COMPUTERISATION OF PERSONNEL INFORMATION MANAGEMENT SYSTEM: A CASE STUDY OF FEDERAL MINISTRY OF COMMERCE AND TOURISM, ABUJA

BY

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CERTIFICATION

This project work titled "Computerisation of Personnel Information Management System: A Case Study of Federal Ministry of Commerce and Tourism" by James A. Ojobo, meets the regulations governing the award of Postgraduate Diploma in Computer Science of Federal University of Technology, Minna, and is approved for its contribution to scientific knowledge and literary presentation.

L. N. Ezeako (Supervisor)	Signature	Date
Head of Department	Signature	Date
External Examiner	Signature	Date

DECLARATION

I hereby declare that this project work has been written by me and that it is a record of my own research work. It has not been presented before in any previous application for a higher degree/diploma. The various sources to which the author is indebted are dearly indicated in the references.

James A. Ojobo
Candidate)

Date...............

The above declaration is confirmed.

I.N. Ezeako
Major supervisor)

Date.............

DEDICATION

This work is dedicated to Almighty God who made it possible for me to accomplish my academic dreams.

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A project of this magnitude involves more than just the work of the researcher Many people have given me immense assistance and contributions in putting together the materials presented in this project. It is therefore justifiable that these people be acknowledged.

With no desire to disregard or belittle the contributions of any, I am particularly grateful to my supervisor, Mr. L.N. Ezeako, for his expert advice and guidance throughout the duration of this work. His academic leadership and true friendship guided and motivated me throughout. I express my indebtedness.

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and my children James Ojobo Jnr. and Patrick Ojobo who bore the deprivations of my continual absence and yet by their perseverance, encouraged me to bring the study and the project to conclusion.

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version did not in any way disrupt the institutionalised format of keeping personnel records in the Ministry. It, however, removes the pains and errors inherent in the present manual system, particularly, the aspect of information storage, retrieval and query system.

In the study, the following recommendations were therefore made:

that the management of the Ministry should install a micro-computer in the personnel registry.

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CHAPTER ONE

INTRODUCTION

1.1   Background to the study

Computer technology has had a great impact on industry, commerce and the public in general. Electronic computers have outstripped the human beings in the speed with which they can absolve information, process it and communicate the results, the reliability with which they carry out repetitive operations and their capacity to store vast quantities of information and retrieve any of them in a short period of time.

Commenting on the importance of computer technology, Margaret S. Wu[1] had this to say. The computer is an extension of the human abilities to store and retrieve information and to reason and solve problems ... The computer potential for processing data performing tasks repetitively, and making rapid computations has freed people from many mundane tasks and allowed them to direct their attention towards problem solving activities. The computer offers a speed of computation unsurpassed by any human; it provides the means to compute and solve in days, hours or minutes problems that previously took years to resolve or that were never even undertaken because of the time required for humans using mechanical calculators to do the job.

Considering the importance of computer technology in organisations, every organisation has embraced the computer technology as a way of better service delivery and even

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higher revenue generation in some cases. Organisations have therefore seen the explosive growth of computer technology as the great hope of their businesses because it creates new markets and efficiencies.

It is in the light of this that the researcher is embarking on a research project work to develop database computer program for computerisation of personnel records using the Federal Ministry of Commerce and Tourism, Abuja as a case study.

Personnel information management system is therefore very essential for effective management of personnel or staff of any organisation. This is because it is used to process the staff data and also to transform the data into useful information to the management and to any individual or organisation that may need the information.

In fact, effective management and maintenance of staff data is a hallmark of any successful organisation. Owing to these facts, there is a need for a database management system which will effectively handle data in terms of retrieval, processing and production of the necessary information. This, of course forms the focus of this research.

1.2   Statement of the problem

The fundamental knotty problem which forms the focus of this research is that at present the personnel information management system of the Federal Ministry of commerce and Tourism Abuja is not computerised. As a result, serious human labour is needed and used in the

Ministry in order to continue to keep the staff information manually by the use of paper and files.

The major problem in the present system of manual personnel record keeping and filing system is that of inefficient, inaccurate and untimely storage and retrieval of personnel data and information. The manual filing system makes personnel data and information processing to be highly prone to error and a painful process. When ever information is required on any aspect of career of service of a personnel, reference has to be made to the physical file in which such information is recorded. Quite often, the information will not be promptly obtained if such file is in circulation for other business transaction. In many other cases, the file may not be found at all. This often arises due to "miss-deep" of file or when the last destination of a file after leaving the registry cannot be ascertained. 'Miss-deep' is the act of wrongly placing a file in a wrong file number range in the wooden file cabinet in the filing room.

Even when the file is available the pains of searching and combing every page of the file for the required information renders the work uninteresting to the registry personnel. In the same vein, constant use of the file makes it deteriorate rapidly and get torn and tattered most of the time. This often leads to lost of some pages on which information is recorded and consequently eventual loss of such data or information.

During the career service of a civil servant, many

events occur. For example, promotion, transfer, discipline, training, etc all of which may be noted in different files and at different times. The effect of this mode of record keeping is that the entire service record of an employee is not often available at the time of exit or when information is sought on a particular section of the record to enable management take decision. In the same vein, the present system of manual personnel record keeping through the filing system in the Ministry makes such records to be highly prone to error, falsification, tampering, uninteresting and burden-some to staff that have responsibility for keeping and updating them, and indeed others who may have to work with the records.

Another major weakness of this present manual personnel record-keeping is that of insecurity. Staff information is vulnerable to frequent leakage and unwanted revelations to the public.

Based on these premises, the need for computerised personnel information management system in Federal Ministry of Commerce and tourism, Abuja cannot be over-emphasised. This is the central concern of this study.

1.3 Objectives of the Study

The purpose of this research is to examine the impact of computerising personnel records in Federal Ministry of Commerce and Tourism, Abuja. The study is therefore specifically tailored to attain the following objectives:-

(a) To determine whether or not the personnel records of the Federal Ministry of commerce and Tourism Abuja has been computerised.

(b) To ascertain the most important problems emanating from the use of manual record keeping.

(c) To develop a data-base computer program for computerisation of personnel records in the Ministry.

(d) To determine the impact of computerisation of personnel records of the Ministry.

(e) To recommend plausible measures that will improve the personnel information management system of the Ministry.

1.4 Statement of Hypotheses

This study will test the validity of the following hypotheses:

(a) That the Federal Ministry of Commerce and Tourism Abuja has not computerised the personnel records.

(b) Failure to computerise the personnel records of the Ministry leads to poor personnel information management.

(c) That computerisation of personnel records of the Ministry enhances the speed, efficiency, accuracy storability, collection, manipulation, report and dissemination of personnel data.

1.5 Significance of the Study

This study is justified in the sense that since indigenous literature is just beginning to emerge in this field in this country, it would generate new knowledge and offer managerial strategies and tactics which would be useful to managers and administrators in the management of human resource records in organisations generally and Federal Ministry of Commerce and Tourism, Abuja, in particular.

It is also justified by the importance of research to the world in general. Echoing what Nisbet has said "research must not be under-estimated. without it, Universities do not become active centres of inquiry. Today more than ever, we need an emphasis on basic knowledge; pure research is the foundation of technological progress; its discipline and objectivity should inspire the student who must learn that the language of nature has to be mastered if man is to advance,"[2]

The researcher is an academic staff in the College of

Management and Social Sciences, University of Abuja. From time to time, the society expects academicians to search into multifarious problems the solution of which enhances the welfare of the entire society and the success of organisations, as well as, promoting the researchers' confidence, moral and prospects for advancement. Man learns mostly by doing. To borrow from Alexander Pope's "Essay on Criticism", true ease in writing comes from art not chance. As these move easiest those who have learnt to dance.[3] The researcher hopes to develop research and problem solving skills by undertaking this study. such skills will ultimately benefit Nigeria to which he is a patriot.

Lastly, it is hoped that this work will serve as a reference text or source of information for other scholars interested in the subject of this research.

1.6 Operational Definition of terms

The following terms are defined and explained as they are used in this study.

(a) <u>Computer:</u> a computer is an electronic device capable of repeatedly performing a controlled sequence of operations, accepting data from its environment and processing it to produce results. It is a system (or a set of machines) which accepts data from an input device, performs mathematical operations electronically on the data by means of the processor and transfers the results to an output device.

(b) <u>Applications:</u> Applications are what a computer does (as opposed to how it does it). For instance, an operating system is not application software since it does not produce useable end results. A pay-roll run qualifies as applications.

(c) <u>Code:</u> This can be a noun or a verb. As a noun, a code in computer terms means the same as in other contexts; it is a means of representing one thing by

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some thing else. sometimes, a code is used for
secrecy; in a computer a code is used for efficiency.
the most common codes in computing used to represent
numbers and letters are ASC11 and EBCDIC.

The term, code, is more often used to refer to program
statements, which if you look at it literally,
constitute a representation of one thing in terms of
another. Program code is simply the statement in a
program.

As a verb to 'code a program' is to write a program in
terms of programming language instructions.

(d)   Command: Command is an instruction to the computer,
      usually given by you from a keyboard, which initiates
      or terminates, something. Classic examples are
      commands to RUN a program or PRINT some results.

(e)   Data: Data is information which is processed, stored
      or produced by a computer.

(f)   Database: A database is a collection of data of
      information held in a logical manner and in a format
      that allows the computer to store, recall, manipulate,
      and move around individual parts.

      It is a large file of data organised so that all users
      draw on common pool of consistent up-to-date
      information.

(g)   Database Management system (DBMS): A DBMS is a
      software system for designing, setting up and
      subsequently managing a data base. In practice, it
      smooths the interface between a programmer and the
      data, providing the kind of facilities to allow the
      use to specify which data a program requires.

(h)   Debug: Removes errors from system.

(i)   Flowchart: A flowchart is a graphic representation of
      a system or a program.

(j)   Registry: The simplest definition of the registry is
      that it is a record office. The registry of any given
      organisation is the nerve centre or the heart of that
      organisation. It is a record office where information
      regarding the overall activities of an organisation
      are kept. Records are usually written, typed or taped
      information meant to be used either now or in the
      future.

1.7 Scope and Limitations of the Study

In undertaking a research project, its scope is

normally defined with respect to geographical and/or time dimensions. The fixing of such boundaries is usually resorted to due to the problems posed by the administration of large data.

The study is therefore confined to computerisation of personnel Records using Federal Ministry of Commerce and Tourism as a case study. It will not involve accounts and pay-roll system aspect of personnel records.

Ideally a study of this nature should incorporate all the Federal Ministries but it was limited to only one Ministry. The obvious limitations of time, financial and other resources on the part of the researcher makes it absolutely impossible to embark on such comprehensive study that will cover all the Ministries; and a comparative study of several departments in the Ministry. Hence, these limitations have necessitated the choice of a case study.

However, the choice of the Federal Ministry of Commerce and Tourism Abuja was not arbitrarily embarked upon by the researcher. It was thought that the study will serve as a representative of similar organisations from whose inductive research findings will be of general application.

The researcher also hopes that other scholars interested in the problem will undertake a more comprehensive study of it in the future.

1.8 Methodology

Bock once defined a case study as "a narrative that portrays how one or more persons sought to deal with a

particular problem"[4]. He added that "case studies are efforts to wrest significant knowledge and useful understanding from the infinite complexity and tangled inter play of forces and actions that make up the continuity of a real process." Accordingly, both the primary and secondary types of data were collected and analysed in an attempt to 'wrest significant knowledge" for the purpose of this study.

Primary Sources:

These covered data that were collected and analysed for the first time. They include the following:

(a)   The questionnaires. The questionnaires were designed to elicit information from officials of the Ministry. Since it was not possible or practicable to administer the questionnaires on all such officials, a sample size that fairly represented the entire officials (population) was selected using the random sampling technique.

The structures of the questionnaires were in step with the order in which the hypotheses were listed, that is, each part or section of the questionnaires was designed to obtain the respondents views or opinions in relation to the particular hypotheses.

(b)   Interpersonal Interviews: These were conducted with the senior members of staff of the Personnel Department in the Ministry. In most cases, the interviews held with the senior members of staff of the personnel Department took a casual and

conversational form. The questions were scheduled and they touched on issues that yielded valuable data.

Formal applications for appointment with the senior members of staff of the department were made and formal acceptance were sent before the interviews were held. Some of them requested to have the interview schedules in order to be acquainted with the questions and probably have the opportunity to research into answers and that was obliged to.

In both the scheduled and unscheduled interviews tape-recording was used, although there were objections and resistance in some cases by the respondents.

Secondary Sources:

The secondary source consists of documentary sources. The documentary sources of data collection for this study has included, among others, the use of library sources for the general understanding and grasp of existing literature on the subject - published books, journals, periodicals, newspaper publications, seminar papers, file records, official reports, memoranda and minutes, students project work, etc.

These methods gave us the opportunity to have an on-the-spot assessment of the present manual system of personnel records keeping. It also gave us the opportunity of identifying data and information needs and requirements of different divisions and sections in the Personnel Management Department of the Ministry.

1.9 Programming Language Used:

The programming language used for the development of the system is DBase IV. The choice of DBase IV is informed by the numerous advantages it has over other languages that could have been used to develop the system. Some of these advantages include:

(i) DBase IV is a package that is designed specifically to meet a large variety of database processing needs. The only requirement for its efficient use is good programming principle and ability to program in DBase IV.

(ii) DBase IV is a package that is widely accepted and used in the world. Hence, it will be relatively easier for colleagues and other computer professionals to criticize and suggest improvement on the program that is developed for the project and thus ensure its ultimate efficiency, acceptability and application.

(iii) Computerisation of Personnel records using DBase IV program will permit easy adaptability by other government agencies that may want to adopt the program for computerisation of their personnel records.

(iv) It is easier and cheaper for government agencies to acquire DBase IV than to acquire compilers separately that may be required for the implementation of the program if the program had been developed in other programming language like PASCAL, BASIC or COBOL>

(v) It is also technically easier to maintain, review and

update a program written in DBase IV, than a program developed in different language for the same purpose.

Consideration of the above factors is what informed the choice of DBase IV for the development of the program for this project work.

1.10 Plan of the Remaining chapters:

The research study is designed to contain five chapters. Chapter one deals with the introduction, stating clearly the background to the study, statement of the problem, objectives and significance of the study, statement of Hypotheses tested, operational definition of terms, scope and limitations of the study.

The methodology and program language used for this study are featured in the introductory chapter in which the procedures for data collection and sampling as well as the method of data analyses are discussed.

The second chapter is devoted to literature review. The chapter discusses or presents some of the major works that have been done on the subject smatter and their relevance to the present study.

Chapter three contains the systems analysis and design history and development of Federal Ministry of Commerce and Tourism Abuja, aims and objectives of the Ministry, organisation structure of the Ministry, the existing systems and their attendant problems, the existing facilities, the system design and data base structures.

Chapter four deals with system implementation and Review. It contains the issue of Test running,

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Documentation, Program Technique or and Review.

Chapter Five is the Summary, Conclusion and Recommendation section of the study. It contains the major findings, conclusion and suggestions for improvement. It also contains some revelations on the possible areas where more research could be made to further the course of knowledge.

FOOTNOTES

1   M.S. Wu, Introduction to Computer Data Processing with Basic, Harcourt, Brace Jovanovich Inc., New York, 1980, P. 426

2.   R.A. Nisbet - Conflicting Academic Loyalties, Ouoted from the University Administrator, University college, Ilorin, Vol. 1, No. 2, July, 1977.

3.   Ibid., p. 10

4   E.A. Bock (1962 Case Studies about Government: Achieving Realism and significance, <u>Essays on Case Method of Public Administration,</u> the Inter University Case Programme, pp. 81-91.

CHAPTER TWO

LITERATURE REVIEW

2.1 Definition and Meaning of Personnel Records

According to Oxford Advanced Learners Dictionary[1], record is defined as "written account of facts, events, ... set down in writing for reference; preserved for use by writing or in other ways, on a disc ..."

Ojobo[2] also defines records as written, typed or taped information meant to be used either now or in the future.

Theresa Atuegbunam[3] opines that records contain information or data from which decisions are made, plans developed and control exercised. To be of value, records must contain correct information in the proper form and be available to those who need them.

Personnel records can therefore be described as the art or methodology of keeping event and facts concerning the activity and conduct of a staff during his service career in an organisation. Such records, depending on circumstances, are often used to express opinion and take decisions or actions on employees. Personnel record thus enables an organisation to keep accounts of conduct, activity, statistics and distribution of all its personnel both serving and non-serving.

2.2. Functions of Personnel Records

Personnel records are essential and crucial in making decisions in order to achieve pre-determined objectives of an organisation. This is more so if those decisions concern the human resources of the organisation. The

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desirability of an accurate and reliable information about a staff is hinged primarily on measurement and evaluation of effectiveness, efficiency and productivity.

According to I. O. Pedu[4] in his paper titled: Personnel Records Management in the Civil Service, "Personnel Records provide the basic information for manpower policies, plans and procedures. They enable management to know more about their workforce and the knowledge and skill available, in order to maintain and improve upon their level of performance".

For management to make right decisions, it needs an up-to-date information about its personnel. Records can be said to be as important as any other tools required for the development and growth of an organisation. Personnel records are very vital as they provide management with properly documented information about the career progression and other activities of a staff.

G.A. Ajewole[5] in his paper titled "Framework for the Development of Personnel Records" states that "the aims of personnel records is to a large extent, determined by the aims of the organisation in general and the aims of the personnel department in particular"

According to Albert Fries et al,[6] he opined that records management procedure is a "system of planning for and controlling the use of business records". Record management procedures keep the organisation afloat in planning and controlling of business records. For record management procedures to be effective in any organisation,

it is of paramount importance that there must be a qualified personnel to be entrusted with the responsibility.

Records management is the application of systematic analyses and control of records from the creation through the control of quantity, quality and cost of records.

Ojobo[7] also contended that records are important (especially in government offices) for three main reasons:-

(a)   As a record - any thing written typed or taped as information for use now or in the future becomes a record when preserved.

(b)   For reference purposes - Reference to records not only refreshes memory but it also settles arguments and erases doubts as to the facts available.

(c)   For uniform treatment of issues - records enable equal or uniform treatment of staff and issues. Like law courts, precedents are taken into consideration in dealing with current issues.

2.3   Scope of Personnel Information Management System

Today, personnel information management packages which are capable of holding basic data about an employee are available in the market.   Such basic data about employee include address, phone numbers, salary grade, sex, allowance, date of birth, date of first appointment, present appointment, date of leaving the organisation, etc.

These packages allow a manager to create data for specific interest such as the personnel.   The user - friendliness of such data management software packages makes it possible for a manager to retrieve data from such database flexibly and quickly for decision making.

Any introduction of computerised personnel information management system should be as comprehensive as possible.

It should be capable of keeping track of all employees from the initial application for employment through the employee's working life and into retirement.

Except for matters more concerned with the employee's private life, the CPIMS should comprehensively hold all records about the employee in the organisation.

The following should be present in a standard Computerised Personnel Information Management System (CPIMS)

(a) Personnel Records: this relates to identification data, current and historical salary and allowances data and various employee attributes such as grade and key dates.

