

# **COMPUTERIZATION OF EXAMINATION GRADING SYSTEM**

*A CASE STUDY OF COMMUNITY SECONDARY SCHOOL, ASOKORO, ABUJA*

*BY*

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# CERTIFICATION

This is to certify that Mr. ELIJAH ABRAHAM OLORUNTOBA has in partial fulfillment of the requirement for the award of Post Graduate Diploma (PGD) in Maths/Computer Department, Federal University of Technology Minna, carried out a research on "Computerization of Examination Grading System" during the 2003/2004 academic session.

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## **DEDICATION**

This project work is dedicated to God for his endless love towards me throughout the period of my studies.

## ACKNOWLEDGEMENT

My Sincere gratitude goes to God Almighty who has been my help and source of comfort all through the course of my study.

I am also indebted to my Project Supervisor Dr. N. Akinwande who has contributed immensely to the success of this project through his constructive criticisms and corrections. Also to my Head of Department (HOD), Dr. L.N Ezeako as well as the entire members of staff of the Maths/Computer Department who has in one way or the other contributed to the success this programmed I say God bless you all

My gratitude also go to my parents who has been by me and supporting me spiritually, financially, morally and otherwise. Also to my other siblings who were there to also be a source of encouragement I say thanks to you all

My gratitude will be incomplete if I fail to acknowledge the immense contribution of my course mates, all who stood by me through the thick and thin. I will ever remain indebted to you all you are really friends indeed.

## **ABSTRACT**

Computer studies has much influence on the human society and has proved to be a huge success especially in the educational sector in various ways.

This study therefore tends to focus on just one among many of its application in the educational sector (EXAMINATION GRADING SYSTEM), which is of paramount importance in the evaluation of students performance, required by both parents and other examination bodies. It limited its scope to Community Secondary School Asokoro Abuja, which is the case study

This work tends to give a general overview of the computer system. Also consideration was given to the conventional grading system in use presently pointing out its strength and weaknesses as well as procure a suitable alternative; the use of computer, so as overcome the system weakness and failure that is eminent in the present system.

Attempt was also made to evaluate and analyse the alternative method chosen so as to ascertain its feasibility and viability. The method required for file conversion was also considered. The implementation plan was also delved into in the process of this study.

Finally, the documentation of the program forms the appendix for this project.

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## **CHAPTER ONE**

### **1.1 INTRODUCTION.**

The curiosity of man, about things and events around him led to technological advancement in all human endeavours. Man from the crude Stone Age has metamorphosed through various stages to the present day computer age. Today, the world has witnessed major technological changes and success in the last four decades but this is more pronounced in this decade. Among the technological changes experienced the most fascinating and appreciated is the development of the computer system. This technological success by man has really brought about a kind of revolution that is greater than other preceding changes, this has really affected our daily lives and endeavors. It has also brought about a change that is not static but dynamic.

The relevance or impact of computer to human lives makes it necessary for everyone to become literate in both the fundamentals and operations of the computer system. Its vast application especially in the educational sector forms the basis of this research work.

### **1.2 BRIEF OVERVIEW OF THE COMPUTER SYSTEM**

The computer is commonly regarded as a "thinking machine". It is a programmed unit that performs only the operations it is instructed to do. In



processing data, a computer is faster, more economical and reliable. A computer converts input data to output information by processing. The processing ability of the computer is aided by programs written by a computer programmer. The program indicates the instructions necessary to operate on the input so that meaningful output is realized.

The computer is defined as an electronic programmable machine that accepts data as input, stores the data, and process the data to give information as output, at a very high speed as required by the user.

The computer as an entity is broadly divided into two parts – the hardware and software. While the hardware is the physical component of the computer comprising of input unit, memory unit, processing unit, and output units, the software are the programs (set of instructions) under which the hardware work to accomplish a particular task as intended by the user. The software is divided into:- Operating system software and Application software.

The computer as an entity has characteristics peculiar to it that expresses its superiority and versatility compared to other operational devices.

These characteristics includes:

- **High speed of operation:** the speed is measured in nanoseconds or milliseconds. It can accomplish several tasks in a split of second. It is really a very fast machine.

- **High Level of accuracy:** that it is fast, does not underscore its high level of accuracy. The computer makes no error, except when wrong values of data are garbage into it. The operator most times causes computer errors during input. Also when the software or hardware malfunctions errors are bound to occur.
- **High storage capacity and retrieving speed:** it can store large volume of data or information, i.e. it has high storage capacity measured in gigabytes (billions of bytes). Also the speed at retrieving such information is also high.
- **High Level of diligence:** the computer is known to be a workhouse i.e. does not get tired. It works round the clock non-stop, except when shut down or faulty.
- **High level of efficiency:** job meant for hundred or more persons can be accomplished by just one person using the computer in the shortest time with a high level of accuracy. Hence the efficiency of the computer.
- **Automatic in nature:** the computer accomplish its operation with little or no human intervention. The computer is automatic in operation.

Considering these characteristics it becomes evident that the computer is an indispensable tool that has gone a long way in causing a positive change in the society. Especially in the educational sector, which tends to form the topic of discussion in this research work.

### **1.3 SCOPE OF STUDY**

The application of the computer is very vast, making it a versatile machine. Its application cuts across sectors as: medical, technological, management and administration, domestic, industrial, educational, social, commercial, etc.

This research work will only be limited to the educational application. Although education also diversifies its application as in; record keeping, research, and examination grading. Amongst these, focus will be only on the application of computer in the examination grading system, with a case study of *Community Secondary School Asokoro, Abuja*.

### **1.4 RELEVANCE OF STUDY**

This study wishes to critically examine the grading system applicable to Community Secondary School, considering its advantages and disadvantages, so as to proffer a better way forward, to a better and articulated system design. This work will also suggest the method, as related to computer application to simulate the grading system of the school.

The study will also suggest the training of the people to operate and use the system and designed software.

With the increase in work load in the school daily routine, as well as the increase in the school population, there is the need for the

computerization of the school activities for proper and easy record keeping, grading and administrative requirements.

## 1.5 DEFINITION OF TERMS

Base on the scope of this research work, we shall be limited to using few terminologies which may not be too familiar and hence requires their definitions, so as to aid easy understanding. These definitions are based on their use in the context of discuss.

- **Computer:-** an electronic programmable machine, which accepts data as input, stores the data and process the data to give a meaningful information, as required by the user, at a very high speed.
- **Data:** - raw and unstructured facts, that is processed
- **Examination:** - formal writing, oral or practical test to test the level of knowledge about a subject especially in schools and colleges.
- **Grading:-** systematic and structured arrangement of examination scores based on a specific condition.
- **Information:** - processed data
- **Programs:** - Set of instruction, executed by the computer in order to accomplish a particular task.
- **System:** - Processes or operations connected to work together based on a way of operation.

## **CHAPTER TWO**

### **2.1 INTRODUCTION**

This chapter will give a brief history of Community Secondary School, Asokoro Abuja, with respect to its date of inception, location, organizational structure. Also, the current grading system applicable in the school is also brought to limelight, giving a detail analysis of the system.

### **2.2 HISTORICAL BACKGROUND OF THE PRESENT ASOKORO SECONDARY SCHOOL**

Community Secondary School Asokoro, is located at the north-eastern flank of the Federal Capital Territory Abuja. It covers a landmass of 10 hectares, with the primary and secondary school built on it.

The school being an initiative of the former Director General State Security Service on October, 1992, was created to accord the wards of the staff of the State Security Service, qualitative and sound education, since the public schools were handicapped in meeting this requirement, due to over population which tends to over-stretch the limited facilities.

The school was established on October 1992, with about 73 students in attendance and about 10 – 12 staff members. But today the school has grown tremendously with a noticeable improvement both academically and size. The school now accommodates wards of the entire Intelligence Community staff. Comprising of The State Security Service (SSS), National Intelligence

Agency (NIA), Directorate of Military Intelligence (DMI), Defence Intelligence Agency (DIA), and the general public especially the affluent in the society. Also the siting of the Federal Capital Territory in Abuja has also constituted a booster to the growth and development of the school.

The school started as a nursery and primary school, as the pupils graduated there arose the need for a Secondary School so as to still keep the vision of good and qualitative education for the children alive and continuous.

After several years of existence and thriving the school today has a population of 2314 pupils and 2094 students in the secondary school with staff strength of 43.

