now involved in operating the new system. Consequently, reducing redundancy and the high wage bill incurred by the local government.
- (B) Better management information achieved :- The installed system when properly used, can improve the efficiency of the organization. It provides a fast, accurate and reliable device of processing data as well as presentation of information.

The problem of ghost workers was completely eradicated with introduction of computer in the personnel department. Consequently, reducing the high financial burden incurred by the local government.

(c) High degree of accuracy and reliability achieved :- Computer systems are widely accepted because of their exceptional reliability. Record manually processed are prone to error and mistake. Computers process data accurately as well as quickly. Accuracy is a prime consideration in installing the new system to ensure reliability in processing records. Unlike most human, they are capable of operating under the most adverse condition for extended period of time without show sign of fatigue. Computers consistently provide the same result under all operating condition.

(D) High speed of processing data and presentation of information achieved :- Before the introduction of computers, there was the problem of slow pace in processing information manually, which required urgent attention by the management. Apparently, with the computerization of personnel management information system job execution become faster and easier. Computer system installed can amass, manipulate, and provide data in fraction of a second.

Computer can perform in minutes task that would take a person years to complete.

Consequently, bring about effectiveness and efficiently in the achievement of organization goal.

## **5.2 RECOMMENDATION/SUGGESTION**

In the processes of this research work, some important problems were uncovered. Which the researcher felt the following recommendation are worth while if all things are to be put right to enhance effective computerization in the area of study.

As a result of lack of enough computer literate personnel in the state.

It is recommended that the authority concerned should do something to raise the level of computer literacy. In the local government council especially computer operators. To this effect, it is important to suggest a computer training centre may be established in the local government centre for alternatively send some staff for computer training at Federal University of Technology, Chanchaga Computer Centre to reduce the cost of personnel training for the local government and to boost availability of computer literacy. A basic computer literacy course should be made compulsory in most tertiary institutions in the state.



Also priority should be given to computer literacy for employment in local government.

In connection with lack of suitable or conducive atmosphere for computer installation. It is important to recommend a separate computer room, fully air conditioned with sufficient lighting system. This will keep in cooling the system and high productivity in the part of computer operators.

At any point in the process of computerization, the top management should be involved and committed. This is because if they show enthusiasm for the project and follow its progress regularly, the researcher assures that all members of the organization are likely to reflect this interest. Based on the feasibility study, hardware and software requirement. An insider should be part of such committee, this is seen as enabling the system analyst doing the feasibility study have a closer relationship with the computer user and understanding their likely problems. And the insider to be chosen should be that which is affected or going to be affected whenever the recommendation of the study is to be implemented.

### **A CAUTION**

Its right and believe that computer can be more used effectively to perform all kinds of task, particularly now they are available at prices that most organization can afford, it is too common to find example where

computers have being introduced to make things better and have only made things worse. The reason for this are in some ways quite simple.

A computer will only succeed when those using it have taken the trouble to determine :-

- (a) How the computer can best do it.
- (b) Whether those involved are ready, willing and able to work with the computer.
- (c) Whether the benefit are worth the cost
- (d) What they require the computer to do.

In this case if thing is missing, there is very chance of introducing a computer which does the wrong job in the wrong way, has caused extra expense and provide in-effectiveness.

### **5.3 CONCLUSION**

With the proper implementation of the new system will notice the effective and efficient performance of personnel department in Chanchaga Local Government Council from the cost and benefit analysis, previously discussed in chapter 3, we observed that the overall benefit of installing a new system will out weight the cost, considering the hardware requirement.

We accept that once the new system is installed, the menace of ghost workers as well as problem of high monthly wages bill which has generated a lot of concern will become a thing of the past.

When properly used a computer can improve the efficiency of an organization.

It provides a fast, accurate, and reliable system with which to process data. The organization employing a computer can trim unnecessary over time eliminate the waste of supplies, reduce depending upon unreliable employees or outside agencies, improve internal security and increase operational effectiveness. Record/Information is the life wire of every organization regardless of the type of organization.

The importance of information cannot be overemphasized. The computerization of personnel management information system in Chanchaga Local Government should be considered necessary for better management and successful achievement of organization goal.

