COMPUTER APPROACH TO THE FILING SYSTEM IN AN ORGANIZATION

(A CASE STUDY OF NATIONAL MARITIME AUTHORITY, LAGOS)

BY

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PGD/MCS/97/98/719

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A PROJECT SUBMITTED TO THE DEPARTMENT OF MATHEMATICS/COMPUTER SCIENCE, FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF THE POSTGRADUATE DIPLOMA IN COMPUTER SCIENCE

SEPTEMBER, 2000

CERTIFICATION

This project work has been read and certified by the undersigned as meeting the requirements of the Department of mathematics/Computer Science, Federal university of Technology, Minna.

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PRINCE R. BADAMOSI DATE

PROJECT SUPERVISOR

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DR S.A. REJU DATE

HEAD OF DEPARTMENT

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EXTERNAL EXAMINER DATE

DEDICATION

This work is solely dedicated to all those who had one way or the other gave special role in my life. Isolate your wonderful role. To the Lord be the glory.

ACKNOWLEDGEMENT

My special praises to the Lord for seeing me through the whole program. It has not been easy but with determination to succeed, things because easier. In the course of this write-up certain individuals play special and significant role. Such is our amiable Prince R. BADMUS who is the project supervisor. Despite his tight academic work, he still found time, patience to offer useful suggestions and to make relevant corrections where necessary. I thank you very much.

To the Head of Department and other lecturers in the department. I salute your efforts always.

To my special friends (male and female), brothers, sisters, relations, may the Lord bless you all.

To my employer, it has not been easy, yet you gave me the courage to go ahead. I am highly indebted.

ABSTRACT

Since information is the life-wire of any organisation, an effective and efficient way of accessing, controlling, retrieving and modification of information would make or other wise mar the existence of the organisation. Hence this project focuses on how information can be stored in the various departments of the authority.

The programming used was Dbase IV. This was due to its Versatility and User's friendliness

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CHAPTER ONE

1.0 INTRODUCTION

1.1 BACKGROUND OF THE STUDY

Since information is the life-wire of any organisation, the importance of having an efficient storage device and effective channel of information dissemination both within and outside the organisation cannot be over-stressed. Apart from the fact that the storage device allows for easy access of the information by the user, it should be an effective and efficient way of controlling, retrieving and modifying information.

One of the most commonly used storage device is the file. Long man dictionary defined File as a box, folder etc for storing papers in an ordered way or collection of papers concerning one subject. In general term, a file can be defined as a collection of meaningful information to which the user can attach a name or a collection of related data records, usually grouped together for purpose of access, control, retrieval and modification.

Manually, filing involves both arrangement of loose papers containing related record in a serial or sequential manner in a folder and the arrangements of the folders in the filing cabinet or drawer.

There are various systems of manual filing. Among these are:

(a) Alphabetical Filing System;

(b) Numerical Filing System;

(c) Alpha-numeric Filing System;

(d) Subject Filing system; and

(e) Geographical Filing System.

ALPHABETICAL FILING SYSTEM

This system is the one most commonly used in offices. It takes as the filing word, the surname of the correspondent. As many people share the same surname, it will be necessary to look also at foreman's to decide the final order. Rules must be followed to ensure correct filing and easy location of more complicated names. A filing label shows the filing word first. For James Crowe & Co. Ltd., the label would read CROWE & CO. LTD., JAMES

Two kinds of folders are opened. Individual ones, like the one above, containing original letters received, and carbon copies of letters sort out, to one particular correspondent.

NUMERICAL FILING SYSTEM

This is filing numbers. In some cases the numbers already exist and are used. An example is "Insurance policy numbers". In other instances a number has to be allocated to the file. The main reasons why a firm may choose to use this system instead of the more common alphabetical system are as follows:

i. A number is already being used and so it is convenient to keep filing in order this way, for example Insurance policy numbers, Mortgage roll numbers.

ii. Since many people have the same surname and sometimes even identical forenames, hospitals cannot risk any confusion as patients might be given the wrong treatment. Therefore, every patient is allowed an individual number, which is used throughout all departments.

iii. It is economical when a firm is starting up a filing department because there is no need to allow for expansion throughout the files. Drawers in a

filing are filled up one at a time and it is only when the last drawer is full that a new cabinet is purchased. An alphabetical index is required when numerical filling is in use.

ALPHANUMERIC FILING SYSTEM

This gives the advantages of both systems. There is a broad division into sections by the alphabet and then more detailed division according to the number allocated.

GEOGRAPHICAL FILING SYSTEM

Sometimes where a firm is situated is important, particularly for overseas customers, and it is easier to classify by place name than by the name of the customer. This system is usually chosen when territories are divided up amongst representatives, or where an agent is appointed for a specific area. This keeps all the contacts for each area together in the files.

If only home files are kept in this system, the first division could be by state. After that the city/town would be considered. Usually, however, it is necessary to file first by country, then, if required, by state and finally by city/town. Within each section the files are maintained in alphabetical order.

