

COMPUTERIZATION OF CONTINUOUS ASSESSMENT RECORDS OF JUNIOR SECONDARY SCHOOL

A CASE STUDY OF DAY SECONDARY SCHOOL MAITUMBI, MINNA

BY

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APPROVAL PAGE

This project has been read and approved as meeting the requirement of the department of Mathematics/Computer science, Federal University of Technology (FUT) Minna



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I give glory and honour to God Almighty for making my dream a reality.

DEDICATION

This piece of work is dedicated to my wife Mrs Elizabeth Augustine and my dear children

ABSTRACT

Currently in most countries of the western world, Computer-aided instruction (CAI) is in use. In this case the computer acts as a tutor to the students.

Computerization of continuous assessment records is solely aimed at eliminating problems associated with the manual system of processing continuous assessment such as:- misplacements of students result, delaying in issuance of students result, occurrence of errors in students results and lack of privacy in students entire continuous assessment records.

Database {Dbase iv} environment was used in this project to create eight files for the computerization of student records at Junior Secondary School Maitumbi, Minna and for proper management of such data in term of data security, quick access and retrieval of such data which will be errors free.

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CHAPTER ONE

INTRODUCTION

1.0. This gives a brief description of what continuous assessment is all about as discussed under background to the study, other sub-heading on this chapter are objective of the study, scope and limitation of the study, methodology to be use in the study and definition of terms.

1.1. BACKGROUND OF THE STUDY

A new national policy on education for Nigeria was approved by the Federal Government in 1979 but the policy itself was dated back to the first national curriculum conference in September, 1969. In 1972, a high-powered committee consisting of educationist, University academics, civil servant, industrialists, and intellectuals from various walks of life was set up under the chairmanship of chief S.O Adebo, to study the report in depth and present recommendations base on it for formulations into a new national policy on education. In 1977, an implementation task force was set up under the chairmanship of the late professor S.D. Onabamiro to prepare a blue print for the implementation of the new policy. The Federal government white paper on the report of the implementation task force came out in 1979 and constitutes the basis of what is now the new national policy on education.

One of the distinctive features of the new National policy on education is its emphasis on continuous assessment.

Continuous assessment is a mechanism whereby the final grading of a student in the cognitive, affective and psychomotor domains of behaviour systematically takes account of all his performances during a given period of schooling. The method is aimed at discovery what the pupils has gained from learning activities in term of knowledge, thinking and reasoning, character development and industry. Tools for finding out the outcome of these learning activities include tests, assignment, project, observation, interviews and questionnaire. The data obtained on the pupil will then be use to aid his further development. Beside, accurate records of such data are filed for further use and for the purpose of providing information to parent, guardians and others who can use them for the benefit of the pupils.

Continues assessment as defined above may be characterized as being systematic, comprehensive, cumulative and guidance oriented.

Continuous assessment is said to be systematic in the sense that it require on operational plan. Such plan involve what types of measurement i.e the test or assignment is to be conducted and the result recorded. Also it takes into account the tools or instruments to be used in the measurements.

Another characteristic of continuous assessment is comprehensive. The comprehensiveness of continuous assessment could be viewed in two ways, firstly, it involves the use of many tools such as tests, assignments, observations, questionnaires and interviews, secondly, students are seen in their totality. This is because decisions are made based on information obtained in the cognitive, affective and psychomotor domains.

Furthermore, continuous assessment is said to be cumulative in the sense that all decisions taken about a child take into account all previous decisions. Due to this, keeping of up-to-date records of a child is vital.

Again it is viewed as guidance oriented because information obtained is used to guide his further development.

This advocacy of continuous assessment arose from the belief that it would: (a) Give the teacher greater involvement in the overall assessment of his or her pupil;

- (b) Provide a more valid assessment of the child's overall ability and performance;
- (c) Enable teachers to be more flexible and innovative in their instructions;
- (d) Provide a basis for the teacher to improve his or her instructional method;
- (e) Provide a basis for more effective guidance of the child and
- (f) Reduce examination malpractices.

This project work is on the continuous assessment procedure of junior Secondary School. In the school under study, that is Junior Secondary School Maitumbi, there are three categories of continuous assessment, these include, academic (cognitive) report, character development (affective domain) and practical skills (psychomotor domain).

However in the centre under study, the researcher concentrated only in the cognitive domain.

These academic records are usually generated through the use of tests, assignments, projects, and end of term examinations.

In the centre under study whatever tools that are used must cover the six basic features of the cognitive domain such as:

a) Knowledge:- All that is required is that the students should be able to define, describe, identify, label, listen, match, name etc. of what has been taught to the child.

b) Understanding:- Here the child should be able to rewrite passages, explain or summarize passages.

c) Application- This is the ability to use learned materials in a new and concrete situation./

d) Analysis is the ability to break down material into its component parts.

e) Synthesis is the ability to build up new materials from given parts

f) Evaluation:- The ability to evaluate, or to judge the value of material, statement, or piece of written material.

1.2 OBJECTIVE OF THE STUDY

As a teacher in the system under study, who is about completing his training program on computer science and realizing the usefulness of my training in data processing the researcher consider it very necessary to make Junior Secondary School Maitumbi appreciate the impact of computer science training in the Federal University of Technology, Minna.

Moreso the activity being carried out is the examination office of the school under study require high degree of accuracy and precision.

Continous assessment as it is being operated today has some shortcoming. These include delay in issuance of students report sheet to them, error such as wrong addition of students marks and position and difficulty of retrieving past records when the need arises such as giving certificate or testimonial to the students. In the school under study some of the records are either torn or eating up by household pests such as rat, ant, etc.

In order to eliminate these shortcoming the researcher therefore decided to develop a computer software for Junior Secondary School Maitumbi examination office. It will not only solve the identified problems, but also provide other services that will ensure proper keeping of record and make retrieval of necessary information very easy.

The software will have some facilities for:-

- a) Viewing past records;
- b) editing past records;
- c) Storing old and new records;
- d) Preparing and printing students report sheets;
- e) Creating new record;

1.3. SIGNIFICANCE OF THE STUDY

Much hope is placed on education in solving many of our national problems. Its effectiveness is therefore of public concern. Hence the computerization of continous assessment in Junior Secondary School especially in the school under study cannot be over emphasized.

With this study every individual pupils will appraise his or her achievement in an integrated manner at a glance when the system is being operated upon.

To the teacher too, viewing of students continous assessment in the computer system will enable him diagnose the learning difficulties of an individual or an entire class insuch a manner that subsequent teaching are well plan.

Furthermore, the research will appraise the educational effectiveness of the curriculum. The information obtained here will guide the educational or curriculum planner to improve upon their strategies.

The study also will help to assess the educational progress of the entire school in order to provide the public with dependable information to help in understanding educational problems and needs and to guide in effort to develop sound policy regarding education.

Again the purpose of this study is to provide a basis for more effective guidance of the students bearing in mind that children interest may or may not be the same.

1.4. SCOPE AND LIMITATION OF THE STUDY

At the end of this project a computer software will be developed which can be use to processed students result, produce students report sheets and store these information their academic performance for future references in the examination office. The system software will be design in such a way that it will be users friendly thereby making it possible for non-computer experts to operate the system and the software.

There are so many constraints the researcher was faced with in completing this projects. One of these constraint was that of time factor hence the software was develop or design to accept only the cognitive or academic records of the continuous assessment procedure.

Another constraint of the researcher was that of funding. In a project work such as this, a lot is require such as purchase of diskette, stationaries, transport fares and so on.

Furthermore, not all organization has embrace the use of computer and its system hence the system is scars. As a result of this it takes the researcher a long time to type his work using the computer.

Again, there are very few text books on computer available for now. Hence the researcher could only laid hand on few of them to make this project a reality.

1.5. METHODOLOGY

According to Prince Badamasi R.O. In his course unit (CPD 728) system analysis and design page 6 he said that "There are several methods of gathering information. They includes observation, record searching special purpose record, samply, questionnaire and interviewing" He also emphasize that "The analysis approach to the investigation will be influence the use of the various method, it is important that the approach is appropriate to the situation under considaration".

In the center under study, the appropriate method the researcher used are the

record searching and interviewing.

Through record searching information about the academic performance of the students will be possible. The search include getting the students scores in their test assignment and project and examination from the various subject masters while in the examination office student termly summary result as obtainable.

The researcher use interviewing approach in getting some vital information about the students. both the examination officer and the various subjects teachers of Junior Secondary School, Maitumbi were interviewed in order to ascertain objective, constraints and failure in the existing system. As an insider, the researcher find it more convenient to adopt the interviewing methods.