(b) Training Records: The qualification skill and experience of each employee are contained in this system. Also, details of internal and external courses and courses attended are held by this system.

(c) Establishment: this is concerned with the setting up of budgets for appropriate staff levels and grades throughout the organisation.

(d) Absence: This system keeps records of different types of absence. For instance, sick leave, study leave with pay etc.

(e) Pension Records: This system is responsible for keeping detailed records of entitlements of employees, Detailed contributions by the employee and the organisation to the pension schemes, as well as details of dependants are contained in the system.

(f) Recruitment: Details of all vacancies and applicants are contained in the system. The status of each vacancy and required qualifications for applicants.

3.4 Studies Undertaken in the Area of Records Management:

Many studies have been undertaken in different aspects of Records Management. This section reviews some of such studies which relate to the management of records especially in the public service.

Theresa Ebere Atuegbunam[8] examines the problems of Record keeping in public service but using the National Assembly Abuja as a case study. In his study, she contends that apart from the problems associated with obsolete method of data collection, storage and retrieval, there is acute shortage of space in most organisations. Most of the registries are over crowded and lack necessary facilities like file rack, tables, chairs and other working tools. It is often observed with dismay that some registries in government are poorly illuminated and so made it difficult to locate files or documents. She also identified lack of training as one major constraint militating against efficient records management in the public sector. She however recommended the use of computer in record management and that computer make the whole process of data storage and retrieval very easy and less time - consuming and more reliable.

Hajara Abdulraheem[9] examined the record management procedures in organisations generally. The study has attempted to highlight the concept and general problems of record management procedures in organisations. From the research carried out, the researcher discovered that though the filing personnel seems to be satisfied with their jobs, the record used in record management is not effective. Majority of staff in most organisations were not opportuned to attend in service nor were trained on the job or through seminars or workshops.

Furthermore, it was revealed that majority of staff

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lack facilities, unauthorised possession of information, inadequate staffing, missing or loss of files, misplacement of files and unauthorised request for classified information contributed in no small way to the ineffectiveness of record management in organisations. Based on the outcome of the study, the researcher made the following recommendations:- The registry personnel should be sent on training; the use of modern and sophisticated equipment like computers and micro-filming will make the storage and retrieval of information easier; provision of enough working materials to enable registry personnel to function well.

In his study, Atanda Kolawole Musiliu[10] examines personnel record as a system of keeping accounts of facts or events concerning activity of staff and persons employed in an organisation. Particular attention was paid to personnel records of the Federal Ministry of finance. the structure of the existing manual personnel record system in the Ministry was studied. following the study, an efficient and functional computerised version is then developed. the computerised version did not in any way disrupt the institutionalised format of keeping personnel records in the Ministry. However, it removes the pains and errors inherent in the present manual system, particularly, the aspect of information storage, retrieval and query system.

Omeire Andrew Chukwuma[11], in his study, developed a system that facilitates the work of registry staff of Alvan

Ikoku College of Education. This project is based on the computerisation of personnel records. Before the advent of the computer, personnel information management in the college was manual. This presented alot of disadvantages which include misplacement of records, loss of documents, delayed work etc. The project highlights the design and implementation of a computerised personnel information management system which will handle all related information of every staff in all departments or organisation. the objective of the project is to create and maintain efficient services in the personnel department of Alvan Ikoku college of Education, Owerri. Chukwuma[12] therefore recommended that there is a strong need to computerise the department inorder to improve its effectiveness and efficiency.

3.5 Practical tips To successful Computerisation

To ensure successful computerisation of any organisation, the following controls need be established.

(i) Management and administration: the introduction of an in-house computer to an organisation requires at least, a small Management services department comprised of computer operating and systems development personnel respectively to operate the machines and maintain operational programs and develop new systems and programs required.

(2) Systems Development: These controls should embrace the whole range of systems development activity, commencing with the feasibility study or systems survey, and ending with the post audit of the implementation system. These controls are fundamental to any development, because most of the effort put into development would be completely lost on change of systems staff; a phenomenon quite usual to this particular class of staff. The purpose of these controls is to provide a complete history of a development project through all its phases, the eventual security of the programs and computer

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records. Further more adherence to specified control procedures throughout the systems development process not only engenders high performance standards in the systems staff but also leads to high standards of design and implementation and ensures continuity in the event of the inevitable staff changes.

(a) The analysis stage is the work following the feasibility study or systems survey to the preparation of a report which describes in outline the proposed system and more importantly, the expected benefits which will be achieved by the system. The net result of this cost/benefit analysis will be the pay back obtainable.

(b) Design - Of all the stages in the development of a system the design stage possibly needs the most disciplined approach. This is because the existing manual procedures are being re-designed and re-specified into computer procedures which will eventually be created in infinite detail in the actual computer programs. These programs will have to embrace logic paths to cater for every conceivable combination of circumstances likely to be met in actual operation. In doing this it is important to ensure that the procedures specified for the computer to perform are not only logical but also programmable. It is evident that work at this detailed level requires adequate documentation - so that all changes are made during design documentation.

(c) Programming - This means translating the detailed design specification into a multitude of program instruction 'telling' the machine how to recognise data fed in, how to process it and finally how to assemble the output for reports or perhaps video display units.

(d) System Testing and implementation: Before the system goes "live", it must be run as a complete system. This will involve the setting of master files which will be checked out by the users to ensure these are correctly set-up, and the introduction of "live" data.

The results of the system test will be given to the user who will be asked to authorise implementation and discard his existing methods.

(e) Systems audit: This is the last step in the systems development process and takes place after a system has been implemented. It is usually an independent appraisal carried out by senior staff in the Management Services Function who were not associated with the development or implementation of the systems. The prime objective of this audit is to establish that the system as implemented is providing the benefits

estimated at feasibility study and design stages.

(3) Operational Controls:

(a) Input controls: the purpose of input control is to ensure that all data input are properly authorised and also that it is recorded and stored accurately on the basic magnetic media used by the system.

Another control widely used is to organise the program to prevent users from deleting any record entered into the system. This control would be aimed at the avoidance of fraud in the general knowledge that data once recorded cannot be deleted. This acts as a deterrent against fraudulent entries and at the same time leads to improvement of clerical performance in the preparation of data.

(b) Computer Operations: Control in the computer operations area is an internal check as it is achieved largely by the division of responsibility. A typical breakdown of responsibility in the operations area might be as follows:

i   Data preparation
ii   Input control
iii File Library
iv   Operations
v   Output control
vi   Despatch.

(c) User Procedures: the establishment of a management services department in no way relieves the Head of Department of the responsibility for the accuracy of the data presented to the board. As the name implies the Management Services Department is a service department to all the departments in the organisation. It is therefore the continuing responsibility of Department Manager to ensure that adequate control exist within their own organisations after the installation of the computer.

(4) Selection of Hardware: Choice of hardware will commence with requirement analysis. this may be carried out jointly by external consultant and a team selected internally who are interested in computerisation.

Software is now an industry of its own. The software industry which includes time sharing package, software products, and contract programming has been steadily on the increase. The researcher suggests that both software and hardware decision should be made one after the other.

Some users are not able to acquire either the software or the hardware. In this circumstances, there are other variety of computer services that are available. some include:

(a) Services Bureau: It is a company that provides batch and on-line processing operations. charges are levied on an hourly, monthly or per application basis. The main benefit is that it is very cheap but not save because trade secrets may be exposed.

(b) Facilities Management: This occurs when vendors furnish their own personnel to manage and operate installation owned by the vendor only for the use of the customer safely. It is more expensive than the use of service bureau but again level of risk is not as high considering the issue that the secret of the organisation will not be released to their customers.

(c) Time sharing: Vendors provide on-line access to a mainframe computer through remote terminals. User programs are stored in the mainframe. The user starts an application by entering commands via the terminal. Turn around is virtually instant because the computer operates in a multi-user, multi-programming mode. This is similar to in-house facility but with time-sharing the user pays a fixed rate for actual computer time and storage utilisation.

The following diagram depicts suggested sequence of steps to be taken to ensure successful computerisation.

A. Requirement analysis
Computerisation is not just for ego boosting. Critical analysis of the need for the project must be carried out and determine users without any bias

B. A request for Proposal
RFP will be sent to the vendors request for proposal based on the result of (a).

C. Evaluation and Validation. General Staff Briefing
Bida submitted by vendors will be scrutinised. It is here many games are employed. If care is not taken, the project may remain a dream for ever after a substantial sum must have been sunk into it. It is important that management commitment should be briefed so that fear of loss of power or job does not make them to constitute impediment to the project.

D.   VEMDOR SELECTION
     See the selection criteria suggested. All Vendors must
     be evaluated and ranked for management decision.

E.   Procurement and Installation: Appoint Project Manager
     To obtain foreign exchange to procure the system is
     another problem. Both user and the vendor need not
     pretend or gloss over this because it may lead to both
     court for adjudication because of controversy if not
     properly handled. Project manages are the highest paid
     personnel in computer industry, it is imperative that
     experienced consultant or Project manager need be
     employed to monitor the plan.

F.   Training of all staff to be involved in the system.
     Acquisition of computers without adequate training will
     lead the project to failure. It is very necessary to
     train all the end users and staff who will be made
     redundant need be re-trained for other areas within the
     organisation.

G.   Parallel of the manual with the new system.
     Before abandoning old system, at least there must be a
     parallel run for upward of three or six months.
     Introduction of total quality Management will ensure
     successful implementation.

H.   Full implementation and final review.
     Implementation may be on a gradual basis and the
     implementation committee must set a time frame to
     assess the plan and the result.

I.   Regular post implementation
     Post implementation audit must be carried out to meet
     the Strategic plan of the organisation Steering
     committee comprising the chief executive, user and the
     vendor need be established to which the implementation
     reports must be submitted quarterly.

Source: Culled from Practical Approach to Computing.

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FOOTNOTES

1   Oxford Advanced Learner's dictionary.

2   J.A. Ojobo: "The functions of Middle Level Personnel in the Registry", A paper presented at the Orientation Course Organised for Registry Staff, Kaduna State Polytechnic, Zaria, on the 28th November, 1990. p. 1

3   T.E. Atuegbunam: The Problems of Record Keeping in Public Service: A Case Study of National Assembly, Abuja DPA Project, University of Abuja p. 10

4.   I.O. Opedu "Personnel Records Management in the Civil Service: A Paper Presented to Orientation Course Organised for Staff of the Ministry of Finance Abuja on 10th June, 1994. P.5

5.   G.A. ajewole, "Framework for the Development of Personnel Records in Journals "The Administrator" ABU Zaria, 1994, p.8

6.   Ibid., p. 33

7.   J.A. Ojobo Op. Cit. p. 3

8.   T.E. Atuegbunam Op. Cit.

9.   H. Abdulraheem: "Problems of Record Management in Organisations" A Project submitted to Department of Public Administration: University of Abuja in partial fulfilment for the award of diploma in Public Administration.

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11. O. A. chukwuma "Computerisation of Personnel Records in Alvan Ikoku College of Education, Owerri." A Paper Presented at a Seminar Organised for Staff of the Personnel Department, Alvan Ikoku College of Education, Owerri on the 16th February, 1999.

CHAPTER THREE

SYSTEMS ANALYSIS AND DESIGN

3.1 A Brief History of Federal Ministry of Commerce and Tourism, Abuja.

The former Department of Commerce and Industries created in 1946 was integrated with the Federal Ministry of Commerce and Industry on 1st april, 1959. The role of the Ministry then was the same as that of the former department. The role of the Ministry then was to advise, assist and when necessary to participate in such economic improvement and development as may be decided upon.

It however derives its current existence and powers from the statutory responsibilities assigned to it by the then Federal Military Government as published in the official Gazette No. 15, Vol. 75 of 3rd March, 1989, with subsequent additional functions assigned by Presidential directive. The range of Ministerial functions is as follows:-

(a) Bankruptcy and insolvency
(b) Bills of Sales
(c) Companies registration
(d) Copy rights
(e) External trade
(f) Government Investment in Hotel
(g) Inter-State Commerce
(h) Monopolies, combines and Trusts
(i) Patents Trade Marks, Designs and Merchandise Marks
(j) Registration of Business Names
(k) Trade Fairs and Exhibitions
(l) Weights and Measures
(m) Tourism
(n) Export Processing zone
(o) Federal Produce Inspection service
(p) Relations with the following bodies:-

    i   Export commodity Coordinating committee (ECCC)
    ii   General Agreement on Tariff and Trade (GATT)
    iii   United Nations Conference on Trade and Development (UNCTAD)

iv   World Tourism Organisation (WTO)

The Ministry of Commerce and Tourism has the following approved organisational structures:

(a) Department of Personnel Management

(b) Department of Finance and supplies

(c) Department of Planning, Research and Statistics.

(d) Department of Domestic Trade

(e) Department of Commercial Law

(g) Department of Tourism

(h) Department of Commodities and Export Trade.

The current Headquarters of the Federal Ministry of Commerce and Tourism is situated at Area I, Old secretariat, Garki, Abuja. and its 27 branches are spread over 24 States of the Federation.

3.2 Functions of the Ministry

The current functions of the Federal Ministry of commerce and Tourism as derived from the Federal Military government Official Gazette No. 15, vol. 75 of 3rd March, 1989 includes the following:

(1) Bankruptcy and Insolvency

(2) Bills of sales Preparation

(3) Registration of Companies (now handled by corporate Affairs Commission - a Parastatal under the Ministry).

(4) Copy right Registration.

(5) External Trade - formulation of trade policies.

(6) Protecting or supervising government investment in Hotels.

(7) Encouraging inter State commerce

(8) Monopolies combines and Trusts.

(9) Registration of Patents, Trade Marks, Designs and Merchandise Marks.

(10) Supervision and Control of Trade Fairs and Exhibitions

(11) Weights and Measures

(12) Tourism Matters

(13) Export Processing Zones

(14) Federal Produce Inspection Service

(15) Maintenance of Relations with the following bodies.

    (a) Export commodity Co-ordinating Committee (ECCC)
    (b) International Coffee Organisation.
    (c) Cocoa Producers alliance
    (d) International Cocoa Organisation
    (e) African Groundnut council (AGC)
    (f) World tourism Organisation
    (g) General agreement on Trade and Tariff.

(16) Supervision of all Parastatals under the Ministry. These include:

Corporate Affairs Commission (CAC)
Export Promotion Council (EPC)
Nigerian Tourism Development Council
Nigerian Export Processing zones
Nigerian Accounting Standard Board Trade Fair Complexes.

3.3 Organisational Structure of the Ministry

In consonance with the implementation guidelines on the civil service reforms and in order to maintain the impetus necessary for effective coverage of the broad based issues on its assigned statutory duties, the Ministry is headed by a Minister appointed by the Federal Government. The accounting officer, according to the new government guidelines is the Permanent Secretary supported in this Ministry by eight (8) directors of different departments of the Ministry.

The departments are:-

(a) Department of Personnel Management

(b)   Department of Finance and supplies
(c)   Department of Planning, Research and Statistics.
(d)   Department of Domestic Trade
(e)   Department of Commercial Law
(g)   Department of Tourism
(h)   Department of Commodities and Export Trade.

The organisation, range and scope of the operational activities of the various departments and parastatals of the Federal Ministry of Commerce and Tourism are as follows:

(1)   Department of Personnel Management -

    (a)   Personnel matter
    (b)   Appointments
    (c)   Promotions
    (d)   Conversion/Upgrading
    (e)   Discipline
    (f)   Staff Welfare

(b)   Finance and supplies Department

    (a)   Revenue Targeting
    (b)   Budget Preparation
    (c)   Budget Defence etc.

3.   Planning Research and Statistics Department

    (a)   Supervision of National Council on Trade and Tourism
    (b)   Meeting with United Nations Development Programmes (UNDP).
    (c)   Computerisation of Project of the Ministry.

4.   Domestic Trade

    (a)   Incharge of Trade information, complaints and publications.

    (b)   Weights and Measures

    (c)   Standardisation of Indigenous Measures

    (d)   Trade Promotion with foreign bodies.

The organisation structure of the Ministry is the same with all other government Ministries. It comprises of the Minister, the Permanent Secretary, the Directors, the Deputy directors, Assistant directors, the Principals, Executive Officers, Senior executive Officers and all other officers who are working towards the achievement of the Ministry's goal.

3.4 Cost Benefit Analysis of the Computerisation of the Ministry (Feasibility Study)

Before embarking on the development of a new system, the potential costs, savings and benefits arising from its development and implementation should be assessed by means of a feasibility study.

The term 'Feasibility Study' implies a study of the practicability of a proposed project. It involves a preliminary analysis of the total requirements needed for human, economic, technical and environmental evaluation of the proposed system.

The purpose of the feasibility study in the Ministry is to provide information in order to justify the computerisation.

Cost-benefit analysis is the main ingredient of the feasibility study report. It should provide management with enough information to decide whether or not CPIMS should be attempted.

The nature of most of the benefits is such that it is very difficult to use monetary value to quantify them. These benefits include the following:

i   Improved information system of the management.

ii   Minimisation of error rate

iii   Easy manipulation of data

iv   Improved speed and elimination of duplication.

v   Projection of the image of the Ministry.

For the CPIMS, the feasibility study should among other things try to formulate a new design on the basis of the application of computer methods considering various alternatives. A dedicated personal computer has been chosen for this project. the checklist of the cost headings are as follows:

Initial cost

Hardware cost

Keyboard

Central Processing Unit (CPU)

Printers

VDU (Monitor)

The Initial cost consists of delivery and installation; electrical work (power supply); environment work (AC, Fire); Cabling for installation, VDU, Printer.

The Communication cost consists of telephone lines, while the software cost consists of package cost.

The Development Cost consists of system software utilities, word processing, query language etc.

The Implementation costs consists of staff training; while the Requiring costs consist of hardware maintenance, consumable, magnetic disc, stationeries, printer ribbon, insurance cost.

The CPIMS should be very useful to the Ministry in the following ways:-

(a) It should be capable of coping with large volumes of work.

(b) It should minimise overtime.

(c) It should be capable of reducing the employment rate of the Ministry both in terms of permanent or temporary staff etc.

COST - BENEFITS

Initial Cost

Hardware Cost	=	₦70,000.00
Personnel Package	=	20,000.00
System Software	=	10,000.00
Implementation Cost	=	10,000.00
Installation Cost	=	Free
Total Initial Cost		110,000.00

Depreciation rate (%) is 20% then
Annual Charge of depreciation   ₦22,000.00
If a repayment of ₦40 per
month on every initial cost

annualised over 4.2 years	2,000.00
Annual charges	26,191.00
Hardware Maintenance	6,000.00
Software	2,500.00
Consumable	2,000.00
Software Licence	1,500.00
Total Annual Cost	₦38,191.00

Annual Savings

2 Principal Personnel

Assistants	38,000.00
1 senior Personnel Assistant	15,000.00
Total Savings	53,000.00

Net annual savings from
the project

53,000.00
38,191.00
12,809.00

3.5 Analysis of the Existing Personnel Information Management System.

At the moment, the registry section of the Personnel Management has responsibility for keeping personnel files, record and data. The Registry section itself comprises five units namely:

i   The Open Registry
ii   Records Section
iii   Confidential or Secret Registry
iv   Nominal Roll Section
v   Pensions and Gratuity Section.