SUBJECT FILING SYSTEM

The order would still be alphabetical, but by subject not surname. If needed an alphabetical index could also be kept to show the names of people involved in the various subjects.

Today, the reasons for filing goes beyond the need to provide a record of transactions for future reference, keeping the office tidy and protecting of documents but also the need to provide easy and quick retrieval of information, protect the information from unauthorised user, centralise filing, reduce space being occupied by storage devices, achieve data integration, reduce or eliminate data redundancy and maintain data integrity.

Unfortunately, neither one nor combination of the manual filing systems described above could achieve all these reason indeed. Majority of the organisations in this country are still using manual system of filing. It is on this note that the project is focused on this topic with the understanding that the output of the work will be very useful to National Maritime Authority.

1.2 OBJECTIVES OF THE STUDY

The main objectives of this study are: -

(a) To investigate the various problems associated with the present system of filing documents in Nigerian maritime Authority

(b) Draw up the analysis and design that will be used to computerize the system

(c) Suggest relevant change over procedure, maintenance, and training of personnel that will man the section

(d) To property co-ordinate the files in the authority.

1.3 METHODOLOGY

There are many findings technique. Some of which are questionnaire, interviewing, observation and record inspection. However, for the purpose of this project, interviewing, observation and record inspection were employed. These three methods were found suitable based on the following: -

1. The number of interviewees are very few and are in the same organisation and easily accessible.
2. Being a staff of the organisation, the researcher has the opportunity to participate in the present filing system and also has easy access to some of the records that were required for the project work.

1.4 DEFINITION OF TERMS

In the opening chapter of study of this nature, it may be essential to define some words and phrases used in the study. Such words and phrases include: -

COMPUTER: Is an electronic device that is capable of accepting data (input), storing, processing the data and producing information (output) fastly, accurately and thus more efficiently than human efforts.

SYSTEM: This can be defined as a collection components either physical or non physical in nature which interact with one another towards achieving a common objective.

COMPUTER SYSTEM: Thus is made up of the user, the hardware, and the software and has a goal solving problems for the user.

DATA: This is a term used to describe basic facts about the activities of a business, or new facts that are fed into the computer for processing.

INFORMATION: Is data that have been processed into a form that is useful to the user.

FILE: Is a collection of meaningful information to which the user can attach a name.

CHAPTER TWO

2.0 THE EXISTING SYSTEM

This chapter contains the survey of the activities of the exiting manual system of filing system management of the Nigerian maritime Authority. It investigates and ascertains its strengths and weaknesses in order to determine whether there is need to enhance its performance by partial or total automation of some or all its processes.

2.1 HOW THE PRESENT SYSTEM WORKS

Like every other conventional system, the present filing system is manually operated. For reference purposes, officers are assigned to physically search and locate the cabinet storing all the files of personnel. The required files are located and the information needed retrieved. There could be as many cabinets as possible depending on the size of the organization. The assigned officer reads all the documents in files before he gets the exact information. This could take several hours or even days.

DATA STORAGE: - Data elements, raw or processed in forms of letters, reports, manuals are kept in files and stored in cabinets. The size of the cabinets depends solely on the volume of documents to be stored. In some organizations, such as schools, Hospitals, Banking and Financial institutions large cabinets are conspicuously displayed and considerable office space is occupied. This is expensive to maintain as lock and keys are always purchased along with every cabinets.

DATA RETRIEVAL: - This process (manual) is cumbersome when document is to be retrieved. This is noticeable in the countenance of a confused, exhausted and worried officer or secretary when data elements are taking him or hours or even days to locate.

The file containing the required information cannot be located. Sometimes, even if the file is seen, the essential document needed may not be in it.

DATA PROCESSING: -Due to the manner in which data is stored and retrieved, this aspect is also very tedious. The secretary or any other assigned officer needs to locate the data and use them in replying to a request. It had been observed that a reply to a particular request is typed and severally retyped due to one correction or the other. At the end, the produced document cannot be described as "professionally looking material." This is because there are evidences of typographical errors, errors of omission or commission, spelling mistakes, error due to the use of correction fluids, typing eraser and so on. In fact, the produced documents are seldom sub-standard and unpreventable.

RECORD VIEWING: - Record-viewing procedure is similar to data retrieving. The necessary files containing the documents are searched for, retrieved and the records viewed. This process takes a lot of time as earlier stated.

RECORDS UPDATING AND DELETION: - For every procedure to be accomplished, the files containing the necessary documents have to be located and the documents retrieved. The addition or deletion is carried out. The operations are frequently carried out in any organization. The repetitive nature, and the promptness expected from these processes make manual records keeping technique inefficient, outdated, slow and very expensive.

2.2 TIME TAKEN BY THE PRESENT SYSTEM IN DATA PROCESSING

Data processing is the term used for the process of producing meaningful information by collecting all items of data together and performing operation on them to extract the required information from them. The process of handling all aspect of information within an organization is virtually the same. The difference is in the methods employed in the processing.

