

**COMPUTERIZATION OF CONTINUOUS ASSESSMENT,
RECORDS IN THE SENIOR SECONDARY SCHOOL,
CASE STUDY: GOVERNMENT SECONDARY SCHOOL
MINNA.**

BY

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NOVEMBER, 2003

TITLE PAGE

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**A PROJECT SUBMITTED TO THE DEPARTMENT OF
MATHEMATICS/COMPUTER SCIENCE IN PARTIAL
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NOVEMBER,

2003

CERTIFICATION

I certify that this project entitled "Computerization of continuous Assessment Records in the senior secondary school.

A case study of Government Secondary School, Minna, meets the regulation governing the award of Post Graduate Diploma in Computer Science Of Federal University Of Technology, Minna.

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ABSTRACT

This project deals with the continuous assessment record in the educational

Sector. A feasibility study was carried out on the effect of computerization of continuous assessment records in senior secondary school in Government Secondary School, Minna.

A system was designed and developed to provide the school with timely information and ensure proper record keeping.

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CHAPTER ONE

INTRODUCTION

Today, computers are in use into almost every field of human endeavour; banking sector, industry, government offices, homes, libraries, schools, all make use of computer in one form or the other.

In government secondary school, Minna, a manual system of maintaining student continuous assessment record is being operated. However, the over growing size of students call for computer application in students continuous assessment record keeping to aid information system.

1.1.1 INFORMATION AND SOCIETY

Man has over the years used machine and animals to lighter the burden of manual labour. Today, we use computers to lighten our burden of storing, processing and retrieval of data for decision-making. A computer is a machine capable of complex systematic and logical operations and processing voluminous data and information with enormous speed and absolute accuracy. Computer has revolutionized the field of computing as a result of technological advancement.

When the computer was invented, it was seen to be on efficient tool for performing scientific computation. Later, it was discovered that a computer

could perform a wide variety of tasks. Earlier, the use of data meant numbers, but soon computers came to be used for processing textual and graphic data as well. With the linkage between computers and communication, such data could also be transmitted across space. Later, they began to have impact on the function of organizations and the government by processing large amount of data and converting it into useful information. Today, the impact is all pervasive in education, entertainment, trade and banking, perhaps in every sphere of human activities.

1.1.2 IMPORTANCE OF INFORMATION

There are three principal reasons why information systems are subject to great interest today.

First, organization have grown to un-procedureed complex levels. Information plays a vital role in holding together and coordination an organization.

The second reason is the advent of the computer. Computers are able to both access and record information and perform calculation at speed, which are truly unbelievable. Computers could access information at a rate higher than 20,000 characters per second from the magnetic tape, which could correspond to reading and writing about 400 pages of an oversized book per minute. When it comes to calculations, computer can do about 50,000 multiplications in one second.

The third reason is the progress made in communication network. Such network allows the sharing of central processing unit, printers, disc and other hardware. It has now become economical to transmit large amount of information across long distant.

1.2 A BRIEF HISTORY OF COMPUTERS

1.2.1 Mechanical Calculators

The history of computer is longer than one might think, with Blaise Pascal (1623 -1662) developing a mechanical calculator known as the Pascaline, which based upon gears. This reflected the technology of the moment. The pascaline was capable of addition and subtraction upon whole numbers.

Gottfried Wilhelp Von Leibniz (1641-1716) improved upon the pascaline by developing a machine, which could also perform multiplication. However, it was too complex for the available technology and proved unreliable. Technological limitations have constrained the development of computer throughout their history and it is only within the past thirty years that the technology has progressed sufficiently quickly to avoid limiting their progress. Chalse Babbage (1792-1872) was an eminent mathematician who became increasingly frustrated with the inaccuracies inherent in his work. These inaccuracies were particularly prevalent in the log tables he used for multiplication and division and he became convinced that a machine could

derive the tables more accurately. The system, which he developed, was known as the difference machine.

There are many technical difficulties associated with the difference machine, but Babbage moved on to design an even more sophisticated system known as the analytical engine. This had a number of important features, including the following;

1. It was a general-purpose machine, that is it was able to perform any calculation.
2. Information was entered using punched cards which has being developed earlier for weaving machines by Joseph Jacquard (1752-1834). A variation of this punched cards is still used with some mainframe computers.
3. The machine has an output device
4. The data entered on the punched cards was a simple program of a similar type to those used in present day computers.

All of these calculating machines up till this time had been either single machine or limited production model.

1.2.2 ELECTROMECHANICAL COMPUTERS

Until this point, the machines had mainly been hand driven with the widespread availability of electrical energy, a new approach was developed based on electrical switch known as a relay. A relay consists of a coil wire and two contacts. When current is passed, they are open. Th

means that relays can respond very quickly to a change in the current, consequently resulting in a faster machine.

The first electromechanical computer was the Harvard Mark 1, developed by Professor Howard H. Aikin (1900-1973) of Harvard University under the sponsorship of international Business Machines (IBM). This machine, was completed in 1944, developed upon Babbage's idea of the computer being programmable. It operated relatively quickly, but it still took 3 seconds to multiply two numbers. It was also very large, measuring 51feet and containing 500 miles of wire.

1.3 COMPUTER GENERATIONS

Generally, advances in computer technology can be classified into categories called computer generations. What distinguishes each generation is the main electronic logic element in use at that time. The term logic element refers to the electronic components used to facilitate the circuit functions within the computers.

1.3.1 First generation computers: Valves(1950 – 1958).

The Harvard Mark 1 was overtaken in 1946 by the ENIAC (Electronic Numerical Integrator And Computer) machine which was based around valve technology. Valve technology developed during the second world war as a by-product of the research into radars. The valve, like the relay, is a form of switch. However it is an electronic switch, with no moving parts and consequently operate more quickly. ENIAC contained

18,000 valves and weighted over 30 tons. It was able to perform multiplication in 3 milliseconds (3/100 second).

The successor to ENIAC was EDVAC (Electronic Discrete Variable Automatic Computer) which was developed by John Von Neuman from Princetons Institute for advanced Studies and completed in 1950 Von Neuman was the first person to have the idea of a stored program: store the program inside the computer itself. EDVAC implemented this idea and also took advantage of the two states inherent in the operation valves it was therefore based around the binary number system.

During the 1950's valve computers developed and improved. However, valves were inherently unreliable because of the temperature at which they operated and it was a time consuming process simply ensuring that the computer continued to function. The program were typically entered on punched cards and stored in magnetic drum memory, which sis a cylinder with a magnetized outer surface. The programs were all written in machine code. It was only towards the end of the 1950's that slightly simpler form of programming language, known as assembly language, was developed.

1.2.2 Second Generation Computer Transistors (1959-1964).

In 1948, in the Bell Telephone Laboratories, John Barden, Walter Brattain and William Shockley invented the transistor. The transistor, like the relay

and valve was a type of switch, but it was superior to both as it was small, ran at low temperatures and was more reliable. Transistors were constructed from either germanium or silicon. The second generation of computers adopted this technology.

Two new types of memories were developed, known as a magnetic core memory and magnetic disk memory – magnetic core was used for main memory and magnetic disc for secondary memory. During this generation. A new type of programming language was developed called the high-level language. These include BASIC, FORTRAN AND COBOL. Each of these language was developed for different purpose. FORTRAN for solving mathematical problems, COBOL for writing business program and BASIC for beginners to the computer. The increase in reliability of this generation of computers and the development of easier- to-use Programming languages meant that the use of computers for business and research increased considerably.