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# APPENDIX

\*\*\*\*\* SUSPENDED/TERMINATED STAFF LIST REPORT MODULE \*\*\*\*\*

```
CLEAR
STORE 0 TO TOTSUM,L,P
STORE 60 TO L
USE MASTER
*SET DEVICE TO PRINT
    SET FILT TO STATUS <> "A"
GO TOP
DO WHILE .NOT. EOF()
    IF L > 22
        P=P+1
@ 1,15 SAY "          CHANCHAGA LOCAL GOVERNMENT COUNCIL"
@ 2,15 SAY " COMPUTERISED PERONNEL MANAGEMENT INFORMATION SYSTEM"
@ 4,15 SAY "          SUSPENDED/TERMINATED STAFF REPORT"
        @5,01 SAY "DATE : "
        @5,08 SAY DATE()
@5,70 SAY "PAGE "+LTRIM(STR(P))
@6,01 SAY REPL('-',79)
        @7,01 SAY "EMP.NO"
        @7,10 SAY "STAFF NAME"
        @7,28 SAY "EDUC.QUAL."
        @7,39 SAY "RANK"
        @7,56 SAY "G.LEVEL"
        @7,66 SAY "DEPARTMENT"
@8,01 SAY REPL('-',79)
L=9
ENDIF

        @L,01 SAY EMP_NO
        @L,07 SAY NAME
        @L,28 SAY EQUAL
        @L,39 SAY RANK
        @L,56 SAY GLEVEL
        @L,66 SAY DEPT
            L=L+1
SKIP
ENDDO
        SET FILT TO
@L,1 SAY REPL('-',79)
CLOSE DATABASE
WAIT
*SET DEVICE TO SCREEN
RETURN
```

\*\*\*\*\* GENERAL STAFF LIST REPORT MODULE \*\*\*\*\*

```
CLEAR
STORE 0 TO TOTSUM,L,P
STORE 60 TO L
USE MASTER
SET FILT TO STATUS = "A"
*SET DEVICE TO PRINT
GO TOP
DO WHILE .NOT. EOF()
  IF L > 22
    P=P+1
  @ 1,15 SAY "          CHANCHAGA LOCAL GOVERNMENT COUNCIL"
  @ 2,15 SAY " COMPUTERISED PERONNEL MANAGEMENT INFORMATION SYSTEM"
  @ 4,15 SAY "          GENERAL STAFF LIST"
    @5,01 SAY "DATE : "
    @5,08 SAY DATE()
  @5,70 SAY "PAGE "+LTRIM(STR(P))
  @6,01 SAY REPL('-',79)
    @7,01 SAY "EMP.NO"
    @7,10 SAY "STAFF NAME"
    @7,28 SAY "EDUC.QUAL."
    @7,39 SAY "RANK"
    @7,56 SAY "G.LEVL"
    @7,66 SAY "DEPARTMENT"
  @8,01 SAY REPL('-',79)
  L=9
ENDIF

  @L,01 SAY EMP_NO
  @L,07 SAY NAME
  @L,28 SAY EQUAL
  @L,39 SAY RANK
  @L,56 SAY GLEVEL
  @L,66 SAY DEPT
  L=L+1

  SKIP
ENDDO
  @L,1 SAY REPL('-',79)
  SET FILT TO
  CLOSE DATABASE
  WAIT
*SET DEVICE TO SCREEN
RETURN
```