2.3 BACKLOG OF WORK DUE TO SEASONAL INFLUENCE

It is useful to mention here that, in conventional method backlog of work due to seasonal influences exist as a result of the slow pace at which data are processed. Some activities are frequently carried out in particular periods of the year. These include: -

- Processing of leave and leave allowances of staff.
- Travelling allowances of staff going for seminars, workshops and conferences.
- Annual increments of staff.
- Recruitment exercises for new intakes.

FINDINGS

The existing system has the following inadequacies.

i. The manual system is very expensive to maintain.

ii. Very slow access to information, tedious, energy sapping and uninteresting.

iii. The manual system of filling is very ineffective, inefficient and unreliable.

2.4 APPRECIATION OF THE NEED FOR COMPUTERIZATION

The manipulation and interpretation of data generates information which in the decision making process by managers. The realization of importance of data has meant that there is need for proper management and efficient organization of data.
This revealed why computerization should be embraced by any serious organization.

Computers did not only serve as an efficient storage medium, but also assisted or facilitated effective sorting, editing, updating and other complex mistaking processes. It has been discovered that the introduction of a computer into an organization marks the disappearance of long cabinets.

Information processing is another area where computerization of procedures is being appreciated. Letters, reports, staff list, inventory, budgets and other necessary documents are produced on schedule with ease.
Repetitive tasks are better handled with computer rather than the conventional method. In a matter of seconds data entered into the computer returns as usable information. To an untrained person, the computerization processing of data seems magical.

2.5 BENEFITS OF COMPUTERIZATION

It is hard to think of any aspect of our society that is not affected by some form of computerization. The computer is used to prepare a company payroll, print monthly customer statements, reserve seats on a jet plane, govern the flow of traffic during rush hours through control of traffic light, prepare weather forecasts for the entire country and several other areas of application. Computers are extremely powerful and sophisticated device, which can be applied to almost any field of human endeavour. Business people must be practical and able to judge the economic realities

of installing a computer. Several factors can make an organization to use a computer. Some of these factors are speed, accuracy and reliability.

Computer can be used in a company to achieve the following objectives: -

i. To reduce complex calculations into smaller forms.

ii. To help in making an easier, accurate and reliable logical comparison between things.

iii. To ease the cumbersomeness of inflow and outflow of data and information respectively.

iv. To help in efficiently storing. Filing and processing data and information.

If the present conventional system gives way to a computer-based system, the following are benefits realizable.

1. Cost reduction in services of authority.
2. Speedy information and retrieval.
3. Reduction in storage space and materials.
4. Data centralization and effective management.

CHAPTER THREE

3.0 SYSTEM ANALYSIS AND DESIGN

3.1 INTRODUCTION

Systems Analysis is defined as the method of determining how best to use computers with other resources to perform tasks, which meet the information needs of an organisation. It was developed initially as a specialised branch of organisation and method (O and m), which is general approach to solving procedural problem.

Systems Analysis consists of series of stages; these are often called system a Life cycle. These stages are:

a) Problem Definition

b) Feasibility Study

c) Investigation and fact finding

d) Analysis

e) System Design.

3.2 SYSTEMS DESIGN

Design is the process whereby the system analyst applies his own judgement, skills, and knowledge to interpret the requirement specification that provides detailed documentation of the new system.

For effective design to be accomplished, certain basic factors must be considered:

(1) Production of desired information at the appropriate time, and amount with an acceptable level of accuracy.

(2) The need to minimise cost and time spent on data preparation and collation.

(3) Effective security measures to avoid loss of data stored in files.

(4) Efficient design of documents and reports.

3.3 FEASIBILTY STUDY

The main purpose of the feasibility study is to carry out a preliminary investigation on the problem and look for all possible alternative solutions.

During the feasibility study, the cost benefit analysis for each alternative solution was done before recommendation was made to the Establishment on best alternative solution. In carrying out the feasibility study, the Principles of Procedures was used to determine the strengths and weaknesses of the current system. These principles are: -

a) PURPOSES

i. Easy and fast retrieval of records by users

ii. Protect documents or information form unauthorised persons

iii. Reduce or eliminate data redundancy

iv. Allow for tidy office environment

v. Occupies little space

Unfortunately, the present system is short of these purposes.

b) ECONOMICALLY

Economically, the present system is not in anyway economy. Apart from human resources that are required, there is need for regular supply of large quantity of stationeries. Also required are storage equipments such as cabinets and file jackets.

c) WORKFLOW

The workflow with the current system is not satisfactory. It is always difficult to locate files. Sometimes it takes the Personnel Assistant one hour or there about to locate a file. This not only delays the retrieval of information but also affect the processing of the data

d) FLEXIBILITY

The result of the researcher's feasibility study clearly indicated that the current system was not flexible, since with the present number of files, there are always problems in locating of files.

e) RELIABILITY

The researcher's investigation also confirmed that the current system is not reliable. The security condition can only be described as fair. It can also create loopholes for fraudulent practices in the organisation, since there is possibility of unauthorised user having access to the files. For instance, the movement of files from one officer to the other is through the office messenger or personal assistant. These categories of workers can easily convinced and used to leak vital and confidential information.

f) TIME

With regard to time, the current system is far from being satisfactory. In fact, sometimes it takes the personnel assistant an hour to locate a file. Therefore, in most cases this does affect the information produced for meaningful action to be taken on it.