1.3.3 Third Generation Computers Integrated Circuit (1965-1971)

Central to the development of the third generation of computers was the discovery that a number of transistors and connection between them could be imprinted on a single slice of silicon. This was referred to as an integrated circuit. Integrated circuits were smaller, cheaper, more reliable and faster than circuits made of individual transistors. As a result of this development it was possible to build more powerful computer which were

also smaller and cheaper. In addition to the CPU being made of integrated circuits so was main memory. By 1969, it was possible to place 100 transistors on a single piece of silicon.

The software available for this generation of computer was also becoming more sophisticated. The development of operating systems and time sharing were characteristics of this generation.

1.3.4 Fourth Generation Computers: Large/very large Scale Integration (1971-present).

Since the development of integrated circuits, the number of transistors which can be place on a slice of silicon has increased rapidly. In the early 1970's. LS1 (large scale integration) chips were developed which contain several thousand transistors and by the mid-1970s VLSI (very large scale integration) chip were capable of containing the whole CPU on a single chip called the microprocessor. The microprocessor forms the basis of all present day micro computer. As a consequence throughout the 1970s, computers became smaller and cheaper.

As with the development of the computer in the 1960s and 1970s, there has been a very rapid improvement in the microprocessor technology during the 1980's. As a consequence, their operation has become faster and they are more flexible. Central to the development has been the establishing of an industry standards IBM in the IBM personal computer (PC). IBM PC was a cheap but reasonably powerful and versatile

microcomputer which was widely adopted by industry. It used on operating system called MS-DOS. As the microprocessor technology improves, the computers become faster, with large memories, but they are designed to be "upward compatible" with each new version capable of running the software of the previous.

1.3.5 The Fifth Generation Computers: Future

In 1982, the New York Times magazines man of the year was not a man but a computer. The revolution has barely began already, we see a starting penetration of computers in all areas of human life from their jobs, gadgets, machinery and their entertainment computer professionals are Researching on how to produce a computer that can converse with people in human life manner and which will be able to mimic human senses, manual skills and intelligent. These computers are called the fifth generation of computer revolution transcending from information processing to knowledge processing, from computer that calculates and store data to the ones that inform, reason and advice.

CHAPTER TWO

EVOLUTION OF THE USE OF COMPUTER IN AN ORGANIZATION

INTRODUCTION

Most organizations carry out a large and wide variety of business transactions. Accurate recording and processing of these transactions is known as **DATA PROCESSING**. Today, some Degree of automation exists in recording and processing of daily transaction. This may be in the form of calculating aids, mechanical /electronic data capture systems, and computers which contain integrated devices for capturing, storing, and retrieving of data. However, three decades ago and even in some organization, transaction processing systems were largely manual .

2.1 AUTOMATION OF MANUAL SYSTEMS

As the complexity and size of organization grew, so did the number of transactions processed. Manual systems were then devised to record the transaction on documents. These documents were subsequently processed by clerical staff to produce ledgers reflecting the impacts of transaction on items so interest to managers. Example includes accounts ledgers to provide daily store ledgers and cards to provide inventory balances of each item.

The clerical systems designed were ideal to take care of average loads of posting transaction. As long as the number of financial transaction /store transaction in a month were in hundreds, it was possible to close accounts and know the financial performance of a business at the end of the month or at the end of the year. However, business activities being often uneven, clerks were saddled with backlog of transaction to be poshed. This resulted in vouchers getting misplaced and made the posting systems error prone. Enormous time was also required to clear the backlog and trace and correct mistakes made earlier. When organizations grew, manual systems began to break down, this hinders management in the primary task of planning and control. In western countries clerical costs also began to rise and became significant. Thus, there was the need to keep the costs low and to increase efficiency of processing transaction. A genuine need was felt (and justified) to mechanize data processing

In the sixties and early seventies computers were introduced for processing transactions that arose in various business transactions. These computers offered input / output peripherals, which were rugged and could handle large volume of data. Their processing capability was limited compared to modern computer. Such computers were seen as an ideal

Solution for the data processing tasks which required handling large input /output but limited processing.

2.2 ADVANTAGES OF EVOLUTION OF DATA PROCESSING

Business and government establishment found that they could computerize the transaction processing tasks quickly by using standard software. The major advantages of such software were:

- (A) Minimized delays in processing transaction.
- (B) Improved accuracy.
- (C) Low clerical cost.
- (D) Ability to cope with future growth.

(A) **MINIMIZED DELAYS**: In computerized processing, data capture and preparation were labour intensive while data processing was computerized. The uneven transaction load of individual departments when pulled together evened the load of data entry. This led to minimizing the delays on account of data preparation. Purchased cards provided a convenient form of data input. Data / information and programs purchased in cards were transmitted through a high-speed cards reader into a computer for processing. Thus, organization found their invoices could be sent a few days earlier to the customers, pay cheques could be delivered at the end of the month, and stores ledger produced within two or three days of the month end.

High speed card reader and time printer were found to be more rugged and reliable compared to equipment's like type writers used

in manual processes. The advent of preprinted stationary and multiparty stationary made the task of generating various types of reports even easier.

(b) **IMPROVED ACCURACY:** In manual systems, accuracy is low because of computational errors and inability to process some transaction or errors committed due to fatigue in repetitive clerical tasks. Since standard software was developed for data processing systems, it was possible to make it logic error free. It was also possible to build in various types of error checking procedure to ensure that data entering the system for processing was error free.

(c) **Low Clerical costs:** In the developed countries where clerical manpower is costly and computer hardware / software relatively cheap, organization have found that they can cut down clerical costs by computerized transaction processing.

(d) **Ability To Cope With Future Growth:** Growing organization have also found in recent year that computers enable them to cope with future growth easily without having to expand the clerical work force. They also observed that the cost of data preparation be in ten volume of transactions, but the processing cost of computers does not go up in the same proportion.

2.3 **COMPUTER APPLICATIONS TODAY :**

The use of computer is more wide spent now than at any time in the past. They pervade almost every aspect of our lives: they control our

washing machine and our microwave oven, they help to teach our children and to design our cars; our personal details are stored by computer for use by doctor , tax inspector and electricity board .

At this point, we will look at some of the main areas of computer Application and discuss briefly a few examples in each area.

2.3.1 APPLICATIONS IN EDUCATION:

Now that computers and their associated peripherals are relatively cheap, they have been adopted as a learning tool throughout the education systems. Nowadays computers are used throughout the curriculum, where as in the past they confined to computers studies departments. Thus schools no longer merely teach about computer –they teach using computer as a tool.

In some educational institutions, computers are now used to store, process and retrieve records. This has increase the speed to process and retrieve information's, and made the records more reliable (i.e. error free).

2.3.2 SCIENTIFIC MODELING:-

Scientists often use computer to model events in the particular field of interest. For example, meteorologists make use of computer to predict the weather. Data about current atmospheric conditions is fed into a powerful computer, which performs calculations according to rules gives, by the scientist. These predictions are compared with the actual data for that time, when it becomes available.

2.3.3.1. APPLICATIONS IN BUSINESS - DATA PROCESSING

Any large business is likely to have to store large amount of data; for examples, the names of customers, details of employees. A computer provides a good way of storing such information.

Smaller business may use a micro computer to stores their information. Packages are now available to store and retrieve information, to keep accounts, and to produce document and drawings.

2.3.4. APPLICATIONS IN MANUFACTURING.

The first use of computers in manufacturing was as an aid in the designing of new products. Initially computer – aided design (C A C), was simply used as a tool to help draughtsman produce better drawings more quickly. It was soon developed to do much more than this.