DEFINITION OF TERMS:

- 1) Computer: This is an electronic device that is capable of accepting data, process the data and produce information fastly, accurately and efficiently.
- 2) System:- It is a collection of components that make up the computer system, that is the hardware, software, and the users (humanware)
- 3) Data:- These are the raw fact that are fed into computer for processing for example raw data of students continuous assessment are the marks and grade score by them.
- 4) Software:- This is collection of programs which control the activities of the computer. They exist inform of system and application software.
- 5) Humanware:- This refers to as user's of computer. Hard ware and software eg. system analysis, programmer etc.
- 6) Hardware:- Mechine or physical component of the computer is called hard ware.
- 7) System analysis: Is define as the method of determining how best to use computer with other resources to perform tasks which meet the information need of an organization.
- 8) Password:- This is a security entry pass that enable only an an authorised personnel to get access into the stored information.

CHAPTER TWO

2.0 This chapter is concern with literature review. The history of the center under study and the work of some people who work in the similar or related topics will be discuss.

2.1 HISTORY OF THE SCHOOL.

Junior Secondary School, Maitumbi was founded in 1984 with an initial intake of four hundred and sixty five students. By October, 1987, the school turned out it first graduant of Junior Secondary School Certificate examination.

The examining body was test and measurement section of Niger State ministry of education.

During the period three hundred and seventy student passed the J.S.S.E leaving only fourty five students failed. In 1997, the school enrollment figure encrease to about 2,765 student. In the same year, their examining body was National Board for Education Measurement (NBEM).The main purpose of the State government affiliating her Junior Secondary School to National Board for Educational Measurement is to increase or improve upon the educational standard of the students the total number of students that sat for NBEM examination was 250 and out of this number 140 pass and 110 failed. The reasons for this mass failurer are obvious. Population of students per class are so great that constant conduction of assessment by most teachers become imporsible. For example in subject like mathematics and English where a teacher is surpose to give daily assessment is not an easy task. It is only through constant conduction of assessment that tthe teacher could improve upon his teaching method to facilitate better understanding.

Other reason are lack of seriousness on the part of the students themselves, lack of text books for the students to read as most of these books are costly and most parents cannot afford to buy. Acomondation problem is another causes as most school class-room building are physical present with little or no seats hence the student can not learn effectively in such a situation.

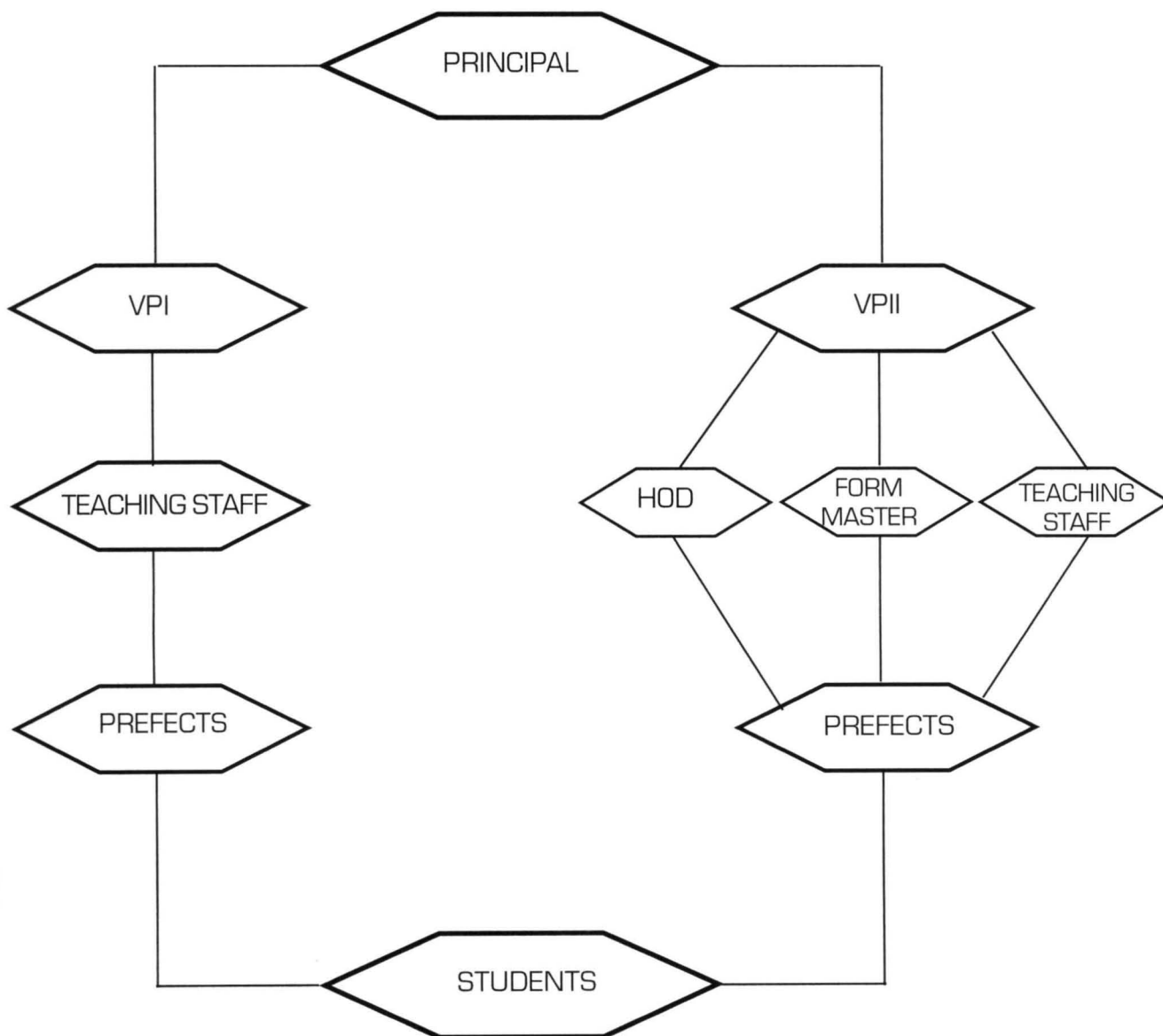
Also in 1984 staff population was only eleven and by 1994 their population rosed to eighty four teachers. Presently staff population has increased to one hundred and fifteen teachers. Out of this number the school has fourteen graduate, male teachers while their female counterpart numbering ten only. The remaining ninety one teachers were either N.C.E. or diploma Certificate graduates.

As discussed above, the center under study have staff stength of 115 teachers the break down of this figure show tghat there is one principal, two vice principal one for admin and the other is incharge of academic.

There are four head of departments, namely head of science department, art and social sciences, languages and pre-vocational. The center also has sub-head of departments incharge of a single subject. Some of the staff were appointed as class masters/mistresses.

Also the following offices exists in the centre under studying, namely House master, game master, club and society patrons, examination officer, labour master, health maste to mention only few.

The school structure is illustrated in the diagram below.



The examination office which is mostly concern for the researcher in obtaining his data, is often saddled with the responsibility of collecting the assessment records of performance of students from various subjects teachers. These records are processed with the aim of generating a report sheets for individual strudents. The report sheet contains marks and grade obtained in all the subject offered by the students in the class.

In the school under study, these records are kept in files and they are usually store in an upon shelves. when the school was created in 1984 little or no damges was done to these files up to 1990. How ever as from 1991 to date most files cannot be seen partly because either the files has been turned on transactions or they have been eating up by the household pest such rats, ants and even cockroaches.

This explain why the researcher is embacking upon developing a software that will be use in the examination office so as to ileviate such an urgly situation.

CHAPTER THREE

SYSTEM ANALYSIS AND DESIGN

3.0 PREAMBLE

The research involved studying the operation of existing system with the aim of identifying areas of difficulties and the problem associated with the old system. The requirement which the new system needs to fulfil are specified.

3.1. PROBLEM DEFINITION:

When a problem exist in a particular system and the problem has to be removed, then there is a need to clearly define the motive of the problem. Problem definition allow for revolution of the existing problem in the old system to find out if it is real or imaginary, major or minor and how urgent to alleviate the problems.

Considering the manual system of continous assessment records in Junior Secondary School Maitumbi. Information about the students performance can either be misplaced or easily malhandle. These may be delay in the processing of students data. At times errors often result or occur during the process. Security of the student records do not exist.

3.2 FEASIBILITY STUDIES AND INVESTIGATION:

Feasibility analysis or preliminary investigation was embacked upon to determine the potential or desirability of the proposed system by studying the existing system method of continous assessment record of Junior Secondary School Maitumbi. Since the school was established, the mannual system of continous assessment has being employed in the preparation of student result. Information generated from the study of

employed in the preparation of student result. Information generated from the study of the old system was use in the development of the new system some of the advantage s old system are in corporate into the new ones.