The administrative structure is such a commendable one. The Assistant Director (ADS) Educational Service is in-charge of the school in a supervisory capacity. He is appointed by the Director General (DG) as recommended by the Intelligence Community. He over sees the activities of the schools, and also serve as link between the school and the service and channels all necessary information about the school to the Director General. He is directly responsible to the Director General (DG) while the primary and secondary school have their head-teacher and principal respectively who are accountable to the Executive Secretary (ES). The Executive Secretary is in turn accountable to the Assistant Director Educational Services.

## **EXTRA-CURRICULARS**

Outside the normal school period, there is the extra moral class organized by the school for students so as to enhance their academic performance as well as keeping them busy (personal reading, attending lessons) during the hours of 2pm to 4pm.

Another interesting aspect of the school curricular is the introduction of clubs and societies, which constitute part of the school extra-curricular activities. This clubs include: Computer club, Current Affairs club, Literary and debate Club etc. This makes the students develop both socially and in morals. The computer teacher usually heads the computer club. The existence of this club has not in any way changed their conventional way of data management. Hence the purpose for this project write up.

### **2.3 GENERAL CONCEPT OF A SYSTEM AND ITS ANALYSIS**

A system as earlier defined is an organized, interacting, interdependent and integrated components (S.T Calys). A system must manage its interacting components so as to achieve it desired objective. A good system must be simple, flexible, reliable, economical adaptive and acceptable.

#### **SYSTEM ANALYSIS**

This is the method of evaluating the efficiency of a system. The result of which might necessitate the need for improvement, which will then require the incorporation of other resources. This might include computer

application as well as other resources to enhance the present system so as to meet the required objective of the organization. System analysis is concerned with converting the objectives of the management as far as information and data are concerned into methods that are amenable process by a computer. There is the need for the components to be examined and for them also to interact in a way that will make the goal attainable.

System analysis consists of a number of steps to be observed and taken into consideration so as to yield a good result.

- a. Good identification of the problem and a preliminary survey conducted to ascertain the necessity for a new and improved system.
- b. Feasibility study required for further definition of the problem, investigating it and look for all possible alternative solution.
- c. Critical analysis of the present or current system and the objective of the proposed system defined, so as to meet the required need.
- d. The above analysis should lead to a number of possible alternative designs. Once the alternative is been selected, the designing requires that a new system be produced on the basis of requirement specifications.
- e. The type of hardware and software that are needed should be chosen and acquired, or to write the needed software.
- f. The new system should be implemented. This include:



- i. design, write and test computer program.
  - ii. Train users
  - iii. Test clearable procedures
  - iv. Documentation
  - v. Create files
  - vi. Cut-out to new system
- g. when the system is implemented and is in full operation, it is re-examined to see if it has met the required objective(s) set out in the original specification. It should be frequently reviewed and maintained.

## **2.4 THE GRADING SYSTEM OF COMMUNITY SECONDARY SCHOOL ASOKORO AND IT ANALYSIS**

As for Community Secondary School, Asokoro, the conventional (manual) grading system is still in use. This tends to be too laborious, time wasting and inaccurate, because of human imperfections. Hence, the need to review and improve the current system, which is almost obsolete considering the today's world technological trend.

In general the structure of the grading system is shown below;

**Table 1**

SCORE	GRADE	REMARK
75 and above	A1	Excellent
70 – 74	A2	Very Good
65 – 69	A3	Good
60 – 64	C4	Credit
55 – 59	C5	Credit
50 – 54	C6	Credit
45 – 49	P7	Fair Pass
40 – 44	P8	Pass
< = 39	F9	Fail

The general performance is shared into two parts. Namely;

- Continuous Assessment - 40 marks
- Examination - 60 marks

Detailed analysis now considers the Junior Secondary School separately from the Senior Secondary School. This tends to give a slight variation.

In the Junior Secondary School, for a student to be promoted from one lower class to another higher class (JSS1 – JSS2), the student must make or

obtain not less than 50% in Mathematics and English as well as having an a total score of 500 in the 13 subjects offered. Though this is not constant, with sometimes variation. An average of the total score obtained is found and when the average is 45% and above the student is considered to have passed.

The subjects to be offered for the Junior Secondary School include:

English Language

Mathematics

Business Studies

Integrated Science

Religious Studies

Social Studies

Music

One Nigerian Language

Introductory technology

Fine Art

Computer Science

To be qualified for the award of the Junior Secondary School Certificate (JSSCE), conducted by the ministry of education a student must obtain a pass in English, Mathematics, Integrated Science and Social Studies, with at least any other 3 subjects.

The Senior Secondary School is not exceptional though the system seems to be slightly varied. The grading system is seen from table 2. For the purpose of promotion to a higher class (say SSS 1 – SSS2), a student must meet certain conditions. Though this conditions varies with circumstances; such as when there is a mass failure due to administrative or managerial inefficiency or any other circumstance.

Subjects available at the Senior Secondary School are grouped into the Pure Sciences, Commercial and Arts. Hence, students are to make their subject options from the list below base on their area of choice.

English	Mathematics
Biology	Agricultural Science
Geography	Economics
Chemistry	Physics
Religious Studies	Government
Commerce	History
Food and Nutrition	Technical Drawing
Literature in English	Music
French	Arabic Language

So for any student the choice of subject should not be less than 8 and not more than 10.

To be qualified for promotions, a student should obtain credit passes in English and mathematics i.e 50% in both and must have a total score greater than 450 in all subjects registered. Although the management might alter these condition based on reasons stated above. But for the purpose of the SSCE (Senior Secondary Examinations) each student should register for at least 8 and at most 9 subjects. This includes the 5 core subjects; English Mathematics, a science subject, a social science subject, an art subject and

one Nigerian language. Any registration that does not satisfy this condition is considered as incomplete registration

## CHAPTER THREE

### SYSTEM DESIGN

#### 3.1 INTRODUCTION

Design means applying several techniques and principles for the purpose of defining the system in sufficient details to permit its physical realization. The content, structure of the proposed database as well as the method of retrieval are our main objective in this chapter. The kind of report required is also of immense importance as well as the available input and output required to produce the expected result.

#### 3.2 DESIGN OF SYSTEM INPUT MEDIA

Every system that is designed has a specific input requirement to be able to meet the users output expectation. Base on this the proposed system also requires some basic input. These include the following:

- Result Sheet
- Report Sheet and
- Subject Registration form

##### **Result Sheet:**

This is usually prepared by the individual class teachers for the entire class. The name of the class and subject offered is presented in a tabular form. The mark scored by each student is filled against the student name and the respective subjects. The over all performance of all the students is then

displayed, from which other reports may be prepared. The fig 3.1 below gives an overview of a result sheet for the sciences.

NAME	SUBJECT							
Eng	Maths	Bio	Chem	Physic	Geo	Hist	Econs	

**Fig 3.1**

**Report Sheet:**

This is usually prepared for each class members. It includes the Name of students, Class, Year, Attendance, Sex, Age, No in Class, House and Academic performance. The report sheet contains all the subjects offered in school and the ones the student offered are filled with the scores against the respective subjects offered. The report sheet is usually given to student at the end of the term after the examinations are conducted. They show the overall performance of each student. An example sheet is shown below in fig 3.2

**Subject registration Form:**

This form contains vital information about the student needed for the student registration of subjects either at the school level of external

examination requirement. It contains: Name of Student, Class, Sex, Age, Sign of student. See fig 3.3 below.

Name of student (surname first).....  
Class..... Sex..... Age..... Signature of Student.....

S/NO	SUBJECT	NAME OF TEACHER	SIGN OF TEACHER

### 3.3 STUDENT HISTORY FILE

This contains vital information required about each student from the day of absorption into the school to the day he/she leaves the school. This essentially consist of the following:

- (a) Personal Particulars
- (b) Activities and Achievements
- (c) Personal Qualities and
- (d) Details of transfer

Personal particulars consist of information about birth, place of birth, home town, state, nationality, tribe and religion. Others includes; school attended, address, parents name and address and medical history of the student.



The Activities and Achievement include office held when in school, clubs and societies Games and honours, position in class (Academic)

Personal qualities include: honesty, integrity, work and study habit, teamwork, imitative self-control, sense of responsibility, loyalty, neatness and games activities.

Details of transfer refers to information about date of transfer, purpose for transfer copy of history, career information (career interest) suitability and remarks.

### **3.4 DESIGN OF OUTPUT MEDIA**

The suitability and quality of the system output is what determines its acceptability as being able to give the desired result. It is the primary contact between the user and the system.

Here our output is on the student examination records and will often be required whenever examinations are conducted with accurate and timely results expected. Also necessary when new students are admitted (may be on transfer from other schools), or when students are leaving the school to other schools for any purpose. The output will be required to update their academic performance and also for proper statistic of new students admitted into the school.