Now CAD software can display an object from any required angle; display cross – section of any part, display the objection line – drawing or solid modeling; select appropriate standard components. The image on the screen may be stored permanently in a file, together with any additional information required. Hard copy plans can be produced using a special output device called a plotter. A list of parts can be produce. Changes to design can be carried out easily, without the need for costly redrawing.

2.3.5 Information Retrieval Online Systems

When using an online information retrieval system, the user gains access to a database by means of a computer terminal lined to the computer in which the database is stored. The terminal is linked to the central computer via a telecommunications network. A large variety of databases are now available, supplying a wide range of information. Such database can, therefore be used as an alternative to searching for information in a library.

CHAPTER THREE

3.1 BRIEF DESCRIPTION OF THE CONTINUOUS ASSESSMENT OPERATIONS

Day in day out, the examination office of Government secondary School, MINNA, Niger State is often saddled with the responsibility of Collating the assessment records of performance of students in their Various subjects. These records are process with the aim of generating a Report sheet for individual students. This report sheet contains marks and Grades obtained in all the subjects offered by individual student. It also Contains the position of the student in the class. These operations are Carried out three times in a given academic session (i.e. at the end of Every term).

In the process of generating report sheet for individual student, every subject teacher is expected to mark the terminal examination conducted to the student in his/her subjects. After that, he/she enters the various marks obtained by all the students in the continuos assessment file, already containing marks obtained by these students in their test and assignments which total 40%. The teacher then sum the examination mark of every student which total 60% with the marks obtained earlier on in the tests and assignments to obtain the cumulative score of 100% in the subject. The

Teachers also grade these students using their respective cumulative scores. He then transfers these students' scores and grades into the report sheet of every student. All teachers are involved in these exercise, not minding whether the teachers have other assessments like being form masters, games masters, examination officer etc.

After individual teacher must have entered the scores and grades obtained by students in their various subject, every form master is given the task of finding total mark obtained by every student in his/her class, in all the subjects each student offers. From these total marks, the average mark and the position of every student in the class is determined. All these are prepared in a broadsheet called "class result summary." After preparing the class result summary, the form master transfer the total mark, average mark and the position of individual student into their respective report sheet. He/she also fills the form masters comment portion in the report sheet of every student in his/her class. The form master later passes the class result summary to examination officer for storage and for future reference.

In a very large school like this one under study, these examination records are always very many and voluminous. As the school passes through many sessions, the examination records become larger and more voluminous. As at today, 4th of August, 2003, half of the space in the

Examination office is filled up with various files of continuous assessment and examination records.

3.1.1 OPERATIONAL PROCEDURE

Every term of a particular session, subject teachers are expected to keep a record of their student's performance in their various subjects. Usually, all the tests and assignments conducted by each teacher are totaled over 40%. At the end of the term, each student is expected to take examinations in their various subjects. This examination is usually marked over 60%, to give a total mark of 100%. All these scores are often prepared on the continuous assessment sheet, usually given to every teacher at the beginning of each term.

Later, these scores are transferred into the **REPORT SHEET** prepared for each student by the various subject teachers. After this, the various class masters will now use the filled report sheets to prepare the class result summary for purpose of assigning positions to all the students in the class. This is done by finding the cumulative scores obtained in all the subjects. It is these cumulative scores that are now used to rank (i.e. assign positions to) the students.

The class masters will now transfer the cumulative score and position of each student from the class result summary into the appropriate columns in the report sheet. He/she also makes comment on each student in his/her class. After this, the result summary is then transferred to the examination office for storage, while the report sheets are then forwarded to the Principal for his final comments. These report sheets are usually prepared in duplicate for each student after the principal's comments, the original report sheet for each student is given out to him/her while the duplicates are equally sent to the examination office for storage.

3.1.2 PROBLEMS WITH THE SYSTEM UNDER STUDY

These are the problems with the system under study. Broadly, they are three. They are:-

1. Speed of processing and producing report sheet.
2. Errors in recording and computations
3. Storage of results for future references
4. Difficulty in retrieving past records.

Each of these are briefly discussed below.

1. SPEED OF PROCESSING AND PRODUCING REPORT SHEETS

Most often, whenever teachers are asked to comment about the various aspects of their teaching jobs, the aspect they hate most is the area of continuous assessment. Teaching is an aspect they enjoy most, but come to the assessment aspect; it is usually a torque of war to make teachers perform satisfactorily. This is because of the task involved

namely: setting questions for students; marking the test ,assignment and examination, collation of these scores and finally transferring the marks into summary sheets and reports sheets. Although they always do these jobs but it usually takes a longer time before they finish the processing. Most at times, principal do urge them to be fast with the processing of the report sheet so that the student can always go home at the end of term with their report sheets. The ever ready response from the teachers is “WE NO BE MACHINE” that is “we are not machines”, meaning that there is a limit to which they can work fast. It takes a great deal of time and pain to sit down and mark students tests, assignments, examinations and collation of marks.

2 ERRORS IN RECORDINGS AND COMPUTATIONS

During marking of tests, assignments, examinations, and collation of students results, deadlines are often given to the teachers within which they should have finished all necessary processing of students “Report Sheets”. In an attempt to meet this deadline, all means of getting these things done are employed, whether properly or improperly. Most often in so many other schools, you see teachers employing the services of their students to record marks for them. Even some teachers employ students to help them mark the papers of their counterpart students. In the process of doing this, the ignorant student so employed commits a lot of blunders in the process of recording marks or marking the papers of their counterpart.

The teacher may not be objective enough with his/her marking under this tight condition he/she finds himself/herself.

Even when deadlines are not given, teachers also commit a lot of errors in the summing of the student scores

3 STORAGE OF RESULTS FOR FUTURE REFERENCE

The examination office of the school is responsible for the processing and keeping of student's academic records. At any point in time, the office should be ready to supply any academic information of the students when the need arises. This function has made the examination office of the school filled with junks of files containing these academic records.

4 DIFFICULTY IN RETRIEVING PAST RECORDS

There is usually difficulty in retrieving past records when the need arises. This problem is notable anytime the principal or vice principal of the school is requesting for a student's past academic record sometimes for the purpose of issuing out transfer certificate or testimonial as the case may be. These files are usually muddled together anyhow.

3.1.4 AIMS AND OBJECTIVES

The activities being carried out in the examination office are such that requires high degree of accuracy and precision.

The aim of this project is to develop a computer software for the school examination office that will not only solve the problems listed above, but

also provide other services that will ensure proper keeping of records and make the retrieval of necessary information very easy. The software will have some facilities for:

- (a) Viewing of past records
- (b) Editing past records when necessary
- (c) Storing old and new records
- (d) Preparing and printing students report sheets
- (e) Creating new records.

LIMITATION

Because of time factor, the software will be designed with reference only to science class of senior secondary school assessment records but can also be used for processing all results of students in and art classes of the school.

The software will be very flexible in use and shall be user friendly.

CHAPTER FOUR

SYSTEM DESIGN

In this part of this project, I shall explain how the new system will be design. It will be under two headings namely: input and output specifications. It will also explain how the new system will be used in terms of input, processing and output.

3.3.1 INPUT SPECIFICATION

In the examination office, the input data are the students scores in their various subjects. In Government Secondary School, Minna, the class are divided into departments i.e. science classes and Art classes. This leads to the creation of Departmental Database files. The two database files are:

1. 03SCSS21. DBF

2. 03ARSS21. DBF

These names are so designed for easy identification of files. 03SCSS21. DBF means a file for 2002/2003 session student in SS2 Science class, containing their first term records. And 03ARSS21. DBF means a file for 02/03 session student in SS2 Art Class containing their first term records.