During the preliminary investigation some of the problem associated with the manual system were identified to be:

- a) Misplacement of students continous assessment file in the examination office or during transit among the various subject teachers at time too, there may be delay in accessing the students records.
- b) Increase rate of errors. This occur during addition of students marks and position.
- c) Inadefinate security and privacy of file , moreso when an unauthorized persons tempered with them with a view of getting relevant information about a particular students.
- d) Since the volume of continuous assessment file are large, access to such files is slow since such files need to be sorted out
- e) difficulty in generated report. Report on statistical data are difficult to be generated and they are often ignore though very important.

3.3. COST AND BENEFIT ANALYSIS

From the information generated on the operation of the old system it is pertinent for Junior Secondary School Maitumbi to adopt the use of computer in its examination office. This however will involve the purchase of computer though very expensive and the maintenance is relatively costly. Getting an expert to program the continuous assessment records in the school computer is by no means an easy task. The implication of this is that the school will need the services of a programmer who will be employed and paid for his services.

However its advantages over the mannual system can not be overemphasized. These include:-

- 1) High speed of execution which make it very easy to comunicate faster and respond quickly to any given situation
- 2.) It has the facility for handing large volume of data more efficiently and with high degree of accuracy and at velatively low cost.
- 3). The information generated in the system will be error - free
- 4). Security and privacy of file is garantee with the new system.
- 5.) With the new system, misplacement of continuous assessments record of student will no longer exist.

3.4 INPUT SPECIFICATION:

In the examination office, the input data are the students scores in their various subjects. Due to time factor, only score of very few students are going to be used out of the thirteen subjects exposed to the students at the Junior Secondary School Maitumbi, each students is expected to offer all the thirteen subjects.

In Junior Secondary School Maitumbi, there three sets of J.S.S classes. Based on this three data base file will be created for them. These are:-

- 1) 97JSS31 DBF
- 2) 97JSS21 DBF
- 3) 97JSS11 DBF

These name are so designed for easy identification of the file. 97JSS31 DBF Means a file for 96/97 Session students in JSS3 classes containing their first term records. 97JSS21 DBF Means a file for 96/97 session students in JSS2 class containing their first term records. 97JSS11 DBF Means a file for 96/97 Session students in JSS1 class containing their first term records.

In short, in the data base file, the first two character is a representation of the year of the session. The next four character represent the name of the class. The last character (e.g1) indicate the term for which the file is created. So we are using the first term result of the students.

The software we want to use for this project is the Dbase IV. It has facilities for creating files. While creating this file, it is mandatory for the users to define the field types and the field widths to be used, before putting records into these files. These are described below using the thirteen subject offered by the students in JSS level.

Field No

1	Field Description	Field Name	Field Type	Field Widths	Del
2					
3					
4	Adm. Number	Adm. Number	Character	4	0
5	Class	Class	Character	7	0
6	Names	Names	Character	20	0
7	English Test	English Test	Numeric	2	0
8	English Exam	English Exam	"	2	0
9	English Total	English Total	"	2	0
10	Maths Test	Maths Test	"	2	0
11	Maths Exam	Maths Exam	"	2	0
12	Maths Total	Maths Total	"	2	0
13	Hausa Test	Hausa Test	"	2	0
14	Hausa Exam	Hausa Exam	"	2	0
15	Hausa Total	Hausa Total	"	2	0
16	S/Studies Test	S/Studies Test	"	2	0
17	S/Studies Exam	S/Studies Exam	"	2	0
18	S/Studies Total	S/Studies Total	"	2	0
19	Agric Science Test	Agric Science Test	"	2	0
20	Agric Science Exam	Agric Science Exam	"	2	0
21	Agric Science Total	Agric Science Total	"	2	0
22	Intergrated Sc. Test	Intergrated Sc. Test	"	2	0
23	Intergrated Sc. Exam	Intergrated Sc. Exam	"	2	0
24	Intergrated Sc. Total	Intergrated Sc. Total	"	2	0
25	Home ecom. Test	Home ecom. Test	"	2	0
26	Home ecom. Exam	Home ecom. Exam	"	2	0
27	Home ecom Total	Home ecom Total	"	2	0
28	Business Studies Test	Business Studies Test	"	2	0
29	Business Studies Exam	Business Studies Exam	"	2	0
30	Business Studies Total	Business Studies Total	"	2	0
31	Itnro Tech. Test	Itnro Tech. Test	"	2	0
32	Intro Tech. Exam	Intro Tech. Exam	"	2	0
33	Intro Tech Total	Intro Tech Total	"	2	0
34	IRK /CRK Test	IRK /CRK Test	"	2	0
35	IRK/CRK Exam	IRK/CRK Exam	"	2	0
36	IRK/CRK Total	IRK/CRK Total	"	2	0
37	PHE Test	PHE Test	"	2	0
38	PHE Exam	PHE Exam	"	2	0
39	PHE Total	PHE Total	"	2	0
40	Lit. in Eng. Test	Lit. in Eng. Test	"	2	0
41	Lit. in Eng. Exam	Lit. in Eng. Exam	"	2	0
42	Lit. in Eng. Total	Lit. in Eng. Total	"	2	0
	Comulative Total	Comulative Total	"	2	0
	Average marks	Average marks	"	3	0
	Position	Position	"	3	0

Fig 1.

OUTPUT SPECIFICATION

The output specification will be the information obtained after the execution of the raw input data in the computer. The print out will constitute among other things the student's name, total score, average score and the position of students in the class.

3.6. COMPUTER REQUIREMENT

These are essential equipment needed for the designing and usage of the system (i.e. software) to be designed. This requirement can be grouped under two headings, namely hardware requirement and software requirement.

3.7. HARDWARE REQUIREMENT

A personal computer with the following features.

- i) IBM compatible
- ii) Floppy Disk memory of 640KB
- iii) Hard disk memory of 10MB
- iv) Disk drive; Two floppy disk drives
- v) Display: Monochrome/Colour graphics.
- B. Floppy Disk: 3.5 inch, size double sided double density.
- C. Printer: Dot matrix, LaserJet, DeskJet.

3.7.2. SOFTWARE REQUIREMENT:

- A Disk operating system-MS-DOS Version
- B DBMS package: Dbase IV.

CHAPTER FOUR

SYSTEM DEVELOPMENT

4.0 INTRODUCTION

This chapter discusses the software to be used, its programming language, algorithms and the flow chart designed for the system. It also has the system documentation as it concerns the operational manual and program for the project. It also views the change over procedures to the new system.

4.1 CHOICE OF SOFTWARE AND PROGRAM LANGUAGE

The software to be used for the project is MS-DOS and the Dbase IV. The MS-DOS is needed essentially to boot the hardware and make it ready to carry out necessary instructions that will subsequently be given to it.

The Dbase IV is the main software to be used in the system development. The system to be developed is such that will require the processing and transaction of files. These transactions include:

1. Viewing of students' report sheets and subject files.
2. Updating of student records (i.e. editing, appending or deleting).
3. Printing of students' report sheet, subjects files and class result summary.

The choice of Dbase IV for this project arose from the fact that the package has facilities for carrying out the transactions listed above. Apart from having these features, it has a facility for creating Dbase files.

Each file contains various information called fields, about a single item arranged in columns while the rows contain the records.

In addition, it has text editing facilities used for programming sets of instructions for computer execution, in order to obtain certain output (i.e. report generation). For this project Dbase IV programming language is going to be used. One other major significant feature of Dbase IV is the inclusion of a control center. The control center enables the users to design databases, manipulate and edit records and files, generate reports etc. The environment can verify data automatically as they are entered into the fields. With Dbase IV up to 99 files can be open at a time and with these facilities, the project can be conveniently designed and executed for the purpose of report generation.

4.2 ALGORITHMS AND FLOW CHART

An algorithm is a finite set or sequence of instructional (or operator) for carrying out a specific task or solving a specific problem.

Flow chart indicate how the algorithms are being executed by the computer. The boxes are usually linked together by flow line showing the arrows.