To the student and parents, the output is very important so as to evaluate their academic performance and also when the student is leaving the

school for other schools it will also be required. Also examination bodies such as WAEC and NECO may require the output for the purpose of student registration for both the junior and senior certificate examination.

The output required by the student and parents is in the form of report sheet while the examination bodies as well as other educational organizations will require just the summary of the students result.

**(a) Information about Student:** this consists of :

Reg. No                      Name                      Other names

Sex:                              Age

State                              Class of Student

C.A for each student:      Scores of each student

Grade;                              Session:

Remark:

**(b) Result of individual Students:** this consist of the subjects registered and the student performance in each subject.

**(c) List of promoted students:** all students who meet the criteria for promotion to the next class. This criteria varies as earlier discussed in chapter two. Hence, it can be reviewed based on the present condition. Such criteria include credit passes in 5 subjects and other 2 passes. For the purpose of

WAEC, the conditions for registration include: English, Mathematics, One Nigerian Language, others are

- One science subject (Biology, Chemistry, Physics Agriculture)
- One social science ( Literature in English, Economics, Geography, History)
- One vocational subject (Account, Commerce, Home economic, wood work Technical work etc). Plus any other two subjects or at most three.

The students who do not meet up with the above requirement either for promotion or registration purpose will now constitute the next form of output media.

**(d) List of unpromoted Students:** those who do not meet up with the above promotion criteria will not be promoted. As for the WAEC registration, students who do not meet up with the registration requirement will be considered as incomplete registration.

### **3.5 CREATION OF DATABASE FILES**

Database is the collection of interrelated data stored together with minimum redundancy to serve multiple applications with the data stored in such way that it is independent of the hardware on which it is stored. When a database is organized and stored on auxiliary storage facilities, application program can refer to data in the database independent of how the data is arranged or organized. A database is one or more files, which is a collection

of related information stored together. Hence, a database include at one database file. Our database file include the following:

- (a) Personal Record
- (b) Family Data
- (c) Health Record
- (d) Personal development
- (e) Educational Background
- (f) Academic Performance

### **DATA TO BE CAPTURED FOR DBMS DESIGN**

#### **FORM DESIGN A**

#### **PERSONAL RECORD FORM**

1. Name of student surname first
2. Date of birth
3. Place of birth
4. Age
5. Sex(m/f)
6. Permanent home address
7. Contact address
8. State of origin
9. Home town
10. L.G.A
11. Language spoken
12. Nationality (non Nigerian only)
13. Religion

14. Passport photograph
15. Admission

## FORM DESIGN B

### DATA ON FAMILY BACKGROUND

1. Father's name
2. Residential address
3. Contact address
4. Highest education level
5. Occupation
6. State of origin
7. Home town
8. LGA
9. Religion
10. Phone no.
11. Mother's name
12. Residential address
13. Contact address
14. Highest educational level
15. Occupation
16. State of origin
17. Home town
18. LGA
19. Guidance's name
20. Residential, address
21. Contact address
22. Highest education level
23. Occupation

24. State of origin
25. Home town
26. Religion
27. Telephone no.

#### HOME BACKGROUND DATA

1. Father's number of wives
2. Position of mother
3. Position of student among siblings
4. Parent's marriage situation (separate, divorce)
5. Father deceased or mother deceased

#### HEALTH DATA RECORDS

1. Any special health problem (yes/no).
2. Physical disability
3. Specify immunization in te past 2 years

#### PHYSICAL DEVELOPMENT

1. Height and weight
2. Habit that needs to be recoded

#### EDUCATIONAL BACKGROUND OF STUDENT

1. Name of school attended
2. Class read
3. From which year to what year
4. Reason for leaving former school
5. Any post held
6. Club and society (Post held if any)

## 7. Sports and achievement

### ACADEMIC RECORD

The academic record to be captured for the students varies from JS classes to SS classes, in the SS classes they are distributed into ( Science Commercial and Arts) with different requirement as specified below:

#### **JS CLASS**

1. Admission no.
2. Student name (surname)
3. Term
4. Session
5. Class
6. English
7. Maths
8. Integrated Science
9. Social Studies
10. Business Studies
11. Introductory Technology
12. CRS
13. IRS
14. Fine Arts
15. Yoruba
16. Hausa
17. Igbo
18. Arabic
19. Agric
20. Home Economics

21. French
22. Music
23. Physical Education
24. Computer
25. Remarks

#### ANALYSIS ON JS RESULT

- i. Compute each student's **Total score**
- ii. Compute and Generate **REMARK** to show if student **Passed or Failed**

#### **NOTE:-**

Students must score at least 50% in English and Mathematics (this is compulsory), the students **must** also pass at least 8 more subjects for him/her to pass or promoted as the case may be. That is to say a student must 50% in at least 10 subjects to pass out of the total number of course offered. In JSS classes.

If a student repeats a class 2 times he/she is expected to withdraw from the school.



**COMMUNITY SECONDARY SCHOOL, ASOKORO ABUJA**

Admission No.:  Remark

NAMES (Surname first):

passport

Students age  Sex  Class

Subjects

Maths  Inter science  Agric

English  IRS  CRS

Total score \_\_\_\_\_

**FORMAT A**

**DATA TO BE CAPTURED FOR SS SCIENCE CLASSES**

1. Student's Name
2. Admission no.
3. Sex
4. Age
5. Class
6. Term
7. Session
8. Maths
9. English
10. Biology
11. Chemistry
12. Physics
13. Further Maths

14. Agric
15. Geography
16. Economics
17. Food and nutrition
18. CRS
19. IRS
20. French
21. Remarks

### **ANALYSIS TO BE COMPUTED**

- i. Total Score
- ii. REMARKS showing PASSED or FAILED

#### ***NOTE:***

Student must score at least 50% in English, Maths and any 2 of the following: Chemistry Biology and Physics with four other subjects making a total of eight subject to be passed at 50%, to qualify for a student to pass or be promoted, if a student fails 2 times he/she is to withdraw.

### **DATA CAPTURE FOR SS COMMERCIAL CLASSES**

1. Name of students
2. Student age
3. Student sex
4. Term
5. Session
6. Class
7. Mathematics
8. English

9. Biology
10. Economics
11. Geography
12. Accounts
13. Fine Art
14. Yoruba
15. Hausa
16. Igbo
17. Agric
18. IRS
19. CRS
20. Arabic
21. History
22. Government
23. Literature in English
24. Food & Nutrition
25. French
26. Remarks

### **COMPUTED ANALYSIS**

- i. Compute the Total score for each students
- ii. Generate Remark PASSED or FAILED procedure

Students must pass at least 8 subjects at 50% out of which 2 of either Commerce, Accounts, Economics and any other four (English and Math Compulsory).

## **CAPTURE DATA FOR ART CLASSES**

1. Names
2. Admission no.
3. SEX (M/F)
4. Class
5. Term
6. Session
7. Age
8. English
9. Math
10. Literature in English
11. Yoruba
12. Igbo
13. Hausa
14. IRS
15. CRS
16. History
17. Government
18. Geography
19. Commerce
20. French
21. Arabic
22. Fine Art
23. Agric
24. Remarks.

## **ANALYSIS TO BE COMPUTED**

- (i) Compute the Total score.

(ii) Remark should indicate if the student failed or passed.

Note: The condition for passing a student is as follows:

Each student is expected to pass at least 50% in 8 subjects (English & Maths

Compulsory) with two others of Government, Literature, Fine Art and History.

A student is expected to withdraw from school, if repeating the second time.

**DISPLAYING OR VIEWING OF RECORDS.**

Record is expected to be Viewed individually in a form format

COMMUNITY SECONDARY SCHOOL, ASOKORO					
ADMISSION	<input type="text"/>		Passport Photograph		
NAME	<input type="text"/>	AGE		<input type="text"/>	
SEX	<input type="text"/>	CLASS	<input type="text"/>		
TERM	<input type="text"/>	SESSIO	<input type="text"/>		
			REMAR	<input type="text"/>	
SUBJECT SCORES					
ENGLISH	<input type="text"/>	AGRIC	<input type="text"/>	TOTALS	<input type="text"/>
MATHS	<input type="text"/>			ENGLISH	<input type="text"/>

## 2. CLASS BY CLASS VIEWING

Analysis is to list all students in each class, showing students names,

Subject

Scores, Total scores, Summaries in a listed format. As shown in

FORMAT A

3. RECORD should as well be searched and viewed by Term in a listed

Format as in FORMART A.

4. Record should be viewed in a listed format sessionally as in

FORMART A.