In short in the database filename, the first two characters represents the year of the session. The second two characters indicate the department having the records. The next three characters is the name of the class the file is meant for (i.e. SS2). The last character (i.e. 1) is the term for which the file was created. So we are using the first term result of the students.

The software to be used is the dbase III+. It has facilities for creating files. While creating these files; it is mandatory for the user to define the fields, fields types and field width to be used, before putting records into these files. These are described below:

03SCSS21. DBF HAS ITS DESCRIPTION BELOW

FIELD NO	FIELD DESCRIPTION	FIELD NAME	FIELD TYPE	FIELD WIDTH	DEC
1	ADMISSION UMBER	ADM NUMBER	CHARACTER	4	0
2	DEPARTMENT	DEPARTMENT	CHARACTER	7	0
3	NAMES	NAMES	CHARACTER	20	0
4	ENGLISH TEST	ENG TEST	NUMERIC	2	0
5	ENGLISH EXAM	ENG EXAM	NUMERIC	2	0
6	ENGLISH TOTAL	ENG TOTAL	"	2	0
7	MATHS TEST	MATH TEST	"	2	0
8	MATHS EXAM	MATH EXAM	"	2	0
9	MATH TOTAL	MATH TOTAL	"	2	0
10	HAUSA TEST	HAU TEST	"	2	0
11	HAUSA EXAM	HAU EXAM	"	2	0
12	HAUSA TOTAL	HAU TOTAL	"	2	0
13	GEOGRAPHY TEST	GEO TEST	"	2	0
14	GEOGRAPHY EXAM	GEO EXAM	"	2	0
15	GEOGRAPHY TOTAL	GEO TOTAL	"	2	0
16	AGRIC TEST	AGR TEST	"	2	0
17	AGRIC EXAM	AGR EXAM	"	2	0
18	AGRIC TOTAL	AGR TOTAL	"	2	0

19	BIOLOGY TEST	BIO TEST	"	2	0
20	BIOLOGY EXAM	BIO EXAM	"	2	0
21	BIOLOGY TOTAL	TOTAL	"	2	0
22	PHYSICS TEST	TEST	"	2	0
23	PHYSICS EXAM	EXAM	"	2	0
24	PHYSICS TOTAL	TOTAL	"	2	0
25	CHEMISTRY TEST	TEST	"	2	0
26	CHEMISTRY EXAM	EXAM	"	2	0
27	CHEMISTRY TOTAL	TOTAL	"	2	0
28	FUR. MATH TEST	TEST	"	2	0
29	FUR. MATH EXAM	EXAM	"	2	0
30	FUR. MATH TOTAL	TOTAL	"	2	0
31	ECONOMICS TEST	TEST	"	2	0
32	ECONOMICS EXAM	EXAM	"	2	0
33	ECONOMICS TOTAL	TOTAL	"	2	0
34	I.R.K./C.R.K. TEST	TEST	"	2	0
35	I.R.K./C.R.K. EXAM	EXAM	"	2	0
36	I.R.K./C.R.K. TOTAL	TOTAL	"	2	0
37	CUMULATIVE TOTAL	CUM TOTAL	"	3	0
38	AVERAGE MARK	AVERAGE	"	3	1
39	POSITION	POSITION	CHARACTER	3	0

03ARSS21, DBF HAS ITS DESCRIPTION BELOW:

FIELD NO	FIELD DESCRIPTION	FIELD NAME	FIELD TYPE	FIELD WIDTH	DEC
1	ADMISSION NUMBER	ADM. NO	CHARACTER	4	0
2	DEPARTMENT	DEPARTMENT	CHARACTER	7	0
3	NAMES	NAMES	CHARACTER	20	0
4	ENGLISH TEST	ENG TEST	CHARACTER	2	0
5	ENGLISH EXAM	ENG EXAM	CHARACTER	2	0
6	ENGLISH TOTAL	ENG TOTAL	CHARACTER	2	0
7	MATHS TEST	MATH TEST	"	2	0
8	MATHS EXAM	MATH EXAM	"	2	0
9	MATHS TOTAL	MATH TOTAL	"	2	0
10	HAUSA TEST	HAU. TEST	"	2	0
11	HAUSA EXAM	HAU. EXAM	"	2	0
12	HAUSA TOTAL	HAU. TOTAL	"	2	0
13	BIOLOG TEST	BIO. TEST	"	2	0
14	BIOLOGY EXAM	BIO EXAM	"	2	0
15	BIOLOGY TOTAL	BIO TOTAL	"	2	0
16	LITERATURE TEST	LIT. TEST	"	2	0
17	LITERATURE EXAM	LIT. EXAM	"	2	0
18	LITERATURE TOTAL	LIT. TOTAL	"	2	0
19	AGRIC. TEST	AGR. TEST	"	2	0
20	AGRIC. EXAM	AGR. EXAM	"	2	0
21	AGRIC TOTAL	AGR. TOTAL	"	2	0
22	FOOS & NUTRITION TEST	FNUT TEST	"	2	0

23	FOOS & NUTRITION EXAM	FNUT EXAM	"	2	0
24	FOOS & NUTRITION TOTAL	FNUT TOTAL	"	2	0
25	HISTORY TEST	HIS. TEST	"	2	0
26	HISTORY EXAM	HIS. EXAM	"	2	0
27	HISTORY TOTAL	HIS. TOTAL	"	2	0
28	ECONOMICS TEST	ECO. TEST	"	2	0
29	ECONOMICS EXAM	ECO. EXAM	"	2	0
30	ECONOMICS TOTAL	ECO. TOTAL	"	2	0
31	COMMERCE TEST	COM. TEST	"	2	0
32	COMMERCE EXAM	COM.. EXAM	"	2	0
33	COMMERCE TOTAL	CO.M TOTAL	"	2	0
34	REL. KNOWLEDGE TEST	REL. . TEST	"	2	0
35	REL. KNOWLEDGE EXAM	REL. EXAM	"	2	0
36	REL. KNOWLEDGE TOTAL	REL. TOTAL	"	2	0
37	CUMULATIVE TOTAL	CUM.TOTAL	"	3	0
38	POSITION	AVERAGE	"	3	1
39	AVERAGE MARK	POSITION	"	3	0

4.2 OUT PUT SPECIFICATIONS

The software to be designed will be user friendly that non-computer scientist can use it. This is made possible because of the provision of USER'S GUIDE which tells the user the available options open to him. From these options, he is expected to pick one. Instructions on how to choose an option will be displayed, usually at the bottom of the screen. Some of the screen outputs in this project are shown below:

The screenshot shows a rectangular window with a title bar that says "OPENING MENU". Below the title bar, the text reads "DO YOU WANT TO:" followed by a numbered list: "1. USE OLD RECORD?", "2. CREATE EW RECORD?", and "3. ABANDON OPERATION?". Below this list, there is another title bar that says "USER'S GUIDE". Underneath, it says "PRES" followed by three options: "(A)... TO USE OLD RECORD", "(B)... TO CREATE NEW RECORD", and "(C)... TO ABANDON OPERATION".

Fig. 4.2(i)

Supposing letter A was pressed. This will clear the first screen and give this screen:

The screenshot shows a rectangular window with the text "SESSION(S) WHOSE RECORDS ARE AVAILABLE" at the top. Below this, it says "{1} 91/92" and "PICK ONE". To the right of "PICK ONE" is a small rectangular box containing two lines of dots, representing a selection area.