3.4 TESTING PROJECT FEASIBILITY

For testing project feasibility, the following were undertaken.

a) OPERATIONAL FEASIBILITY: - This relates with the workability of the new proposed computerised system of filing in National Maritime Authority Lagos. From the feasibility study carried out through interview and observation, it can be found out that this study receives the support of not only the Minister of the authority but also the majority of all senior members of staff of the organisation. This proposed system would also enhance efficiency and effectiveness of the staff.

b) TECHNICAL FEASIBILITY: - This test seeks to clarity if the new proposed system can be done with current equipment, existing software technology and available personnel. The result of the feasibility carried out indicates that the current equipment and existing software technology in the market are very adequate to convert the new proposed system. However, there is need to train some of the present available personnel of the organisation who will handle these equipments.

c) ECONOMICAL FEASIBILITY: - The test for financial feasibility is undertaken to access cost of implementing the new proposed computerised system of filing in the organisation. From the cost benefit analysis carried out, it can be seen that apart from the initial cost of equipment which many seem to be high, the organisation will derive a lot of financial benefit from the implementation of the new system.

3.5 OBJECTIVES GUIDING THE INVESTIGATION

The main objectives of the investigation are: -

a) To carry out a more detailed and comprehensive study in order to fully understand the existing system of filing

b) To identify the basic information requirements. In this case, the following have to be considered: -

   i. The range of data type;

   ii. The volumes of data that are to be processed and exceptional conditions; and

   iii. Problems associated with the present filing system.

3.6 THE CURRENT FILING SYSTEM

A detailed description of various manual methods of filing has been discussed in chapter one. However, for thorough investigation to be carried out on the current filing system. This will not only enable us to determine the strengths and weaknesses of the system, but will give confirmation to the feasibility and sensibility to proceed with the computerisation of the filing system.

Apart from the fact that the current system is manual, it is decentralised. That is each department takes custody of its working files.

Although the organisation has four departments, the researcher's work will cover only two. These are the Finance and Administration department and the Minister's Office. While the Finance and Administration operates alphabetical filing system, the Minister's Office adopts both alphabetical and subject filing systems.

The alphabetical filing involves the use of surnames and forenames of the correspondent as the filing word. The forenames are used to decide the final order of

arrangement of the files where two people share the same surname. These rules must be followed to ensure current filing and easy location of more complicated names. The office file cabinets are arranged in alphabetical order.

3.7 COSTS AND BENEFITS ANALYSIS OF THE NEW SYSTEM

COST ANALYSIS OF THE NEW SYSTEM

Although the initial cost of the proposed new system may be too costly, the system have lots of both short term and long term cost benefit. The estimated cost of the new system will be discussed under two headings. These are: -

a) Development cost; and

b) Operating cost

Developmental cost concerns with the cost system analysis and design, software development and implementation, cost of computers, stabilizers and installation.

i.	System Analysis and Design (analyst for four weeks)	₦30, 000:00
ii.	Software Development and Implementation	₦20, 000:00
iii.	4 personal computers	₦320, 000:00
iv.	Local network accessories (Not Immediate)	₦50, 000:00
v.	Two Printers (one LaserJet and one Dot matrix)	₦100, 000:00
vi.	2 stabilizers	₦30, 000:00
vii.	Installation	₦20, 000:00
viii.	Training of six staff for four weeks at ₦10, 000:00 per week	₦40, 000:00
	Total	₦610, 000:00

(b) Operating Cost

The operating cost has to do with running cost. It concerns with cost of stationeries, labour cost, equipment maintenance and miscellaneous expenses.

i.	Supply of materials (diskettes, printing papers per month)	₦50, 000:00
ii.	Labour cost (one programmer, three operators per month)	₦50, 000:00
iii.	Equipment maintenance	₦30, 000:00
iv.	Miscellaneous expenses	₦20, 000:00
	Total	₦150, 000:00
	GRAND TOTAL	**₦760, 000**

BENEFITS ANALYSIS OF THE NEW SYSTEM

The proposed new systems have both short term and long term cost benefits. These cost benefits and advantages will be discussed under the following headings.

1. REDUCTION IN FILING COST

With the introduction of computer system. There will be: -

a. Less number of personnel in the open and secret registry and also there will be need for Personnel Assistants in the departments.
b. The volume of stationeries such as file folder, file tags and writing materials will be reduces.
c. Storage equipment such as office file cabinets will be eliminated. This will also save the organisation a huge sum of money.

2. DATA SECURITY

The new proposed system guarantee data security. Since with the introduction of computer, the movement of files from office to another by personnel assistant and

messengers will be reduced. Therefore, preventing unauthorised user access to information.

3. EASY RETRIEVAL OF DATA

One major advantage of the new proposed system is that it allows easy retrieval of data or information by user.