**NOTE: -**

**NOTE: -**

There should be facility in the Program for Searching, Updating, Sorting, Deletion of expired records. And other facility as the case may be.

### VIEWING OF STUDENTS BIO DATA

This should be done in 3 forms as follows:-

A. To show information of The Individual student personal record

Passport inclusive as listed in Form FORMAT A & B

B. Information about the student should be shown about the students

family Background in a form format this should include

i. Student's parents (Father & Mother)

- ii. Guidance information
- iii. Home Background

B. Health Record of Child should be displayed

C. Physical Records should be displayed

D. Previous Class & School of student if on Transfer should be include.

**NOTE: The Students Records are to go along with their passport Photograph**

### **3.6 SYSTEM FLOWCHART**

This is a step by step procedure of solving a certain type of problem used for the analysis of the situation into s single step. It consists of symbols and arrows of the direction of flow. In this section we shall draw the flow chart for the following:

1. PROGRAM FLOWCHART
2. DATA ENTRY PROCEDURE
3. FLOWCHART FOR VEWING PROCEDURE

See fig 3.4 (i) (ii) (iii) for details

### **3.7 COST BENEFIT ANALYSIS OF THE NEW SYSTEM**

The cost and benefit analysis shall be qualitative rather than quantitative.

Conventional or Manual grading system is cumbersome, time consuming, inaccurate and more cost effective. On the basis of these weaknesses the necessity for the new system evolved.

The new system abounds with benefits such as:

- Fast, avoiding time wastage
- Ensures the authenticity and accuracy of information.
- Avoid duplication of responsibilities as well as data redundancy
- High level of job satisfaction
- Well organized and monitored system
- Reduce excess volume of paper work and physical storage media thereby increasing data processing convenience.
- Ensures record security and durability
- Avoid repetitive expenses on stationeries to a greater extent.



# PROGRAM FLOW CHART

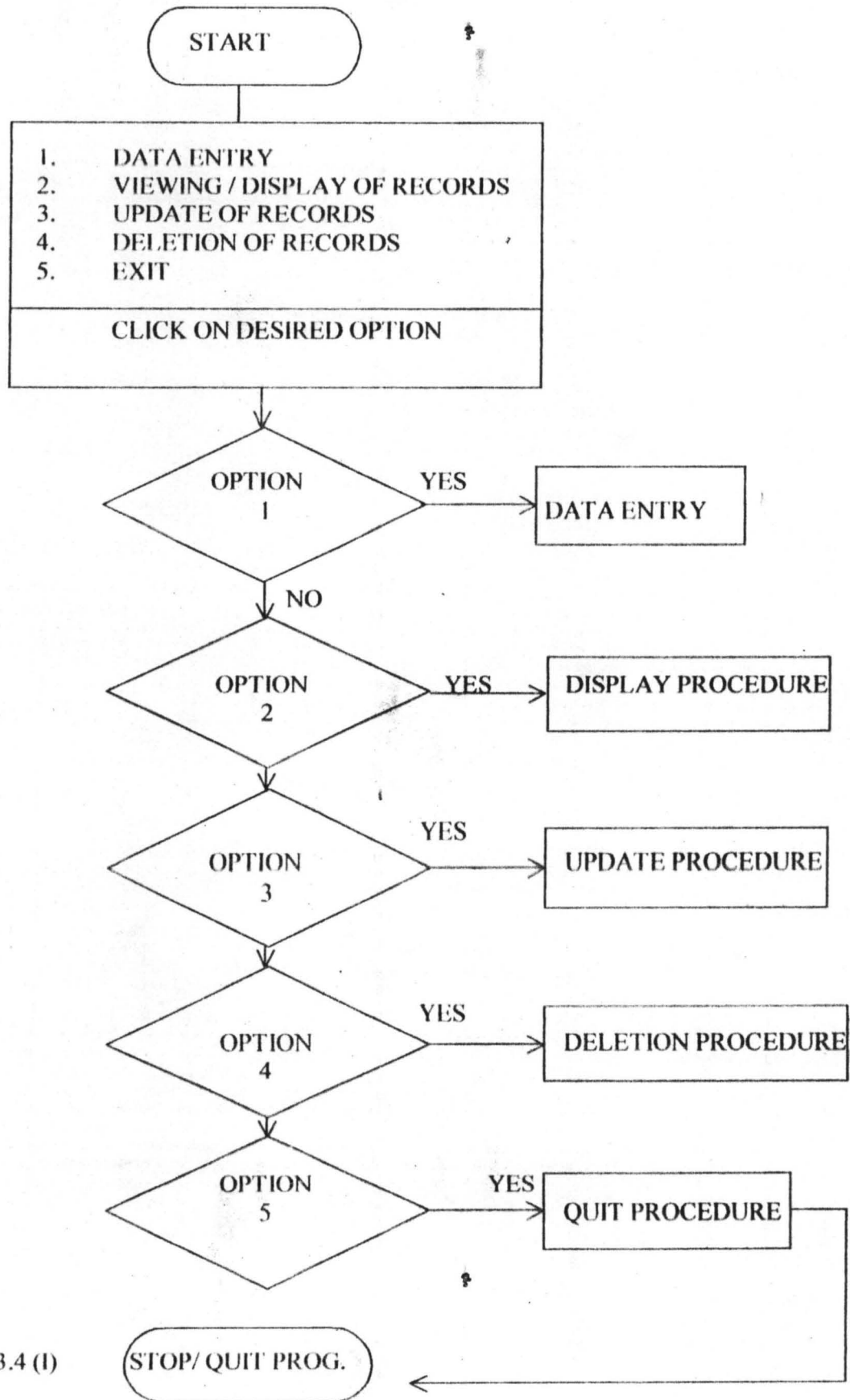


Fig 3.4 (I)