Fig. 4.2 (ii)

As soon as one of the session is chose a screen showing various activities that can be carried out on the file chose will be displayed, as shown below:

SERVICES AVAILABLE ARE:

1. VIEW
2. EDIT
3. APPEND
4. DELETE
5. PRINT
6. QUIT

PICK AN OPTION BY PRESSING THHE HIGH LIGHTED LETTER TO YOUR CHOICE

Fig. 4.2 (iii)

Naturally, this software is designed with a security entry pass, known a PASSWOSRD in computer science. This was added in order to ensure that only authorized personnel's are given access into the stored information. Thus, as soon as any of the options on the screen fig.4.2(iii) is chosen, the next screen that comes up will usually require the user's password i.e.

ENTER PASS PASSWORD

?

Fig 4.2(iv)

If correct password is given, the system will automatically show the MENU SCREEN of the option earlier chosen in fig 4.2(iii)

On the other hand, if wrong password is given, the system will prevent the user from gaining further access to use the system and information stored by the system.

In summary, the system is very easy to use and understand it can be operated by a literate person, not necessarily a computer expert.

4.1 CHOICE OF SOFTWARE AND THE PROGRAMMING LANGUAGE

The dbase III plus is the 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 student' report sheets and subject files
2. Updating of students' records (i.e Editing, appending or deleting)
3. Printing of students' report sheets, subject files and class result summaries.

The choice of dbase III plus 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 facility for creating database files. Each record in a file contains various information called fields, about a single item or person. Once database files are created, various types of transaction like those mentioned above can be carried out on them.

In addition, it has text editing facilities, used for programming set of instruction for computer execution, in order to obtain certain output (i.e report generation). For this project, dbase III plus programming languages are going to be used.

4.2. SYSTEM PROGRAMMING ALGORITHM.

1. At the opening menu, the following options are available:

- (i) Use record of old session:
- (ii) Create record of new session:
- (iii) Abandon operation:

If (i) is chosen, control is transferred to (2)

2. Here, the screen showing possible activities that can be carried out on the old record to be chosen will be shown. The services to be shown include: VIEW EDIT, APPEND, PRINT and QUIT.

3. After picking any of the above options, a security pass, known as PASSWORD, will be required before access can be granted to the user to carry out the chosen activity. If correct password is given, access to the required file will be granted. If the password is incorrect, access will be denied. This is included so as to prevent unauthorized person from getting or altering the contents in the files. EDIT, and APPEND can be carried out on students' record only VIEWING and PRINTING of students' report sheets, class result summary and subject files.

4. When any of the options, except QUIT is chosen, other guiding questions like which class? Which term and session will be asked by computer before giving the user the required information.
5. After giving the user the required information, control is then sent back to the opening menu. If (ii) is chosen at the opening menu; questions like: which session?; which department?: and which term will be asked before creating the file. These are needed for the purpose of assigning file name to the new file created. These questions will be asked later when the file is needed for any transaction. Later, control will be transferred to the opening menu. If (iii) is chosen; operation of the software will be terminated and control will be transferred to the computer operating system, (i.e DOS prompt).

CHAPTER FIVE

CONCLUSION AND RECOMMENDATION

CONCLUSION:

It has been highly examined that the computerization of continuous assessment in school is more efficient, reliable, faster and accurate in term of record keeping and easier to use than the manual record keeping. It has been found that so many things can be printed, modified, viewed, entered and deleted so easily.

RECOMMENDATION

When this project was tested, it has been found to be effectively and efficiently working as proposed.

Already, Government secondary school, Minna has a Computer Centre that houses over twenty computers. Each computer is IBM compatible with a 66MHZ speed and have a memory capacity of 640MB RAM. It also has printers and enhanced keyboards.

So, I recommend this software for the school, that is Dbase III plus.