4.2.1 ALGORITHM: PROJECT

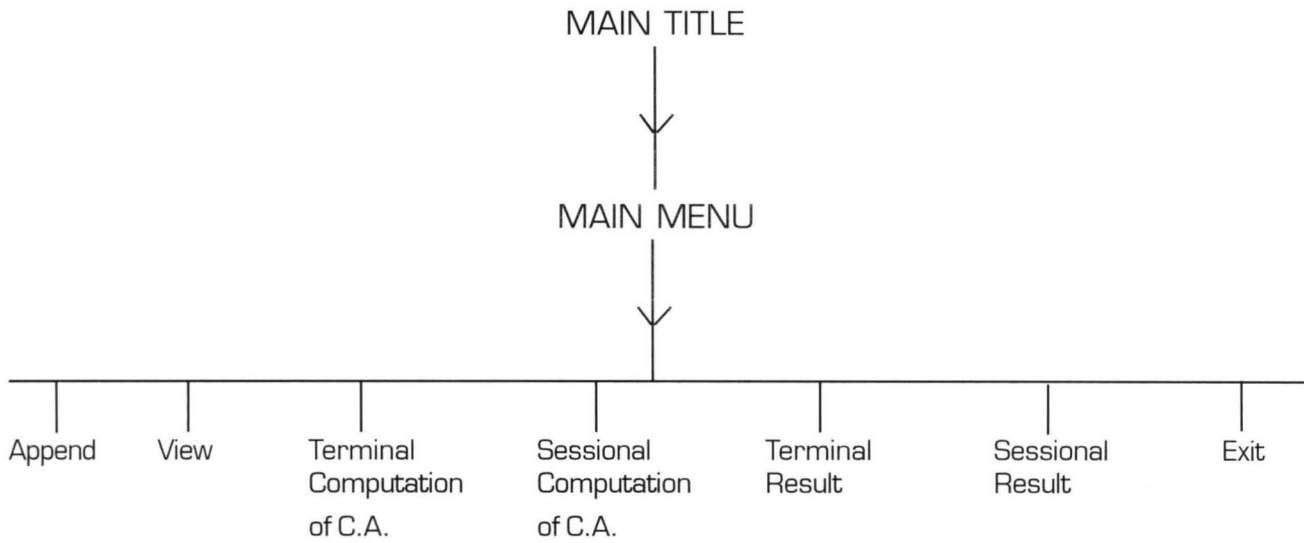
{Computerization of continous assessment record of Junior Secondary School.}
{Acase study of Junior Secondary School, Maitumbi - Minna. }

DECLARE MCAI, MCA2, MCA3
MCAE1, MCAE2, MCAE3
MTCAE, MSCAE.

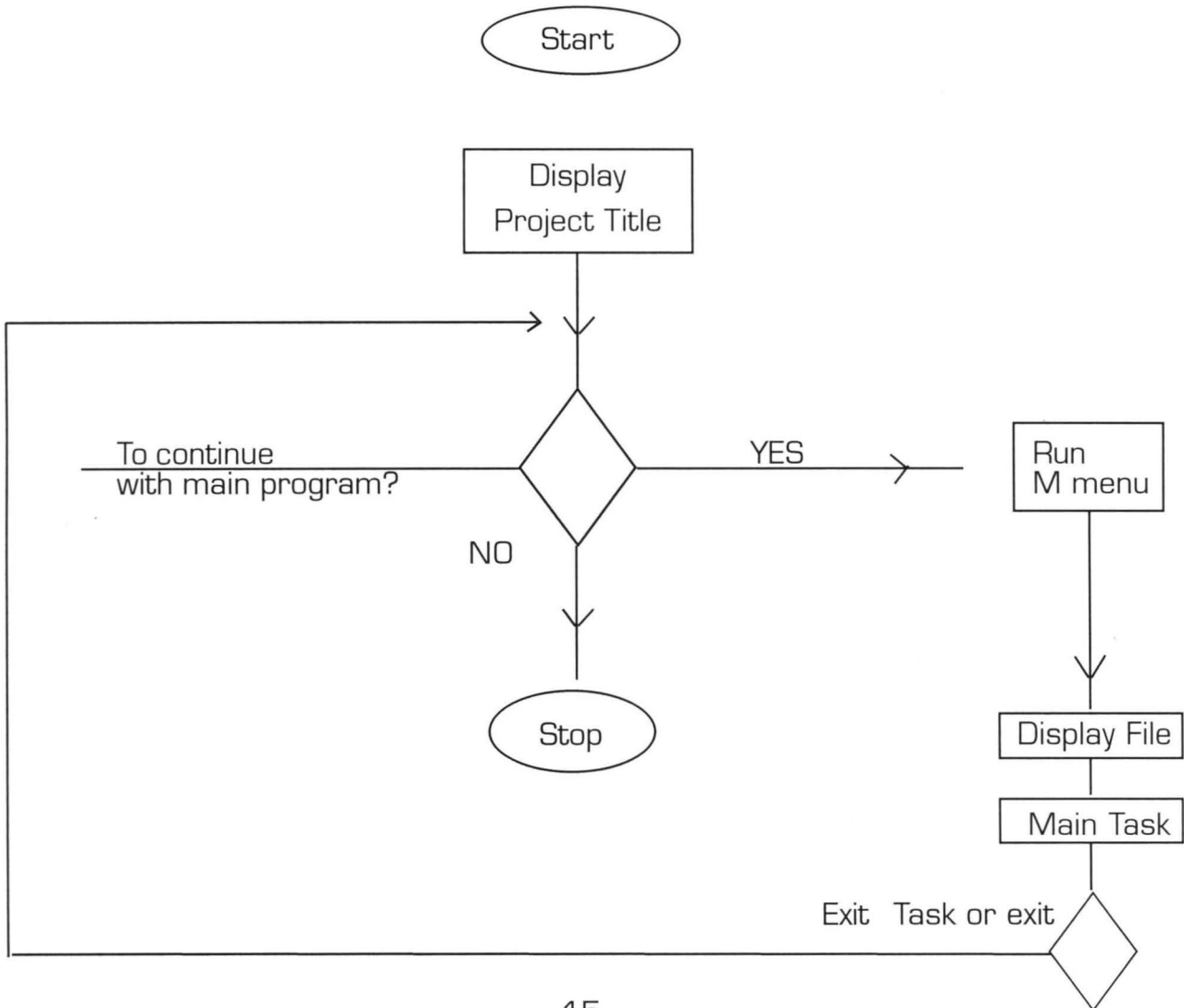
EXECUTE

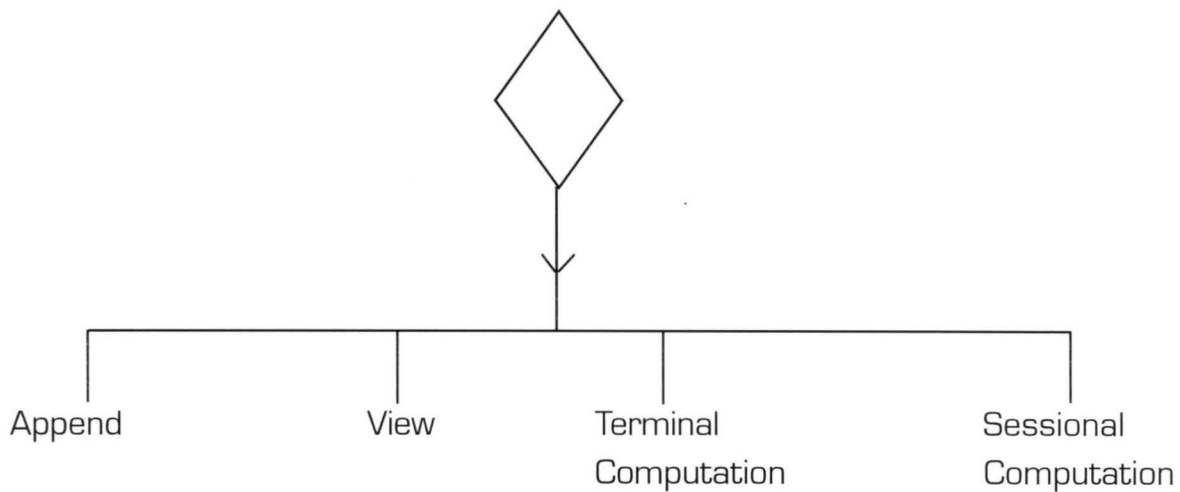
Output: 'Computerization of continous assessment result',
Output: 'Of Junior Secondary School',
Output: 'A case study of Junior Secondary School, Maitumbi, Minna;'
Output: 'By Tsaku Augustine;'
Output: 'PD/MCS/O33/96
Output: Supervise by;
Output: L N Ezeako;
Output: !To continue with main program; more
Output: 'ch;
ch = "Y"
Do while
Output: File Names and Codes;
Output: 'Enter file to be used; more
Input: 'File Code
Output: 'Menu task',
Output: Append, view,'
Output: 'Terminal Computation',
Output: 'Sectional Computation',
Output: Exit;
Output: 'Enter task' more
Output: 'Task',
Run Task
END Computerization of continous assessment

4.2.2 FLOW CHART OF MODULAR PROGRAM



Actual Flow Chart is illustrated below:





4.3 OPERATIONAL MANUAL

In order to use the software, the hardware must first of all be activated:-

1. The first stage is the booting of the machine, this is done by pressing CTRL, ALT and DEL keys at the same time and simultaneously releasing the key and the C:\> prompt will appear
2. At C:\> type CD Dbase IV and press enter key. This will immediately take the users to Dbase IV.
3. Type Dbase again and press enter key it will now lead the user to the control panel of Dbase IV
4. Press ESC key to lead the user to dos prompt.
5. At this point insert your programs and data diskette in drive A if these are in floppy disk.
6. Then type set default to A and press enter key
7. The next step type do MTITLE and press ENTER key
8. After pressing the Enter key, the main title will be display as well as the message (press any key to continue).
9. The user now can simple continue to follow the instructions display on the screen in order to make use of the software.