4. RELIABILITY

Since new system proposed will not allow unauthorised user to have access to information, therefore, the fear of distortion of information either by act of deletion, removal or addition for one malpractice or the other will not arise.

5. FLEXIBILITY

Data already stored in the computer could be analysed and manipulated easily. The new system can accommodate large volume of information.

CHAPTER FOUR

4.0 SOFTWARE DEVELOPMENT/IMPLEMENTATION

4.1 INTRODUCTION

Programming can be defined as an act of writing program. A program is a set or sequence of instructions, which informs the computer of the steps required for achieving a defined task. This section focuses more at providing the users with the necessary information needed on how to install and run the system effectively and efficiently.

Indeed, all aspects of the system were operationally tested prior to their use. This thereby allows the software designed to be accepted.

4.2 CHOICE OF LANGUAGE.

The Language chosen is d base IV for this work.

Some of the criteria used for the choice of software packages and programming Language are:

i. The effectiveness and efficiency of the packages with regard to the functions of the programs;

ii. The facilities for different types of file processing;

iii. The security of the records in the file;

iv. The facilities for maintaining of the files e.g. adding new records, adding, modifying and easy retrieval of records;

v. The flexibility of the packages; and

vi. User friendliness quality of the package.

4.3 FEATURES OF LANGUAGE CHOSEN:

1. Data redundancy is eliminated: - This occurs in file processing system when the data cannot be arranged to suit the entire options program accessing the data. This results in the same data appearing in more than one file.
2. Data scalability is increased: - The sharing of compatible data by different applications allows the user to gain valuable information by picking data from right across the organization. The data are no longer "Owned" by particular applications but instead all the users share them.
3. Easier, Logical access to data: The increasing use of telecommunication by many organisations and the conversion of many data processing mode meant that users have better access to the computer.
4. Facilities to add new delete and amend records: When new sets of data are added it is often found that some of the required data are already stored for other purposes.

   The data items in Dbase are linked or chained to each other so that any required relationships can be changed and new relationships can be established, hence saving a great deal of time.
5. Data are centrally controlled: in Dbase environment, data and options are centrally controlled and this can lead to better management of data by enforcing standards for all the users.

4.4 THE HARDWARE/SOFTWARE REQUIREMENTS

1.THE HARDWARE REQUIREMENTS

a) Personal computer 836 main processor

b) RAM 32 MB OR 64 MB

c) Floppy Disk Drive- 3.5/5.25

d) Colour Monitor

e) Laser Jet Printers (6L Model)

f) Stabilizer 1000 KVA

g) UPS 5000 KVA.

2. SOFTWARE REQUIREMENT

i. Ms-dos- 6.0/6.1 Version

ii. Window 98

iii. TEXT EDITOR (MS-DOS)

iv. DBASE IV /FO x PRO/ CLIPPER.

4.5 STAFF TRAINING

Training is very essential for the computer staff. The amount of training required for various categories of personnel will depend upon the complexity of the system and the skills presently available.

The software package is easy to understand and as such the period of training should not be more than 4 weeks.

Within the specified period of training the staff should be given proper access to the new system. Possible problems that are likely to arise should be resolved within this period. Training should involve the use of test data.

4.6 SYSTEM TESTING

This is a very vital stage in system implementation. It has to do with the use of tested data on the new system to ensure its accuracy and efficiency before the real operation commences. At this point of system testing, the logical design and physical design are properly examined to make sure that it can work.

4.7 CHANGE OVER/ SYSTEM CONVERSION

File conversion into Database file and changeover is not completed until the actual changeover from the existing system to the new system takes place. This can be done in any of the following four ways namely:

a) Direct change over

b) Parallel changeover

c) Pilot running

d) Staged changeover.

However, the most appropriate for the organisation is the PARALLEL CHANGEOVER. This method allows the processing of data by both the existing system and the new system concurrently. This allows for the comparison of activities of the new system and existing system thereby promoting the confidence of the user on the new system.

4.8 POST IMPLEMENTATION REVIEW

With the system implementation and conversion completed, there is the need also for system review vis-à-vis maintenance of the system against environmental changes, which may affect the computer or other parts of the computer – based

system. It equally involves the improvement of the system functions and correction of mistakes that are likely to arise in the operation of the system.

Summarily, the objectives of the post implementation review are as follows: to arise in the operation of the system.

(1) To know if the system goals and objectives have been achieved.

(2) To know if the various activities and order control have improved.

(3) To know if the user requirements (i.e. top management decision makers) are net, while errors and cost is reduced.

(4) To identify areas of unexpected and known limitations in the system that requires attention.

4.9 STARTING THE PROGRAM

The filing system software was developed using Dbase IV. The program uses a master dbf to keep all its records. The structure of the master database files are as shown below:

S/NO	Field Name	Type	Width
1	category	character	20
2	descript	character	25
3	datec	character	10
4	datel	character	10
5	volume No	character	7

Executing the main program from the dot prompt by typing activates the program.