APPENDIX

*This is the program that coordinates other programs designed for schools.

```
SET ECHO OFF
SET TALK OFF
SET STATUS OFF
SET SCOREBOARD OFF
CLEA
SET COLO TO R+/G+ R
MUSA = 0
Do While MUSA <= 23
@0,0 SAY REPL (CHR (176),80)
MUSA = MUSA + 1
END DO
BALA = 23
Do While BALA <= 0
@0,0 SAY REPL (CHR(176),80)
BALA = BALA + 1
END DO
SET CCLO TO W+/B+G
@3, 19 CLEA TO 17,60
@4,24 SAY "THIS SOFTWARE WAS DEVELOPED"
@6,36 SAY "BY"
@8,30 SAY "MR. MALIKI IBRAHIM"
@10,24 SAY "A POST GRADUATE DIPLOMA STUDENT"
@12,36 SAY "OF"
@14,24 SAY "FEDERAL UNIVERSITY OF TECHNOLOGY"
@16,30 SAY "MINNA, NIGER STATE"
@3,19 TO 17,60 DOUBLE
Print
Print
Print
SULE = 0
Do While SULE <= 150
SULE = SULE + 1
END DO
CLEA
SET COLO TO W+/R
@6,23 CLEA TO 16,59
@8,24 SAY "THIS SOFTWARE WAS DESIGNED FOR"
@10,24 SAY "STORING AND PROCESSING THE"
@12,24 SAY "CONTINUOUS ASSESSMENT RECORDS OF"
@14,24 SAY "GOVERNMENT SECONDARY SCHOOL"
@16,30 SAY "MINNA, NIGER STATE"
Print
Print
HIMA = 0
Do While HIMA <= 150
HIMA = HIMA + 1
END DO
CLEA
SET COLO TO W/G+B
ROW = 3
DO WHILE .T.
Do While ROW <= 21
@ ROW, 5 SAY REPL (CHR(176),70)
ROW = ROW + 1
END DO
ANA = 0
Do While ANA <= 20
ANA = ANA + 1
END DO
SET COLO TO W/RB
@5,15 CLEA TO 20,59
@6,20 TO 8,41 DOUBLE
@7,28 SAY "OPENING MENU"
@9,27 SAY "DO YOU WANT TO"
@10,18 SAY "1. USE RECORD OF OLD SESSION?"
```

```
@11,18 SAY "2. CREATE NEW RECORD(S)?"
@12,18 SAY "3. ABANDON OPERATION?"
@14,33 SAY "USER'S GUIDE"
@13,32 TO 15M45 DOUBLE
@16,17 SAY "PRESS:"
@17,17 SAY "[A] ... TO USE RECORD OF OLD SESSION"
@18,17 SAY "[B]... TO CREATE RECORD(S) OF NEW SESSION"
@19,17 SAY "[Q]... TO ABANDON OPERATION"
CHOICE = Space(1)
@22,29 CLEA TO 22,51
@22,26 SAY "ENTER YOUR CHOICE" GET CHOICE PICT "0!"
DO WHILE .T.
READ
IF CHOICE $ "ABQ"
CLEA
EXIT
Else
Print Chr(7)
WAIT " YOU HAVE PRESSED THE WRONG KEY. PRESS A, B, OR Q"
Loop
End If
ENDDO
IF CHOICE = "A"
DO LOCAFILE
End If
IF CHOICE = "B"
DO CREFILE
End If
IF CHOICE = "Q"
DO QCHOICE
End If
ENDDO
Return
```

```
SET TALK OFF
SET ECHO OFF
SET SCOREBOARD OFF
SET STATUS OFF
SET COLO TO
SET COLOR TO W*/B+R
CLEA
REST FROM FILE1.MEM
DO WHILE .T.
MPW = SPAC(5)
@10,30 SAY "ENTER YOUR PASSWORD"
@9,29 TO 11,50 DOUBLE
@15,35 GET MPW PICT "@!"
READ
CLEA
SET COLO TO R"G/B
@4,14 CLEA TO 6,60
IF MPW="APATA"
CLEA
@10,36 SAY "YOU ARE WELCOME"
@12,43 SAY "TO"
@14,35 SAY "EXAMINATION OFFICE"
@9,34 TO 15,53 DOUBLE
Print
WAIT
EXIT
Else
CLEA
@5,17 SAY "WRONG PASSWORD ACCESS IF THEREFORE DENIED"
@4,14 TO 6,60 DOUBLE
End If
@10,40 SAY "OR"
@15,15 SAY "DO YOU WANT TO RE-ENTER YOUR PASSWORD (Y/N)?" GET E PICT "@!A"
@14,14 TO 16,62 DOUBLE
READ
DO WHILE .NOT. E $ "YN"
IF UPPER(E) $ "YN"
EXIT
Else
Print Chr(7)
E = SPAC(1)
@20,12 SAY "YOU HAVE PRESSED WRONG KEY PRESS [Y] FOR YES AND [N] FOR NO
GET E PICT "@!A"
@19,11 TO 21,73 DOUBLE
READ
CLEA
ENDDO
IF E='Y'
CLEA
Loop
Else
CLEA
@10,20 SAY "ARE YOU SURE YOU WANT TO ABANDON OPERATIONS?(Y/N)"
@11,30 GET H PICT "@!A"
CLEA
REST FROM FILE1.MEM
@4,20 SAY "THE FOLLOWING INFORMATIONS ARE"
@5,20 SAY "REQUIRED IN ORDER TO LOCATE THE"
@5,20 SAY ": "FILE YOU WANT TO USE"
@3,19 TO 7,51
@9,25 SAY "SESSION:-" GET MSESSION PICT '99/99'
@13,25 SAY "CLASS:-" GET MCLASS PICT 'AA9'
@15,25 SAY "DEPARTMENT:-" GET MDEPT PICT '@!X'
@2,18 TO 17,52 DOUBLE
@19,25 SAY FILE THE FORM ABOVE"
@5,55 SAY "AVAILABLE DEPARTMENT"
```

```
@6,64 SAY "ARE:-"  
@3,34 TO 7,76  
@9,60 SAY "1. SCIENCE"  
@10,60 SAY "2. SOCIAL/SC."  
@11,60 SAY "3. ARTS"  
@8,54 TO 12,76  
@2,53 TO13,77 DOUBLE  
@15,62 SAY "CHOOSE ONE"  
@14,61 TO 16,72 DOUBLE  
DO WHILE .T.  
READ  
    @19,20 CLEA TO 19,70  
    @21,15 SAY "ARE THE INFORMATIONS GIVEN ABOVE OKAY [Y/N]?" GET RESP PICT  
    READ  
    DOW WHILE .NOT. RESP $ "YN"  
IF RESP $ "YN"  
EXIT  
    Else  
Print Chr(7)  
RESP = SPAC(1)  
@21,10 CLEA TO 21,70  
@21,10 SAY "YOU'VE PRESSED WRONG KEY PRESS [Y] FOR YES OR [N] FOR NO"  
@20,9 TO 22,70 DOUBLE  
READ  
End If  
    ENDDO  
IF RESP="Y"  
MMSESSION = Right(MSESSION, 2)  
MMCLASS = Left(MCLASS, 3)  
MMDEPT = Left(MDEPT, 2)  
MMTERM = Left(MTERM, 1)  
OLDFILE = SPAC(8)  
OLDFILE = MMSESSION + MMDEPT + MMCLASS + MMTERM  
USE &OLDFILE  
DO ACHOICE  
Else  
Loop  
End If  
ENDDO
```

```

SET TALK OFF
SET ECHO OFF
SET SCOR OFF
SET STAT OFF
CLEA
REST FROM FILE1.MEM
DO WHILE .T.
@4,20 SAY "REQUIRED INFORMATION FOR"
@5,23 SAY "CREATING NEW FILE"
DO WHILE .T.
@8,22 SAY "SESSION:--" GET MSESSION PICT '99/99'
@10,22 SAY ""CLASS:--" GET MCLASS PICT 'AA9'
@12,22 SAY "DEPARTMENT:--" GET MDEPT PICT '@!X'
@14,22 SAY "TERM:--" GET MTERM PICT '9AA'
@3,19 TO 6,47
@7,21 TO 15,44
@2,18 TO 16,48 DOUBLE
@17,25 SAY "FILL THE FORM ABOVE"
@3,52 SAY "AVAILABLE DEPARTMENT"
@4,61 SAY "ARE:--"
@7,54 SAY "1. SCIENCE"
@9,54 SAY "2. SOCIAL/SC."
@11,54 SAY "3. ARTS"
@2,51 TO 5,73 DOUBLE
@6,51 TO 12,73 DOUBLE
@14,59 SAY "CHOOSE ONE"
@13,58 TO 15,69 DOUBLE
DO WHILE .T.
READ
@17,20 CLEA TO 17,70
@18,15 SAY "ARE THE INFORMATIONS GIVEN ABOVE OKAY [Y/N]?" GET RESP PICT '@!
A'
READ
DO WHILE .NOT. RESP $ "YN"
@17,12 CLEA TO 18,70
IF RESP $ "YN"
EXIT
Else
@17,20 CLEA TO 18,70
Print Chr(7)
RESP = SPAC(1)
@20,15 SAY "YOU'VE PRESSED WRONG KEY PRESS [Y] FOR YES OR [N] FOR NO"
RESP = SPAC(1)
@18,15 SAY "ARE THE INFORMATION ABOVE OKAY [Y/N]?" GET RESP PICT '@!A'
READ
ENDDO
IF RESP="N"
Loop
Else
USE FORMFILE
Append BLANK
REPLACE SESSION WITH MSESSION
REPLACE DEPARTMENT WITH MDEPT
REPLACE CLASS WITH MCLASS
REPLACE TERM WITH MTERM
End If
Close Databases
MMSESSION = Left(MSESSION, 2)
MMDEPT = Left(MDEPT, 2)
MMCLASS=;EFT(MCLASS,3)
REPLACE TERM WITH MTERM
End If
Close Databases
MMSESSION = Left(MSESSION, 2)
MMDEPT = Left(MDEPT, 2)
MMCLASS = Left(MDEPT, 2)

```

```

MMTERM=LEFT(MTERM,1)
NEWFILE = SPAC(8)
NEWFILE = MMSESSION + MDEPT + MCLASS + MMTERM
@21,5 SAY "THE FILE YOU WANT TO CREATE WILL BE GIVEN THE FILE NAME"
@23,25 SAY NEWFILE
@22,24 TO 24,38 DOUBLE
EXIT
ENDDO
Print
Print
CREATE &NEWFILE
Print
Print
WAIT
DO CASE
Case MDEPT = "SCIENCE"
USE 92SCSS21.DBF
COPY STRUC.TO &NEWFILE
Case MDEPT = "ARTS"
USE 92ARSS21.DBF
COPY STRUCT TO &NEWFILE
OTHEWISE
@10,20 SAY "NO SUCH DEPARTMENT IN THIS SCHOOL."
@12,20 SAY "THE NEW FILE WILL THEREFORE BE DELETED"
V = 0
Do While V <= 30
V = V + 1
ENDDO
DELETE FILE NEWFILE.DBF
PACK
ENDCASE
Close ALL
RESP = SPAC(1)
CLEA
@14,20 SAY "DO YOU WANT TO CREATE ANOTHER RFILE FILE [Y/N]?" GET RESP PICT
'@!A'
IF RESP $ "YN"
EXIT
Else
Print Chr(7)
RESP = SPAC(1)
@20,30 SAY "YOU'VE PRESSED WRONG KEY PRESS [Y] FOR YES R N FOR NO" GET RESP
PICT "@!A"
READ
End.If
ENDDO
IF RESP="Y"
Loop
Else
Return