4.4 PROGRAMMING AND PROGRAMS

The act of writing programs is called programming. Programs on the other hand is defined as a set or sequence of instructions (software) which informs a computer of the steps required for achieving a defined task. Computer programs i.e. the software are of two types, system software and application software. The system software are programs that act on the user's program commands and activate the proper hardware circuits and devices to perform the processing. In short system software acts as an interface between the user's program and the hardware. System software are usually purchased with the computer hardware referred to as Operating System (OS).

The type of application software that was designed and developed by the researcher to be used in the examination office of the center under study is the home-made application software. It is made to solve the problems associated with the manual system of processing continuous assessment records as observed in 3.2 of chapter three. These programs which are eight in number are documented fully in the floppy disk and it is to be used to solve the local problem of the school continuous assessment records.

These are:

1. Main title program
2. Main menu program
3. Append program
4. View program
5. Termly computation program
6. Sessional computation program
7. Termly result
8. Sessional result.

4.5 CHANGE OVER

Change over means a change from the old system of performing specific tasks to the new ones. In short it implies changes from manual system of processing data to a new system of processing such data by means of using a computer machine.

In the center under study, the direct change over is the best option. As discussed in 3.2 the disadvantages associated with manual system of processing students continuous assessment outnumber its advantages hence the direct change over is aimed at alleviating these problems. However, the direct change over must be held in obedience with the old system at least for a security purpose. In this way, if there is a great failure with the new system then the organization has to revert to the old system. Secondly, the system has to be held in obedience with the old system because it is the most risky method though least expensive.

CHAPTER FIVE

5.0 MAJOR ACHIEVEMENT OF THIS PROJECT.

With this project, the researcher has identified major problems associated with the manual system of processing the continuous assessment of student. Base on this , the achievable objectives of the project was that:

- (A) A software package of Dbase management system was developed to take care of problem already discussed in 3.2. Of chapter 3.
- (B) The software package that was designed and developed by the researcher will be use in the examination office of the centre under study for easy and faster execution of students continuous assessments and the result obtained immediately.
- (C) Further more, the project has eliminated some major malpractices associated with the manual process of generating report of students.

This is so became once the raw scores of student are imputed into the software it will be difficult for teachers to alter any scores without concrete reasons.

- (D) Considering the urgency to alleviate the problems already discussed in this project, the direct changeover of the old to the new system was appropriate. Moreso that with the new system, misplacement of students records, free of errors, privacy of informations about students will be maintained.

5.1. PERFORMANCE ASSESSMENT:

Some students of post graduate diploma in computer science of FUT Minna have embacked upon similar project but they have not been able to developed a software that will be use in the examination office of the center under study. For example, Apata (1994) in his project work page 44 he said" As at the time of completing this project work, I have not been able to compile the software". He further said "Hence the software cannot be use directly i.e. cannot be executed at the Dos prompt".

Base on this, the researcher has develop a software using the data base environment which can be use effectively and efficiently in the examination office of the center under study.

This software is users friendly and does not require much knowledge about computer before one can operate it. All the users need is to obey the sets of commands or instructions highlighted in 4.3 of chapter four (operational manual).

5.2. SUGESTION FOR FURTHER STUDY

As observed in 1.1 of chapter one the researcher work was based on cognitive domain only. Be that as it is, there is a need for researcher work to be carried out in

psychomotor and effective domain which deals with the manipulating skills and values of the students life style.

Again it is only the raw scores of the students that was considered. Raw scores is direct numerical report of a person's test performance i.e. the percentage scores of 40% 50% etc. So it is the researcher hope that grading and rewriting of the raw scores should be looked into. By so doing the examination marks can be interpreted more meaningfully.

5.3, RECOMMENDATION

Continous assessment is a mechanism whereby the final grading of the students in the cognitive affective and psychomotor domains systematically take account of all his performance during a given period of schooling. The mannual system of processing the raw scores of students are subject to some major weakness such as:

- a) Misplacement of student result.
- b) Delay in insuance of result.
- c) Occurance of errors
- d) Lack of privacy of students result and so on.

The shortcoming listed above therefore geared the researcher to designed and developed a software that eill be used in the examination office of the Junior Secondary School Maitumbi, .

It is the researcher hope that the above mentioned shortcoming will be a thing of the past if the following recommendation are approved:

- 1. The computer unit should be created for the school
- 2. The principal, vice principal academic and the examination officer should be train on how to operate the computer and the software designed and devel oped for continous assessments records.
- 3. At least two personal computer should be purchase for this purpose on CPD

CONCLUSION

The direct changeover from the old system to the new system is aimed at eliminating all the shortcoming already highlighted in this project. Again the must suitable environment to be use is Dbase IV which have facilities for creating so many files at the same time.

References

1. Adamu N.R. (1994) A project on computerization of grading system in Niger State College of Education, Minna.
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3. Federal Ministry of Education, A handbook on continuous assessment published by Heinemann Education Book (Nig.) Ltd.
4. Kola R. (1997) A course material on CPD 726 Data Base Management System
5. Prince Badamasi R.O. A course material on CPD 728 system analysis and design.

THESE PROGRAMS ARE DEVELOPED AS A SOFTWARE
TO BE USED BY DAY SECONDARY SCHOOL
MAITUMBI, MINNA
WITH RESPECT TO JUNIOR SECONDARY SCHOOL
CONTINUOUS ASSESSMENT EXAMINATION RESULTS

THE SOFTWARE IS WRITTEN
AND DEVELOPED BY
TSAKU AUGUSTINE
PGD/MSD/033
1996/97
THE PROJECT IS SUPERVISED BY
MR L. N. EZEAKO

y key to continue...

AUGUSTINE COMPUTER

MAIN MENU

<u>FILE</u>	<u>CODE</u>
1ST TERM C.A.	1
2ND TERM C.A.	2
3RD TERM C.A.	3
1ST TERM C.A. & EXAM	4
2ND TERM C.A. & EXAM	5
3RD TERM C.A. & EXAM	6
SESSIONAL C.A.	7
EXIT	8
ENTER THE FILE CODE	0

AUGUSTINE COMPUTER

MAIN MENU

TASK MENU: APPEND VIEW COMP1 COMP2 TREPORT SREPORT EXIT

ENTER THE FIRST OF TASK

DATA ENTERING SCREEN FOR TERMLY C.A.

CLASS: J3 ADM. NO.: 0013 SEX: F

NAME: AMINA SHEHU

ENGLISH C.A.1: 12.0 ENGLISH C.A.2: 9.0 ENGLISH C.A.3: 15.0

MATHS C.A.1: 17.0 MATHS C.A.2: 10.0 MATHS C.A.3: 18.0

INT. SC. C.A.1: 19.0 INT. SC. C.A.2: 7.0 INT. SC. C.A.3: 15.0

SOS. STU. C.A.1: 12.0 SOS. STU. C.A.2: 11.0 SOS. STU. C.A.3: 13.0

REL. C.A.1: 10.0 REL. C.A.2: 10.0 REL. C.A.3: 15.0

INT. TEC. C.A.1: 18.0 INT. TEC. C.A.2: 16.0 INT. TEC. C.A.3: 17.0

AUGUSTINE COMPUTER

DATA VIEWING SCREEN FOR TERMLY C.A.