\*\*\*\*\* PERSONNEL REPORT MENU MODULE

```
DO WHILE .T.
CLEAR
@ 2,9 TO 19,65 DOUBLE
@ 4,15 SAY "          CHANCHAGA LOCAL GOVERNMENT COUNCIL"
@ 5,15 SAY "          MINNA, NIGER STATE"
@ 6,12 SAY "COMPUTERISED PERSONNEL MANAGEMENT INFORMATION SYSTEM"
@ 9,10 TO 9,64
@ 8,15 SAY "          R E P O R T M E N U"
@ 11,24 SAY "[0] EXIT TO OPENING MENU"
@ 13,24 SAY "[1] GENERAL STAFF LIST"
@ 15,24 SAY "[2] VIEW SUSPENDED/TERMINATED STAFF"
SET COLOR TO W+
@ 18,25 SAY "Enter your choice."
SET COLOR TO
I=0
DO WHILE I=0
I=INKEY()
IF UPPER(CHR(I)) $ "012"
    EXIT
ENDIF
I=0
ENDDO
DO CASE
    CASE UPPER(CHR(I)) $ "0"
        EXIT
    CASE UPPER(CHR(I)) $ "1"
        DO GENLIST
    CASE UPPER(CHR(I)) $ "2"
        DO VIEWSTAF
ENDCASE
ENDDO
CLEAR
CLEAR ALL
RETURN
```

```

***** SORT RECORD PROGRAM MODULE
      USE MASTER
DO WHILE .T.
      CLEAR
      @ 2,9 TO 19,65 DOUBLE
@ 4,15 SAY "          CHANCHAGA LOCAL GOVERNMENT COUNCIL"
@ 5,15 SAY "          MINNA, NIGER STATE"
@ 6,12 SAY "COMPUTERISED PERSONNEL MANAGEMENT INFORMATION SYSTEM"
      @ 9,10 TO 9,64
@ 8,15 SAY "          SORT RECORD MENU"
@ 11,24 SAY "[0] EXIT TO OPENING MENU"
@ 13,24 SAY "[1] SORT IN ASCENDING ORDER"
@ 15,24 SAY "[2] SORT IN DESCENDING ORDER"
      SET COLOR TO W+
      @ 18,25 SAY "Enter your choice."
      SET COLOR TO
      I=0
      DO WHILE I=0
          I=INKEY()
          IF UPPER(CHR(I)) $ "012"
              EXIT
          ENDIF
          I=0
      ENDDO
DO CASE
CASE UPPER(CHR(I)) $ "0"
      EXIT
CASE UPPER(CHR(I)) $ "1"
      SORT ON EMP_NO TO TEMP
      CLOSE DATABASE
      DELE FILE MASTER.DBF
      RENA TEMP.DBF TO MASTER.DBF

CASE UPPER(CHR(I)) $ "2"
      SORT ON EMP_NO/D TO TEMP
      CLOSE DATABASE
      DELE FILE MASTER.DBF
      RENA TEMP.DBF TO MASTER.DBF

ENDCASE
@19,1 SAY ""
WAIT+"          SORTING COMPLETED, PRESS ANY KEY..."
ENDDO

      CLEAR
      CLEAR ALL
      RETURN

```

\*\*\*\*\* DELETE RECORD PROGRAM MODULE

USE MASTER

DO WHILE .T.

MEMPNO=SPACE(5)

CLEAR

@ 1,9 TO 21,65 DOUBLE

@ 2,15 SAY " CHANCHAGA LOCAL GOVERNMENT COUNCIL"

@ 3,15 SAY " MINNA, NIGER STATE"

@ 4,12 SAY "COMPUTERISED PERSONNEL MANAGEMENT INFORMATION SYSTEM"

@ 7,10 TO 7,64

@ 6,15 SAY " DELETING OLD RECORD"

@09, 24 SAY "EMP. NO.[0=EXIT]" GET MEMPNO PICT "99999"

READ

IF MEMPNO = "0"

EXIT

ENDIF

LOCATE FOR EMP\_NO = MEMPNO

IF EOF()

@21,0 SAY ""

WAIT+" RECORD NOT FOUND, PRESS ANY KEY."

@22,12 SAY SPACE(50)

LOOP

ENDIF

DO WHILE .T.

@10,24 SAY "N A M E : " GET NAME PICT "@!"

@11,24 SAY "DATE OF BIRTH : " GET DBIRTH PICT "99/99/9999"

@12,24 SAY "S E X : " GET SEX PICT "!"

@13,24 SAY "DEPARTMENT : " GET DEPT PICT "@!"

@14,24 SAY "EDUC. QUALIF. : " GET EQUAL PICT "@!"

@15,24 SAY "RANK : " GET RANK PICT "@!"

@16,24 SAY "G/LEVEL/STEP : " GET GLEVEL PICT "99/99"

@17,24 SAY "DATE OF 1ST AP: " GET DAPPT PICT "99/99/9999"

@18,24 SAY "ANNUAL LEAVE : " GET ALEAVE PICT "99"

@19,24 SAY "DATE RETIRED : " GET DRETIRE PICT "99/99/9999"

@20,24 SAY "RET.BENEFITS : " GET RBENEFIT PICT "9,999,999.99"

CLEA GETS

CH=SPACE(1)

@ 22,25 SAY "DELETE THIS RECORD ? (Y/N)" GET CH PICT "!"

READ

IF CH = "Y"

DELETE

PACK

ENDIF

EXIT

ENDDO

CH=SPACE(1)

@22,15 SAY SPACE(60)

@ 22,15 SAY "DO YOU WANT TO DELETE MORE RECORDS ? (Y/N)" GET CH PICT "!"

READ

IF CH = "Y"

LOOP

ENDIF

EXIT

ENDDO

CLEAR

CLOSE DATABASE

CLEAR ALL

RETURN

\*\*\*\*\* MODIFY RECORD PROGRAM MODULE

USE MASTER

DO WHILE .T.