(i) Open Registry:

The Open Registry is an office or section where papers or records of a non-secret or general nature are kept and access into it is freer. This section keeps 'personal files' of every staff of the Ministry. The Personal file is like a transaction file of every staff. Daily and routine matters, for example, application for leave, loan, advances, transfer, report against a staff, etc, are all filed in the personal file of a staff and routed to the appropriate officer or staff that would take further action on any matter to be so treated in the file.

The Open Registry Section has a 'Filing rom' where all personnel files are kept in large wooden cabinets. The cabinet consists of large pigeon holes. Each pigeon hole is assigned a range of personnel file number. Personnel files falling within a number range are then arranged serially within a pigeon hole. the arrangement facilitates easy and orderly storage and retrieval of personnel files. With this arrangement, a given file number will be located within a given number range in a pigeon hole.

The Open Registry also keeps a Register containing personnel file numbers and names of members of staff owning the files. The register is used to allocate file number to a staff that reports for duty for the first time. Every personnel file leaving or coming into the Open Registry also has its destination or source recorded in registers called "Out-going" and "In-coming" registers respectively.

(ii)   Records Section:

This section has responsibility for creating and updating personnel records. Every new staff after being allocated a personnel file number reports next to the records section. The Records Section then records in 'Form Gen. 60' every information on biodata and career service of the new staff. Every subsequent information and action taken on matters concerning the staff are then recorded and updated from time to time on the Form Gen. 60. For example, leave, termination and mode of termination of service, gratuity and pensions paid are all recorded in form Gen. 60. The Form Gen. 60 for all staff are kept in binders. The binders are again arranged serially using specific personnel number range.

(iii) Confidential or Secret Registry:

The Secret Registry is a place where papers or records of a confidential nature are kept and access into it is restricted. This therefore keeps confidential file of all staff. the confidential file contains records of performance of the staff at promotion interviews, records of outstanding contribution or achievement of a staff, recommendations and reports issued concerning any staff are all kept in the confidential file.

The confidential file is used mostly to determine and sort members of staff that are eligible for promotion interview. It is also used to assess the eligibility and capability of any staff being considered for any special assignment or recommendation.

(iv)   Nominal Roll Section:

This section keeps records on dates of first appointment, present appointment, department, present State of location, age and State of Origin of all members of staff.   This section keeps information on the entire workforce of the Ministry, their distribution and characteristics.   For example, Statistics of staff by State of Origin, Salary grade level, sex, etc are all kept by the Nominal Roll Section.

The nominal roll section also keeps and provides information on the staff strength of the Ministry, Seniority list, Distribution of Staff by Departments, etc. The nominal roll compiles its data directly by issuing out forms annually or when the need arises to members of staff to fill and return.

(v)   Pensions and Gratuity Section:

This section computes the terminal benefit of members of staff leaving the service.   The computed terminal benefit is sent to the Office of Establishments and Management Services where payment of the terminal benefit is effected after ascertaining its correctness.   The Pensions and Gratuity Section obtains information which it uses for computation of terminal benefit from the record section or form Gen. 60.   Major data required for computation of terminal benefit are:

i   Letter or Gazette of Confirmation of First appointment;

ii   Letter or Gazette of last promotion.   This is needed to obtain current salary of the staff;

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iii   Home address of the staff

iv   Authority on which the terminal benefit is being computed. This authority can be by voluntary or compulsory/mandatory termination of service, retirement or death.

3.6 Problems in the Existing system:

The major problem in the present system of manual personnel record keeping and filing system is that of inefficient, inaccurate and untimely storage and retrieval of personnel data and information. The manual filing system makes personnel data and information processing to be highly prone to error and a painful process. Whenever information is required on any aspect of career service of a personnel, reference has to be made to the physical file in which such information is recorded. Quite often, the information will not be promptly obtained if such file is in circulation for other business transaction. In many other cases, the file may not be found at all. This often arises due to 'miss-deep' of file or when the last destination of a file after leaving the registry cannot be ascertained. "Miss-deep" is the act of wrongly placing a file in a wrong file number range in the woden file cabinet in the Filing room.

Even when the file is available, the pains of searching and combing every page of the file for the required information renders the work uninteresting to the registry personnel. In the same vein, constant use of the file makes it deteriorate rapidly and get torn and tattered most of the time. This often leads to lost of some pages

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on which information is recorded and consequently, eventual loss of such data or information.

In addition to the above the following observations were made:

(a) Capacity - the most designed performance cannot be achieved using the current system. This is due to its deficiency in terms of speed and accuracy. For instance, to update a file requires refiling of the personnel data forms one by one always by the staff concerned.

(b) Duplication: due to the nature of the current system, there is duplication of function. That is, as the system is manual, there is the tendency that two or more staff carry out the same function in the department.

(c) Missing of Files: Misplacement of files are sometimes experienced in the department. For instance, at times files are deliberately hidden, perhaps to gratify personal desires. Hence the files are always vulnerable to vandalisation.

(d) Control: The method of control of activities carried out by the department is very poor. Hence some undesired practices could be going on unnoticed. This also affects the awareness of when to update a particular staff data, or, in some cases to detect 'ghost' staff in the Ministry. This also paralyses flow of information.

(e) Flexibility: It was observed that the Ministry is expanding gradually as the years go by. Consequently, there is a gradual increase in the personnel strength. Obviously, the present system would at a time be over-stretched with the expansion of the Ministry, mostly in terms of information management system of the personnel.

(f) Economy: The cost-benefit aspect of the feasibility study revealed that this present system is not economically as feasible as the proposed system.

(g) Reliability: The weaknesses of the present system have been echoed several times. As a result these weaknesses make the present system to lack reliability.

3.7 Requirement Specifications:

What the new system is expected to take care of are discussed here.

(a) Security: In this new system those authorised to handle data are the only individuals allowed access to them. The danger of exposure, mutilation or vandalisation of data is eliminated. This system introduces 'Pass Word' technique which greatly restricts access to any function in the system.

(b) Growth/Flexibility: The new system possesses the capability to cope with the growth of the Ministry. Hence, the increase in the strength of personnel in the past years makes the implementation of the new system very indispensable. It should be able to add additional files and also add new files to modify existing ones.

(c) Speed/response Time: The speed of the new system is very high compared with the present manual system in terms of response time. A very short period of time of about three seconds is generally satisfactory for the new system.

(d) Storage/Accuracy: The new system will be capable of correcting the errors and mistakes made by the manual system. Also, it will be retrieving accurate record on demand from the storage system. As a matter of

fact, its storage device must be able to cope with the growth of the staff strength in Ministry.

(e) Availability of Querry Language: A very god querry language and report generator is inevitable for any standard computerisation of personnel information management system (CPIMS). The house-keeping work is done by the application system. The means of setting up and maintaining the basic data is provided by the system. Retrieval of information is also possible. In a case where a special report is required the approach might be to write a special program to produce the necessary information.

(e) Support: The availability of resource to provide the desired support must be made by the supplier of the new system. At each of the three phases of the system the necessary support must be made. These phases are:

(i)   Development
(ii) Implementation
(iii)   Operation.

3.8   The Existing Facilities:

The Ministry had recently acquired ten (10) personal computers and this makes the prospect of computerisation of personnel records to be very bright. However, the Open Registry, Confidential Registry, Records Section and the Nominal Roll Section need to be provided with modern office equipment that will facilitate orderly and smooth storage of personnel files and records. For example, the old and dilapidated woden filing cabinet can be replaced with modern, compact, and more efficient iron version cabinet. The Records Section and confidential Registry Section also require iron filing cabinet for orderly storage and retrieval of information from the binders and confidential files in which the career records of personnel are stored.

3.9   System Design:

The objective of the new system is to develop a computer based data-base information and personnel record

system. It is important to note that the computer based information system will not completely replace the use of physical file and documents to keep information on an employee. The new system will permit data input and processing for each employee as soon as the events that generate the data occur. This will therefore ensure that current information about an employee can be obtained without reference to his physical file. Future reference can also be made to the record of an employee without reference to his physical file. For example, information and records about posting, leave, current designation, eligibility for promotion, educational qualification, disciplinary cases, terminal benefits etc concerning an employee can all be obtained without reference to the employees physical file.

From the above explanation, the major advantages of the new system include:

- availability of timely and current data and information about an employee;

- great and significant reduction in the volume of paper and file handled for daily office routine work;

- efficient and reliable data processing and information system;

- efficient, reliable and productive personnel registry system;

- reduction in the rate at which files deteriorate and get torn;

- reduction in the rate of loss of data and information.

The only and minimum requirement for the success of the computerised database system is availability of a personal computer system, DBase IV application package and

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computer literate or trained personnel to man the computer system and the data processing operations. It is also very important that every action on which management decision is reached concerning an employee is entered in the computer as soon as the file of an employee returns to the registry. This implies that constant update of personnel records in the computer database system is a key to the success of the system.

There should also be a management policy on off-line storage and back-up of personnel data and information in the computerised system. This will compensate for the finite memory capacity of the computer system. It will also facilitate easy recovery of data and information in case of fault and system crash.

A careful analysis of the Form Gen. 60 reveals that a minimum of ten database files will be required to implement the system design. The database files are classified as follows:

i   **Personal.dbf:** This will contain personal and biodata information about an employee.

ii   **Users.dbf:** Is created to provide security for the program as well as have some measure of control over the user.

iii **Relative.dbf:** This will contain information on names, address, and the type of relationship between an employee and his relatives. The relatives will include wife; children, next of kin, etc.

iv   **Ed-Hist.dbf:** This will contain information on the types of school(s) attended by an employee and the qualification obtained from the institution.

v   **Retire.dbf:** This will contain records of mode of exit from the service and terminal benefits paid to the employee.

vi   Career.dbf: This will contain records of promotion enjoyed by the employee while in service. It will also contain records of demotion as the case may be.

vii   State.dbf: This will contain code and names of State.

viii   Commend.dbf: this   contains   information   on commendation and award received by an employee for any outstanding performance and contribution during his career.

ix   Disc.dbf: this will contain records of disciplinary cases of an employee during his service career.

x   Leave.dbf: this will contain records of leave enjoyed by the employee during his career in the civil service.

3.8   Data-Base Structures.

To implement the foregoing database files, the following database structures were created.

COMMEND.DBF

Num	Field Name	Fieldtype	Width	Dec	Index
1	TPNO	Numberic	6	0	N
2	Date	Date	8		N
3	Commend	Character	20		N
4	Comment	Character	30		N
5	By whom	Character	20		N
6	File Page	Numeric	3		N

DISC.DBF

Num	Field Name	Fieldtype	Width	Dec	Index
1	TPNO	Numberic	6	0	N
2	Date	Date	8		N
3	Offence	Character	25		N
4	Comment	Character	25		N
5	By-Whom	Character	20		N
6	File page	Numeric	3		N

LEAVE.DBF

Num	Field Name	Fieldtype	Width	Dec	Index
1	TPNO	Numeric	6	0	N
2	Type	Character	10		N
3	Date-Begin	Date	8		N
4	Date-End	Date	8		N
5	Approved-by	Character	15		N
6	File-page	Numeric	3		N

CAREER.DBF

Num	Field Name	Fieldtype	Width	Dec	Index
1	TPNO	Numeric	6	0	N
2	Date	Date	8		N
3	Pre-DSG	Character	20		N
4	New-DSG	Character	20		N
5	Pre-GL	Numeric	2	0	N
6	New-GL	Numeric	2	0	N
7	Pre-Dept	Character	25		
8	New-Dept	Character	25		
9	Reason	Character	20		

STATE.DBF

Num	Field Name	Fieldtype	Width	Dec	Index
1	Code	Numeric	4	0	N
2	Mean	Character	15		N

RELATIVE.DBF

Num	Field Name	Fieldtype	Width	Dec	Index
1	TPNO	Numeric	6	0	N
2	Surname	Character	15		N
3	Firstname	Character	15		N
4	Lastname	Character	15		N
5	Address	Character	25		N
6	Relationship	Character	15		N
7	Birthdate	Date	8		N

ED-HIST.DBF

Num	Field Name	Fieldtype	Width	Dec	Index
1	TPNO	Numeric	6	0	N
2	Sch-Attd	Character	15		N
3	Date-Begin	Character	15		N
4	Date-End	Character	15	2	N
5	Amt-paid	character	25		N
6	Sponsor	Character	15		N
7	Approved-by	Date	8		N
8	Field-page	Numeric	3	0	N

RETIRE.DBF

Num	Field Name	Fieldtype	Width	Dec	Index
1	TPNO	Numeric	6	0	N
2	Date-Rtd	Date	8		N
3	Gratuity	Numeric	10	2	N
4	Pension	Numeric	10	2	N
5	Mode	Character	15		N
6	Yes-Served	Numeric	2	0	N

PERSONAL.DBF

Num	Field Name	Fieldtype	Width	Dec	Index
1	TPNO	Numeric	6	0	N
2	Date	Date	8		N
3	Pre-DSG	Character	20		N
4	New-DSG	Character	20		N
5	Pre-GL	Numeric	2	0	N
6	New-GL	Numeric	2	0	N
7	Pre-Dept	Character	25		N
8	New-Dept	Character	25		N
9	Reason	Character	20		N
10	Date-FAPPT	Date	8		N
11	First-Dept	Character	15		N
12	Date-confd	Date	8		N
13	Gazete-No	Character	10		N
14	Curr-GL	Numeric	2	0	N
15	Curr-DSG	Character	15		N
16	Curr-Dept	Character	15		N
17	Curr-Appt	Date	8		N
18	House-d	Character	1		N
19	House-type	Character	15		N
20	Date-House	Date	8		N
21	Home-ADD	Character	25		N
22	State-code	Numeric	4	0	N
23	LGA-code	Numeric	4	0	N

USERS.DBF

Num	Field Name	Fieldtype	Width	Dec	Index
1	Username	Character	10		N
2	Password	Character	5		N

CHAPTER FOUR

SYSTEM IMPLEMENTATION AND REVIEW

The objective of the system implementation phase is to achieve a fully documented operational system. The implementation of the new system requires careful scheduling and process handling of resources. The new system must be proved valid with the mechanical and manual interface developed and back-up procedure tested. Extensive training, testing and control are needed to successfully install the new system.

During implementation, the components built during development are to be put into operational use. To complete the change over, users must be trained in system operation and any existing procedure converted to the new system.

4.1 Implementation

After gaining access from the program control centre, a sub-program option or menu is selected from the main menu for a particular operation on personnel record. At the end of each operation, the user will have the option to return to the main menu for another separate operation or Quit the program to DOS prompt or DBase IV Dot Prompt.

4.2 Test Running

The range of sub-menu program is from:

i   Data Entry sub-program which permits data entry on any aspect of the personnel record.

ii   Staff record enquiry Program allows an inquiry into any aspect of the personnel record using the personnel file number as the access key,.

iii The Delete Record sub-program permit deletion of

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personnel record.

iv   Report Generating sub-program permits printing of reports of personnel records.

v   Edit Record sub-program permits editing of personnel records.

vi   Exit to Dot sub-program permit exit to DBase Dot Prompt while Exit to DOS sub-program permits a user to quit DBase.

4.3   Documentation:

A total of ten primary data-base files were created to implement the program. The purpose and functions of the data-base files have been discussed in chapter three. The database files are:-

```
i     Personal.dbf.
ii    Relative.dbf
iii   Ed-Hist.dbf
iv    Commend.dbf
v     Disc.dbf
vi    Leave.dbf
vii   Career.dbf
viii  Retire.dbf
ix    Users.dbf
x     State.dbf.
```

4.4   Programme Technique

A modular programming approach was adopted for the entire program design and coding. The main menu program is used as a spring board in which choice of data entry operations to be performed on any aspect of personnel file is made. The entire program is menu driven beginning from the main menu program through the whole sub-program for valid personnel data entry operations.

Appendice attached contain the program and coding used in this work.

4.6   Staff Training

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The most important factor behind the success of any organisation is the contribution its employees make to it. So it is imperative for management to explore new ways to increase employee productivity. Employee training program involves many expenses. For the purpose of this project it would be cheaper to train the existing staff rather than employing new staff. This training program would be undertaken by the supplier of the computer equipment. This will make the training program very cheap, more especially if the Ministry should bargain well with the vendor.

If the Ministry sends the existing staff or the potential users of the system for an initial training in basic operation of the equipment before the installation is made, this enables the conversion to be achieved smoothly.

Once the initial training approach is acceptable to the Ministry, a follow up training is always necessary. This helps in the acquisition of further advanced training for the system. This also, helps to provide immediate support and assistance to the staff of the department in case of any problem with the system.

4.7 System Testing and Conversion

New system must be thoroughly tested before being accepted. Systems do not work automatically. In fact, they are usually effective only after a long process of trial and error. System testing requires careful preparation. First, the project leader, the system analyst, programmers and users must agree on the test objective. They must determine specifically what the

system test is expected to demonstrate and what constitutes satisfactory performance.

Conversion requires careful examination and testing before implementation.

In evaluating the effects of conversion, two primary factors must be determined:

(a)   The impact of the changes

(b)   The drain of the corporate resources.

The three standard methods of conversion are:

(a)   Immediate or direct conversion;

(b)   Parallel Conversion;   and

(c)   Pilot conversion.

For the purpose of the personnel department, the new method has been tested thoroughly and its success is effectively high. As a result, the immediate conversion is the best approach. Also the system of the Ministry is not complicated, hence immediate conversion effect may not virtually be full in the Ministry. The new system is presently meant for the personnel management department of the Ministry and hence the method can be generally seen as pilot conversion, which is less risky. If properly managed, the risk involved is minimised. A system team, ready to step in, in case of occurrence of problem at any moment is essential.

For the system to be successfully converted, a certain number of normal corrections must be made. Files were converted or updated to the new system. These tasks were done properly so that the new system could be turned

entirely to the users.

The current system is manual, hence personnel data are kept in files. To conform to the new system the individual staff records have to be entered into computer files. The job is done by staff trained as data entry operators. Due to the increase in staff strength of the Ministry, the file conversion of the new system will take sometime. During the process, the old names can be easily compared with the new using the monitor.

4.8 System Installation

The installation of the system is termed a project and has to be directed by a project leader who uses the available resources to produce a new and better system for the Ministry. the Personnel Department is not very large therefore the installation of the computer system will take a few months and a few number of people. Also little site preparation work is needed since the computer used is micro computer. To ensure free static electricity and steady power supply the electrical lines have to be thoroughly checked before installation. Materials which create static charge should be avoided since static charges can cause errors in the data or in some cases accidental erasure of the data.

4.9 System Review

To get a feel for the successful implementation of the computer applications in the Federal Ministry of Commerce and Tourism, Abuja, the new system have to be examined using the following methods:

i   Event Logging: this deals with the recording of unexpected occurrence of events in the new system.

ii   Attitude survey: This deals with the sampling of opinion about the new system.

iii Periodically the new system is reviewed for the following reasons:

(a) To handle any unexpected problems that might arise in the system.