- DO FILING

The main menu of the program appears where the user is prompted to make the choice of operation he wishes to perform.

The main menu is as shown below:

1. Add records
2. Delete records
3. Modify records
4. View records
5. Report summary
6. Exit/Quit.

The users choice now causes the appropriate subprogram to be activated.

4.10 DESCRIPTION OF THE MAIN MENU

1. ADD RECORD: - Allows the user to add more records to the database. The system prompts user for the file number, then it searches whether the number already exists.

   If it doesn't, it allows the user to enter other fields of the record.

2. DELETE RECORD: - Allows the user to delete records from the database. The system prompts user for the file number, if it does not exist, it tells the so else it deletes it and asks if the user wants to delete more record.
3. MODIFY RECORD: - This works like the above in prompting the user for file number, if the number is valid, it allows user to modify other fields of the record. It then asks if the user wants to modify other records.

4. VIEW RECORD: - This simply allows the user to get a glimpse of a record. It allows user to enter file number of the record, if valid it then allows the view the record. This does not allow the user to tamper with the record.
5. RECORD: - This prints out the whole records in the database with the relevant fields for each record under the headings of the fields as shown in the output.
6. EXIT/QUITE: - This enables the user to leave the working environment.

CHAPTER FIVE

5.0 CONCLUSION/SUMARY AND RECOMMENDATION

5.1 CONCLUSION / SUMARY

The general objective of this project to tackle the problems and shortcomings of the manual system of filing in an organisation by the use of computer system.

The result of feasibility study that carried out clearly established the fact that there are lots of benefits that will be derived from the use of computers by the organisation. Among the features and benefits are: -

i. Easy and quick means of retrieving data and information;
ii. Fact means of communication of information both within and outside the organisation;
iii. Easy, fast and accurate means of processing data;
iv. Professional, clean and good looking hard copies print out of reports, documents, and memorandum;
v. Reduce filing and processing cost; and
vi. Protect documents from unwanted users.

In summary, successful implementation of the new proposed will aid the organisation in both processing and filing of information and thereby help the organisation to meet its goals.

Finally, it is pertinent to mention that although the design and testing of the new proposed system has been on IBM compatible computer, it is hoped that the system will work on other brand of PC computers of similar computer architecture.

5.2 RECOMMENDATION

Considering the numerous advantages that will be derived from the computerisation of the filing system in NMA, the following suggestions are hereby recommended:

i. That the organisation should endeavour to implement the new proposed system, that is computerising the filing system in the organisation;

ii. Expand its computer department to enable the department to carry out other computer functions in addition to the present function.

iii. Encourage staff from other departments to undergo computer training, particularly the administrative staff that will be involved in the operation of the new system. This will go a long way in improving the performance of the staff.

iv. Among the benefits that the organisation will derive from the new system is the reduction in the quantity of stationeries that are required in filing and file cabinets. This will not only save the organisation huge amount of the money but also space that these cabinets occupy in their various offices;

v. With the use of computer, the workload will be reduced. This will also enhance the efficiency and effectiveness of the staff and the organisation. The problem of delay in the retrieval of record will be a thing of the past;

vi. The problem of overtime can be related to workload. Therefore, as long as workload is reduced, there will be no need for overtime. With the implementation of the new system, the issue of overtime due to delay in the retrieval of record will also be a thing of the past. This also saves the organisation some amount of money.

vii. One of the greatest benefits to be derived from the new proposed system if implemented is security of data and information.

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```
SET DISPLAY TO EGA25
SET SPACE OFF
SET CONSOLE ON
SET DELETED OFF
SET BELL OFF
SET ECHO OFF
SET TALK OFF
SET PRINT OFF
SET CLOCK OFF
SET SAFETY OFF
SET SCORE OFF
SET CONFIRM ON
SET DATE TO BRIT
SET CARRY OFF
SET CENTURY ON
SET INSTRUCT OFF
SET DELIMITERS OFF
SET ESCAPE ON
SET MESSAGE TO ""
SET DEVICE TO SCREEN
SET STATUS OFF
CLEA ALL
SET COLOR TO GR+, G, G
CLEAR
DO DESIGNSC
ABORT = ' '
DO WHILE ABORT = ' '
DO DEFIN
DO MAIN
CLEAR
ENDDO
RETURN

PROCEDURE DEFIN
IF ISCOLOR()
  SET COLOR OF BOX TO GR+/BG
  SET COLOR OF NORMAL TO W+/B
  SET COLOR OF HIGHLIGHT TO GR+/BG
  SET COLOR OF MESSAGES TO W+/N
  SET COLOR OF TITLES TO W/B
  SET COLOR OF FIELDS TO N/BG
  SET COLOR OF INFORMATION TO B/W
ENDIF