MEMPNO=SPACE(5)

CLEAR

```
      @ 1,9 TO 22,65 DOUBLE
@ 2,15 SAY "          CHANCHAGA LOCAL GOVERNMENT COUNCIL"
@ 3,15 SAY "          MINNA, NIGER STATE"
@ 4,12 SAY "COMPUTERISED PERSONNEL MANAGEMENT INFORMATION SYSTEM"
      @ 7,10 TO 7,64
@ 6,15 SAY "          EDITING OLD RECORD"
      @09, 24 SAY "EMP. NO.[0=EXIT]" GET MEMPNO PICT "99999"
      READ
      IF MEMPNO="0"
      EXIT
    ENDIF
      LOCATE FOR EMP_NO = MEMPNO
```

IF EOF()

```
      @22,0 SAY ""
      WAIT+"          RECORD NOT FOUND, PRESS ANY KEY."
      @23,12 SAY SPACE(50)
      LOOP
```

ENDIF

DO WHILE .T.

```
      @10,24 SAY "N A M E          : " GET NAME PICT "@!"
      @11,24 SAY "DATE OF BIRTH : " GET DBIRTH PICT "99/99/9999"
      @12,24 SAY "S E X          : " GET SEX PICT "!"
      @13,24 SAY "DEPARTMENT      : " GET DEPT PICT "@!"
      @14,24 SAY "EDUC. QUALIF.   : " GET EQUAL PICT "@!"
      @15,24 SAY "RANK            : " GET RANK PICT "@!"
      @16,24 SAY "G/LEVEL/STEP    : " GET GLEVEL PICT "99/99"
      @17,24 SAY "DATE OF 1ST AP: " GET DAPPT PICT "99/99/9999"
      @18,24 SAY "ANNUAL LEAVE    : " GET ALEAVE PICT "99"
      @19,24 SAY "DATE RETIRED    : " GET DRETIRE PICT "99/99/9999"
      @20,24 SAY "RET.BENEFITS    : " GET RBENEFIT PICT "9,999,999.99"
      @21,24 SAY "APPT. STATUS   : " GET STATUS PICT "!"
```

READ

CH=SPACE(1)

```
@ 23,24 SAY "ARE THESE ENTRIES CORRECT ? (Y/N)" GET CH PICT "!"
```

READ

```
      IF CH = "N"
      LOOP
    ENDIF
```

EXIT

ENDDO

```
      @23,15 SAY SPACE(60)
      CH=SPACE(1)
@ 23,15 SAY "DO YOU WANT TO EDIT MORE RECORDS ? (Y/N)" GET CH PICT "!"
      READ
      IF CH = "Y"
      LOOP
    ENDIF
```

EXIT

ENDDO

```
CLEAR
      CLOSE DATABASE
CLEAR ALL
RETURN
```



\*\*\*\*\* ADDREC PROGRAM MODULE

USE MASTER  
DO WHILE .T.

MEMPNO=SPACE(5)

CLEAR

@ 1,9 TO 21,65 DOUBLE

@ 2,15 SAY " CHANCHAGA LOCAL GOVERNMENT COUNCIL"

@ 3,15 SAY " MINNA, NIGER STATE"

@ 4,12 SAY "COMPUTERISED PERSONNEL MANAGEMENT INFORMATION SYSTEM"

@ 7,10 TO 7,64

@ 6,15 SAY " ADDING NEW EMPLOYEE RECORD"

@09, 24 SAY "EMP. NO.[0=EXIT]" GET MEMPNO PICT "99999"

READ

IF MEMPNO = "0"

EXIT

ENDIF

LOCATE FOR EMP\_NO = MEMPNO

IF .NOT. EOF()

@21,0 SAY ""

WAIT+" RECORD ALREADY EXISTS, PRESS ANY KEY."

@22,12 SAY SPACE(50)

LOOP

ENDIF

APPE BLAN

DO WHILE .T.

@10,24 SAY "N A M E : " GET NAME PICT "@!"

@11,24 SAY "DATE OF BIRTH : " GET DBIRTH PICT "99/99/9999"

@12,24 SAY "S E X : " GET SEX PICT "!"

@13,24 SAY "DEPARTMENT : " GET DEPT PICT "@!"

@14,24 SAY "EDUC. QUALIF. : " GET EQUAL PICT "@!"

@15,24 SAY "RANK : " GET RANK PICT "@!"