```

```

SET TALK OFF
SET ECHO OFF
SET STAT OFF
SET SCOR OFF
RESP = SPAC(1)
@10,15 SAY "ARE YOU READY TO ENTER THE STUDENTS' RECORDS NOW?" GET RESP PICT
T "@!A"
@9,14 TO 11,67 DOUBLE
READ
DO WHILE .NOT. RESP $ "YN"
IF RESP $ "YN"
EXIT
Else
Print Chr(7)
RESP = SPAC(1)
@10,10 SAY "YOU'VE PRESSED WRONG KEY, PRESS [Y] FOR YES OR [N] FOR NO" GET
RESP PICT "!A"
@9,9 TO 11,70 DOUBLE
READ
End If
CLEA
ENDDO
IF RESP <> "Y"
DO QCHOICE
End If
DO WHILE .T.
USE 923 \ SCSS21
REST FROM FILE1.MEM ADDITIVE
DO WHILE .T.
CLEA
@2,23 SAY "SCIENCE STUDENTS' SCORES FORM"
@1,22 TO 3,53 DOUBLE
@5,11 SAY "ADMISSION NUMBER:- GET ADMNUM PICT '9999'"
@5,40 SAY "NAMES:-" GET MNames PICT "@!A"
@6,24 TO 20,24
@6,9 TO 6,70
@7,13 SAY "SUBJECT"
@7,25 SAY "CONT-ASSESSMENT"
@7,45 SAY "EXAMINATION"
@8,26 SAY "(40-MARKS)"
@8,47 SAY "(60 MARKS)"
@9,9 TO 9,70
@7,43 TO 20,43
@10,11 SAY "ENGLISH-LANG"
@11,11 SAY "MATHEMATICS"
@12,11 SAY "HAUSA-LANG"
@13,11 SAY "BIOLOGY"
@14,11 SAY "GEOGRAPHY"
@15,11 SAY "AGRIC/SC"
@16,11 SAY "PHYSICS"
@17,11 SAY "CHEMISTRY"
@18,11 SAY "ECONOMICS"
@19,11 SAY "FURTHER-MATHS"
@20,11 SAY "RELIGION"
@0,9 TO 21,70 DOUBLE
@10,29 GET ENGTEST PICT '99' RANGE 0.60
@10,50 SAY ENGEXAM PICT '99' RANGE 0.60
@11,29 SAY MATTEST PICT '99' RANGE 0.60
@11,50 SAY MATEXAM PICT '99' RANGE 0.60
@12,29 SAY HAUTEST PICT '99' RANGE 0.60
@12,50 SAY HAUEXAM PICT '99' RANGE 0.60
@13,29 SAY BIOTEST PICT '99' RANGE 0.60
@13,50 SAY BIOEXAM PICT '99' RANGE 0.60
@14,29 SAY GEOTEST PICT '99' RANGE 0.60
@14,50 SAY GEOEXAM PICT '99' RANGE 0.60
@15,29 SAY AGRTEST PICT '99' RANGE 0.60

```

```

@15,50 SAY AGREXAM PICT '99' RANGE 0.60
@16,29 SAY PHYTEST PICT '99' RANGE 0.60
@16,50 SAY PHYEXAM PICT '99' RANGE 0.60
@17,29 SAY CHETEST PICT '99' RANGE 0.60
@17,50 SAY CHEEXAM PICT '99' RANGE 0.60
@18,29 SAY ECOTEST PICT '99' RANGE 0.60
@18,50 SAY ECOEXAM PICT '99' RANGE 0.60
@19,29 SAY FMTTEST PICT '99' RANGE 0.60
@19,50 SAY FMTEXAM PICT '99' RANGE 0.60
@20,29 SAY RELTEST PICT '99' RANGE 0.60
@20,50 SAY RELEXAM PICT '99' RANGE 0.60
READ
J SPAC(1)
@23,23 SAY "ARE YOUR ENTRIES OKAY [Y/N] ?" GET J
READ
DO WHILE .NOT. J $ "YH"
J -INKEY()
IF UPPER(CHR(J)) $ "YN"
EXIT
End If
J = SPAC(1)
@23,0 CLEA TO 23,79
@23,10 SAY "ARE YOUR ENTRIES OKAY ? PRESS [Y] FOR YES PR [N] FOR NO" GET J
READ ENDDO
DO CASE
Case UPPER(J) = "N"
@23,10 CLEA TO 23,79
Loop
OTHERWISE
USE 92SCSS21
REST FROM FILE1.MEM
Append BLANK
REPLACE ADM_NUMBER WITH ADMNUM
REPLACE NAMES WITH MNames
REPLACE ENG_TEST WITH ENGTEST
REPLACE ENG_EXAM WITH ENGEXAM
ENGASS = ENGTEST * 2 / 3
MENGASS = ROUND(ENGASS, 0)
REPLACE ENG_ASS WITH MENGASS
REPLACE ENG_TOTAL WITH ENG_EXAM + ENG_ASS
REPLACE MAT_TEST WITH MATTEST
REPLACE MAT_EXAM WITH MATEXAM
MATASS = MATTEST * 2 / 3
MMATASS = ROUND(MATASS, 0)
REPLACE MAT_ASS WITH MMATASS
REPLACE MAT_TOTAL WITH MAT_EXAM + MAT_ASS
REPLACE HAU_TEST WOTH HAUTEST
REPLACEHAU_EXAM WOTH HAUEXAM
HAUASS = HAUTYEST * 2 / 3
MHAUASS = ROUND(HAUASS, 0)
HAUASS=HAU_ASS WITH MHAUASS
REPLACE HAU_ASS WITH MHAUASS
REPLACE HAU_TOTAL WITH HU_EXAM + HAU_ASS
REPLACE BIO_TEST WITH BIOTEST
REPLACE BIO_EXAM WTH BIOEXM
BIOASS = BIOTEST * 2 / 3
MBIOASS = ROUND(BIOASS, 0)
REPLACE BIO_ASS WITH MBIOASS
REPLACE BIO_TOTAL WITH BIO_EXAM + BIO_ASS
REPLACE GEO_TEST WITH GEOTEST
REPLACE GEO_EXAM WITH GEOEXAM
GEOASS = GEOTEST * 2 / 3-
MGEOASS = ROUND(GEOASS, 0)
REPLACE GEO_ASS WITH MGEOASS
REPLACE GEO_TOTAL WITH GEO_EXA + GEO_ASS
REPLACE AGR_TEST WITH AGRTEST