SET BORDER TO DOUBLE
```

```
* SET BORDER TO DOUBLE
DEFINE POPUP MAINMENU FROM 1,25
DEFINE BAR 1 OF MAINMENU PROMPT " M A I N   M E N U " SKIP
DEFINE BAR 2 OF MAINMENU PROMPT "==================" SKIP
DEFINE BAR 3 OF MAINMENU PROMPT "ADD RECORD(s)";
  MESSAGE "Addition of record(s) to the database file"
DEFINE BAR 4 OF MAINMENU PROMPT "DELETE RECORD(s)";
  MESSAGE "This option allows deletion of record(s)"
DEFINE BAR 5 OF MAINMENU PROMPT "MODIFY RECORD(s)";
  MESSAGE "This option allows modificatio of record(s)"
DEFINE BAR 6 OF MAINMENU PROMPT "VIEW RECORD(s)  ";
  MESSAGE "This option allows you to view records"
DEFINE BAR 7 OF MAINMENU PROMPT "REPORT SUMMARY";
  MESSAGE "This option allows Generation of reports"
DEFINE BAR 8 OF MAINMENU PROMPT "E X I T ";
  MESSAGE "You want to Shutdown"
ON SELECTION POPUP MAINMENU DO MAIN_PARA

*----------> Popup for Exit
DEFINE POPUP EXITM FROM 7,45
DEFINE BAR 1 OF EXITM PROMPT " E X I T   M E N U" SKIP
DEFINE BAR 2 OF EXITM PROMPT "==================" SKIP
DEFINE BAR 3 OF EXITM PROMPT "EXIT TO PROMPT";
  MESSAGE "Return to the Dbase Prompt"
DEFINE BAR 4 OF EXITM PROMPT "EXIT TO DOS ";
  MESSAGE "Shutdown and return to DOS"
ON SELECTION POPUP EXITM DO EXIT_PARA


PROCEDURE DESIGNSC
* ----------------> This section design the screen
HEAD1 = "*******************************************"
HEAD2 = "FILLING SYSTEM IN AN ORGANISATION"
HEAD3 = "*******************************************"
HEAD4 = "  "
@0,0 TO 23,79 DOUBLE COLOR W+
DEFINE WINDOW MAINSC FROM 1,1 TO 22,78 NONE COLOR W+/B
DEFINE WINDOW WORK_IN FROM 7,5 TO 21,75 DOUBLE COLOR W+/B
X1 = MAX(LEN(TRIM(HEAD1)), LEN(TRIM(HEAD2)))
X2 = MAX(LEN(TRIM(HEAD3)), LEN(TRIM(HEAD4)))
X  = INT((80-MAX(X1,X2))/2) - 1
Y  = X + MAX(X1,X2) + 1
DEFINE WINDOW HEADBK FROM 2,X-1 TO 6,Y-1 NONE COLOR
DEFINE WINDOW HEADSC FROM 1,X TO 6,Y+1 DOUBLE COLOR W+/G+
DO CASE
   CASE DAY(DATE()) = 1
```

```
      TH = "st "
   CASE DAY(DATE()) = 2
      TH = "nd "
   CASE DAY(DATE()) = 3
      TH = "rd "
   OTHERWISE
      TH = "th "
ENDCASE
@ 0,5 SAY CDOW(DATE())+", "+ STR(DAY(DATE()),2)+TH+CMONTH(DATE())+", "+
STR(YEAR(DATE()),4)+"."
SET CLOCK ON
SET CLOCK TO 0,60
ACTIVATE WINDOW MAINSC
ACTIVATE WINDOW HEADBK, HEADSC
@ 0,INT((Y-X-LEN(HEAD1))/2)+1 SAY HEAD1
@ 1,INT((Y-X-LEN(HEAD2))/2)+1 SAY HEAD2
@ 2,INT((Y-X-LEN(HEAD3))/2)+1 SAY HEAD3
@ 3,INT((Y-X-LEN(HEAD4))/2)+1 SAY HEAD4
ACTIVATE WINDOW WORK_IN
RETURN

PROCEDURE MAIN
ACTIVATE POPUP MAINMENU
RETURN


PROCEDURE MAIN_PARA
DO CASE
   CASE BAR() = 3
      DO ADDREC
   CASE BAR() = 4
      DO DELREC
   CASE BAR() = 5
      DO MODREC
   CASE BAR() = 6
      DO VIEWREC
   CASE BAR() = 7
      DO REPORT
   CASE BAR() = 8
      ACTIVATE POPUP EXITM
      DEACTIVATE POPUP
ENDCASE
RETURN


PROCEDURE EXIT_PARA
```

```
DO CASE
  CASE BAR() = 3
     ABORT = 'A'
     CANCEL
  CASE BAR() = 4
     QUIT
ENDCASE
RETURN


Procedure ADDREC
 store 'Y' to ans
 set stat off
 use filling
 do while ans ='Y'
  clear
  store Space(9) to mfileno
  @1,10 Say "Enter File Number: " get mfileno Pict "!!!-99999"
  read
  locate all for fileno = mfileno
  if found()
    @8,20 say 'File-no already exist'
  else
  store space (20) to mcategory
  store space (25) to mdescrip
  store space (10) to mdatec, mdatel
  store space (7) to mvolumeno
   DO GETDATA
   READ
    clear
    append blank
    replace fileno with mfileno
    replace descrip with mdescrip
    replace volumeno with mvolumeno
    replace category with mcategory
    replace datec with mdatec
    replace datel with mdatel
 endif
  @10,10 to 12,50
  store 'N' to ans
  @11,12 say 'Are there more records? (Y/N)' get ans pict '!';
          valid ans $ 'YN' error 'Invalid entry !!!'
  read
 enddo
 CLEAR
 close databases
```