@16,24 SAY "G/LEVEL/STEP : " GET GLEVEL PICT "99/99"

@17,24 SAY "DATE OF 1ST AP: " GET DAPPT PICT "99/99/9999"

@18,24 SAY "ANNUAL LEAVE : " GET ALEAVE PICT "99"

@19,24 SAY "DATE RETIRED : " GET DRETIRE PICT "99/99/9999"

@20,24 SAY "RET.BENEFITS : " GET RBENEFIT PICT "9,999,999.99"

READ

CH=SPACE(1)

@ 22,24 SAY "ARE THESE ENTRIES CORRECT ? (Y/N)" GET CH PICT "!"

READ

IF CH = "N"

LOOP

ENDIF

EXIT

ENDDO

REPLACE EMP\_NO WITH MEMPNO, STATUS WITH "A"

CH=SPACE(1)

@22,15 SAY SPACE(60)

@ 22,15 SAY "DO YOU WANT TO ADD MORE RECORDS ? (Y/N)" GET CH PICT "!"

READ

IF CH = "Y"

LOOP

ENDIF

EXIT

ENDDO

CLEAR

CLOSE DATABASE

CLEAR ALL

RETURN

```

*****
***** PROGRAM :    COMPUTERISED PERSONNEL MANAGEMENT INFORMATION SYSTEM
***** CASE STUDY: CHANCHAGA LOCAL GOVERNMENT COUNCIL
***** ADDRESS  :    MINNA, NIGER STATE
***** BY      :    ABDULSALAM .D. ALHASSAN
***** REG.NO. :    PGD/MCS/785
***** DEPT.  :    MATHEMATICS/COMPUTER SCIENCE
***** DATE   :    JANUARY, 2001
*****

```

```

***** PERSONNEL MANAGEMENT INFORMATION SYSTEM MAIN PROGRAM

```

```

* SET UP ENVIRONMENT

```

```

SET TALK OFF
SET ECHO OFF
SET STAT OFF
SET INTE OFF
SET DELI ON
SET DELI TO "<>"
*SET *

```

```

PUBLIC I

```

```

DO WHILE .T.

```

```

CLEAR

```

```

@ 2,9 TO 19,65 DOUBLE

```

```

@ 4,15 SAY "          CHANCHAGE LOCAL GOVERNMENT COUNCIL"

```

```

@ 5,15 SAY "          MINNA, NIGER STATE"

```

```

@ 6,12 SAY "COMPUTERISED PERSONNEL MANAGEMENT INFORMATION SYSTEM"

```

```

@ 9,10 TO 9,64

```

```

@ 8,15 SAY "          O P E N I N G   M E N U"

```

```

@ 11,24 SAY "[0]  ADD NEW RECORD"

```

```

@ 12,24 SAY "[1]  EDIT OLD RECORD"

```

```

@ 13,24 SAY "[2]  DELETE OLD RECORD"

```

```

@ 14,24 SAY "[3]  S O R T I N G"

```

```

@ 15,24 SAY "[4]  R E P O R T"

```

```

@ 16,24 SAY "[5]  E X I T"

```

```

SET COLO TO RG+

```

```

@ 20,12 SAY "DEVELOPED BY:- ABDULSALAM .D. ALHASSAN (PGD/MCS/785)"

```

```

SET COLOR TO W+

```

```

@ 18,25 SAY "Enter your choice."

```

```

SET COLOR TO

```

```

I=0

```

```

DO WHILE I=0

```

```

I=INKEY()

```

```

IF UPPER(CHR(I)) $ "012345"

```

```

    EXIT

```

```

ENDIF

```

```

I=0

```

```

ENDDO

```

```

DO CASE

```

```

    CASE UPPER(CHR(I)) $ "0"

```

```

        DO ADDREC

```

```

    CASE UPPER(CHR(I)) $ "1"

```

```

        DO MODIREC

```

```

    CASE UPPER(CHR(I)) $ "2"

```

```

        DO DELREC

```

```

    CASE UPPER(CHR(I)) $ "3"

```

```

        DO SORTMENU

```

```

    CASE UPPER(CHR(I)) $ "4"

```

```

        DO REPTMENU

```

```

    CASE UPPER(CHR(I)) $ "5"

```

```

        EXIT

```

```

ENDCASE

```

```

ENDDO

```

```

CLEAR

```

```

CLEAR ALL

```

```

RETURN

```

CHANCHAGA LOCAL GOVERNMENT COUNCIL  
COMPUTERISED PERSONNEL MANAGEMENT INFORMATION SYSTEM

SUSPENDED/TERMINATED STAFF REPORT

DATE : 01/31/01

PAGE 1

| EMP.NO | STAFF NAME   | EDUC.QUAL. | RANK          | G.LEVL | DEPARTMENT |
|--------|--------------|------------|---------------|--------|------------|
| 75     | JUMMAI BELLO | ND CIVIL   | TECH.OFFICER  | 07/1   | WORKS      |
| 50     | SALE JAGABA  | B.ED       | EDUC. OFFICER | 10/5   | EDUCATION  |