CLASS: j3 ADM. NO.: 0001 SEX: M

NAME: Shehu Ibrahim

ENG. CA1 15.0	ENG. CA2 12.0	ENG. CA3 13.0
MATHS CA1 12.0	MATHS CA2 16.0	MATHS CA3 15.0
INS. SCI CA1 12.0	INS SCI CA2 13.0	INS. SCI CA3 12.0
SOS. STU.CA1 12.0	SOS. STU.CA2 13.0	SOS. STU.CA3 12.0
REL. CA1 13.0	REL. CA2 12.0	REL. CA3 14.0
INT. TEC. CA1 12.0	INT. TEC. CA2 14.0	INT. TEC. CA3 12.0

DAY SECONDARY SCHOOL MAITUMBI MINNA

ADM. NO.:	NAME	TERMLY RESULT		SESSION 1997			
		1	CLASS J3	ENG. MATHS.:	INS. SC.:	SOS. STU. REL.:	INT. TEC
0001	SHEHU IBRAHIM	74.0	77.0	62.0	59.0	62.0	68.0
0002	ISAH IBRAHIM	56.0	67.0	56.0	68.0	45.0	78.0
0003	IBRAHIM AUDU	67.0	79.0	60.0	67.0	45.0	69.0
0004	IBRAHIM AUDU	56.0	80.0	67.0	67.0	56.0	60.0
0005	SANI BAWA	67.0	70.0	68.0	67.0	70.0	70.0
0006	SULEIMAN SHEHU	67.0	50.0	70.0	69.0	69.0	76.0
0007	IBRAHIM SANI	67.0	60.0	67.0	68.0	68.0	46.0
0008	IBRAHIM SULE	56.0	56.0	50.0	67.0	68.0	50.0
0009	MOH'D IBRAHIM	56.0	78.0	54.0	67.0	68.0	56.0
0010	KINGSLEY JAMES	50.0	67.0	65.0	60.0	56.0	56.0
0011	BAWA SANUSI	48.0	78.0	65.0	50.0	67.0	50.0
0012	AMINA IBRAHIM	0.0	0.0	0.0	0.0	0.0	0.0

Press any key to continue...

DAY SECONDARY SCHOOL MAITUMBI MINNA

ADM. NO.:	NAME	TERMLY RESULT		SESSION 1997			
		1	CLASS J3	ENG. MATHS.:	INS. SC.:	SOS. STU. REL.:	INT. TEC
0001	SHEHU IBRAHIM	74.0	77.0	62.0	59.0	62.0	68.0
0002	ISAH IBRAHIM	56.0	67.0	56.0	68.0	45.0	78.0
0003	IBRAHIM AUDU	67.0	79.0	60.0	67.0	45.0	69.0
0004	IBRAHIM AUDU	56.0	80.0	67.0	67.0	56.0	60.0
0005	SANI BAWA	67.0	70.0	68.0	67.0	70.0	70.0
0006	SULEIMAN SHEHU	67.0	50.0	70.0	69.0	69.0	76.0
0007	IBRAHIM SANI	67.0	60.0	67.0	68.0	68.0	46.0
0008	IBRAHIM SULE	56.0	56.0	50.0	67.0	68.0	50.0
0009	MOH'D IBRAHIM	56.0	78.0	54.0	67.0	68.0	56.0
0010	KINGSLEY JAMES	50.0	67.0	65.0	60.0	56.0	56.0
0011	BAWA SANUSI	48.0	78.0	65.0	50.0	67.0	50.0
0012	AMINA IBRAHIM	0.0	0.0	0.0	0.0	0.0	0.0

Press any key to continue...

MAIN TITLE

```
Set echo off
Set scoreboard off
Set status off
  clea
  DO WHILE .T.
*   Set color to w/b+
    @ 2,10 to 9,57 double
@ 3,14 say "THESE PROGRAMS ARE DEVELOPED AS A SOFTWARE"
@ 4,17 say "TO BE USED BY DAY SECONDARY SCHOOL"
@ 5,23 say "MAITUMBI, MINNA"
@ 6,15 say "WITH RESPECT TO JUNIOR SECONDARY SCHOOL"
@ 7,14 say "CONTINUOUS ASSESSMENT EXAMINATION RESULTS"
*   Set color to w+/r+
*@ 11,10 to 22,55 double
@ 13,18 say "THE SOFTWARE IS WRITTEN"
@ 14,21 say "AND DEVELOPED BY"
@ 15,23 say "TSAKU AUGUSTINE"
@ 16,23 say "PGD/MSC/033"
@ 17,25 say "1996/97"
@ 18,17 say "THE PROJECT IS SUPERVISED"
@ 19,24 say "MR L. N.EZEAKO"
@ 11,10 to 22,55 double
  WAIT
CLEA
ch = space(1)
@ 10,5 say " TO CONTINUE WITH THE MAIN PROGRAM? (Y/N) "
@ 10,60 get ch pict "@!"
read
Do Case
  case ch = "Y"
    do mmenu
  case ch = "N"
    exit
Endcase
Enddo
Set scoreboard on
Set echo on
RETURN
```

MAIN MENU

```
Set talk off
Set status off
Set scoreboard off
* Set color to w/r*
@ 0,24 say "AUGUSTINE COMPUTER"
* Set color to w/b
DO WHILE .T.
    @ 2,15 say "MAIN MENU"
    @ 3,5 TO 23,45 DOUBLE
    @ 4,13 say "FILE" + space(14) + "CODE"
        @ 5,13 TO 5,16 double
        @ 5,31 to 5,34 double
    @ 6,7 say "1ST TERM C.A." + SPACE(14) + "1"
    @ 8,7 say "2ND TERM C.A." +space(14) + "2"
    @ 10,7 say "3RD TERM C.A." + Space(14) + "3"
@ 12,7 say "1ST TERM C.A. & EXAM" + SPACE(7) + "4"
@ 14,7 say "2ND TERM C.A. & EXAM" + space(7) + "5"
@ 16,7 say "3RD TERM C.A. & EXAM" + space(7) + "6"
@ 18,7 say "SESSIONAL C.A." + space(13) + "7"
@ 20,7 SAY "EXIT" + space(19) + "8"
store 0 to ch
@ 22,7 say "ENTER THE FILE CODE"
@ 22,43 get ch Pict "9" range 1,8
read
    DO CASE
        case ch = 1
            use mca1
        case ch = 2
            use mca2
        case ch = 3
            use mca3
        case ch = 4
            use mcae1
        case ch = 5
            use mcae2
        case ch = 6
            use mcae3
        case ch = 7
            use msca
        CASE CH = 8
            EXIT
    ENDCASE
    @ 3,2 clea to 23,70
@ 3,5 say "TASK MENU:"
@ 3,18 say "APPEND"
@ 3,26 say "VIEW"
@ 3,32 say "COMP1"
```

```
@ 3,39 say "COMP2"
@ 3,46 say "TREPORT"
@ 3,54 say "SREPORT"
@ 3,64 say "EXIT"
  ch = space(1)
@ 22,5 say "ENTER THE FIRST OF TASK"
@ 22,60 get ch pict "@!"
read
* Set color to w/n+
  DO CASE
    case ch = "A"
      do app
    case ch = "V"
      do vie
    Case ch = "C"
      do compl
    case ch = "D"
      do comp2
    case ch = "T"
      do trep
    case ch = "S"
      do srep
    case ch = "E"
      EXIT
  ENDCASE
ENDDO
@ 3,2 CLEA TO 23,70
RETURN
```