### DATA ENTRY PROCEDURE

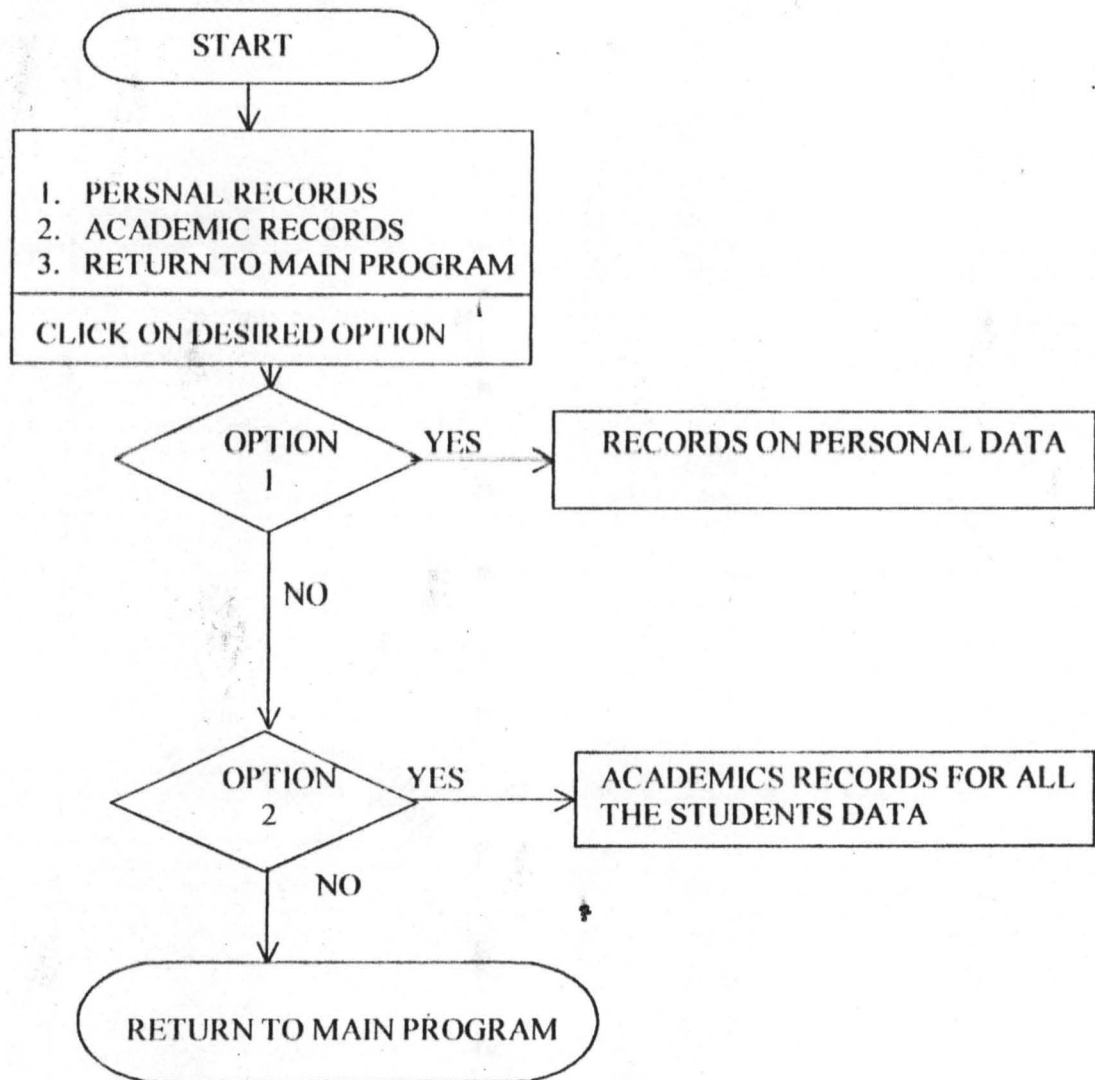
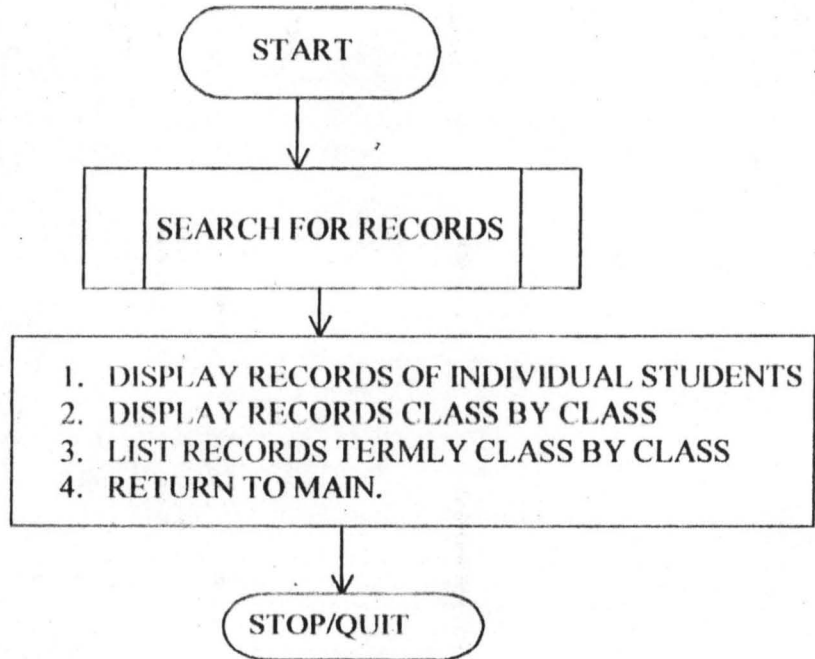


Fig 3.4 (ii)

**DISPLAY OR VIEW PROCEDURE**



**UPDATE PROCEDURE**

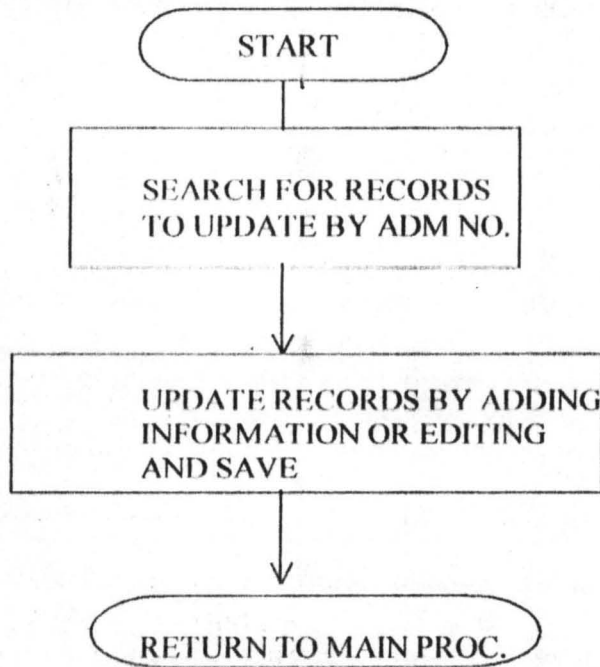


Fig 3.4 (iii)

### DELETE PROCEDURE

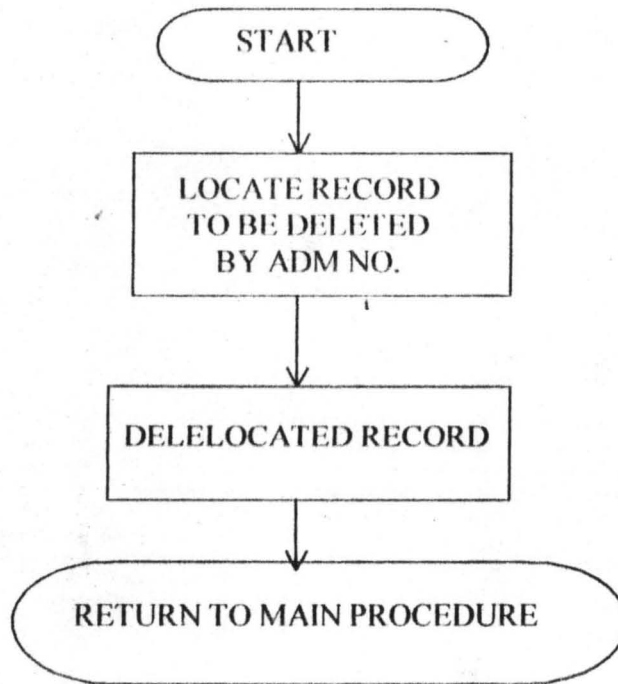


Fig 3.4 (iv)

## **CHAPTER FOUR**

### **4.1 SYSTEM IMPLEMENTATION**

Program implementation deals with putting into use a newly created information system and its on going operation. This involves the implementation of how to translate the system design and specification into instructions that can be interpreted and executed by the computer. This of course is the programming phase of the system development process.

The new system is coded using the QUICK BASIC dialect. With the use of this language, there is the simplicity of coding and ease of learning and understanding on the part of the user staff. The user staff should therefore be given the right orientation as well as proper training to ensure the proper implementation of the new system.

### **4.2 SYSTEM REVIEW**

The operational, economical and technical feasibility of a new system is vital to the success of particular organizational information need. The review of the system carried out to meet the organizational need. The dynamic needs are operation of an organization call for a timely adjustment.

### **4.3 SYSTEM TESTING**

There is great need for program testing as this will enhance debugging and error correction. To this end the system analyst must provide the

necessary data for both the simulate and real life testing process. There must be an afore knowledge of the expected result so as to ensure accuracy by comparison with the system result.

#### **4.4 SYSTEM CONVERSION/INSTALLATION**

There are several methods of installing a new system.

This is achieved by various method of system conversion. These include.

- I. Direct change over
- II. Parallel change over
- III. Pilot change over
- IV. Phased change over

The most appropriate for this system is the phased change over. The data being introduced in to the new system piece by piece i.e a complete logical section is introduce into the new system after results are obtained from the old system and the results are compared. This method is less complex, less risky.

#### **4.5 SYSTEM MAINTENANCE**

For a system to be kept functional, it has to be properly maintained. This can take the form of servicing equipment and more intensive staff training in conformity with current technical trend. Also backup copies for software and document stored should be made to ensure safety form

corruption of original copies. Preventive measures are also essential to protect the software and files against virus attack.

#### **4.6 DOCUMENTATION**

This is a logical description of how the system works on the computer system. It will serve as guide to the user, as to how to apply the system.

Program documentation is essential as it makes it easy to understand the program description and implementation.

The user can operate the new system thus:

- a. Load QBASIC45 from the DOS environment using the DOS prompt C:\>, or click on the QBASIC45 Icon
- b. Load the program code by clicking on FILE and the OPEN, click on the File name then click on OK \*
- c. Choose options as appropriate on the screen

## CHAPTER FIVE

### 5.1 SUMMARY

This study has examined the importance of computer application in the grading system of Community Secondary School Asokoro, Abuja. We have been able to show that computer is useful in processing and keeping of student records with a high level of precision and accuracy, as well as fast retrieval speed. It will enable staff and management access information easily and accurately reducing stress and time wastage. Hence more time is dedicated to teaching and other curricular activities.

Also information about the day to day running of the school as well as other administrative activities are being enhanced using the computer.