(b) To ascertain that the stated objectives are met.   If not, positive action are taken about the situation.

(c) To make sure that the new system is capable of meeting up with the changing requirements of the Ministry in general and the Personnel Management Department in particular.

CHAPTER FIVE

CONCLUSION AND RECOMMENDATIONS

5.1   Test of Hypotheses

Based on the analysis and interpretations of the data, generalisations or conclusions are drawn taking cognisance of the following hypotheses:-

That the Federal Ministry of Commerce and Tourism, Abuja, has not computerised their personnel records. To test this hypotheses interview and questionnaires were administered on the staff of the Personnel Department of the Ministry. From the responses, it was gathered that the personnel records of the Ministry had not been computerised before.   the hypothesis that the Ministry has not computerised their personnel records is therefore tenable, valid and proved.

The second hypotheses states that failure to computerise the personnel records of the Ministry leads to poor personnel information management.   The results obtained from the responses show that failure to computerise the personnel records of the Ministry meant that serious human labour was needed and used in the Ministry.   The response shows that the present system of manual personnel record keeping and filing system leads to inefficient, inaccurate and untimely storage and retrieval of personnel data and information. In addition, the manual filing system makes personnel data and information processing to be highly prone to error, falsification, tampering, uninteresting and burdensome to staff that have

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responsibilities for keeping and updating them and other users of the records. The responses obtained from the respondents also indicated that failure to computerise the personnel records of the Ministry make the staff information vulnerable to frequent leakage and unwanted revelations to the public. This hypothesis has also been proved correct.

The third hypothesis states that computerisation of the personnel records of the Ministry enhances the speed, efficiency, accuracy, management, storability, report and dissemination of personnel data. From the investigations gathered so far computerisation of the personnel records of the Ministry yields the following advantages: In the first place, a vast portion of the Ministry's personnel data would be stored economically on computer files and data banks than on paper. Secondly, the computerisation of personnel management information system brings about speed and efficiency of collection, manipulation, storage, report and dissemination of data. The speed of execution of computers ranges from several hundreds for very large computers to tens of thousands of operation per second for rather slow computers. Further more, improved accuracy is another advantage. In manual systems, accuracy is very low because of computational errors and inability to process some transactions or errors committed due to fatigue in repetitive clerical task. Since standard software was developed for data processing systems, it is possible to make its logic error free. It's also possible to build in

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various types of error - checking procedure to ensure that data entering the system of processing is error - free. Various elaborate procedures are also used to ensure processing of all the transactions that are generated. The question of fatigue in repetitive tasks does not arise. Moreover, computers are not susceptible to distractions such as phone calls, gossip or laziness that humans are prone to experience. In addition to speed and accuracy, computer also posseses 'memory' Many computers are capable of storing large amounts of data and recalling that data very quickly

5.2   Summary

Computer technology has had a great impact on industry, commerce, government and the public in general. Electronic computers have outstripped the human beings in the speed with which they can absolve information, process it and communicate the results, the reliability with which they carry out repetitive operations and their capacity to store vast quantities of information and retrieve any of them in a short period of time.

The basic aim of this project work is, therefore, to develop an efficient and functional data-base program that can be used to improve the management of personnel records in the personnel registry of the Federal Ministry of Commerce and Tourism, Abuja.

The researcher made use of documentary sources, questionnaires and interviews in collecting data for this study. The researcher made use of DBase IV programming language for the development of the system. The advantages or reasons for the choice of DBase IV program are contained in chapter one of the project.

Feasibility study of the Ministry was conducted. All the required tools for effective feasibility study of the Ministry were applied and the project was found feasible.

A detailed systems analysis of the existing operations of the personnel registry was thoroughly carried out. The analysis of the existing system manifested the necessity for the new system, (CPIMS).

The design of the new system was made in chapter

three. This design include the computer programs for running the system and specification of the approach to be used.

The implementation of the designed system for use by the Ministry was finally done in chapter four. This includes the training of the existing staff on this new system and the conversion method.

5.3 Conclusion:

The computerisation of personnel information management system of the Federal Ministry of Commerce and Tourism has been successfully achieved in this project. The discoveries after the in-depth survey of the existing manual personnel information management system has indeed justified the needs for the computerisation of the system.

It is the hope of the researcher that the operations of the personnel registry will be transformed into an efficient and highly productive operations, if the recommendations contained in this report are faithfully implemented. In addition, the staff of the personnel registry will become efficient and derive pleasure in performing their duties because computerisation of registry operations will remove pains and other difficulties inherent in the existing manual system.

5.4 Recommendations

In the light of the findings and conclusions arrived at in this study, the researcher proffers the following recommendations:-

i   The Management of the Federal Ministry of Commerce and Tourism should consider the possibility of

implementing and putting the program to use in the personnel registry.

ii   The management of the Ministry should reorganise the personnel registry by providing it with modern filing cabinets, kalamazo binders and other office equipment that will ensure smooth functioning of an efficient computerised personnel registry services.

iii   The management should consider installing a micro-computer in the personnel registry.

iv   The management should consider training of staff of the personnel registry in computer studies. Acquiring the computer without adequate training is like flying a plane without understanding necessary signals. the result will be loss of lives.

v   Adequate Funding - this can be taken care of by proper planning for a longer period.

vi   Staff Resistance - There is no doubt that some top and low level staff will pose as threats to the implementation; it has been discovered that there is need for adequate training for all within the organisation. Many resisted this laudable program of computerisation due to misunderstanding amongst staff. Management of the Ministry will need to enumerate the benefits to be desired, otherwise, the project may be stalled for ever.

vii   The management should be very careful in the choice of the hardware. There should be no favourites of some high powered staff; to ensure the success of any computerisation all sentiments must be avoided bearing in mind that what ever is achieved will be a reference point.

viii   Though prices are reducing technologically, improvements are experienced daily. The Ministry should maintain adequate reserve or a sinking fund arrangement to enable them meet cost of replacement when the existing computer wears out. Also, arrangement for upgrade should be in place.

ix   The management of the Ministry should contact the existing user for any application package already in use or call in the vendor that developed the software. Often a times, it was revealed that many organisations acquired hardware that were never put to use at all because of failure of such set-up to acquire needed software. In some cases, good software were abandoned due to many reasons. Writing an in house program should never be left to one person if success is the ultimate. It is difficult to maintain software personnel when compared with the hardware personnel - the rate of labour turnover is higher.

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```
SET TALK OFF
SET ESCAPE OFF
SET SAFE ON
SET BORDER TO CHR(178)
SET STATUS OFF
DO WHIL .T.
CLEA
MUSERNAME = SPACE(10)
MPASSWORD = SPACE(5)
MOPT = SPACE(1)
@2,18 SAY"FED. MIN. OF COMMERCE AND TOURISM ABUJA"
@3,21 SAY "COMPUTERISED STAFF RECORD SYSTEM"
@4,1 TO 4,78 COLO BR+*
@5,20 TO 6,20
@5,60 TO 6,60
@20,3 FILL TO 23,76 COLO W/G+
@6,27 SAY " ACESS CONTROL CENTRE"
@7,15 TO 16,65 COLO W/G+
set esca off
@9,17 SAY "ENTER USER NAME:"
@9,34 GET MUSERNAME PICT    !!!!!!!!!    VALID    REQUIRED
MUSERNAME < > ' 'ERROR 'PLS. READ PROMPT PROPERLY'
READ
IF MUSERNAME = ''
CLOSE ALL
CLEA
RETU
ENDI
SELE 1
USE USERS
LOCATE FOR MUSERNAME = USERNAME WHIL. NOT. EOF(1)
IF.NOT.FOUND()
@18,20 SAY "ARE YOU A LEGAL USER < Y/N >"
@18,47 GET MOPT PICT '!' VALID REQUIRED MOPT$'YN' ERROR 'READ
PROMPT PROPERLY'
READ
IF MOPT=UPPER('Y')
LOOP
ELSE
CLOSE ALL
CLEA
RETU
ENDI
WAIT ' '
CLEA
ELSE
```

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```
@11,17 SAY " ENTER PASSWORD:"
@11,34 GET MPASSWORD PICT '!!!!!' VALID REQUIRED MPASSWORD < >'
' ERROR ' PLS. BE CAREFUL !!!' COLO B,B/B
READ
IF MPASSWORD='  '
CLOSE ALL
CLEA
RETU
ENDI
SELE 1
LOCATE FOR MPASSWORD=PASSWORD WHIL .NOT. EOF(1)
IF  FOUND()
DO M_MENU
ELSE
@17,20 SAY "INVALID PASSWORD ACCESS DENIED"
WAIT '          PRESS SPACEBAR'
LOOP
ENDI
ENDI
ENDD
PROCEDURE M_MENU
SET TALK OFF
SET STATUS OFF
SET BORDER TO CHR(178)
DO WHIL .T.
CLEA
@2,20 SAY "FED. MIN. OF COMMERCE & TOURISM, ABUJA."
@3,24 SAY "COMPUTERISED STAFF RECORD SYSTEM"
@4,1 TO 4,78 COLO RB+*
@5,2 TO 24,2
@5,77 TO 24,77
@5,30 SAY "M A I N     M E N U"
DEFI POPUP P1 FROM 6,20 TO 22,60
DEFI BAR 1 OF P1 PROMPT 'DATA ENTRY' MESSAGE 'DATA ENTRY
SUBMENU OPTION'
DEFI BAR 2 OF P1 PROMPT REPLICATE(CHR(196),40) SKIP
DEFI BAR 3 OF P1 PROMPT 'STAFF RECORD ENQUIRY' MESSAGE
'ENQUIRY SUBMENU OPTION'
DEFI BAR 4 OF P1 PROMPT REPLICATE(CHR(196),40) SKIP
DEFI BAR 5 OF P1 PROMPT 'DELETE RECORD' MESSAGE 'DELETING
RECORD SUBMENU OPTION'
DEFI BAR 6 OF P1 PROMPT REPLICATE(CHR(196),40) SKIP
DEFI BAR 7 OF P1 PROMPT 'REPORT GENERATION' MESSAGE 'REPORT
SUBMENU OPTION'
DEFI BAR 8 OF P1 PROMPT REPLICATE(CHR(196),40) SKIP
DEFI BAR 9 OF P1 PROMPT 'EDIT RECORD' MESSAGE 'EDITING RECORD
SUBMENU OPTION'
DEFI BAR 10 OF P1 PROMPT REPLICATE(CHR(196),40) SKIP
```

```
DEFI BAR 11 OF P1 PROMPT 'EXIT TO DOT ' MESSAGE 'EXIT TO DBASE
IV DOT PROMPT'
DEFI BAR 12 OF P1 PROMPT REPLICATE(CHR(196),40) SKIP
DEFI BAR 13 OF P1 PROMPT 'QUIT TO DOS' MESSAGE 'QUIT DBASE IV TO
DOS PROMPT'
 ON SELE POPUP P1 DEAC POPUP
ACTI POPUP P1
DO CASE
CASE BAR()=1
SAVE SCRE TO MK
DO ENTRY
REST SCRE FROM MK
CASE BAR()=3
SAVE SCRE TO MK
DO PRO_ENQ
REST SCRE FROM MK
CASE BAR()=5
SAVE SCREE TO MK
DO PRO_DEL
REST SCRE FROM MK
CASE BAR()=7
SAVE SCRE TO MK
DO REPORT
REST SCRE FROM MK
CASE BAR()=9
SAVE SCRE TO MK
DO PRO_EDIT
RESTO SCRE FROM MK
CASE BAR()=11
CLEA
CANCEL
CASE BAR()=13
CLEA
QUIT
ENDC
ENDD
PROCEDUR ENTRY
SET BORDER TO CHR(176)
DO WHIL .T.
CLEA
@2,25 SAY "WELCOME TO DATA ENTRY SUB_MENU"
@3,1 TO 3,78  COLO RB+*
@4,2 TO 24,2
@4,77 TO 24,77 COLO RB+
DEFI POPUP P2 FROM 4,20 TO 22,60
DEFI BAR 1 OF P2 PROMPT 'PERNONAL DATA' MESSAGE 'EMPLOYEE
PERSONAL DATA ENTRY'
DEFI BAR 2 OF P2 PROMPT REPLICATE(CHR(196),40) SKIP
```

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```
DEFI BAR 3 OF P2 PROMPT 'NEXT OF KIN' MESSAGE 'EMPLOYEE NEXT
OF KIN RECORD'
DEFI BAR 4 OF P2 PROMPT REPLICATE(CHR(196),40) SKIP
DEFI BAR 5 OF P2 PROMPT 'EDUCATION HISTORY' MESSAGE 'EMPLOYEE
EDUCATION BACKGROUND RECORD'
DEFI BAR 6 OF P2 PROMPT REPLICATE(CHR(196),40) SKIP
DEFI BAR 7 OF P2 PROMPT 'EMPLOYEE COMMENDATION' MESSAGE
'RECORD OF COMMENDATION'
DEFI BAR 8 OF P2 PROMPT REPLICATE(CHR(196),40) SKIP
DEFI BAR 9 OF P2 PROMPT 'DISCIPLINARY RECORD' MESSAGE
'EMPLOYEE RECORD OF DISCIPLINE'
DEFI BAR 10 OF P2 PROMPT REPLICATE(CHR(196),40) SKIP
DEFI BAR 11 OF P2 PROMPT 'CAREER PROGRESSION' MESSAGE 'RECORD
OF EMPLOYEE CAREER PROGRESS'
DEFI BAR 12 OF P2 PROMPT REPLICATE(CHR(196),40) SKIP
DEFI BAR 13 OF P2 PROMPT 'LEAVE RECORD' MESSAGE 'EMPLOYEE
LEAVE RECORD ENTRY'
DEFI BAR 14 OF P2 PROMPT REPLICATE(CHR(196),40) SKIP
DEFI BAR 15 OF P2 PROMPT 'TERMINATION RECORD' MESSAGE
'TERMINATION OF SERVICE ENTRY'
DEFI BAR 16 OF P2 PROMPT REPLICATE(CHR(196),40) SKIP
DEFI BAR 17 OF P2 PROMPT 'RETURN TO MAIN MENU' MESSAGE 'EXIT
TO SYSTEM MAIN MENU'
DEFI BAR 18 OF P2 PROMPT REPLICATE(CHR(196),40) SKIP
DEFI BAR 19 OF P2 PROMPT 'EXIT TO DOT' MESSAGE ' RETURN TO
DBASE IV DOT PROMPT'
DEFI BAR 20 OF P2 PROMPT REPLICATE(CHR(196),40) SKIP
DEFI BAR 21 OF P2 PROMPT 'QUIT TO DOS' MESSAGE 'END DBASE IV TO
DOS PROMPT'
ON SELE POPUP P2 DEAC POPUP
ACTI POPUP P2
DO CASE
CASE BAR()=1
SAVE SCRE TO MK
DO STAFF
REST SCRE FROM MK
CASE BAR()=3
SAVE SCRE TO MK
DO NEXTKIN
REST SCRE FROM MK
CASE BAR()=5
SAVE SCRE TO MK
DO ED_HIS
REST SCRE FROM MK
CASE BAR()=7
SAVE SCRE TO MK
DO COMENT
REST SCRE FROM MK
```

```
CASE BAR() = 9
SAVE SCRE TO MK
DO DISC1
REST SCRE FROM MK
CASE BAR() = 11
SAVE SCRE TO MK
DO CAR
REST SCRE FROM MK
CASE BAR() = 13
SAVE SCRE TO MK
DO LEAVES
REST SCRE FROM MK
CASE BAR() = 15
SAVE SCRE TO MK
DO RTD
REST SCRE FROM MK
CASE BAR() = 17
SAVE SCRE TO MK
RETU
REST SCRE FROM MK
CASE BAR() = 19
CLEAR
CANCEL
CASE BAR() = 21
CLEA
QUIT
ENDC
ENDD


*****************************************************************
*********************

PROCEDURE STAFF
SET TALK OFF
SET CLOCK ON
SET STATUS OFF
DO WHIL .T.
CLEA
MTPNO = 0
MSURNAME = SPACE(15)
MFIRSTNAME = SPACE(15)
MLASTNAME = SPACE(15)
MSEX = SPACE(1)
MBIRTHDATE = CTOD('  /  /  ')
MFAPPT_DSG = SPACE(13)
MMODE_FAPPT = SPACE(15)
MFAPPT_GL = 0
MDATE_FAPPT = CTOD('  /  /  ')
MFIRST_DEPT = SPACE(14)
```

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```
MDATE_CONFD=CTOD(' / / ')
MGAZETTE_NO=SPACE(10)
MCURR_GL=0
MCURR_DSG=SPACE(15)
MCURR_DEPT=SPACE(15)
MCURR_APPT=CTOD(' / / ')
MHOUSED=SPACE(1)
MHOUSE_TYPE=SPACE(15)
MDAT_HOUSED=CTOD(' / / ')
MHOME_ADD=SPACE(25)
MSTATE_CODE=0
MLGA_CODE=0
MOPT=SPACE(1)
@1,15 SAY "FEDERAL MINISTRY OF COMMERCE AND TOURISM, ABUJA"
@2,23 SAY "EMPLOYEE PERSONAL DATA ENTRY"
@3,1 TO 3,78 PANE COLO B/W+ "
@4,1 TO 24,1 PANE COLO RB+
@24,1 TO 24,78 PANE COLO RB+
@4,78 TO 24,78 PANE COLO RB+
@4,3 SAY "FILE NUMBER:" COLO G+
@4,25 SAY "SURNAME:" COLO G+
@4,50 SAY "FIRSTNAME:" COLO G+
@6,3 SAY "LASTNAME:" COLO G+
@6,30 SAY "SEX:" COLO G+
@6,40 SAY "BIRTHDATE:" COLO G+
@8,3 SAY "FIRST APPOINTMENT DESIGNATION:" COLO G+
@8,46 SAY "APPOINTMENT MODE:" COLO G+
@10,3 SAY "FIRST GRADE LEVEL:" COLO G+
@10,30 SAY "FIRST APPOINTMENT DATE:" COLO G+
@12,3 SAY "FIRST DEPARTMENT:" COLO G+
@12,38 SAY "DATE CONFIRMED:" COLO G+
@13,30 SAY "GAZETTE NO:" COLO G+
@14,3 SAY "CURRENT GRADE LEVEL:" COLO G+
@14,30 SAY "CURRENT DESIGNATION:" COLO G+
@15,20 SAY "CURRENT DEPT.:" COLO G+
@16,3 SAY "CURRENT APPOINTMENT DATE:" COLO G+
@16,37 SAY "HOUSED <Y/N>" COLO G+
@16,52 SAY "HOUSE TYPE:" COLO G+
@18,3 SAY "DATE HOUSED:" COLO G+
@18,25 SAY "PERM.HOME ADDRESS:" COLO G+
@20,3 SAY "STATE CODE:" COLO G+
@20,20 SAY "STATE:" COLO G+
@20,42 SAY "L.G.A. CODE:" COLO G+
@20,59 SAY "L.G.A:" COLO G+
@4,15 GET MTPNO PICT '999999'
READ
IF MTPNO=0
CLOSE ALL
```

```
CLEA
EXIT
ENDI
SELE 1
USE PERSONAL
LOCATE FOR MTPNO=TPNO
IF FOUND()
@22,15 SAY "NUMBER ALREADY EXIST !!!"
WAIT '          PRESS SPACEBAR TO CONTINUE'
LOOP
ELSE
@4,33 GET MSURNAME
READ
@4,60 GET MFIRSTNAME
READ
@6,12 GET MLASTNAME
READ
@6,34 GET MSEX PICT '!' VALID REQUIRED MSEX$ 'FM' ERROR 'READ
PROMPT PROPERLY'
READ
@6,50 GET MBIRTHDATE
READ
@8,33 GET MFAPPT_DSG
READ
@8,63 GET MMODE_FAPPT
READ
@10,21 GET MFAPPT_GL PICT '99'
READ
@10,53 GET MDATE_FAPPT
READ
@12,20 GET MFIRST_DEPT
READ
@12,53 GET MDATE_CONFD
READ
@13,41 GET MGAZETTE_NO
READ
@14,23 GET MCURR_GL PICT '99'
READ
@14,50 GET MCURR_DSG
READ
@15,35 GET MCURR_DEPT
READ
@16,28 GET MCURR_APPT
READ
@16,50 GET MHOUSED
READ
@16,63 GET MHOUSE_TYPE
READ
```