APPEND

```
Set status off
Store space(5) to file
Store 0 to mengcat, mmatcat, minscat,
STORE 0 TO soscat, mrelcat, mintcat
@ 2,5 say "Enter file name in use" get file
read
@ 2,3 clea to 2,79
DO WHILE .T.
If file = "MCA1" .or. file = "MCA2" .or. file = "MCA3"
    @ 2,5 to 23,73 double
    @ 3,19 say "DATA ENTERING SCREEN FOR TERMLY C.A."
    Append blank
    @ 4,7 say "CLASS:" get class
    @ 4,20 say "ADM. NO.:" get adm_no
    @ 4,40 say "SEX:" get sex
    @ 6,7 say "NAME:" get name
    @ 8,7 say "ENGLISH C.A.1:" get engcal
    @ 8,28 say "ENGLISH C.A.2:" get engca2
    @ 8,50 say "ENGLISH C.A.3:" get engca3
    @ 10,7 say "MATHS C.A.1:" get matcal
    @ 10,28 say "MATHS C.A.2:" get matca2
    @ 10,50 say "MATHS C.A.3:" get matca3
    @ 12,7 say "INT. SC. C.A.1:" get inscal
    @ 12,28 say "INT. SC. C.A.2:" get insca2
    @ 12,50 say "INT. SC. C.A.3:" get insca3
    @ 14,7 say "SOS. STU. C.A.1:" get soscal
    @ 14,28 say "SOS. STU. C.A.2:" get sosca2
    @ 14,50 say "SOS. STU. C.A.3:" get sosca3
    @ 16,7 say "REL. C.A.1:" get relcal
    @ 16,28 say "REL. C.A.2:" get relca2
    @ 16,50 say "REL. C.A.3:" get relca3
    @ 18,7 say "INT. TEC. C.A.1:" get intcal
    @ 18,28 say "INT. TEC. C.A.2:" get intca2
    @ 18,50 say "INT. TEC. C.A.3:" get intca3
    read
    DO while .not. eof()
        madm_no = adm_no
        mengcal = engcal
        mmatcal = matcal
        mengca2 = engca2
        mengca3 = engca3
        mmatca2 = matca2
        mmatca3 = matca3
        minscal = inscal
        minsca2 = insca2
        minsca3 = insca3
        msoscal = soscal
```

```

msosca2 = sosca2
msosca3 = sosca3
mintca1 = intca1
mintca2 = intca2
mintca3 = intca3
mrelca1 = relca1
mrelca2 = relca2
mrelca3 = relca3

mengcat = mengca1 + mengca2 + mengca3
mmatcat = mmatca1 + mmatca2 + mmatca3
minscat = minscal + minsca2 + minsca3
msoscat = msoscal + msosca2 + msosca3
mrelcat = mrelca1 + mrelca2 + mrelca3
mintcat = mintca1 + mintca2 + mintca3
locate for adm no = madm no
  repl engcat with mengcat
  repl matcat with mmatcat
  repl inscat with minscat
  repl soscat with msoscat
  repl relcat with mrelcat
  repl intcat with mintcat
  SKIP
Enddo
Endif
If file = "MCAE1" .or. file = "MCAE2" .or. file = "MCAE3"
  @ 2,5 TO 23,70 DOUBLE
@ 3,14 say "DATA ENTERING SCREEN FOR TERM EXAM SCORES"
  Append blank
  @ 5,7 say "CLASS:" get class
  @ 5,25 say "ADM. NO.:" GET ADM_NO
  @ 5,45 say "SEX:" get sex
  @ 7,7 say "NAME:" get name
  @ 9,7 say "ENG. EXAM.:" get engex
  @ 9,35 say "MATHS. EXAM.:" get matex
  @ 11,7 say "INT. SC. EXAM.:" get insex
  @ 11,35 say "SOC. STU.EXAM.:" get sosex
  @ 13,7 say "REL. EXAM.:" get relex
  @ 13,35 say "INT. TECH. EXAM.:" get intex
  read
  Endif
  If file = "MSCA"
  @ 4,5 TO 23,70 DOUBLE
@ 5,14 say "DATA ENTERING SRCEEN FOR SESSIONAL EXAM. SCORES"
  Append blank
  @ 7,7 say "CLASS:" get class
  @ 7,25 say "ADM. NO.:" get adm_no
  @ 7,45 say "SEX:" get sex
  @ 9,7 say "NAME:" get name
  @ 11,7 say "ENG. EXAM.:" get engex
  @ 11,35 say "MATHS.EXAM.:" get matex
  @ 13,7 say "INT. SC. EXAM.:" get insex

```

```
@ 13,35 say "SOC.STU. EXAM.:" get sosex
@ 15,7 say "REL. EXAM.:" get relex
@ 15,35 say "INT. TECH. EXAM.:" get intex
  read
Endif
  ch = space(1)
@ 20,7 say "Any other set of data to be
entered?(Y/N) "
@ 20,60 get ch pict "@!"
  read
@ 2,3 clea to 23,75
Do case
  case ch = "Y"
  loop
  case ch = "N"
  Exit
Endcase
Enddo
@ 2,3 clea to 23,75
close database
Return
```

VIEW

```
Set talk off
Set scoreboard off
* Set color to W/R*
@ 0,31 say "A U G U S T I N E   C O M P U T E R"
Set color to W/n+
Store space(5) to file, madm_no
Store space(20) to mname
@ 2,5 say "Enter file name in use" get file
*@ 3,5 say "Enter student adm.no" get madm_no
@ 3,5 say "ENTER STUDENT NAME" get mname
read
@ 2,3 clea to 3,79
DO WHILE .T.
If file = "MCA1" .or. file="MCA2" .or. file="MCA3"
@ 2,3 to 23,75 double
@ 3,19 say "DATA VIEWING SCREEN FOR TERMLY C.A."
*Locate for adm_no = madm_no
locate for name = mname
If found( )
@ 4,7 say "CLASS:" get class
@ 4,20 say "ADM. NO.:" get Adm_no
@ 4,40 say "SEX:" get sex
@ 6,7 say "NAME:" get name
@ 8,7 say "ENG. CA1" get Engcal
@ 8,25 say "ENG. CA2" get Engca2
@ 8,45 say "ENG. CA3" get Engca3
@ 10,7 say "MATHS CA1" get Matcal
@ 10,25 say "MATHS CA2" get Matca2
@ 10,45 say "MATHS CA3" get Matca3
@ 12,7 say "INS. SCI CA1" get Inscal
@ 12,25 say "INS. SCI CA2" get Inzca2
@ 12,45 say "INS. SCI CA3" get Inzca3
@ 14,7 say "SOS. STU.CA1" get Soscal
@ 14,25 say "SOS. STU.CA2" get Sosca2
@ 14,45 say "SOS. STU.CA3" get Sosca3
@ 16,7 say "REL. CA1" get Relcal
@ 16,25 say "REL. CA2" get relca2
@ 16,45 say "REL. CA3" get relca3
@ 18,7 say "INT. TEC. CA1" get Intcal
@ 18,25 say "INT. TEC. CA2" get Intca2
@ 18,45 say "INT. TEC. CA3" get Intca3
read
Else
@ 15,5 say "RECORD NOT FOUND"
ENDIF
ENDIF
```

```

IF FILE = "MCAE1" .OR. FILE = "MCAE2" .OR. FILE = "MCAE3"
@ 2,5 to 23,70 double
@ 3,14 say "DATA VIEWING SCREEN FOR TERM SCORES"
Locate for adm_no = madm_no
If found ( )
@ 5,7 say "CLASS:" get class
@ 5,25 say "ADM.NO." get adm_no
@ 5,45 say "SEX:" get sex
@ 7,7 say "NAME:" get name
@ 9,7 say "ENG. TERM SC." get Engtfs
@ 9,35 say "MATH TERM SC." get Mattfs
@ 11,7 say "INT. SC. TERM SC." get Instfs
@ 11,35 say "SOS. STU. TERM SC." get sostfs
@ 13,7 say "REL. TERM SC." get Reltfs
@ 13,35 say "INT. TECH. TERM SC." get Inttfs
read
Else
@ 15,5 say "RECORD NOT FOUND"
Endif
Endif
If file= "MSCA"
@ 4,5 to 23,70 double
@ 5,14 say "DATA VIEWING SCREEN FOR PROMOTION SCORES"
Locate for adm_no = Madm_no
If found ( )
@ 7,7 say "CLASS:" get class
@ 7,25 say "ADM. NO." get adm_no
@ 7,45 say "SEX:" get sex
@ 9,7 say "NAME:" get name
@ 11,7 say "ENG. PROM. SC:" get Engpps
@ 11,35 say "MATHS. PROM. SC:" get matpps
@ 13,7 say "INT. SC. PROM. SC:" get Inspps
@ 13,35 say 'SOS. STU. PROM. SC:" get sosppps
@ 15,7 say "REL. PROM. SC. :" get Relpps
@ 15,35 say "INT. TECH. PROM. SC.:" get Intpps
read
Else
@ 18,5 say "RECORD NOT FOUND"
Endif
Endif
wait
@ 3,5 clea to 23,75
Ch = space(1)
@ 15,5 say "Any other record to be viewed? (Y/N) "
@ 15,60 get ch pict "@!"
read
Do case
Case ch = "Y"
loop
Case ch = "N"
Exit
Endcase

```



```
Enddo
  Close database
@ 3,5 clea to 23,75
Return
```

COMP1

```
Set status off
Sele A
use MCA1
Sele B
use MCAE1
Sele C
  use MCA2
*Sele D
  *use MCAE2
*Sele E
  *use MCA3
*Sele F
  *use MCAE3
Store space(5) to madm_no
Store 0 to
mengcat, mmatcat, minscat, msoscat, mrelcat, mintcat
Store 0 to
minsex, msosex, mrelex, mintex, mmattfs, mengtfs, minstfs
Store 0 to msostfs, mreltfs, mengex, mmatex, mreltfs, term
@ 3,5 say "Enter Term" get term
read
If term = 1
  Sele A
  go top
  Do while .not. eof()
  madm_no = adm_no
  mengcat = engcat
  mmatcat = matcat
  minscat = inscat
  msoscat = soscat
  mrelcat = relcat
  mintcat = intcat
  mintcat = intcat
  Sele B
  mengex = engex
  mmatex = matex
  minsex = insex
  msosex = sosex
  mrelex = relex
  mintex = intex
  mengtfs = mengcat + mengex
  mmattfs = mmatcat + mmatex
```

```

minstfs = minscat + minsex
msostfs = msoscat + msosex
mreltfs = mrelcat + mrelex
minttfs = mintcat + mintex
mtotalsc = mengtfs+mmattfs+minstfs+msostfs+mreltfs+minttfs