Although the programming language used is simple and easy to understand, the ability of the user staff being able to implement the new system poses a little problem, but this can be solved by the proper orientation training that will be accorded the staff as included in the implementation plan.

Other problems which can be easily solved are the availability of training materials as well as the training staff. Though this will require some amount of money. I believe it will be less expensive in comparison with



other programming language, which I really think the organization is up to the task.

## **5.2 RECOMMENDATIONS**

In view of the viability and simplicity associated with this system as well as the little limitations or problems, the following recommendation will be deemed fit;

- There should be available human and material resources for the successful installation and implementation of the system.
- Initiate computer training program for members of staff. Providing necessary manuals for such training.
- Improvements should be made to the system when necessary as it might become obsolete as the trend of computer technology advances.
- Acquire standard and competent hardware resources for efficient operation.
- Give incentives to user staff where necessary to improve their use of the system.

## **5.3 CONCLUSION**

Computer has to a great extent influenced the standard of education positively, considering it as an effective learning tool and also as a good tool for record keeping. Examination Grading process is therefore made easy, efficient and effective through the application of computer.

## REFERENCE

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- H.O Holly, (1990), *Fundamentals of the Computer System*  
Printed and Publisher: Bounty Press Ltd Pg 103 - 134
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REM Computerization Of Community Staff School Asokoro Student Record  
BG:  
CLS

FOR J = 4 TO 70  
LOCATE 6, J: PRINT "\*\*"  
NEXT

FOR J = 4 TO 70  
LOCATE 25, J: PRINT "\*\*"  
NEXT

FOR K = 7 TO 24  
LOCATE K, 4: PRINT "\*\*"  
NEXT

FOR K = 7 TO 24  
LOCATE K, 71: PRINT "\*\*"  
NEXT

LOCATE 8, 20: PRINT " SENIOR SECONDARY SCHOOL RECORDS "; SNR\$  
LOCATE 18, 20: PRINT " JUNIOR SECONDARY SCHOOL RECORDS "; JNR\$  
LOCATE 22, 20: PRINT " EXIT PROGRAM"  
LOCATE 27, 9: PRINT " MAKE YOUR CHOICE BY SELECTING <S> FOR SENIOR  
SECONDARY"  
LOCATE 29, 9: INPUT " <J> FOR JUNIOR SECONDARY AND <E> TO EXIT  
FROM APPLICATION "; CAT\$

IF UCASE\$(CAT\$) = "J" THEN

GOTO JSS

GOTO BG

ELSEIF UCASE\$(CAT\$) = "S" THEN

GOSUB SS

GOTO BG

ELSEIF UCASE\$(CAT\$) = "E" THEN

GOTO EX

ELSE

GOTO BG

END IF

JSS:

CLS

LOCATE 10, 15: PRINT "[E] FOR RECORDS OR DATA ENTRY OPERATION"  
LOCATE 20, 15: PRINT "[P] FOR RECORDS PRINTING OPERATION"  
LOCATE 25, 15: PRINT "[A] FOR APPENDING OF RECORDS OPERATION"  
LOCATE 29, 8: INPUT " MAKE YOUR CHOICE "; CH\$

IF UCASE\$(CH\$) = "E" THEN  
OPEN "JSSDATA.DAT" FOR OUTPUT AS #1  
GOSUB INJSS  
GOTO BG

ELSEIF UCASE\$(CH\$) = "P" THEN  
OPEN "JSSDATA.DAT" FOR INPUT AS #1

GOSUB PRJSS  
GOTO BG  
ELSEIF UCASE\$(CH\$) = "A" THEN

OPEN "JSSDATA.DAT" FOR APPEND AS #1

GOSUB INJSS  
GOTO BG  
ELSE  
GOTO EX  
END IF

INJSS:

DO

CLS

LOCATE 2, 8: INPUT " ENTER STUDENT NAMES SURNAME INCLUSIVE";  
NAM\$

LOCATE 3, 8: INPUT " ENTER STUDENT MATRIC NUMBER "; MATNO\$

LOCATE 4, 8: INPUT " ENTER STUDENT AGE "; AG\$

LOCATE 5, 8: INPUT " ENTER STUDENT CLASS "; CLAS\$

LOCATE 6, 8: INPUT " ENTER SESSION"; SESS\$

LOCATE 7, 8: INPUT " ENTER SCORE IN ENGLISH LANGUAGE"; ENG%

LOCATE 8, 8: INPUT " ENTER SCORE IN MATHEMATICS"; MAT%

LOCATE 9, 8: INPUT " ENTER SCORE IN INTERGRATED SCIENCE";

INTSCI%

LOCATE 10, 8: INPUT " ENTER SCORE IN INTRODUCTORY TECHNOLOGY  
"; INTROTECH%

LOCATE 11, 8: INPUT " ENTER SCORE IN CHRISTIAN RELIGIOUS  
KNOWLEDGE"; CRS%

```
LOCATE 12, 8: INPUT " ENTER SCORE IN ISLAMIC RELIGIOUS
KNOWLEDGE"; IRS%
LOCATE 13, 8: INPUT " ENTER SCORE IN AGRIC SCIENCE "; AGRIC%
LOCATE 14, 8: INPUT " ENTER SCORE IN FINE ART "; FART%
LOCATE 15, 8: INPUT " ENTER SCORE IN COMPUTER STUDIES"; COMP%
LOCATE 16, 8: INPUT " ENTER SCORE IN HOME ECONOMICS"; HOMECE%
LOCATE 17, 8: INPUT " ENTER SCORE IN MUSIC "; MUS%
LOCATE 18, 8: INPUT " ENTER SCORE IN ARABIC LANGUAGE"; ARAB%
LOCATE 19, 8: INPUT " ENTER SCORE IN BUSINESS STUDIES"; BUS%
WRITE #1, NAM$, MATNO$, AG$, CLA$, SESS$, ENG%, MAT%, INTSCI%,
INTROTECH%, CRS%, IRS%, AGRIC%, FART%, COMP%, HOMECE%, MUS%,
ARAB%, BUS%
```

```
INPUT " DO YOU WANT TO ADD MORE RECORDS"; ANS$
```

```
LOOP WHILE UCASE$(ANS$) = "Y"
```

```
CLOSE #1
```

```
GOTO BG
RETURN
```

```
CLS
```

```
PRJSS:
```

```
DO WHILE NOT EOF(1)
```

```
CLS
```

```
INPUT #1, NAM$, MATNO$, AG$, CLA$, SESS$, ENG%, MAT%, INTSCI%,
INTROTECH%, CRS%, IRS%, AGRIC%, FART%, COMP%, HOMECE%, MUS%,
ARAB%, BUS%
```

```
TT& = ENG% + MAT% + INTSCI% + INTROTECH% + CRS% + IRS% + AGRIC%
+ FART% + COMP% + HOMECE% + MUS% + ARAB% + BUS%
```

```
AV! = TT& / 13
```

```
IF MAT% >= 50 AND ENG% >= 50 AND TT& >= 500 THEN
```

```
RE$ = " PASSED"
```

```
ELSE
```

```
RE$ = "FAILED"
```

```
END IF
```

```
LOCATE 2, 8: PRINT " STUDENT NAMES ", NAM$
```

```
LOCATE 3, 8: PRINT " STUDENT MATRIC NUMBER ", MATNO$
```

```
LOCATE 4, 8: PRINT " STUDENT AGE ", AG$
LOCATE 5, 8: PRINT " STUDENT CLASS ", CLAS$
LOCATE 6, 8: PRINT " SESSION", SESS$
LOCATE 7, 8: PRINT " SCORE IN ENGLISH LANGUAGE", ENG%
LOCATE 8, 8: PRINT " SCORE IN MATHEMATICS", MAT%
LOCATE 9, 8: PRINT " SCORE IN INTERGRATED SCIENCE", INTSCI%
LOCATE 10, 8: PRINT " SCORE IN INTRODUCTORY TECHNOLOGY ",
INTROTECH%
LOCATE 11, 8: PRINT " SCORE IN CHRISTIAN RELIGIOUS KNOWLEDGE",
CRS%
LOCATE 12, 8: PRINT " SCORE IN ISLAMIC RELIGIOUS KNOWLEDGE",
IRS%
LOCATE 13, 8: PRINT " SCORE IN AGRIC SCIENCE ", AGRIC%
LOCATE 14, 8: PRINT " SCORE IN FINE ART ", FART%
LOCATE 15, 8: PRINT " SCORE IN COMPUTER STUDIES", COMP%
LOCATE 16, 8: PRINT " SCORE IN HOME ECONOMICS", HOMECEC%
LOCATE 17, 8: PRINT " SCORE IN MUSIC ", MUS%
LOCATE 18, 8: PRINT " SCORE IN ARABIC LANGUAGE", ARAB%
LOCATE 19, 8: PRINT " SCORE IN BUSINESS STUDIES", BUS%
LOCATE 20, 8: PRINT " TOTAL SCORE IS ", TT&
LOCATE 21, 8: PRINT "FINAL REMARK ON STUDENT ", RE$
```

```
SLEEP
LOOP
CLOSE #1
RETURN
```