```
   locate all for fileno = mfileno
   if found()
      store descrip to mdescrip
      store datec to mdatec
      store datel to mdatel
      store category to mcategory
      store volumeno to mvolumeno
   DO GETDATA
   READ
   clear
    replace fileno with mfileno
    replace descrip with mdescrip
    replace volumeno with mvolumeno
    replace category with mcategory
    replace datec with mdatec
    replace datel with mdatel
else
    @8,20 say 'Record does not exist'
endif
    @10,10 to 12,50
    store 'N' to ans
    @11,12 say 'Modify more record? (Y/N)' get ans pict '!';
          valid ans $ 'Y/N' error 'Invalid entry!!!'
    read
enddo
CLEAR
close databases
return

Procedure VIEWREC
  use filling
  store 'Y' to ans
  do while ans = 'Y'
    clea
  store Space(9) to mfileno
  @1,10 Say "Enter File Number: " get mfileno Pict "!!!-99999"
  read
    locate all for fileno = mfileno
    if found()
       store descrip to mdescrip
       store datec to mdatec
       store datel to mdatel
       store category to mcategory
       store volumeno to mvolumeno
       DO GETDATA
       WAIT
```

```
      clear
   else
      @8,20 say 'File-no does not exist'
   endif
   @10,10 to 12,50
   store 'N' to ans
   @11,12 say 'View more record(s)? (Y/N)' get ans pict '!';
         valid ans $ 'Y/N' error 'Invalid entry!!!'
   read
enddo
CLEAR
close databases
return

Procedure REPORT
define window user from 1,1 to 22,78 none color W+,B
activate window user
set stat off
set alternate to 'filling.out'
set device to screen
     set alternate on
     set space on
     DO HEADING
     store 1 to couter
     use filling
     go top
do while .not. eof()
  ? '|',str(couter,2),'|',fileno,'|',descrip,'|',datec,'|',datel,'|'
  ??'category,'|',volumeno,'|'
  couter = couter + 1
  ? replicate ('-',104)
  skip
enddo
?
set alternate off
wait
close data
deactivate window user
return


PROCEDURE GETDATA
CLEAR
@ 3,5 say "FILE DESCRIPTION :" get mdescrip pict "@!"
@ 5,5 say "DATE CREATED     :" get mdatec pict "99/99/9999"
@ 7,5 say "DATE LAST USED   :" get mdatel pict "99/99/9999"
```

```
@ 9,5 say "CATEGORY        :" get mcategory ;
    pict "@M Staff files,Secret files,Minute files,Project files,Tender & Contracts"
@ 11,5 say "VOLUME NUMBER    :" get mvolumeno PICT "99/9999"
RETURN

PROCEDURE HEADING
? space(27),"************************************************"
? space(27),"*     FILLING SYSTEM IN AN ORGANISATION       *"
? space(27),"************************************************"
?
? space(39),"**********************"
? space(39),"* SUMMARY OF FILES  *"
? space(39),"**********************"
?
? REPLICATE("*",104)
? "*    *          *                    * DATE    *   DATE   *                * VOLUME *"
? "* SN *  FILE-NO  *       DESCRIPTION       * CREATED   *  LAST USED *
CATEGORY      *  NUMBER *"
? REPLICATE("*",104)
RETURN
```

FILLING SYSTEM IN AN ORGANISATION

SUMMARY OF FILES

SN	FILE-NO	DESCRIPTION	DATE CREATED	DATE LAST USED	CATEGORY	VOLUME NUMBER
1	TRS-12443	MR. BRIGHT ORJI	10/10/1999	23/12/1999	Staff files	99/6523
2	HLM-23233	BUILDING OF TOILET	08/12/1998	22/03/1999	Tender & Contracts	98/2333
3	YER-54232	RENOVATION OF QUARTERS	10/10/1998	01/02/2000	Project files	98/3121
4	WEE-12233	INAUGURAL MEETING	10/02/2000	10/02/2000	Minute files	00/2323
5	NHH-33434	FINANCIAL STATEMENTS	23/02/1998	10/01/2000	Secret files	98/2332
6	TRE-33332	MR. BADESHEUN KOJO	10/11/1999	14/12/1999	Staff files	99/3411
7	GDF-34322	HELEN WORSITH	02/03/1999	04/12/1999	Staff files	99/1112
8	REW-33221	SUPPLY OF COMPUTERS	12/01/2000	23/02/2000	Tender & Contracts	00/2114
9	HGD-34431	ELECTRIFICATION PROJECT	11/03/1999	15/02/2000	Project files	99/2199