CHANCHAGA LOCAL GOVERNMENT COUNCIL  
COMPUTERISED PERSONNEL MANAGEMENT INFORMATION SYSTEM

GENERAL STAFF LIST

E : 01/31/01

PAGE 1

| .NO | STAFF NAME     | EDUC.QUAL. | RANK           | G.LEVL | DEPARTMENT |
|-----|----------------|------------|----------------|--------|------------|
|     | JAMES AUDU H.  | OND        | AGRIC.ASST.    | 06/3   | AGRIC      |
|     | MAIRO B. DAUDA | DIPLOMA    | PUB.HEALTH OFF | 07/2   | HEALTH     |
|     | MUHAMMED ALFA  | HND        | H.E.O.         | 08/2   | PERSONNEL  |
|     | UMAR IBRAHIM   | B.A        | STAFF OFFICER  | 12/03  | PERSONNEL  |
|     | HASSAN K.      | B.ENG      | DIRECTOR       | 15/2   | WORKS      |



CHANCHAGA LOCAL GOVERNMENT COUNCIL  
MINNA, NIGER STATE  
COMPUTERISED PERSONNEL MANAGEMENT INFORMATION SYSTEM

EDITING OLD RECORD

EMP. NO. [0=EXIT] <350 >  
N A M E : <SALE JAGABA >  
DATE OF BIRTH : <11/05/1998>  
S E X : <M>  
DEPARTMENT : <EDUCATION >  
EDUC. QUALIF. : <B.ED >  
RANK : <EDUC. OFFICER >  
G/LEVEL/STEP : <10/5 >  
DATE OF 1ST AP: <08/04/1997>  
ANNUAL LEAVE : <30>  
DATE RETIRED : < / / >  
RET.BENEFITS : < , , .>  
APPT. STATUS : <S>

DO YOU WANT TO EDIT MORE RECORDS ? (Y/N) < >

CHANCHAGA LOCAL GOVERNMENT COUNCIL  
MINNA, NIGER STATE  
COMPUTERISED PERSONNEL MANAGEMENT INFORMATION SYSTEM

DELETING OLD RECORD

EMP. NO. [0=EXIT] <112 >  
N A M E : <JAMES AUDU H. >  
DATE OF BIRTH : <10/02/1973>  
S E X : <M>  
DEPARTMENT : <AGRIC >  
EDUC. QUALIF. : <OND >  
RANK : <AGRIC.ASST. >  
G/LEVEL/STEP : <06/3 >  
DATE OF 1ST AP: <10/01/1999>  
ANNUAL LEAVE : <21>  
DATE RETIRED : < / / >  
RET.BENEFITS : < , , .>

DELETE THIS RECORD ? (Y/N) < >

CHANCHAGA LOCAL GOVERNMENT COUNCIL  
MINNA, NIGER STATE  
COMPUTERISED PERSONNEL MANAGEMENT INFORMATION SYSTEM

SORT RECORD MENU

---

- [0] EXIT TO OPENING MENU
- [1] SORT IN ASCENDING ORDER
- [2] SORT IN DESCENDING ORDER

Enter your choice.

CHANCHAGA LOCAL GOVERNMENT COUNCIL  
MINNA, NIGER STATE  
COMPUTERISED PERSONNEL MANAGEMENT INFORMATION SYSTEM

R E P O R T M E N U

---

- [0] EXIT TO OPENING MENU
- [1] GENERAL STAFF LIST
- [2] VIEW SUSPENDED/TERMINATED STAFF

Enter your choice.

CHANCHAGA LOCAL GOVERNMENT COUNCIL  
MINNA, NIGER STATE  
COMPUTERISED PERSONNEL MANAGEMENT INFORMATION SYSTEM

O P E N I N G M E N U

- [0] ADD NEW RECORD
- [1] EDIT OLD RECORD
- [2] DELETE OLD RECORD
- [3] S O R T I N G
- [4] R E P O R T
- [5] E X I T

Enter your choice.