SS:

CLS

```
LOCATE 5, 12: PRINT " DATA OPERATION FOR SCIENCE CLASS "
LOCATE 10, 12: PRINT " DATA OPERATION FOR ART CLASS "
LOCATE 15, 12: PRINT " DATA OPERATION COMMERCIAL CLASS"
```

```
LOCATE 20, 6: INPUT " ENTER YOUR CHOICE <S> FOR SCIENCE <A> FOR
ARTS and <C> FOR COMMERCIAL"; CH$
```

```
IF UCASE$(CH$) = "S" THEN
    GOSUB SCIENCE
ELSEIF UCASE$(CH$) = "A" THEN GOSUB ART
    GOSUB ART
ELSEIF UCASE$(CH$) = "C" THEN GOSUB COMMERCIAL
    GOSUB COMMERCIAL
```

```
ELSE  
GOTO BG  
END IF
```

```
SCIENCE:  
CLS
```

```
LOCATE 10, 15: PRINT " [E] FOR RECORDS OR DATA ENTRY OPERATION"  
LOCATE 20, 15: PRINT " [P] FOR RECORDS PRINTING OPERATION"  
LOCATE 25, 15: PRINT " [A] FOR APPENDING OF RECORDS OPERATION"  
LOCATE 29, 8: INPUT " MAKE YOUR CHOICE "; CH$
```

```
IF UCASE$(CH$) = "E" THEN  
    OPEN "SCIENDAT.DAT" FOR OUTPUT AS #1  
    GOSUB INSCIENCE  
    GOTO EX
```

```
ELSEIF UCASE$(CH$) = "P" THEN  
    OPEN "SCIENDAT.DAT" FOR INPUT AS #1
```

```
    GOSUB PRSCIENCE  
    GOTO BG  
ELSEIF UCASE$(CH$) = "A" THEN
```

```
    OPEN "SCIENDAT.DAT" FOR APPEND AS #1
```

```
    GOSUB INSCIENCE  
    GOTO BG  
ELSE  
    GOTO BG  
END IF
```

```
INSCIENCE:  
DO  
CLS
```

```
    INPUT " ENTER STUDENT NAMES SURNAME INCLUSIVE"; NAM$  
    INPUT " ENTER STUDENT MATRIC NUMBER "; MATNOS  
    INPUT " ENTER STUDENT AGE "; AG$  
    INPUT " ENTER STUDENT CLASS "; CLAS$  
    INPUT " ENTER SESSION"; SES$  
    INPUT " ENTER SCORE IN ENGLISH LANGUAGE"; ENG%  
    INPUT " ENTER SCORE IN MATHEMATICS"; MAT%  
    INPUT " ENTER SCORE IN CHEMISTRY"; CHEM%  
    INPUT " ENTER SCORE IN PHYSICS "; PHY%  
    INPUT " ENTER SCORE IN CHRISTIAN RELIGIOUS KNOWLEDGE"; CRS%
```

```

INPUT " ENTER SCORE IN ISLAMIC RELIGIOUS KNOWLEDGE"; IRS%
INPUT " ENTER SCORE IN AGRIC SCIENCE "; AGRIC%
INPUT " ENTER SCORE IN FOOD AND NUTRITION"; FOOD%
INPUT " ENTER SCORE IN ARABIC LANGUAGE"; ARAB%
INPUT " ENTER SCORE IN BIOLOGY"; BIO%
INPUT " ENTER SCORE IN FUTHER MATHEMATICS"; FMAT%
INPUT " ENTER SCORE IN GEOGRAPHY"; GEO%
INPUT " ENTER SCORE IN TECHNICAL DRAWING"; TD%

```

```

WRITE #1, NAM$, MATNO$, AG$, CLA$, SES$, ENG%, MAT%, CHEM%,
PHY%, CRS%, IRS%, AGRIC%, FOOD%, ARAB%, BIO%, FMAT%, GEO%, TD%

```

```

INPUT "ENTER MORE RECORDS"; ANSS$
LOOP WHILE UCASE$(ANSS) = "Y"
CLOSE #1
RETURN

```

PRSCIENCE:

```

DO WHILE NOT EOF(1)
INPUT #1, NAM$, MATNO$, AG$, CLA$, SES$, ENG%, MAT%, CHEM%,
PHY%, CRS%, IRS%, AGRIC%, FOOD%, ARAB%, BIO%, FMAT%, GEO%, TD%

```

```

TT& = ENG% + MAT% + CHEM% + PHY% + CRS% + IRS% + AGRIC% +
FOOD% + ARAB% + BIO% + FMAT% + GEO% + TD%

```

```

AV! = TT& / 9

```

```

IF MAT% >= 50 AND ENG% >= 50 AND TT& >= 450 THEN

```

```

RES$ = "PASSED"

```

```

ELSE

```

```

RES$ = "FAILED"

```

```

END IF

```

CLS

```

PRINT " STUDENT NAMES SURNAME INCLUSIVE", NAM$
PRINT " STUDENT MATRIC NUMBER ", MATNO$
PRINT " STUDENT AGE ", AG$
PRINT " STUDENT CLASS ", CLA$
PRINT " SESSION"; SES$
PRINT " SCORE IN ENGLISH LANGUAGE", ENG%
PRINT " SCORE IN MATHEMATICS", MAT%
PRINT " SCORE IN CHEMISTRY", CHEM%
PRINT " SCORE IN PHYSICS ", PHY%
PRINT " SCORE IN CHRISTIAN RELIGIOUS KNOWLEDGE", CRS%
PRINT " SCORE IN ISLAMIC RELIGIOUS KNOWLEDGE", IRS%

```



```
PRINT " SCORE IN AGRIC SCIENCE ", AGRIC%
PRINT " SCORE IN FOOD AND NUTRITION", FOOD%
PRINT " SCORE IN ARABIC LANGUAGE", ARAB%
PRINT " SCORE IN BIOLOGY", BIO%
PRINT " SCORE IN FUTHER MATHEMATICS", FMAT%
PRINT " SCORE IN GEOGRAPHY", GEO%
PRINT " SCORE IN TECHNICAL DRAWING", TD%
PRINT " TOTAL SCORE IS ", TT&
PRINT " FINAL REMARK ON STUDENT ", RES$
```

```
SLEEP
LOOP
CLOSE #1
RETURN
```

```
ART:
```

```
CLS
LOCATE 10, 15: PRINT " [E] FOR RECORDS OR DATA ENTRY OPERATION"
LOCATE 20, 15: PRINT "[P] FOR RECORDS PRINTING OPERATION"
LOCATE 25, 15: PRINT "[A] FOR APPENDING OF RECORDS OPERATION"
LOCATE 29, 8: INPUT " MAKE YOUR CHIOCE "; CH$
```

```
IF UCASE$(CH$) = "E" THEN
    OPEN "ARTDATA.DAT" FOR OUTPUT AS #1
    GOSUB INART
    GOTO BG
```

```
ELSEIF UCASE$(CH$) = "P" THEN
```

```
    OPEN "ARTDATA.DAT" FOR INPUT AS #1
```

```
    GOSUB PRART
    GOTO BG
```

```
ELSEIF UCASE$(CH$) = "A" THEN
```

```
    OPEN "ARTDATA.DAT" FOR APPEND AS #1
    GOSUB INART
    GOTO BG
ELSE
    GOTO BG
END IF
```

```
INART:
DO
```