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```
@18,15 GET MDAT_HOUSED
READ
@18,44 GET MHOME_ADD
READ
@20,14 GET MSTATE_CODE PICT '9999'
READ
@20,54 GET MLGA_CODE PICT '9999'
READ
SELE 2
USE STATE
LOCATE FOR MSTATE_CODE=CODE WHIL .NOT. EOF(2)
IF .NOT. FOUND()
@22,20 SAY 'NOT A VALID STATE CODE !!!'
WAIT '          PRESS SPACEBAR TO CONTINUE....'
LOOP
ELSE
@20,26 SAY MEAN
ENDI
LOCATE FOR MLGA_CODE=CODE WHILE .NOT. EOF(2)
IF .NOT. FOUND()
@22,20 SAY 'NOT A VALID L.G.A. CODE'
WAIT '          PRESS SPACEBAR TO CONTINUE'
LOOP
ELSE
@20,65 SAY MEAN
ENDI
SELE 1
APPEND BLANK
REPLACE TPNO WITH MTPNO , SURNAME WITH MSURNAME ,FIRSTNAME
WITH MFIRSTNAME
REPLACE LASTNAME WITH MLASTNAME , SEX WITH MSEX , BIRTHDATE
WITH MBIRTHDATE
REPLACE FAPPT_DSG WITH MFAPPT_DSG , MODE_FAPPT WITH
MMODE_FAPPT ,FAPPT_GL WITH MFAPPT_GL
REPLACE DATE_FAPPT WITH MDATE_FAPPT , FIRST_DEPT WITH
MFIRST_DEPT ,DATE_CONFD WITH MDATE_CONFD
REPLACE GAZETTE_NO WITH MGAZETTE_NO , CURR_GL WITH
MCURR_GL ,CURR_DSG WITH MCURR_DSG
REPLACE CURR_DEPT WITH MCURR_DEPT , CURR_APPT WITH
MCURR_APPT , HOUSED WITH MHOUSED
REPLACE HOUSE_TYPE WITH MHOUSE_TYPE , DAT_HOUSED WITH
MDAT_HOUSED , HOME_ADD WITH MHOME_ADD
REPLACE STATE_CODE WITH MSTATE_CODE , LGA_CODE WITH
MLGA_CODE
@22,20 SAY 'ANY MORE ENTRY < Y/N >'
@22,41 GET MOPT PICT '!' VALID REQUIRED.MOPT$ 'YN' ERROR 'ONLY
YES OR NO IS VALID'
READ
```

```
IF MOPT=UPPER('Y')
LOOP
ELSE
CLOSE ALL
CLEAR
EXIT
ENDI
ENDI
ENDD
****************************************************************
********************************
PROCEDURE NEXTKIN
SET TALK OFF
SET STATUS OFF
DO WHIL .T.
CLEAR
MTPNO=0
MSURNAME=SPACE(15)
MFIRSTNAME=SPACE(15)
MLASTNAME=SPACE(15)
MADDRESS=SPACE(15)
MRELATNSHIP=SPACE(15)
MBIRTHDATE=CTOD(' / / ')
MOPT=SPACE(1)
@2,20 SAY "EMPLOYEE NEXT OF KIN RECORD"
@3,1 TO 3,78 PANE COLO RB+*
@4,10 TO 20,65 DOUB COLO BR+
@6,15 SAY "EMPLOYEE FILE NUMBER:"
@8,15 SAY "RELATIVE SURNAME:"
@10,15 SAY "RELATIVE FIRSTNAME:"
@12,15 SAY "RELATIVE LASTNAME:"
@14,15 SAY "ADDRESS OF RELATIVE:"
@16,15 SAY "TYPE OF RELATIONSHIP:"
@18,15 SAY "BIRTHDATE OF RELATIVE:"
@6,37 GET MTPNO PICT '999999'
READ
IF MTPNO=0
CLOSE ALL
CLEA
EXIT
ENDI
SELE 1
USE RELATIVE
LOCATE FOR MTPNO=TPNO WHIL .NOT. EOF(1)
IF FOUND()
@22,20 SAY "DUPLICATE FILE NUMBER IS NOT ALLOWED !!!" COLO R+*
WAIT '         PRESS SPACEBAR...'
LOOP
```

```
ELSE
@8,33 GET MSURNAME
READ
@10,35 GET MFIRSTNAME
READ
@12,34 GET MLASTNAME
READ
@14,36 GET MADDRESS
READ
@16,37 GET MRELATNSHIP
READ
@18,37 GET MBIRTHDATE
READ
APPEND BLANK
REPLACE TPNO WITH MTPNO, SURNAME WITH MSURNAME , FIRSTNAME
WITH MFIRSTNAME
REPLACE LASTNAME WITH MLASTNAME ,ADDRESS WITH MADDRESS
,RELATNSHIP WITH MRELATNSHIP
REPLACE BIRTHDATE WITH MBIRTHDATE
@22,20 SAY "MORE ENTRY < Y/N >"
@22,37 GET MOPT PICT '!'
READ
IF MOPT=UPPER('Y')
LOOP
ELSE
CLOSE ALL
CLEA
EXIT
ENDI
ENDI
ENDD


*********************************************************************
**********************

PROCEDURE  ED_HIS
SET TALK OFF
SET STATUS OFF
DO WHILE .T.
CLEA
MTPNO=0
MSCH_ATTD=SPACE(30)
MDATE_BEGIN=CTOD('  /  /  ')
MDATE_END=CTOD('  /  /  ')
MAMT_PAID=0.00
MSPONSOR=SPACE(25)
MAPPROVE_BY=SPACE(20)
MFILE_PAGE=0
```

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```
MOPT = SPACE(1)
@2,20 SAY "EMPLOYEE EDUCATION HISTORY RECORD"
@3,1 TO 3,78
@4,10 TO 21,70 DOUB COLO BR+
@6,15 SAY "EMPLOYEE FILE NUMBER:"
@8,15 SAY "LAST SCHOOL ATTENDED:"
@10,15 SAY "DATE STARTED SCHOOL:"
@12,15 SAY "DATE COMPLETED SCHOOL:"
@14,15 SAY "AMOUNT PAID FOR SCHOOL:"
@16,15 SAY "NAME OF SPONSOR:"
@18,15 SAY "SPONSORSHIP APPROVE BY:"
@20,15 SAY "APPROVAL FILE PAGE:"
@6,37 GET MTPNO PICT '999999'
READ
IF MTPNO=0
CLOSE ALL
CLEA
EXIT
ENDI
@8,37 GET MSCH_ATTD
READ
@10,36 GET MDATE_BEGIN
READ
@12,38 GET MDATE_END
READ
@14,38 GET MAMT_PAID PICT '99999.99'
READ
@16,32 GET MSPONSOR
READ
@18,39 GET MAPPROVE_BY
READ
@20,35 GET MFILE_PAGE PICT '999'
READ
SELE 1
USE ED_HIST
APPEND BLANK
REPLACE TPNO WITH MTPNO ,SCH_ATTD WITH
MSCH_ATTD,DATE_BEGIN WITH MDATE_BEGIN
REPLACE DATE_END WITH MDATE_END, AMT_PAID WITH MAMT_PAID,
SPONSOR WITH MSPONSOR
REPLACE APPROVE_BY WITH MAPPROVE_BY,FILE_PAGE WITH
MFILE_PAGE
@23,20 SAY "MORE ENTRY < Y/N >"
@23,37 GET MOPT PICT '!'
READ
IF MOPT=UPPER('Y')
LOOP
ELSE
```

```
CLOSE ALL
CLEA
EXIT
ENDI
ENDD


**************************************************************
********************

PROCEDURE  LEAVES
SET TALK OFF
SET COLO OF MESSAGE TO G+
SET STATUS OFF
DO WHIL .T.
CLEA
MTPNO=0
MTYPE=SPACE(10)
MJOE=101
MYEAR=0
MDATE_BEGIN=CTOD(' / / ')
MDATE_END=CTOD(' / / ')
MAPROVE_BY=SPACE(15)
MFILE_PAGE=0
MOPT=SPACE(1)
@2,25 SAY "EMPLOYEE LEAVE RECORD"
@3,1 TO 3,78 PANE COLO RB+*
@4,10 TO 20,70 DOUB COLO BR+
@6,15 SAY "EMPLOYEE FILE NUMBER:"
@8,15 SAY "ENTER LEAVE TYPE :"
@10,15 SAY "DATE LEAVE COMMENCE:"
@12,15 SAY "DATE LEAVE EXPIRED:"
@14,15 SAY "LEAVE APPROVE BY:"
@16,15 SAY "STATE FILE PAGE:"
@6,37 GET MTPNO PICT '999999'
READ
IF MTPNO=0
CLOSE ALL
CLEA
EXIT
ENDI
@8,35 GET MTYPE
READ
@10,36 GET MDATE_BEGIN
READ
@12,35 GET MDATE_END
READ
@14,35 GET MAPROVE_BY
READ
```

```
@16,35 GET MFILE_PAGE PICT '999'
READ
SELE 1
USE LEAVE
APPEND BLANK
REPLACE TPNO WITH MTPNO,TYPE WITH MTYPE,DATE_BEGIN WITH
MDATE_BEGIN
REPLACE   DATE_END   WITH   MDATE_END,APROVE_BY   WITH
MAPROVE_BY,FILE_PAGE WITH MFILE_PAGE
@22,15 SAY "ANY MORE LEAVE RECORD <Y/N>"
@22,43 GET MOPT PICT '!'
READ
IF MOPT=UPPER('Y')
LOOP
ELSE
CLOSE ALL
CLEA
EXIT
ENDI
ENDD


************************************************************
*************************

PROCEDURE  COMENT
SET TALK OFF
SET STATUS OFF
DO WHIL .T.
CLEA
MTPNO=0
MDATE=CTOD(' / / ')
MAWARD=SPACE(20)
MCOMMENT=SPACE(30)
MBY_WHOM=SPACE(20)
MFILE_PAGE=0
MOPT=SPACE(1)
@2,15 SAY "EMPLOYEE RECORD OF CENSURES AND COMMENDATIONS"
@3,1 TO 3,78 PANE COLO RB+*
@4,10 TO 18,65 DOUB
@6,15 SAY "EMPLOYEE FILE NUMBER:"
@8,15 SAY "DATE OF COMMENDATION:"
@10,15 SAY "STATE AWARD:"
@12,15 SAY "STATE COMMENT:"
@14,15 SAY "COMMENT GIVEN BY:"
@16,15 SAY "STATE FILE PAGE:"
@6,37 GET MTPNO PICT '999999'
READ
IF MTPNO=0
```

```
CLOSE ALL
CLEA
EXIT
ENDI
@8,37 GET MDATE
READ
@10,28 GET MAWARD
READ
@12,30 GET MCOMMENT
READ
@14,33 GET MBY_WHOM
READ
@16,32 GET MFILE_PAGE
READ
SELE 1
USE COMMENT
APPEND BLANK
REPLACE TPNO WITH MTPNO,DATE WITH MDATE,AWARD WITH
MAWARD,COMMENT WITH MCOMMENT
REPLACE BY_WHOM WITH MBY_WHOM,FILE_PAGE WITH MFILE_PAGE
@20,20 SAY "ANY MORE RECORD < Y/N >"
@20,43 GET MOPT PICT '!'
READ
IF MOPT=UPPER('Y')
LOOP
ELSE
CLOSE ALL
CLEA
EXIT
ENDI
ENDD

*********************************************************************
***************************
PROCEDURE DISC1
SET TALK OFF
SET STATUS OFF
DO WHIL .T.
CLEA
MTPNO=0
MDATE=CTOD(' / / ')
MOFFENCE=SPACE(25)
MCOMMENT=SPACE(25)
MBY_WHOM=SPACE(20)
MFILE_PAGE=0
MOPT=SPACE(1)
@2,15 SAY "EMPLOYEE'S RECORD OF DISPLINARY ACTIONS"
@3,1 TO 3,78 PANE COLO BR+"
```

```
@4,10 TO 18,65 DOUB COLO GR+
@6,15 SAY "EMPLOYEE FILE NUMBER:"
@8,15 SAY "DATE DISCIPLINED:"
@10,15 SAY "STATE OFFENCE:"
@12,15 SAY "STATE COMMENT:"
@14,15 SAY "COMMENT GIVEN BY:"
@16,15 SAY "COMMENT FILE PAGE:"
@6,37 GET MTPNO PICT '999999'
READ
IF MTPNO=0
CLOSE ALL
CLEA
EXIT
ENDI
@8,33 GET MDATE
READ
@10,30 GET MOFFENCE
READ
@12,30 GET MCOMMENT
READ
@14,33 GET MBY_WHOM
READ
@16,34 GET MFILE_PAGE PICT '999'
SELE 1
USE DISC
APPEND BLANK
REPLACE TPNO WITH MTPNO,DATE WITH MDATE,OFFENCE WITH
MOFFENCE
REPLACE   COMMENT   WITH   MCOMMENT,BY_WHOM   WITH
MBY_WHOM,FILE_PAGE WITH MFILE_PAGE
@20,15 SAY "ANY MORE DISCIPLINARY RECORD <Y/N>"
@20,51 GET MOPT PICT '!'
READ
IF MOPT=UPPER('Y')
LOOP
ELSE
CLOSE ALL
CLEA
EXIT
ENDI
ENDD


***************************************************************
*********************************************

PROCEDURE  CAR
SET TALK OFF
SET STATUS OFF
DO WHILE .T.
```

```
CLEA
MTPNO=0
MDATE=CTOD(' / / ')
MPRE_DSG=SPACE(20)
MNEW_DSG=SPACE(20)
MPRE_GL=0
MNEW_GL=0
MPRE_DEPT=SPACE(25)
MNEW_DEPT=SPACE(25)
MREASON=SPACE(20)
MOPT=SPACE(1)
@2,15 SAY "EMPLOYEE CAREER RECORD ENTRY"
@3,1 TO 3,78 PANE COLO RB+"
@4,10 TO 22,65 DOUB COLO BR+
@6,15 SAY "EMPLOYEE FILE NUMBER:"
@8,15 SAY "DATE RECORDED:"
@10,15 SAY "PREVIOUS DESIGNATION:"
@12,15 SAY "NEW DESIGNATION:"
@14,15 SAY "PREVIOUS GRADE LEVEL:"
@14,43 SAY "NEW GRADE LEVEL:"
@16,15 SAY "PREVIOUS DEPARTMENT:"
@18,15 SAY "NEW DEPARTMENT:"
@20,15 SAY "REASON OF CHANGES:"
@6,37 GET MTPNO PICT '999999'
READ
IF MTPNO=0
CLOSE ALL
CLEA
EXIT
ENDI
@8,30 GET MDATE
READ
@10,37 GET MPRE_DSG
READ
@12,32 GET MNEW_DSG
READ
@14,37 GET MPRE_GL PICT '99'
READ
@14,59 GET MNEW_GL PICT '99'
READ
@16,36 GET MPRE_DEPT
READ
@18,31 GET MNEW_DEPT
READ
@20,33 GET MREASON
READ
SELE 1
USE CAREER
```

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```
APPEND BLANK
REPLACE TPNO WITH MTPNO , DATE WITH MDATE ,PRE_DSG WITH
MPRE_DSG ,NEW_DSG WITH MNEW_DSG
REPLACE PRE_GL WITH MPRE_GL,NEW_GL WITH MNEW_GL,PRE_DEPT
WITH MPRE_DEPT
REPLACE NEW_DEPT WITH MNEW_DEPT,REASON WITH MREASON
@22,20 SAY "MORE ENTRY  < Y/N >"
@22,37 GET MOPT PICT '!'
READ
IF MOPT=UPPER('Y')
LOOP
ELSE
CLOSE ALL
CLEA
EXIT
ENDI
ENDD
*******************************************************************
*****************************************
PROCEDURE  RTD
 SET TALK OFF
SET STATUS OFF
DO WHILE .T.
CLEA
MTPNO=0
MDATE_RTD=CTOD('  /  /  ')
MGRATUITY=0.00
MPENSION=0.00
MMODE=SPACE(15)
MYRS_SERVED=0
MOPT=SPACE(1)
@2,20 SAY "EMPLOYEE TERMINATION OF SERVICE RECORD"
@3,1 TO 3,78 PANE COLO RB+*
@4,10 TO 18,65 DOUB COLO BR+
@6,15 SAY "EMPLOYEE FILE NUMBER:"
@8,15 SAY "TERMINATION DATE:"
@10,15 SAY "GRATUITY PAID:"
@12,15 SAY "PENSION PAID:"
@14,15 SAY "MODE OF TERMINATION:"
@16,15 SAY "NUMBER OF YEARS SERVED:"
@6,37 GET MTPNO PICT '999999'
READ
IF MTPNO=0
CLOSE ALL
CLEA
EXIT
ENDI
@8,29 GET MDATE_RTD
```

```
READ
@10,30 GET MGRATUITY PICT '999999.99'
READ
@12,29 GET MPENSION PICT '999999.99'
READ
@14,35 GET MMODE
READ
@16,39 GET MYRS_SERVED PICT '99'
READ
SELE 1
USE RETIRE
APPEND BLANK
REPLACE TPNO WITH MTPNO,DATE_RTD WITH MDATE_RTD,GRATUITY
WITH MGRATUITY
REPLACE PENSION WITH MPENSION,MODE WITH MMODE,YRS_SERVED
WITH MYRS_SERVED
@20,20 SAY "ANY MORE ENTRY < Y/N >"
@20,41 GET MOPT PICT '!'
READ
IF MOPT=UPPER('Y')
LOOP
ELSE
CLOSE ALL
CLEA
EXIT
ENDI
ENDD


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****************************************************************