DEVELOPED BY:- ABDULSALAM .D. ALHASSAN (PGD/MCS/785)

CHANCHAGA LOCAL GOVERNMENT COUNCIL  
MINNA, NIGER STATE  
COMPUTERISED PERSONNEL MANAGEMENT INFORMATION SYSTEM

ADDING NEW EMPLOYEE RECORD

EMP. NO. [0=EXIT] <312 >  
N A M E : <MUSA GURUSU >  
DATE OF BIRTH : <02/06/1972>  
S E X : <M>  
DEPARTMENT : <PERSONAL >  
EDUC. QUALIF. : <ND >  
RANK : <A.E.O. >  
G/LEVEL/STEP : <06/2 >  
DATE OF 1ST AP: <03/01/1997>  
ANNUAL LEAVE : < >  
DATE RETIRED : < / / >  
RET.BENEFITS : < , , .>

ARE THESE ENTRIES CORRECT ? (Y/N) < >



**PROGRAM SAMPLE OUTPUTS**

COMPUTER APPLICATION IN CRIME

**COMPUTER APPLICATION IN  
CRIME RECORD**

**THE NIGERIAN POLICE FORCE**

**PGD PROGRAM**

*DESIGNED BY ABDULLAHI IBRAHIM ZURU,  
PGD/MS/98/99/843*

**LOGIN FORM**

**LOGIN INFORMATION FORM**

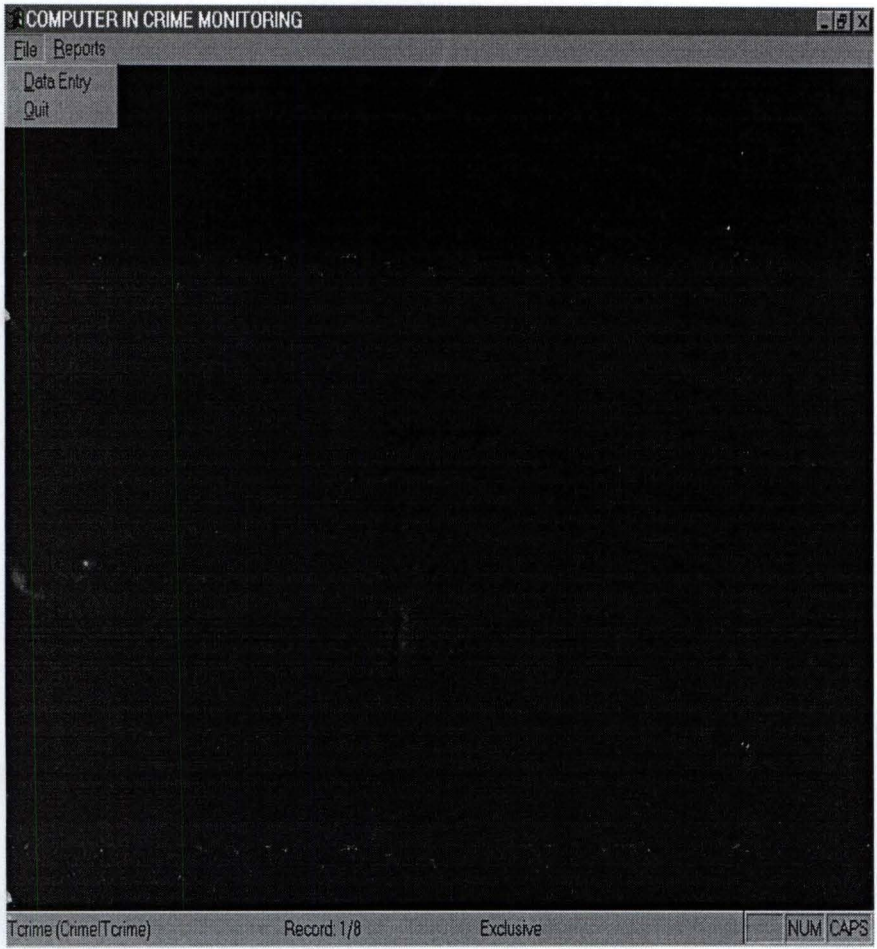
User Name

Password

Access Level

Ok Cancel





**CRIMINAL'S RECORD**

**FOR COMPLAINANT**

NUMBER  LOCAL GOVT.   
 OFFENCE  RELIGION   
 NAME  OCCUPATION   
 SEX  AGE  TIME OF ARREST   
 STATE  DATE   
 ADDRESS  EXHIBIT