CLS

```
INPUT " ENTER STUDENT NAMES SURNAME INCLUSIVE"; NAM$
INPUT " ENTER STUDENT MATRIC NUMBER "; MATNO$
INPUT " ENTER STUDENT AGE "; AG$
INPUT " ENTER STUDENT CLASS "; CLA$
INPUT " ENTER SESSION"; SES$
INPUT " ENTER SCORE IN ENGLISH LANGUAGE"; ENG%
INPUT " ENTER SCORE IN MATHEMATICS"; MAT%
INPUT " ENTER SCORE IN CHRISTIAN RELIGIOUS KNOWLEDGE"; CRS%
INPUT " ENTER SCORE IN ISLAMIC RELIGIOUS KNOWLEDGE"; IRS%
INPUT " ENTER SCORE IN FINE ART "; FART%
INPUT " ENTER SCORE IN FOOD AND NUTRITION"; FOOD%
INPUT " ENTER SCORE IN MUSIC "; MUS%
INPUT " ENTER SCORE IN ARABIC LANGUAGE"; ARAB%
INPUT " ENTER SCORE IN HISTORY"; HIST%
INPUT " ENTER SCORE IN BIOLOGY"; BIO%
INPUT " ENTER SCORE IN FRENCH "; FREN%
INPUT " ENTER SCORE IN ECONOMICS "; ECONS%
INPUT " ENTER SCORE IN GOVERNMENT "; GOVT%
INPUT " ENTER SCORE IN ENGLISH LITERATURE"; ENGLIT%
```

```
WRITE #1, NAM$, MATNO$, AG$, CLA$, SES$, ENG%, MAT%, CRS%, IRS%,
FART%, FOOD%, MUS%, ARAB%, HIST%, BIO%, FREN%, ECONS%, GOVT%,
ENGLIT%
```

```
INPUT " ADD MORE RECORDS ? "; ANS$
```

```
LOOP WHILE UCASE$(ANS$) = "Y"
```

```
CLOSE #1
```

```
RETURN
```

```
PRART:
```

```
DO WHILE NOT EOF(1)
```

```
INPUT #1, NAM$, MATNO$, AG$, CLA$, SES$, ENG%, MAT%, CRS%, IRS%,
FART%, FOOD%, MUS%, ARAB%, HIST%, BIO%, FREN%, ECONS%, GOVT%,
ENGLIT%
```

```
TT& = ENG% + MAT% + CRS% + IRS% + FART% + FOOD% + MUS% +
ARAB% + HIST% + BIO% + FREN% + ECONS% + GOVT% + ENGLIT%
```

```
AVG! = TT& / 9
```

```
IF MAT% >= 50 AND ENG% >= 50 AND TT& >= 450 THEN
```

```
RE$ = "PASSED"
```

```
ELSE
    RES = "FAILED"
END IF
```

```
CLS
```

```
PRINT " NAMES SURNAME INCLUSIVE", NAM$
PRINT " MATRIC NUMBER ", MATNO$
PRINT " AGE ", AG$
PRINT " CLASS ", CLA$
PRINT " SESSION", SESS$
PRINT " ENGLISH LANGUAGE", ENG%
PRINT " MATHEMATICS", MAT%
PRINT " CHRISTIAN RELIGIOUS KNOWLEDGE", CRS%
PRINT " ISLAMIC RELIGIOUS KNOWLEDGE", IRS%
PRINT " FINE ART ", FART%
PRINT " FOOD AND NUTRITION", FOOD%
PRINT " MUSIC ", MUS%
PRINT " ARABIC LANGUAGE", ARAB%
PRINT " HISTORY", HIST%
PRINT " BIOLOGY", BIO%
PRINT " FRENCH ", FREN%
PRINT " ECONOMICS ", ECONS%
PRINT " GOVERNMENT ", GOVT%
PRINT " LITERATURE", ENGLIT%
PRINT " AVRAGE SCORE ", AVG!
PRINT " TOTAL SCORE ", TT&
PRINT " FINAL REMARK ", RES
```

```
LOOP
CLOSE #1
RETURN
```

```
COMMERCIAL:
```

```
CLS
```

```
LOCATE 10, 15: PRINT "[E] FOR RECORDS OR DATA ENTRY OPERATION"
LOCATE 20, 15: PRINT "[P] FOR RECORDS PRINTING OPERATION"
LOCATE 25, 15: PRINT "[A] FOR APPENDING OF RECORDS OPERATION"
LOCATE 29, 8: INPUT " MAKE YOUR CHIOCE "; CH$
```

```
IF UCASE$(CH$) = "E" THEN
    OPEN "COMERDATA.DAT" FOR OUTPUT AS #1
    GOSUB INCOMMERCIAL
    GOTO BG
```

```

ELSEIF UCASE$(CH$) = "P" THEN
    OPEN "COMERDATA.DAT" FOR INPUT AS #1

    GOSUB PRCOMMERCIAL
    GOTO BG
ELSEIF UCASE$(CH$) = "A" THEN

OPEN "COMERDATA.DAT" FOR APPEND AS #1

GOSUB INCOMMERCIAL
GOTO BG
ELSE
GOTO BG
END IF

CLS

INCOMMERCIAL:
DO

INPUT " ENTER STUDENT NAMES SURNAME INCLUSIVE"; NAM$
INPUT " ENTER STUDENT MATRIC NUMBER "; MATNO$
INPUT " ENTER STUDENT AGE "; AG$
INPUT " ENTER STUDENT CLASS "; CLAS$
INPUT " ENTER SESSION"; SESS$
INPUT " ENTER SCORE IN ENGLISH LANGUAGE"; ENG%
INPUT " ENTER SCORE IN MATHEMATICS"; MAT%
INPUT " ENTER SCORE IN CHRISTIAN RELIGIOUS KNOWLEDGE"; CRS%
INPUT " ENTER SCORE IN ISLAMIC RELIGIOUS KNOWLEDGE"; IRS%
INPUT " ENTER SCORE IN COMMERCE"; COMM%
INPUT " ENTER SCORE IN FOOD AND NUTRITION"; FOOD%
INPUT " ENTER SCORE IN MUSIC "; MUS%
INPUT " ENTER SCORE IN ARABIC LANGUAGE"; ARAB%
INPUT " ENTER SCORE IN HISTORY"; HIST%
INPUT " ENTER SCORE IN BIOLOGY"; BIO%
INPUT " ENTER SCORE IN ACCOUNTS "; ACC%
INPUT " ENTER SCORE IN ECONOMICS "; ECONS%
INPUT " ENTER SCORE IN GOVERNMENT "; GOVT%
INPUT " ENTER SCORE IN ENGLISH LITERATURE"; ENGLIT%

WRITE #1, NAM$, MATNO$, AG$, CLAS$, SESS$, ENG%, MAT%, CRS%, IRS%,
COMM%, FOOD%, MUS%, ARAB%, HIST%, BIO%, ACC%, ECONS%, GOVT%,
ENGLIT%

INPUT "ENTER MORE DATA "; ANS$
LOOP WHILE UCASE$(ANS$) = "Y"

```

CLOSE #1

PRCOMMERCIAL:

DO WHILE NOT EOF(1)

INPUT #1, NAM\$, MATNO\$, AG\$, CLAS\$, SES\$, ENG%, MAT%, CRS%, IRS%,  
COMM%, FOOD%, MUS%, ARAB%, HIST%, BIO%, ACC%, ECONS%, GOVT%,  
ENGLIT%

TT& = ENG% + MAT% + CRS% + IRS% + COMM% + FOOD% + MUS% +  
ARAB% + HIST% + BIO% + ACC% + ECONS% + GOVT% + ENGLIT%

AVE! = TT& / 9

IF MAT% >= 50 AND ENG% >= 50 AND TT& >= 450 THEN

RE\$ = "PASSED"

ELSE

RE\$ = "FAILED"

END IF

PRINT " STUDENT NAMES SURNAME INCLUSIVE", NAM\$

PRINT " STUDENT MATRIC NUMBER ", MATNO\$

PRINT " STUDENT AGE ", AG\$

PRINT " STUDENT CLASS ", CLAS\$

PRINT " SESSION", SES\$

PRINT " SCORE IN ENGLISH LANGUAGE", ENG%

PRINT " SCORE IN MATHEMATICS", MAT%

PRINT " SCORE IN CHRISTIAN RELIGIOUS KNOWLEDGE", CRS%

PRINT " SCORE IN ISLAMIC RELIGIOUS KNOWLEDGE", IRS%

PRINT " SCORE IN COMMERCE", COMM%

PRINT " SCORE IN FOOD AND NUTRITION", FOOD%

PRINT " SCORE IN MUSIC ", MUS%

PRINT " SCORE IN ARABIC LANGUAGE", ARAB%

PRINT " SCORE IN HISTORY", HIST%

PRINT " SCORE IN BIOLOGY", BIO%

PRINT " SCORE IN ACCOUNTS ", ACC%

PRINT " SCORE IN ECONOMICS ", ECONS%

PRINT " SCORE IN GOVERNMENT ", GOVT%

PRINT " SCORE IN ENGLISH LITERATURE", ENGLIT%

SLEEP

LOOP

CLOSE #1

RETURN

EX:

STOP