PROCEDUR PRO_ENQ
SET BORDER TO CHR(177)
DO WHILE .T.
CLEA
@2,25 SAY "WELCOME TO ENQUIRY  SUB_MENU"
@3,1 TO 3,78  COLO RB+*
@4,2 TO 24,2
@4,77 TO 24,77 COLO RB+
DEFI POPUP P3 FROM 4,20 TO 22,60
DEFI BAR 1 OF P3 PROMPT 'EMPLOYEE PERNONAL RECORD' MESSAGE
'EMPLOYEE PERSONAL RECORD ENQUIRY'
DEFI BAR 2 OF P3 PROMPT REPLICATE(CHR(196),40) SKIP
DEFI BAR 3 OF P3 PROMPT 'NEXT OF KIN ENQUIRY' MESSAGE 'ENQUIRE
NEXT OF KIN RECORD'
DEFI BAR 4 OF P3 PROMPT REPLICATE(CHR(196),40) SKIP
```

```
DEFI BAR 5 OF P3 PROMPT 'ENQUIRE EDUCATION HISTORY' MESSAGE
'EMPLOYEE EDUCATION BACKGROUND ENQUIRY'
DEFI BAR 6 OF P3 PROMPT REPLICATE(CHR(196),40) SKIP
DEFI BAR 7 OF P3 PROMPT 'ENQUIRE  COMMENDATION' MESSAGE
'ENQUIRE RECORD OF COMMENDATION'
DEFI BAR 8 OF P3 PROMPT REPLICATE(CHR(196),40) SKIP
DEFI BAR 9 OF P3 PROMPT 'ENQUIRE DISCIPLINARY RECORD' MESSAGE
'ENQUIRE EMPLOYEE RECORD OF DISCIPLINE'
DEFI BAR 10 OF P3 PROMPT REPLICATE(CHR(196),40) SKIP
DEFI BAR 11 OF P3 PROMPT 'ENQUIRE CAREER PROGRESSION' MESSAGE
'ENQUIRE EMPLOYEE CAREER PROGRESS'
DEFI BAR 12 OF P3 PROMPT REPLICATE(CHR(196),40) SKIP
DEFI BAR 13 OF P3 PROMPT 'ENQUIRE LEAVE RECORD' MESSAGE
'EMPLOYEE LEAVE RECORD ENQUIRY'
DEFI BAR 14 OF P3 PROMPT REPLICATE(CHR(196),40) SKIP
DEFI BAR 15 OF P3 PROMPT 'ENQUIRE TERMINATION RECORD' MESSAGE
'TERMINATION OF SERVICE ENQUIRY'
DEFI BAR 16 OF P3 PROMPT REPLICATE(CHR(196),40) SKIP
DEFI BAR 17 OF P3 PROMPT 'RETURN TO MAIN MENU' MESSAGE 'EXIT
TO SYSTEM MAIN MENU'
DEFI BAR 18 OF P3 PROMPT REPLICATE(CHR(196),40) SKIP
DEFI BAR 19 OF P3 PROMPT 'EXIT TO DOT' MESSAGE ' RETURN TO
DBASE IV DOT PROMPT'
DEFI BAR 20 OF P3 PROMPT REPLICATE(CHR(196),40) SKIP
DEFI BAR 21 OF P3 PROMPT 'QUIT TO DOS' MESSAGE 'END DBASE IV TO
DOS PROMPT'
ON SELE POPUP P3 DEAC POPUP
ACTI POPUP P3
DO CASE
CASE BAR()=1
SAVE SCRE TO MK
DO ENQ_PERS
REST SCRE FROM MK
CASE BAR()=3
SAVE SCRE TO MK
DO ENQ_KIN
REST SCRE FROM MK
CASE BAR()=5
SAVE SCRE TO MK
DO ENQ_HIST
REST SCRE FROM MK
CASE BAR()=7
SAVE SCRE TO MK
DO ENQ_COMM
REST SCRE FROM MK
CASE BAR()=9
SAVE SCRE TO MK
DO ENQ_DISC
```

```
REST SCRE FROM MK
CASE BAR()=11
SAVE SCRE TO MK
DO ENQ_CAR
REST SCRE FROM MK
CASE BAR()=13
SAVE SCRE TO MK
DO ENQ_LEAV
REST SCRE FROM MK
CASE BAR()=15
SAVE SCRE TO MK
DO ENQ_RTD
REST SCRE FROM MK
CASE BAR()=17
SAVE SCRE TO MK
RETU
REST SCRE FROM MK
CASE BAR()=19
CLEAR
CANCEL
CASE BAR()=21
CLEA
QUIT
ENDC
ENDD
*****************************************************************************
*******************************************************
PROCEDUR ENQ_PERS
SET BORDER TO CHR(6)
SET TALK OFF
SET STATUS OFF
DO WHIL .T.
CLEA
MTPNO=0
MOPT=SPACE(1)
@2,20 SAY "WELCOME TO EMPLOYEE PERSONAL RECORD ENQUIRY"
@3,1 TO 3,78 COLO G+*
@20,2 FILL TO 23,77 COLO W+/G
@6,15 SAY "ENTER EMPLOYEE FILE NO. :"
@6,42 GET MTPNO PICT '999999'
READ
IF MTPNO=0
CLOSE ALL
CLEA
RETU
ENDI
SELE 1
USE PERSONAL
```

```
LOCATE FOR MTPNO=TPNO WHIL .NOT. EOF(1)
IF .NOT. FOUND()
@20,20 SAY "EMPLOYEE DOES NOT EXIST !!!"
WAIT '                   PRESS SPACEBAR'
LOOP
ELSE
@8,5 SAY " "
DISPLAY TPNO,SURNAME,FIRSTNAME, LASTNAME,SEX,BIRTHDATE
@10,5 SAY " "
DISPLAYFAPPT_DSG,MODE_FAPPT,FAPPT_GL,DATE_FAPPT,FIRST_DEPT

@12,5 SAY " "
D I S P L A Y        D A T E _ C O N F D ,
GAZETTE_NO,CURR_GL,CURR_DSG,CURR_DEPT,CURR_APPT,HOUSED
@14,5 SAY " "
D     I     S     P     L     A     Y
HOUSE_TYPE,DAT_HOUSED,HOME_ADD,STATE_CODE,LGA_CODE
@18,2 SAY " "
@20,15 SAY "ANY MORE ENQUIRY  <Y/N>"
@20,39 GET MOPT PICT '!'
READ
IF MOPT=UPPER('Y')
LOOP
ELSE
CLOSE ALL
CLEA
RETU
ENDI
ENDI
ENDD
*************************************************************************
******************************
PROCEDUR ENQ_KIN
SET BORDER TO CHR(5)
SET TALK OFF
SET STATUS OFF
DO WHIL .T.
CLEA
MTPNO=0
MOPT=SPACE(1)
@2,20 SAY "WELCOME TO EMPLOYEE NEXT OF KIN RECORD ENQUIRY"
@3,1 TO 3,78 COLO G+*
@20,2 FILL TO 23,77 COLO W+/G
@6,15 SAY "ENTER EMPLOYEE FILE NO. :"
@6,42 GET MTPNO PICT '999999'
READ
IF MTPNO=0
CLOSE ALL
```

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```
CLEA
RETU
ENDI
SELE 1
USE RELATIVE
LOCATE FOR MTPNO=TPNO WHIL .NOT. EOF(1)
IF .NOT. FOUND()
@20,20 SAY "EMPLOYEE DOES NOT EXIST !!!"
WAIT '                    PRESS SPACEBAR'
LOOP
ELSE
@8,5 SAY " "
DISPLAY TPNO,SURNAME,FIRSTNAME, LASTNAME,ADDRESS
@10,5 SAY " "
DISPLAY RELATNSHIP,BIRTHDATE
@18,2 SAY " "
@20,15 SAY "ANY MORE ENQUIRY  < Y/N >"
@20,39 GET MOPT PICT '!'
READ
IF MOPT=UPPER('Y')
LOOP
ELSE
CLOSE ALL
CLEA
RETU
ENDI
ENDI
ENDD
************************************************************
********************
PROCEDUR ENQ_HIST
SET BORDER TO CHR(3)
SET TALK OFF
SET STATUS OFF
DO WHIL .T.
CLEA
MDATE_END=CTOD(' / / ')
MOPT=SPACE(1)
@2,17 SAY "WELCOME TO EMPLOYEE EDUCATION HISTORY  RECORD
ENQUIRY"
@3,1 TO 3,78 COLO G+*
@20,2 FILL TO 23,77 COLO W+/G
@6,15 SAY "ENTER DATE COMPLETED SCHOOL:"
@6,44 GET MDATE_END
READ
IF MDATE_END=CTOD(' / / ')
CLOSE ALL
CLEA
```

```
RETU
ENDI
SELE 1
USE ED_HIST
LOCATE FOR MDATE_END=DATE_END WHIL .NOT. EOF(1)
IF .NOT. FOUND()
@17,20 SAY "EMPLOYEE DOES NOT EXIST !!!"
WAIT '                    PRESS SPACEBAR'
LOOP
ELSE
@8,5 SAY " "
DISPLAY TPNO,SCH_ATTD,DATE_BEGIN,DATE_END,AMT_PAID
@10,5 SAY " "
DISPLAY SPONSOR,APPROVE_BY,FILE_PAGE
@18,2 SAY " "
@19,15 SAY "ANY MORE ENQUIRY   < Y/N > "
@19,39 GET MOPT PICT '!'
READ
IF MOPT=UPPER('Y')
LOOP
ELSE
CLOSE ALL
CLEA
RETU
ENDI
ENDI
ENDD
************************************************************
***********************

PROCEDUR ENQ_COMM
SET BORDER TO CHR(4)
SET TALK OFF
SET STATUS OFF
DO WHIL .T.
CLEA
MTPNO=0
MOPT=SPACE(1)
@2,17 SAY "WELCOME TO EMPLOYEE COMMENDATION   RECORD
ENQUIRY"
@3,1 TO 3,78 COLO G+*
@20,2 FILL TO 23,77 COLO W+/G
@6,15 SAY "ENTER EMPLOYEE FILE NO. :"
@6,42 GET MTPNO PICT '999999'
READ
IF MTPNO=0
CLOSE ALL
CLEA
```

```
RETU
ENDI
SELE 1
USE COMMENT
LOCATE FOR MTPNO=TPNO WHIL .NOT. EOF(1)
IF .NOT. FOUND()
@20,20 SAY "EMPLOYEE DOES NOT EXIST !!!"
WAIT '                    PRESS SPACEBAR'
LOOP
ELSE
@8,5 SAY " "
DISPLAY TPNO,DATE,AWARD,COMMENT
@10,5 SAY " "
DISPLAY BY_WHOM,FILE_PAGE
@18,2 SAY " "
@20,15 SAY "ANY MORE ENQUIRY  < Y/N >"
@20,39 GET MOPT PICT '!'
READ
IF MOPT=UPPER('Y')
LOOP
ELSE
CLOSE ALL
CLEA
RETU
ENDI
ENDI
ENDD
*********************************************************************
***************************
PROCEDUR ENQ_DISC
SET BORDER TO CHR(176)
SET TALK OFF
SET STATUS OFF
DO WHIL .T.
CLEA
MTPNO=0
MOPT=SPACE(1)
@2,17 SAY "WELCOME TO EMPLOYEE DISCIPLINARY RECORD ENQUIRY"
@3,1 TO 3,78 COLO G+*
@20,2 FILL TO 23,77 COLO W+/G
@6,15 SAY "ENTER EMPLOYEE FILE NO. :"
@6,42 GET MTPNO PICT '999999'
READ
IF MTPNO=0
CLOSE ALL
CLEA
RETU
ENDI
```

```
SELE 1
USE DISC
LOCATE FOR MTPNO=TPNO WHIL .NOT. EOF(1)
IF .NOT. FOUND()
@20,20 SAY "EMPLOYEE DOES NOT EXIST !!!"
WAIT '                    PRESS SPACEBAR'
LOOP
ELSE
@8,5 SAY " "
DISPLAY TPNO,DATE,OFFENCE,COMMENT
@10,5 SAY " "
DISPLAY BY_WHOM,FILE_PAGE
@18,2 SAY " "
@20,15 SAY "ANY MORE ENQUIRY  < Y/N > "
@20,39 GET MOPT PICT '!'
READ
IF MOPT=UPPER('Y')
LOOP
ELSE
CLOSE ALL
CLEA
RETU
ENDI
ENDI
ENDD
********************************************************************
*******************************************************
PROCEDUR ENQ_CAR
SET BORDER TO CHR(177)
SET TALK OFF
SET STATUS OFF
DO WHIL .T.
CLEA
MTPNO=0
MOPT=SPACE(1)
@2,17 SAY "WELCOME TO EMPLOYEE CAREER RECORD ENQUIRY"
@3,1 TO 3,78 COLO G+*
@20,2 FILL TO 23,77 COLO W+/G
@6,15 SAY "ENTER EMPLOYEE FILE NO. :"
@6,42 GET MTPNO PICT '999999'
READ
IF MTPNO=0
CLOSE ALL
CLEA
RETU
ENDI
SELE 1
USE CAREER
```

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```
LOCATE FOR MTPNO=TPNO WHIL .NOT. EOF(1)
IF .NOT. FOUND()
@20,20 SAY "EMPLOYEE DOES NOT EXIST !!!"
WAIT '                    PRESS SPACEBAR'
LOOP
ELSE
@8,5 SAY " "
DISPLAY TPNO,DATE,PRE_DSG,NEW_DSG,PRE_GL,NEW_GL
@10,5 SAY " "
DISPLAY PRE_DEPT,NEW_DEPT,REASON
@18,2 SAY " "
@20,15 SAY "ANY MORE ENQUIRY  < Y/N >"
@20,39 GET MOPT PICT '!'
READ
IF MOPT=UPPER('Y')
LOOP
ELSE
CLOSE ALL
CLEA
RETU
ENDI
ENDI
ENDD
PROCEDUR ENQ_LEAV
SET BORDER TO CHR(178)
SET TALK OFF
SET STATUS OFF
DO WHIL .T.
CLEA
MDATE=CTOD(' / / ')
MOPT=SPACE(1)
@2,17 SAY "WELCOME TO EMPLOYEE VACATION LEAVE RECORD
ENQUIRY"
@3,1 TO 3,78 COLO G+*
@20,2 FILL TO 23,77 COLO W+/G
@6,15 SAY "ENTER DATE LEAVE COMMENCE. :"
@6,44 GET MDATE
READ
IF MDATE=CTOD(' / / ')
CLOSE ALL
CLEA
RETU
ENDI
SELE 1
USE LEAVE
LOCATE FOR MDATE=DATE_BEGIN WHIL .NOT. EOF(1)
IF .NOT. FOUND()
@20,20 SAY "NO LEAVE APPROVED ON SUCH DATE !!!"
```

```
WAIT '                    PRESS SPACEBAR'
LOOP
ELSE
@8,5 SAY " "
DISPLAY TPNO,TYPE,DATE_BEGIN,DATE_END,APROVE_BY,FILE_PAGE
*@10,5 SAY " "
*DISPLAY PRE_DEPT,NEW_DEPT,REASON
@18,2 SAY " "
@20,15 SAY "ANY MORE ENQUIRY  < Y/N > "
@20,39 GET MOPT PICT '!'
READ
IF MOPT=UPPER('Y')
LOOP
ELSE
CLOSE ALL
CLEA
RETU
ENDI
ENDI
ENDD
******************************************************************
****************************
PROCEDUR ENQ_RTD
SET BORDER TO CHR(3)
SET TALK OFF
SET STATUS OFF
DO WHIL .T.
CLEA
MTPNO=0
MOPT=SPACE(1)
@2,17 SAY "WELCOME  TO  TERMINATION  OF  SERVICE  RECORD
ENQUIRY"
@3,1 TO 3,78 COLO G+*
@20,2 FILL TO 23,77 COLO W+/G
@6,15 SAY "ENTER EMPLOYEE FILE NO. :"
@6,42 GET MTPNO PICT '999999'
READ
IF MTPNO=0
CLOSE ALL
CLEA
RETU
ENDI
SELE 1
USE RETIRE
LOCATE FOR MTPNO=TPNO WHIL .NOT. EOF(1)
IF .NOT. FOUND()
@20,20 SAY "EMPLOYEE DOES NOT EXIST !!!"
WAIT '                    PRESS SPACEBAR'
```

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```
LOOP
ELSE
@8,5 SAY " "
DISPLAY TPNO,DATE_RTD,GRATUITY,PENSION,MODE,YRS_SERVED
@18,2 SAY " "
@20,15 SAY "ANY MORE ENQUIRY  < Y/N >"
@20,39 GET MOPT PICT '!'
READ
IF MOPT=UPPER('Y')
LOOP
ELSE
CLOSE ALL
CLEA
RETU
ENDI
ENDI
ENDD
*************************************************************
********************
PROCEDURE PRO_EDIT
SET BORDER TO CHR(178)
DO WHILE .T.
CLEA
@2,25 SAY "WELCOME TO EDITING RECORD  SUB_MENU"
@3,1 TO 3,78  COLO RB+"
@4,2 TO 24,2
@4,77 TO 24,77 COLO RB+
DEFI POPUP P4 FROM 4,20 TO 22,60
DEFI BAR 1 OF P4 PROMPT 'EDIT PERSONAL RECORD' MESSAGE
'EMPLOYEE PERSONAL RECORD EDITING'
DEFI BAR 2 OF P4 PROMPT REPLICATE(CHR(196),40) SKIP
DEFI BAR 3 OF P4 PROMPT 'NEXT OF KIN RECORD EDITING' MESSAGE
'EDIT NEXT OF KIN RECORD'
DEFI BAR 4 OF P4 PROMPT REPLICATE(CHR(196),40) SKIP
DEFI BAR 5 OF P4 PROMPT 'EDIT RECORD OF EDUCATION HISTORY'
MESSAGE 'EMPLOYEE EDUCATION BACKGROUND EDITING'
DEFI BAR 6 OF P4 PROMPT REPLICATE(CHR(196),40) SKIP
DEFI BAR 7 OF P4 PROMPT 'EDIT  COMMENDATION' MESSAGE 'EDITING
. RECORD OF COMMENDATION'
DEFI BAR 8 OF P4 PROMPT REPLICATE(CHR(196),40) SKIP
DEFI BAR 9 OF P4 PROMPT 'EDIT DISCIPLINARY RECORD' MESSAGE
'EDITING EMPLOYEE RECORD OF DISCIPLINE'
DEFI BAR 10 OF P4 PROMPT REPLICATE(CHR(196),40) SKIP
DEFI BAR 11 OF P4 PROMPT 'EDIT CAREER PROGRESSION' MESSAGE
'EDITING EMPLOYEE CAREER PROGRESS'
DEFI BAR 12 OF P4 PROMPT REPLICATE(CHR(196),40) SKIP
DEFI BAR 13 OF P4 PROMPT 'EDIT LEAVE RECORD' MESSAGE
'EMPLOYEE LEAVE RECORD EDITING'
```