**FOR OFFENDER**

NAME  SEX  AGE   
 LOCAL GOVT.  TRIBE  OCCUPATION   
 RELIGION  NATIONALITY  STATE   
 ADDRESS

**FOR THE IPO**

CAUTIONARY WORD FOR THE SUSPECT BY THE IPO  NAME   
 EXPLANATION ON THE CASE  ADDRESS

NDIF  
 Ag  
 ENDI  
 \*\*VER  
 \*IF USPE  
 \*ELSE  
 \*ENDI  
 \*IF m.ac

SYSTEM



```

*ELSE
*   xadmin = .F.
*ENDIF
*GO TOP
*IF !(m.user_name = " " OR m.user_password = " " OR m.access_lev = " ")
*   LOCATE FOR user_name = m.user_name AND user_password =
m.user_password
*   IF FOUND()
*       m.login_date = DATE()
*       m.login_time = TIME()
*       IF USED("login")
*           SELE login
*       ELSE
*           USE login IN 0
*       ENDIF
*       INSERT INTO login FROM MEMVAR
*       DO mainmenu.mpr
*
*
*       *return
*       THISFORM.RELEASE
*   ELSE
*       MESSAGEBOX("Invalid User Codes. Please Try Again", 0 + 48,
"Warning")
*       THISFORM.txtuser_name.SETFOCUS
*   ENDIF
*ELSE
*   MESSAGEBOX("You are expected to give the required User Codes!, Please Try
Again", 0 + 48, "Warning")
*   THISFORM.txtuser_name.SETFOCUS
*ENDIF

```

```

IF USED("TCRIME")
    SELE TCRIME
ELSE
    SELE 0
    USE TCRIME
ENDIF
IF !BOF()
    GO TOP
    SCATTER MEMVAR MEMO
    THIS.ENABLED = .F.
ELSE
    MESSAGEBOX("This is the First Record", "Warning")

```

```
ENDIF
  THISFORM.REFRESH
  THISFORM.cmdlast.ENABLED = .T.
```

```
IF USED("TCRIME")
  SELE TCRIME
ELSE
  SELE 0
  USE TCRIME
```

```
ENDIF
```

```
IF NOT BOF()
  SKIP -1
  SCATTER MEMVAR MEMO
  THISFORM.REFRESH
  ThisForm.cmdlast.ENABLED = .T.
```

```
ELSE
```

```
  ThisForm.cmdfirst.ENABLED = .F.
  MESSAGEBOX("This is the First Record",0 + 64, "Warning")
  THIS.ENABLED = .F.
```

```
ENDIF
```

```
THISFORM.cmdnext.ENABLED = .T.
```

```
IF USED("TCRIME")
  SELE TCRIME
```

```
ELSE
```

```
  SELE 0
  USE TCRIME
```

```
ENDIF
```

```
IF !EOF()
  GO BOTTOM
  SCATTER MEMVAR MEMO
  THISFORM.REFRESH
```

```
ELSE
```

```
  MESSAGEBOX("This is the Last Record", 0 + 64, "Warning")
```

```
ENDIF
```

```
THIS.ENABLED = .F.
```

```
THISFORM.cmdfirst.ENABLED = .T.
```

```
IF USED("TCRIME")
  SELE TCRIME
```

```
ELSE
```

```
  SELE 0
  USE TCRIME
```

ENDIF

GO TOP

LOCATE FOR CNUM = m.CNUM  
IF FOUND()

MESSAGEBOX("This Record Already Exists!", "Warning.")  
THISFORM.REFRESH

ELSE

INSERT INTO TCRIME FROM MEMVAR  
THISFORM.REFRESH

ENDIF

THIS.CAPTION = "\<Add New"  
ENDIF

IF USED("TCRIME")  
SELE TCRIME

ELSE

SELE 1

USE TCRIME EXCLUSIVE

ENDIF

ans = MESSAGEBOX("This record will be deleted, Proceed?", 4 + 32, "Warning")  
IF ans = 6

DELETE

PACK

IF !EOF()

SKIP

SE

SKIP -1

H

ly", .F., "Textbox")  
", .F., "combobox")  
", .F., "EDITbox")



```
IF THIS.CAPTION = "<Modify"
    THIS.CAPTION = "<Save"
    THISFORM.SETALL("ReadOnly",.F.,"Textbox")
    THISFORM.SETALL("enabled",.F.,"commandbutton")
    THIS.ENABLED = .T.
    THISFORM.cmdclose.ENABLED = .T.
ELSE
    GATHER MEMVAR MEMO
    THIS.CAPTION = "<Modify"
    THISFORM.SETALL("ReadOnly",.T.,"combobox")
    THISFORM.SETALL("ReadOnly",.T.,"EDITbox")
    THISFORM.SETALL("ReadOnly",.T.,"Textbox")
    THISFORM.SETALL("enabled",.T.,"commandbutton")
    THISFORM.REFRESH
ENDIF
```