```

```

locate for adm_no = madm_no
  repl engtfs with mengtfs
  repl mattfs with mmattfs
  repl instfs with minstfs
  repl sostfs with msostfs
  repl reltfs with mreltfs
  repl inttfs with minttfs
  repl totalsc with mtotalsc
skip
Sele A
Enddo
endif

```

```

if term = 2
  Sele C
  go top
Do while .not. eof()
  madm_no = adm_no
  mengcat = engcat
  mmatcat = matcat
  minscat = inscat
  msoscat = soscat
  mrelcat = relcat
  mintcat = intcat
  Sele D
  mengex = engex
  mmatex = matex
  minsex = insex
  msosex = sosex
  mrelex = relex
  mintex = intex

```

```

mengtfs = mengcat + mengex
mmattfs = mmatcat + mmatex
minstfs = minscat + minsex
msostfs = msoscat + msosex
mreltfs = mrelcat + mrelex
minttfs = mintcat + mintex
mtotalsc =

```

```

mengtfs+mmattfs+minstfs+msostfs+mreltfs+minttfs

```

```

locate for adm_no = madm_no
  repl engtfs with mengtfs
  repl mattfs with mmattfs
  repl instfs with minstfs
  repl sostfs with msostfs
  repl reltfs with mreltfs
  repl inttfs with minttfs
  repl totalsc with mtotalsc

```

```

skip
sele C
Enddo
Endif
if term = 3
    Sele E
    go top
    do while .not. eof()
    madm_no = adm_no
    mengcat = engcat
    mmatcat = matcat
    minscat = inscat
    msoscat = soscat
    mrelcat = relcat
    mintcat = intcat
    Sele F
    mengex = engex
    mmatex = matex
    minsex = insex
    msosex = sosex
    mrelex = relex
    mintex = intex
    mengtfs = mengcat + mengex
    mmattfs = mmatcat + mmatex
    minstfs = minscat + minsex
    msostfs = msoscat + msosex
    mreлтfs = mrelcat + mrelex
    minttfs = mintcat + mintex
mtotalsc = mengtfs+mmattfs+minstfs+msostfs+mreлтfs+minttfs
locate for adm_no = madm_no
repl engtfs with mengtfs
repl mattfs with mmattfs
repl instfs with minstfs
repl sostfs with msostfs
repl reltfs with mreлтfs
repl inttfs with minttfs
repl totalsc with mtotalsc
skip
sele E
Enddo
close all database
return

```

COMP2

```
Set talk off
Set scoreboard off
Set status off
Store space(4) to madm_no
Sele A
    use MCAE1
Sele B
    use MCAE2
Sele C
    use MCAE3
Sele D
    use MSCA
```

```
Store space(4) to madm_no1, madm_no2, madm_no3
Store 0 to mengtfs1, mengtfs2, mengtfs3, mengex, mengps
Store 0 to mmattfs1, mmattfs2, mmattfs3, mmatex, mmatps
Store 0 to minstfs1, minstfs2, minstfs3, minsex, minsps
Store 0 to msostfs1, msostfs2, msostfs3, msosex, msosps
Store 0 to mreлтfs1, mreлтfs2, mreлтfs3, mrelex, mreлps
Store 0 to minttfs1, minttfs2, minttfs3, mintex, mintps
```

```
Sele A
go top
DO WHILE .NOT. EOF()
    madm_no1 = adm_no
    mengtfs1 = engtfs
    mmattfs1 = mattfs
    minstfs1 = instfs
    msostfs1 = sostfs
    mreлтfs1 = reltfs
    minttfs1 = inttfs
    Sele B
        madm_no2 = adm_no
        mengtfs2 = engtfs
        mmattfs2 = mattfs
        minstfs2 = instfs
        msostfs2 = sostfs
        mreлтfs2 = reltfs
        minttfs2 = inttfs
    Sele C
        madm_no3 = adm_no
        mengtfs3 = engtfs
        mmattfs3 = mattfs
        minstfs3 = instfs
        msostfs3 = sostfs
        mreлтfs3 = reltfs
        minttfs3 = inttfs
    Sele D
        mengex = engex
        mmatex = matex
        minsex = insex
        msosex = sosex
```

```

    mrelex = relex
    mintex = intex
mengps = (mengtfs1*.2)+(mengtfs2*.2)+(mengtfs3*.2)+mengex
mmatps = (mmattfs1*.2)+(mmattfs2*.2)+(mmattfs3*.2)+mmatex
minsp = (minstfs1*.2)+(minstfs2*.2)+(minstfs3*.2)+minsex
msosps = (msostfs1*.2)+(msostfs2*.2)+(msostfs3*.2)+msosex
mrelps = (mreltfs1*.2)+(mreltfs2*.2)+(mreltfs3*.2)+mrelex
mintps = (minttfs1*.2)+(minttfs2*.2)+(minttfs3*.2)+mintex
mtotalsc = mengps + mmatps + minsp + msosps + mrelps +
mintps

    Locate for adm_no = madm_nol
    repl engps with mengps
    repl matps with mmatps
    repl insps with minsp
    repl sosps with msosps
    repl relps with mrelps
    repl intps with mintps
    repl totalsc with mtotalsc
    skip
    Sele A
ENDDO
    close all database
RETURN

```

TREP

```
Set talk off
Set scoreboard off
Set status off
Store space(5) to class
Store space(8) to session
Store space(5) to file
store 0 to term
@ 2,10 say "ENTER FILE NAME" get file
read
clea
If file = "MCAE1"
    USE MCAE1
Endif
If file = "MCAE2"
    USE MCAE2
Endif
If file = "MCAE3"
    USE MCAE3
Endif
*Set device to printer
@ 3,22 say "DAY SECONDARY SCHOOL MAITUMBI MINNA"
@ 5,33 say "TERMLY RESULT"
@ 6,21 say "TERM" get term
@ 6,40 say "CLASS" get class
@ 6,60 say "SESSION" get session
read
@ 8,2 say "ADM. NO.:"
@ 8,18 say "NAME"
@ 8,31 say ":ENG.:"
@ 8,36 say "MATHS.:"
@ 8,45 say "INS. SC.:"
@ 8,56 say "SOS. STU.:"
@ 8,65 say "REL.:"
@ 8,70 say "INT. TEC.:"
    r = 8
DO WHILE .NOT. EOF()
    r = r + 1
    @ r,2 say adm_no
    @ r,10 say name
    @ r,31 say engtfs
    @ r,36 say mattfs
    @ r,45 say instfs
    @ r,56 say sostfs
    @ r,65 say reltfs
    @ r,70 say inttfs
```

```
        skip
ENDDO
WAIT
CLEA
        close all database
RETURN
```

SREP

```
Set talk off
Set scoreboard off
Set status off
Store space(5) to class
Store space(8) to session
use MSCA
*Set device to printer
@ 3,22 say "DAY SECONDARY SCHOOL MAITUNBI MINNA"
@ 5,31 say "SESSIONAL RESULT"
@ 6,21 SAY "SESSION" get session
@ 6,40 say "CLASS" get class
read
@ 8,2 say "ADM. NO.:"
@ 8,18 say "NAME:"
@ 8,31 say "ENG:"
@ 8,36 say "MATHS:"
@ 8,43 say "INT. SC.:"
@ 8,51 say "SOS. STU.:"
@ 8,59 say "REL.:"
@ 8,64 say "INT.TEC.:"
@ 8,71 say "TOTAL"
R = 8
DO WHILE .NOT. EOF()
    r = r + 1
    @ r,2 say adm_no
    @ r,10 say name
    @ r,31 say engps
    @ r,36 say matps
    @ r,43 say insps
    @ r,51 say sosps
    @ r,59 say relps
    @ r,64 say intps
    @ r,71 say totalsc
skip
ENDDO
WAIT
CLEA
Close all database
RETURN
```

**A FORTRAN PROGRAM OF A SEMI-MARKOV
MODELLING FOR THE CONTROL OF LEPROSY**

BY

ABUBAKAR USMAN YUSUF

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