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```
DEFI BAR 14 OF P4 PROMPT REPLICATE(CHR(196),40) SKIP
DEFI BAR 15 OF P4 PROMPT 'EDIT TERMINATION RECORD' MESSAGE
'TERMINATION OF SERVICE EDITING'
DEFI BAR 16 OF P4 PROMPT REPLICATE(CHR(196),40) SKIP
DEFI BAR 17 OF P4 PROMPT 'RETURN TO MAIN MENU' MESSAGE 'EXIT
TO SYSTEM MAIN MENU'
DEFI BAR 18 OF P4 PROMPT REPLICATE(CHR(196),40) SKIP
DEFI BAR 19 OF P4 PROMPT 'EXIT TO DOT' MESSAGE ' RETURN TO
DBASE IV DOT PROMPT'
DEFI BAR 20 OF P4 PROMPT REPLICATE(CHR(196),40) SKIP
DEFI BAR 21 OF P4 PROMPT 'QUIT TO DOS' MESSAGE 'END DBASE IV TO
DOS PROMPT'
ON SELE POPUP P4 DEAC POPUP
ACTI POPUP P4
DO CASE
CASE BAR()=1
SAVE SCRE TO MK
DO EDIT_PER
REST SCRE FROM MK
CASE BAR()=3
SAVE SCRE TO MK
DO EDIT_KIN
REST SCRE FROM MK
CASE BAR()=5
SAVE SCRE TO MK
DO EDIT_HIS
REST SCRE FROM MK
CASE BAR()=7
SAVE SCRE TO MK
DO EDIT_COM
REST SCRE FROM MK
CASE BAR()=9
SAVE SCRE TO MK
DO EDIT_DIS
REST SCRE FROM MK
CASE BAR()=11
SAVE SCRE TO MK
DO EDIT_CAR
REST SCRE FROM MK
CASE BAR()=13
SAVE SCRE TO MK
DO EDIT_LEA
REST SCRE FROM MK
CASE BAR()=15
SAVE SCRE TO MK
DO EDIT_RTD
REST SCRE FROM MK
CASE BAR()=17
```

```
SAVE SCRE TO MK
CLEA
RETU
REST SCRE FROM MK
CASE BAR()=19
CLEAR
CANCEL
CASE BAR()=21
CLEA
QUIT
ENDC
ENDD
**************************************************************
****************
PROCEDURE EDIT_PER
SET ESCAP OFF
SET TALK OFF
SET STATUS OFF
SET BORDER TO CHR(6)
DO WHIL .T.
CLEA
MTPNO=0
@2,20 SAY "WELCOME TO PERSONAL RECORD EDITING"
@3,1 TO 3,78 COLO BR+*
@19,3 FILL TO 23,75 COLO W+/G
@5,11 SAY "PRESS ESCAPE AFTER EDITING"+SPACE(15)+"PRESS
"+CHR(17)+CHR(217)+" TO EXIT"  COLO R+
@6,15 TO 15,65 COLO G/B
@8,17 SAY "ENTER EMPLOYEE FILE NUMBER:"
@8,44 GET MTPNO PICT '999999'
READ
IF MTPNO=0
CLOSE ALL
CLEA
RETU
ENDI
SELE 1
USE PERSONAL
LOCATE FOR TPNO=MTPNO
IF .NOT. FOUND()
@17,20 SAY "EMPLOYEE NOT FOUND !!!"
WAIT '                    PRESS SPACEBAR'
LOOP
ELSE
EDIT NOAPPEND NODELETE
ENDI
ENDD
**************************************************************
```

```
**********************

PROCEDURE EDIT_KIN
SET ESCAP OFF
SET TALK OFF
SET STATUS OFF
SET BORDER TO CHR(6)
DO WHIL .T.
CLEA
MTPNO=0
@2,20 SAY "WELCOME TO NEXT OF KIN RECORD EDITING"
@3,1 TO 3,78 COLO BR+*
@19,3 FILL TO 23,75 COLO W+/G
@5,11 SAY "PRESS ESCAPE AFTER EDITING"+SPACE(15)+"PRESS
"+CHR(17)+CHR(217)+" TO EXIT"  COLO R+
@6,15 TO 15,65 COLO G/B
@8,17 SAY "ENTER EMPLOYEE FILE NUMBER:"
@8,44 GET MTPNO PICT '999999'
READ
IF MTPNO=0
CLOSE ALL
CLEA
RETU
ENDI
SELE 1
USE RELATIVE
LOCATE FOR TPNO=MTPNO
IF .NOT. FOUND()
@17,20 SAY "NEXT OF KIN NOT FOUND !!!"
WAIT '                    PRESS SPACEBAR'
LOOP
ELSE
EDIT NOAPPEND NODELETE
ENDI
ENDD
PROCEDURE EDIT_HIS
SET ESCAP OFF
SET TALK OFF
SET STATUS OFF
SET BORDER TO CHR(6)
DO WHIL .T.
CLEA
MDATE=CTOD(' / / ')
@2,20 SAY "EDUCATION HISTORY RECORD EDITING"
@3,1 TO 3,78 COLO BR+*
@19,3 FILL TO 23,75 COLO W+/G
@5,11 SAY "PRESS ESCAPE AFTER EDITING"+SPACE(15)+"PRESS
"+CHR(17)+CHR(217)+" TO EXIT"  COLO R+
```

```
@6,15 TO 15,65 COLO G/B
@8,17 SAY "ENTER DATE COMPLETED SCH.:"
@8,44 GET MDATE
READ
IF MDATE=CTOD(' / / ')
CLOSE ALL
CLEA
RETU
ENDI
SELE 1
USE ED_HIST
LOCATE FOR DATE_END=MDATE
IF .NOT. FOUND()
@17,20 SAY "RECORD NOT FOUND !!!"
WAIT '                        PRESS SPACEBAR'
LOOP
ELSE
EDIT NOAPPEND NODELETE
ENDI
ENDD
PROCEDURE EDIT_COM
SET ESCAP OFF
SET TALK OFF
SET STATUS OFF
SET BORDER TO CHR(6)
DO WHIL .T.
CLEA
MDATE=CTOD(' / / ')
@2,20 SAY "CENSURES & COMMENDATION RECORD EDITING"
@3,1 TO 3,78 COLO BR+"
@19,3 FILL TO 23,75 COLO W+/G
@5,11 SAY "PRESS ESCAPE AFTER EDITING"+SPACE(15)+"PRESS
"+CHR(17)+CHR(217)+" TO EXIT"  COLO R+
@6,15 TO 15,65 COLO G/B
@8,17 SAY "ENTER DATE COMMENT MADE:"
@8,43 GET MDATE
READ
IF MDATE=CTOD(' / / ')
CLOSE ALL
CLEA
RETU
ENDI
SELE 1
USE COMMENT
LOCATE FOR DATE=MDATE
IF .NOT. FOUND()
@17,20 SAY "RECORD NOT FOUND !!!"
WAIT '                        PRESS SPACEBAR'
```

```
LOOP
ELSE
EDIT NOAPPEND NODELETE
ENDI
ENDD
PROCEDURE EDIT_DIS
SET ESCAP OFF
SET TALK OFF
SET STATUS OFF
SET BORDER TO CHR(6)
DO WHIL .T.
CLEA
MDATE=CTOD(' / / ')
MTPNO=0
@2,20 SAY "EMPLOYEE DISCIPLINARY RECORD EDITING"
@3,1 TO 3,78 COLO BR+*
@19,3 FILL TO 23,75 COLO W+/G
@5,11 SAY "PRESS ESCAPE AFTER EDITING"+SPACE(15)+"PRESS
"+CHR(17)+CHR(217)+" TO EXIT" COLO R+
@6,15 TO 15,65 COLO G/B
@8,17 SAY "ENTER DATE DISCIPLINED:"
@8,43 GET MDATE
READ
IF MDATE=CTOD(' / / ')
CLOSE ALL
CLEA
RETU
ENDI
SELE 1
USE DISC
LOCATE FOR DATE=MDATE
IF .NOT. FOUND()
@17,20 SAY "RECORD NOT FOUND  !!!"
WAIT '                    PRESS SPACEBAR'
LOOP
ELSE
EDIT NOAPPEND NODELETE
ENDI
ENDD
PROCEDURE EDIT_CAR
SET ESCAP OFF
SET TALK OFF
SET STATUS OFF
SET BORDER TO CHR(6)
DO WHIL .T.
CLEA
MTPNO=0
@2,20 SAY "EMPLOYEE CAREER RECORD EDITING"
```

```
@3,1 TO 3,78 COLO BR+*
@19,3 FILL TO 23,75 COLO W+/G
@5,11  SAY  "PRESS  ESCAPE  AFTER  EDITING"+SPACE(15)+"PRESS
"+CHR(17)+CHR(217)+" TO EXIT"  COLO R+
@6,15 TO 15,65 COLO G/B
@8,17 SAY "ENTER FILE NUMBER:"
@8,43 GET MTPNO PICT '999999'
READ
IF MTPNO=0
CLOSE ALL
CLEA
RETU
ENDI
SELE 1
USE  CAREER
LOCATE FOR TPNO=MTPNO
IF .NOT. FOUND()
@17,20 SAY "RECORD NOT FOUND  !!!"
WAIT '                     PRESS SPACEBAR'
LOOP
ELSE
EDIT NOAPPEND NODELETE
ENDI
ENDD
PROCEDURE EDIT_RTD
SET ESCAP OFF
SET TALK OFF
SET STATUS OFF
SET BORDER TO CHR(6)
DO WHIL .T.
CLEA
MTPNO=0
@2,20 SAY "WELCOME TO TERMINATION RECORD EDITING"
@3,1 TO 3,78 COLO BR+*
@19,3 FILL TO 23,75 COLO W+/G
@5,11  SAY  "PRESS  ESCAPE  AFTER  EDITING"+SPACE(15)+"PRESS
"+CHR(17)+CHR(217)+" TO EXIT"  COLO R+
@6,15 TO 15,65 COLO G/B
@8,17 SAY "ENTER EMPLOYEE FILE NUMBER:"
@8,44 GET MTPNO PICT '999999'
READ
IF MTPNO=0
CLOSE ALL
CLEA
RETU
ENDI
SELE 1
USE RETIRE
```

```
LOCATE FOR TPNO=MTPNO
IF .NOT. FOUND()
@17,20 SAY "RECORD NOT FOUND !!!"
WAIT '                        PRESS SPACEBAR'
LOOP
ELSE
EDIT NOAPPEND NODELETE
ENDI
ENDD
PROCEDURE PRO_DEL
SET BORDER TO CHR(178)
DO WHILE .T.
CLEA
@2,22 SAY "WELCOME TO DELETING RECORD  SUB_MENU"
@3,1 TO 3,78  COLO RB+*
@4,2 TO 24,2
@4,77 TO 24,77 COLO RB+
DEFI POPUP P5 FROM 5,20 TO 21,60
DEFI BAR 1 OF P5 PROMPT 'DELETE PERSONAL RECORD' MESSAGE
'DELETE EMPLOYEE PERSONAL RECORD '
DEFI BAR 2 OF P5 PROMPT REPLICATE(CHR(196),40) SKIP
DEFI BAR 3 OF P5 PROMPT 'DELETE NEXT OF KIN RECORD ' MESSAGE
' NEXT OF KIN RECORD DELETION'
DEFI BAR 4 OF P5 PROMPT REPLICATE(CHR(196),40) SKIP
DEFI BAR 5 OF P5 PROMPT 'DELETE RECORD OF EDUCATION HISTORY'
MESSAGE 'DELETE EDUCATION HISTORY'
DEFI BAR 6 OF P5 PROMPT REPLICATE(CHR(196),40) SKIP
DEFI BAR 7 OF P5 PROMPT 'DELETE  COMMENDATION' MESSAGE
'DELETE COMMENDATION RECORD'
DEFI BAR 8 OF P5 PROMPT REPLICATE(CHR(196),40) SKIP
DEFI BAR 9 OF P5 PROMPT 'DELETE DISCIPLINARY RECORD' MESSAGE
'DELETE DISCIPLINE RECORD'
DEFI BAR 10 OF P5 PROMPT REPLICATE(CHR(196),40) SKIP
DEFI BAR 11 OF P5 PROMPT 'DELETE CAREER PROGRESSION' MESSAGE
'DELETE CAREER RECORD'
DEFI BAR 12 OF P5 PROMPT REPLICATE(CHR(196),40) SKIP
DEFI BAR 13 OF P5 PROMPT 'DELETE LEAVE RECORD' MESSAGE
'DELETE LEAVE RECORD'
DEFI BAR 14 OF P5 PROMPT REPLICATE(CHR(196),40) SKIP
DEFI BAR 15 OF P5 PROMPT 'DELETE TERMINATION RECORD' MESSAGE
'TERMINATION RECORD DELETION'
DEFI BAR 16 OF P5 PROMPT REPLICATE(CHR(196),40) SKIP
DEFI BAR 17 OF P5 PROMPT 'RETURN TO MAIN MENU' MESSAGE 'EXIT
TO SYSTEM MAIN MENU'
DEFI BAR 18 OF P5 PROMPT REPLICATE(CHR(196),40) SKIP
DEFI BAR 19 OF P5 PROMPT 'EXIT TO DOT' MESSAGE ' RETURN TO
DBASE IV DOT PROMPT'
DEFI BAR 20 OF P5 PROMPT REPLICATE(CHR(196),40) SKIP
```

```
DEFI BAR 21 OF P5 PROMPT 'QUIT TO DOS' MESSAGE 'END DBASE IV TO
DOS PROMPT'
ON SELE POPUP P5 DEAC POPUP
ACTI POPUP P5
DO CASE
CASE BAR()=1
SAVE SCRE TO MK
DO DEL_PER
REST SCRE FROM MK
CASE BAR()=3
SAVE SCRE TO MK
DO DEL_KIN
REST SCRE FROM MK
CASE BAR()=5
SAVE SCRE TO MK
DO DEL_HIS
REST SCRE FROM MK
CASE BAR()=7
SAVE SCRE TO MK
DO DEL_COM
REST SCRE FROM MK
CASE BAR()=9
SAVE SCRE TO MK
DO DEL_DIS
REST SCRE FROM MK
CASE BAR()=11
SAVE SCRE TO MK
DO DEL_CAR
REST SCRE FROM MK
CASE BAR()=13
SAVE SCRE TO MK
DO DEL_LEA
REST SCRE FROM MK
CASE BAR()=15
SAVE SCRE TO MK
DO DEL_RTD
REST SCRE FROM MK
CASE BAR()=17
SAVE SCRE TO MK
CLEA
RETU
REST SCRE FROM MK
CASE BAR()=19
CLEAR
CANCEL
CASE BAR()=21
CLEA
QUIT
```

```
ENDC
ENDD
*********************************************************************************
*****************************************
PROCEDURE DEL_PER
SET TALK OFF
SET BORDER TO CHR(176)
SET STATUS OFF
DO WHILE .T.
CLEA
MTPNO=0
MOPT=SPACE(1)
@2,20 SAY " DELETE PERSONAL RECORD"
@3,1 TO 3,78 COLO BR+*
@5,35 SAY "PRESS "+CHR(17)+CHR(217)+" TO EXIT"
@6,10 TO 15,65 COLO W/G+
@8,13 SAY "ENTER FILE NUMBER TO DELETE:"
@8,43 GET MTPNO PICT '999999'
READ
IF MTPNO=0
CLOSE ALL
CLEA
RETU
ENDI
SELE 1
USE PERSONAL
LOCATE FOR MTPNO=TPNO
IF .NOT. FOUND()
@20,20 SAY "RECORD NOT FOUND !!!"
WAIT '                    PRESS SPACEBAR'
LOOP
ELSE
DELETE   && FOR MTPNO=TPNO
IF DELETED()
@14,13 SAY "DELETE RECORD < Y/N >"
@14,33 GET MOPT PICT '!'
READ
IF MOPT=UPPER('Y')
PACK
ELSE
LOOP
ENDI
ENDI
ENDI
ENDD


*********************************************************************************
*************************************
```

```
PROCEDURE DEL_KIN
SET TALK OFF
SET BORDER TO CHR(176)
SET STATUS OFF
DO WHILE .T.
CLEA
MTPNO=0
MOPT=SPACE(1)
@2,20 SAY " DELETE NEXT OF KIN RECORD"
@3,1 TO 3,78 COLO BR+"
@5,35 SAY "PRESS "+CHR(17)+CHR(217)+" TO EXIT"
@6,10 TO 15,65 COLO W/G+
@8,13 SAY "ENTER FILE NUMBER TO DELETE:"
@8,43 GET MTPNO PICT '999999'
READ
IF MTPNO=0
CLOSE ALL
CLEA
RETU
ENDI
SELE 1
USE RELATIVE
LOCATE FOR MTPNO=TPNO
IF .NOT. FOUND()
@20,20 SAY "RECORD NOT FOUND !!!"
WAIT '                    PRESS SPACEBAR'
LOOP
ELSE
DELETE   && FOR MTPNO=TPNO
IF DELETED()
@14,13 SAY "DELETE RECORD < Y/N >"
@14,33 GET MOPT PICT '!'
READ
IF MOPT=UPPER('Y')
PACK
ELSE
LOOP
ENDI
ENDI
ENDI
ENDD
********************************************************************
*******************************************
PROCEDURE DEL_HIS
SET TALK OFF
SET BORDER TO CHR(176)
SET STATUS OFF
DO WHILE .T.
```

102

```
CLEA
MTPNO=0
MOPT=SPACE(1)
@2,20 SAY " DELETE EDUCATION HISTORY  RECORD"
@3,1 TO 3,78 COLO BR+*
@5,35 SAY "PRESS "+CHR(17)+CHR(217)+" TO EXIT"
@6,10 TO 15,65 COLO W/G+
@8,13 SAY "ENTER FILE NUMBER TO DELETE:"
@8,43 GET MTPNO PICT '999999'
READ
IF MTPNO=0
CLOSE ALL
CLEA
RETU
ENDI
SELE 1
USE ED_HIST
LOCATE FOR MTPNO=TPNO
IF .NOT. FOUND()
@20,20 SAY "RECORD NOT FOUND !!!"
WAIT '                    PRESS SPACEBAR'
LOOP
ELSE
DELETE   && FOR MTPNO=TPNO
IF DELETED()
@14,13 SAY "DELETE RECORD < Y/N >"
@14,33 GET MOPT PICT '!'
READ
IF MOPT=UPPER('Y')
PACK
ELSE
LOOP
ENDI
ENDI
ENDI
ENDD
*********************************************************************
************************************
PROCEDURE DEL_COM
SET TALK OFF
SET BORDER TO CHR(176)
SET STATUS OFF
DO WHILE .T.
CLEA
MTPNO=0
MOPT=SPACE(1)
@2,20 SAY " DELETE CENSURES AND COMMENDATION  RECORD"
@3,1 TO 3,78 COLO BR+*
```

103