```

```

REPLACE AGR_EXAM WITH AGREXAM
AGRASS = AGRTEST * 2 / 3
MPHASS = ROUND(AGRASS, 0)
REPLACE AGR_ASS WITH MAGRASS
REPLACE AGR_TOTAL WITH AGR_EXA + AGR_ASS
REPLACE PHY_TEST WITH PHYTEST
REPLACE PHY_EXAM WITH PHYEXAM
PHYASS = PHYTEST * 2 / 3
MPHYASS = ROUND(PHYASS, 0)
REPLACE PHY_ASS WITH MPHAYASS
REPLACE PHY_TOTAL WITH PHY_EXA + PHY_ASS
REPLACE CHE_TEST WITH CHETEST
REPLACE CHE_EXAM WITH CHEEXAM
CHEASS = CHETEST * 2 / 3
MCHEASS = ROUND(CHEASS, 0)
REPLACE CHE_ASS WITH MCHEASS
REPLACE CHE_TOTAL WITH CHE_EXA + CHE_ASS
REPLACE ECO_TEST WITH ECOTEST
REPLACE ECO_EXAM WITH ECOEXAM
ECOASS = ECOTEST * 2 / 3
MECOASS = ROUND(ECOASS, 0)
REPLACE ECO_ASS WITH MECOASS
REPLACE ECO_TOTAL WITH ECO_EXA + ECO_ASS
REPLACE FMT_TEST WITH FMTTEST
REPLACE FMT_EXAM WITH FMTEXAM
FMTASS = FMTTEST * 2 / 3
MFMTASS = ROUND(FMTASS, 0)
REPLACE FMT_ASS WITH MFMTASS
REPLACE FMT_TOTAL WITH FMT_EXA + FMT_ASS
REPLACE REL_TEST WITH RELTEST
REPLACE REL_EXAM WITH RELEXAM
RELASS = RELTEST * 2 / 3
MRELASS = ROUND(RELASS, 0)
REPLACE REL_ASS WITH MRELASS
REPLACE REL_TOTAL WITH REL_EXA + REL_ASS
ENDCASE
CLEA
RESP = SPAC(1)
@10,20 SAY "DO YOU WANT TO ENTER MORE RECORD(S) ? [Y/N]" GET RESP PICT "@!A"
"
DO WHILE .NOT. RESP $ "YN"
IF RESP $ "YN"
EXIT
Else
Print Chr(7)
RESP = SPAC(7)
@14,10 SAY "YOU'VE PRESSED WRONG KEY. PRESS [Y] FOR YES OR [N] FOR NO" GET
RESP PICT "@!A"
@13,9 TO 15,70 DOUBLE
READ
End If
CLEA
ENDDO
IF RESP = "Y"
Loop
Else
CLEA
EXIT
ENDDO
MREC = Str(RECNO())

```

```

** PROGRAM TO PRINT AND VIEW CLASS RESULT SUMMARY
SET SCOR OFF
SET ECHO OFF
SET TALK OFF
REST FROM FILE1.MEM
DO LOCALFILE.
CLEA
DO CASE
Case MDEPT = "SCIENCE"
@0,10 SAY "CLASS RESULT SUMMARY FOR " + MSESSION
@1,25 SAY "TERM:- " +MTERM
@1,40 SAY "CLASS:- "+MCLASS
@3,1 SAY "DEPARTMENT:- "+MDEPT
@3,10 SAY "NAMES"
@3,31 SAY "ENG"
@3,36 SAY "MAT"
@3,41 SAY "HAU"
@3,45 SAY "BIO"
@3,49 SAY "AGR"
@3,53 SAY "GEO"
@3,57 SAY "PHY"
@3,61 SAY "CHE"
@3,65 SAY "ECO"
@3,69 SAY "FMT"
@3,73 SAY "TOTL"
@3,78 SAY "POS"
@2,1 TO 2,2,79
@3,8 TO 24,8
@3,30 TO 24,30
@3,34 TO 24,34
@3,40 TO 24,40
@3,48 TO 24,44
@3,52 TO 24,48
@3,56 TO 24,52
@3,60 TO 24,60
@3,64 TO 24,64
@3,68 TO 24,68
@3,72 TO 24,72
@3,77 TO 24,77
Do While .NOT.EOF()
LOCATE FOR .T.
GO TOP
@Y,1 SAY ADM_NUMBER
@Y,10 SAY NAMES
IF .NOT. ENG_TOTAL >= 0
@Y,31 SAY "X"
Z = Z + 0
Else
@Y,31 SAY ENG_TOTAL
ENDI
IF .NOT. MAT_TOTAL >= 0
@Y,36 SAY "X"
Z = Z + 0
Else
@Y,36 SAY MAT_TOTAL
Z = Z + MAT_TOTAL
ENDI
IF .NOT. HAU_TOTAL >= 0
Z = Z + 0
Else
@Y,41 SAY HAU_TOTAL
Z = Z + 0
Else
@Y,41 SAY HAU_TOTAL
Z = Z + HAU_TOTAL
ENDI

```

```
IF .NOT. BIO_TOTAL >= 0
@Y,45 SAY "X"
Z = Z + 0
Else
@Y,45 SAY BIO_TOTAL
Z = Z + BIO_TOTAL
ENDI
IF .NOT. AGR_TOTAL >= 0
@Y,49 SAY "X"
Z = Z + 0
Else
@Y,49 SAY AGR_TOTAL
Z = Z + AGR_TOTAL
ENDI
IF .NOT. GEO_TOTAL >= 0
Z = Z + GEO_TOTAL
ENDI
IF .NOT. PHY_TOTAL >= 0
@Y,57 SAY "X"
Z = Z + 0
Else
@Y,57 SAY PHY_TOTAL
Z = Z + PHY_TOTAL
ENDI
IF .NOT. CHE_TOTAL >= 0
@Y,61 SAY "X"
Z = Z + 0
Else
@Y,61 SAY CHE_TOTAL
Z = Z + CHE_TOTAL
ENDI
IF .NOT. ECO_TOTAL >= 0
@Y,65 SAY "X"
Z = Z + 0
Else
@Y,65 SAY ECO_TOTAL
Z = Z + ECO_TOTAL
ENDI
IF .NOT. FMT_TOTAL >= 0
@Y,69 SAY "X"
Z = Z + 0
Else
@Y,69 SAY FMT_TOTAL
Z = Z + FMT_TOTAL
ENDI
@Y,73 SAY Z
SKIP
ENDDO
```

```
*THIS PROGRAM GRADES THE SCORES OF STUDENTS IN EACH SUBJECT
SET ECHO OFF
SET STATUS OFF
SET TALK OFF
CLEA
MARK = 0
@10,10 SAY "ENTER THE MARK" GET MARK PICT "99"
READ
DO CASE
CASE MARK = 0 .OR. MARK <= 39
GRADE = "F9"
REMARK = "FAIL"
CLEA
@10,10 SAY MARK
@10,20 SAY GRADE
@10,30 SAY REMARK
CASE MARK = 40 .OR. MARK <= 44
GRADE = "F8"
REMARK = "PASS"
CLEA
@10,10 SAY MARK
@10,20 SAY GRADE
@10,30 SAY REMARK
CASE MARK = 45 .OR. MARK <= 49
GRADE = "F7"
REMARK = "PASS"
CLEA
@10,10 SAY MARK
@10,20 SAY GRADE
@10,30 SAY REMARK
CASE MARK = 50 .OR. MARK <= 54
GRADE = "C6"
REMARK = "CREDIT"
CLEA
@10,10 SAY MARK
@10,20 SAY GRADE
@10,30 SAY REMARK
CASE MARK = 55 .OR. MARK <= 59
GRADE = "C5"
REMARK = "CREDIT"
CLEA
@10,10 SAY MARK
@10,20 SAY GRADE
@10,30 SAY REMARK
CASE MARK = 60 .OR. MARK <= 64
GRADE = "C4"
REMARK = "CREDIT"
CLEA
@10,10 SAY MARK
@10,20 SAY GRADE
@10,30 SAY REMARK
CASE MARK = 65 .OR. MARK <= 69
GRADE = "A3"
REMARK = "GCOD"
CLEA
@10,10 SAY MARK
@10,20 SAY GRADE
@10,30 SAY REMARK
CASE MARK = 70 .OR. MARK <= 74
GRADE = "A2"
REMARK = "VERY GOOD"
CLEA
@10,10 SAY MARK
@10,20 SAY GRADE
@10,30 SAY REMARK
CASE MARK = 75 .OR. MARK <= 100
```

GRADE = "A1"
REMARK = "EXCELLENT"
CLEA
@10,10 SAY MARK
@10,20 SAY GRADE
@10,30 SAY REMARK
END CASE
Return