```
@5,35 SAY "PRESS "+CHR(17)+CHR(217)+" TO EXIT"
@6,10 TO 15,65 COLO W/G+
@8,13 SAY "ENTER FILE NUMBER TO DELETE:"
@8,43 GET MTPNO PICT '999999'
READ
IF MTPNO=0
CLOSE ALL
CLEA
RETU
ENDI
SELE 1
USE COMMENT
LOCATE FOR MTPNO=TPNO
IF .NOT. FOUND()
@20,20 SAY "RECORD NOT FOUND !!!"
WAIT '                    PRESS SPACEBAR'
LOOP
ELSE
DELETE    && FOR MTPNO=TPNO
IF DELETED()
@14,13 SAY "DELETE RECORD  < Y/N >"
@14,33 GET MOPT PICT '!'
READ
IF MOPT=UPPER('Y')
PACK
ELSE
LOOP
ENDI
ENDI
ENDI
ENDD
*********************************************************************
******************************************
PROCEDURE DEL_DIS
SET TALK OFF        .
SET BORDER TO CHR(176)
SET STATUS OFF
DO WHILE .T.
CLEA
MTPNO=0
MOPT=SPACE(1)
@2,20 SAY " DELETE DISCIPLINARY  RECORD"
@3,1 TO 3,78 COLO BR+*
@5,35 SAY "PRESS "+CHR(17)+CHR(217)+" TO EXIT"
@6,10 TO 15,65 COLO W/G+
@8,13 SAY "ENTER FILE NUMBER TO DELETE:"
@8,43 GET MTPNO PICT '999999'
READ
```

104

```
IF MTPNO=0
CLOSE ALL
CLEA
RETU
ENDI
SELE 1
USE DISC
LOCATE FOR MTPNO=TPNO
IF .NOT. FOUND()
@20,20 SAY "RECORD NOT FOUND !!!"
WAIT '                    PRESS SPACEBAR'
LOOP
ELSE
DELETE   && FOR MTPNO=TPNO
IF DELETED()
@14,13 SAY "DELETE RECORD < Y/N >"
@14,33 GET MOPT PICT '!'
READ
IF MOPT=UPPER('Y')
PACK
ELSE
LOOP
ENDI
ENDI
ENDI
ENDD
**********************************************************************
***********************************
PROCEDURE DEL_CAR
SET TALK OFF
SET BORDER TO CHR(176)
SET STATUS OFF
DO WHILE .T.
CLEA
MTPNO=0
MOPT=SPACE(1)
@2,20 SAY " DELETE CAREER  RECORD"
@3,1 TO 3,78 COLO BR+*
@5,35 SAY "PRESS "+CHR(17)+CHR(217)+" TO EXIT"
@6,10 TO 15,65 COLO W/G+
@8,13 SAY "ENTER FILE NUMBER TO DELETE:"
@8,43 GET MTPNO PICT '999999'
READ
IF MTPNO=0
CLOSE ALL
CLEA
RETU
ENDI
```

```
SELE 1
USE CAREER
LOCATE FOR MTPNO=TPNO
IF .NOT. FOUND()
@20,20 SAY "RECORD NOT FOUND !!!"
WAIT '                    PRESS SPACEBAR'
LOOP
ELSE
DELETE   && FOR MTPNO=TPNO
IF DELETED()
@14,13 SAY "DELETE RECORD < Y/N >"
@14,33 GET MOPT PICT '!'
READ
IF MOPT=UPPER('Y')
PACK
ELSE
LOOP
ENDI
ENDI
ENDI
ENDD
*****x.**********************************************************
**************************************
PROCEDURE DEL_LEA
SET TALK OFF
SET BORDER TO CHR(176)
SET STATUS OFF
DO WHILE .T.
CLEA
MTPNO=0
MOPT=SPACE(1)
@2,20 SAY " DELETE LEAVE  RECORD"
@3,1 TO 3,78 COLO BR+*
@5,35 SAY "PRESS "+CHR(17)+CHR(217)+" TO EXIT"
@6,10 TO 15,65 COLO W/G+
@8,13 SAY "ENTER FILE NUMBER TO DELETE:"
@8,43 GET MTPNO PICT '999999'
READ
IF MTPNO=0
CLOSE ALL
CLEA
RETU
ENDI
SELE 1
USE LEAVE
LOCATE FOR MTPNO=TPNO
IF .NOT. FOUND()
@20,20 SAY "RECORD NOT FOUND !!!"
```

106

```
WAIT '                    PRESS SPACEBAR'
LOOP
ELSE
DELETE   && FOR MTPNO=TPNO
IF DELETED()
@14,13 SAY "DELETE RECORD < Y/N>"
@14,33 GET MOPT PICT '!'
READ
IF MOPT=UPPER('Y')
PACK
ELSE
LOOP
ENDI
ENDI
ENDI
ENDD
************************************************************
*********************************
PROCEDURE DEL_RTD
SET TALK OFF
SET BORDER TO CHR(176)
SET STATUS OFF
DO WHILE .T.
CLEA
MTPNO=0
MOPT=SPACE(1)
@2,20 SAY " DELETE TERMINATION  RECORD"
@3,1 TO 3,78 COLO BR+"
@5,35 SAY "PRESS "+CHR(17)+CHR(217)+" TO EXIT"
@6,10 TO 15,65 COLO W/G+
@8,13 SAY "ENTER FILE NUMBER TO DELETE:"
@8,43 GET MTPNO PICT '999999'
READ
IF MTPNO=0
CLOSE ALL
CLEA
RETU
ENDI
SELE 1
USE RETIRE
LOCATE FOR MTPNO=TPNO
IF .NOT. FOUND()
@20,20 SAY "RECORD NOT FOUND !!!"
WAIT '                    PRESS SPACEBAR'
LOOP
ELSE
DELETE   && FOR MTPNO=TPNO
IF DELETED()
```

107

```
@14,13 SAY "DELETE RECORD < Y/N > "
@14,33 GET MOPT PICT '!'
READ
IF MOPT=UPPER('Y')
PACK
ELSE
LOOP
ENDI
ENDI
ENDI
ENDD
**********************************************************************
*************************
PROCEDURE REPORT
SET TALK OFF
SET STATUS OFF
SET SAFE OFF
CLOSE ALL
CLOSE INDEX
SELE 1
USE PERSONAL
INDEX ON TPNO TO PERSONAL
STORE 0 TO PGNO,LINE
CLEA
SET PRINT TO FILE REPORT
SET PRINT ON
? CHR(15)
SELE 1
DO WHIL .NOT. EOF(1)
IF LINE=0 .OR. LINE > 55
IF LINE > 0
EJECT
ENDI
PGNO=PGNO+1
? SPACE(35)+'PAGE: '+STR(PGNO)+SPACE(20)+DTOC(DATE())
?
? SPACE(20) + 'FEDERAL MINISTRY OF COMMERCE AND TOURISM ABUJA'
?
SPACE(20) + ' = = = = = = = = = = = = = = = = = = = = = = = = = = = = = =
= = = = = = = = = = = = = = = ='
? SPACE(30) + 'STAFF NOMINAL ROLE'
? SPACE(30) + ' = = = = = = = = = = = = = = = = = = ='
?
?
SPACE(5) + ' = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = =
= = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = = =
= = = = = = = = = = = = = = = = ='
?                                                                        ?
```

```
'================================================
===============================================
==============='
?  SPACE(6)+'FILE_NO'+SPACE(3)+'EMPLOYEE
NAME'+SPACE(15)+'DATE  OF  FIRST
APPOINTMENT'+SPACE(2)+'FIRST_GL'+SPACE(2)+'FIRST
DESIGNATION'+SPACE(8)
??  'CURRENT  DESIGNATION'+SPACE(3)+'CURRENT
APPT.DATE'+SPACE(2)+'CURRENT_GL'+SPACE(2)+'CURRENT
DEPARTMENT'
?
SPACE(5)+'=============================
===============================================
===============================================
============================'
?                                              ?
'================================================
====='
LINE=20
ENDI
LINE=LINE+1
MNAME=TRIM(SURNAME)+SPACE(1)+TRIM(FIRSTNAME)+SPACE(1)+
TRIM(LASTNAME)
? SPACE(6)+STR(TPNO,6)+SPACE(3)+LEFT(MNAME,30)
?? SPACE(15)+DTOC(DATE_FAPPT)
?                                              ?
SPACE(20)+STR(FAPPT_GL,2)+SPACE(7)+FAPPT_DSG+SPACE(12)+CUR
R_DSG+SPACE(10)+DTOC(CURR_APPT)+SPACE(9)+STR(CURR_GL,2)+S
PACE(10)+CURR_DEPT
SKIP 1 IN 1
LOOP
ENDD
SET PRINT OFF
CLOSE ALL
CLOSE PRINT
WAIT
```

Appendix 2.

MAIN MENU PROGRAM FLOWCHART

DATA ENTRY SUBPROGRAM FLOWCHART

A

Display
File Option
for Entry

Input File
Option to Enter

Select
Valid File
Bar

Display
Appropriate
Input Screen

You must
have
selected
Exit Bar

NO

Z

Input Data
and write
to File

Input
more records
?

Yes

NO
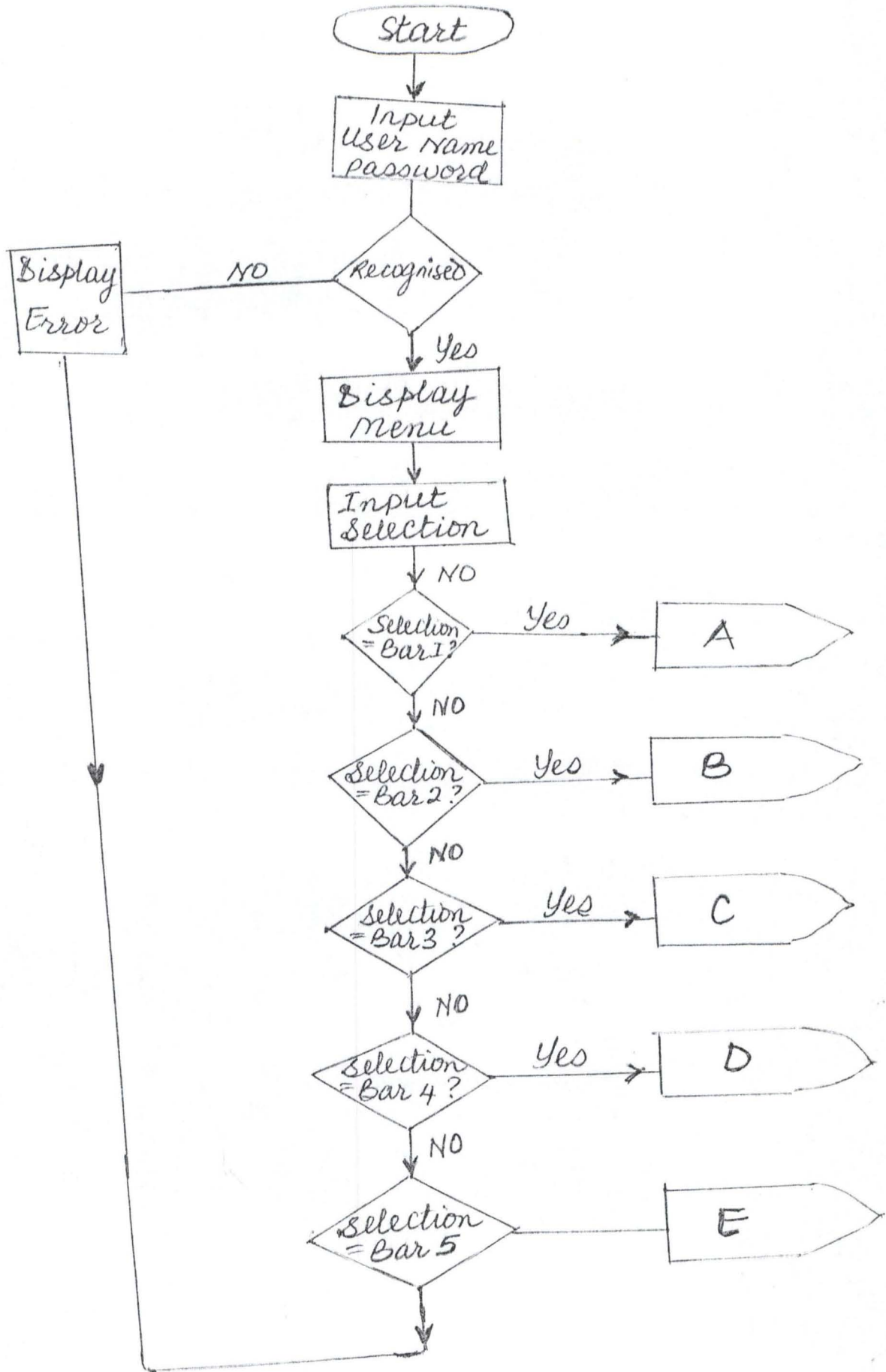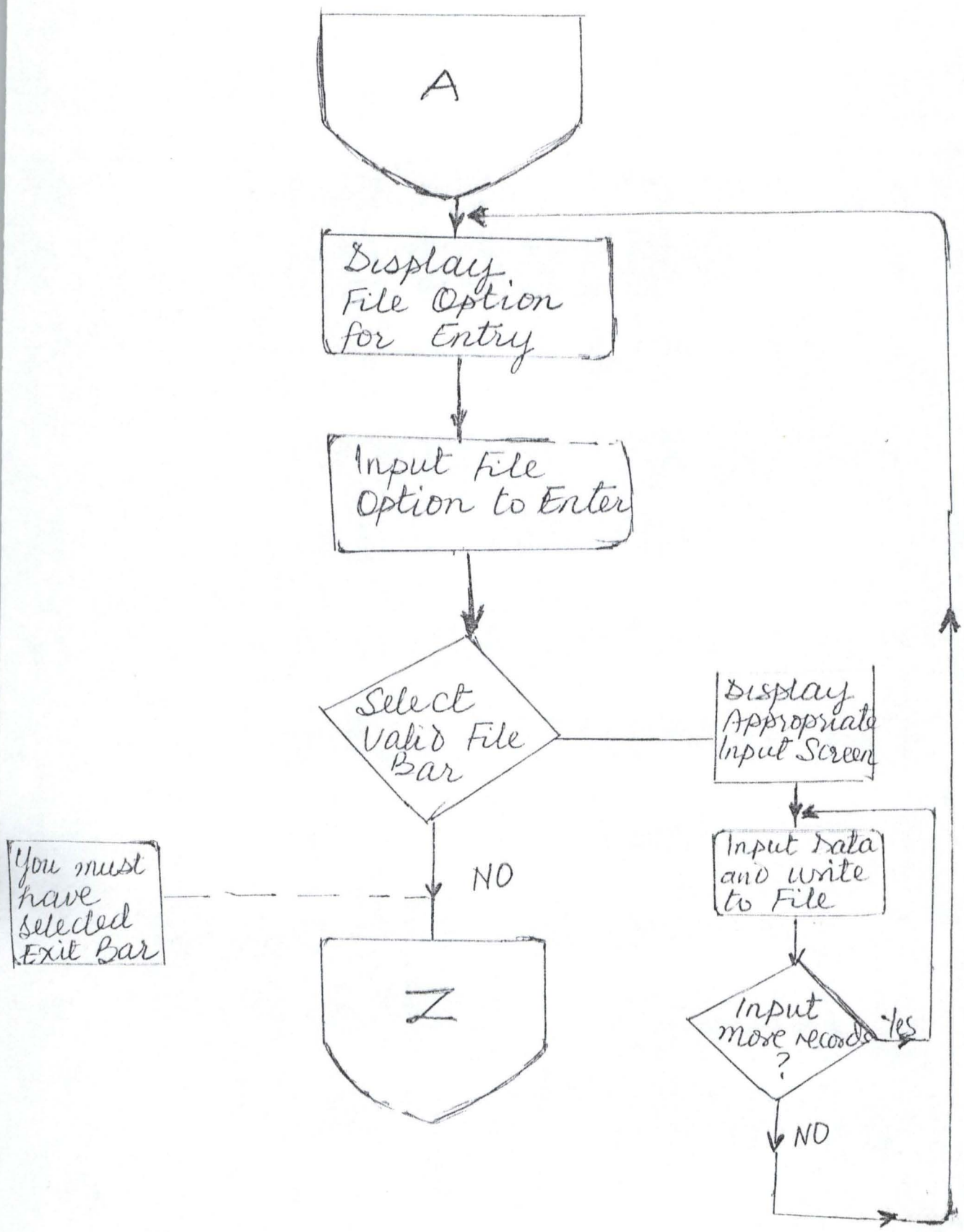
RECORD ENQUIRY SUBPROGRAM FLOWCHART

```
                    ┌──────────┐
                    │    B     │
                    └────┬─────┘
                         │
                         ▼
                    ┌──────────┐
                    │ Display  │
                    │File Option│
                    │for Entry │
                    └────┬─────┘
                         │
                         ▼
                    ╱ Valid File ╲        Yes      ┌──────────┐
                    ╲  Option  ?  ╱ ─────────────▶ │  Input   │
                     ╲           ╱                 │  Record  │
                         │                         │to Enquire│
                         │                         └────┬─────┘
                         ▼                              │
                    ┌──────────┐                        ▼
 ┌──────────┐       │          │                   ┌──────────┐
 │Must have │ - - - │     Z    │                   │   Seek   │
 │Selected  │       │          │                   │  Record  │
 │Exit Bar  │       └──────────┘                   │   Key    │
 └──────────┘                                      └────┬─────┘
                                                        │
                                                        ▼
                                                   ╱  If  ╲   NO    ┌────────┐
                                                   ╲ Exist ╱ ────▶  │ Disp   │
                                                    ╲     ╱         │ Err    │
                                                        │ Yes       └────────┘
                                                        ▼
                                                   ┌──────────┐
                                                   │ Display  │
                                                   │  Record  │
                                                   │ Content  │
                                                   └──────────┘
```

DELETE RECORD SUBPROGRAM FLOWCHART

Flowchart:

- **C** (start connector)
- Display File Options to Delete
- Input File Option to Delete
- Select a valid File Bar
  - **Yes** → Input Record Key to Delete
  - **NO** → **Z** (end connector)
- Input Record Key to Delete
- Seek Record Key
- Found ?
  - **NO** → Display Error
  - **Yes** → Delete Record

EDIT RECORD SUBPROGRAM FLOWCHART


```
          ( E )
            |
            v
   +------------------+
   |    Display       |
   |   File Option    |
   |    to Edit       |
   +------------------+
            |
            v
   +------------------+
   |   Input File     |
   |   Option to      |
   |     Edit .       |
   +------------------+
            |
            v
        < Select          Yes    +----------------+
        a valid File >  ------->  |   Input        |
            |                     |  Record key    |
            | NO                  |   to Edit      |
            v                     +----------------+
must have                                |
selected  - - - - -                      v
Exit Bar                         +----------------+
         ( Z )                   |  Seek Record   |
                                 |     Key        |
                                 +----------------+
                                         |
                                         v
                                      < Found    NO   +---------+
                                        ? >   ----->  | Display |
                                         |            |  Error  |
                                         | Yes        +---------+
                                         v
                                   +----------+
                                   |  Edit    |
                                   |  cord    |
                                   +----------+
```