

“ACADEMIC INFORMATION SYSTEM (AIS)”

A CASE STUDY OF POST GRADUATE DIPLOMA PROGRAMME

IN

COMPUTER SCIENCE

FEDERAL UNIVERSITY OF TECHNOLOGY MINNA - NIGER

STATE

BY

AGAMAH CLEMENT OKPANACHI

PGD/MCS/2000/2001/1006

DEPARTMENT OF MATHEMATICS/COMPUTER SCIENCE

FEDERAL UNIVERSITY OF TECHNOLOGY

MINNA-NIGER STATE

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A PROJECT SUBMITTED IN PARTIAL FULFILMENT OF THE
REQUIREMENTS FOR THE AWARD OF THE POST
GRADUATE DIPLOMA IN COMPUTER SCIENCE

APRIL, 2002

CERTIFICATION

This is to certify that this project titled “Academic Information System (AIS)” was carried out by AGAMAH, CLEMENT OKPANACHI under the supervision of Dr. YOMI M. AIYESIMI and submitted to the Mathematics/Computer Science Department, Federal University of Technology, Minna in partial fulfillment of the requirement for the award of Post Graduate Diploma in Computer Science.

Dr. Yomi M. Aiyesimi
(Project Supervisor)

Date

Mr. L.N Ezeako
(Head of Department)

Date

External Examiner

Date

DEDICATION

This project is dedicated to the almighty God for His mercies and sustaining grace to me in completing the programme. My dedication also goes to my mother Mrs. MARTHA OLUGOMA AGAMAH and to my entire family for their untiring support, personal sacrifices and encouragement to me all through the programme.

ACKNOWLEDGEMENT

My foremost sense of appreciation will ever go to the Almighty God for He has always been my dependable rock in life and my educational pursuit thus far. Indeed, He (God) is faithful.

Many individuals who the list is inexhaustible have in one way or the other contributed to my present achievement. May the Lord who is a good rewarder bountifully reward you. Amen.

My deep appreciation is to my project supervisor, Dr. YOMI AIYEMISI, for his accommodating heart, untiring co-operation, instructions and directions all through the project work. My unreserved thanks to the Head of Department, Mr. L. N EZEAKO and to the Dean of School of Science and Science Education, Prof. K.R ADEBOYE for their co-ordination of staff and we students.

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I appreciate PASTOR JAMES GANA and family and the entire members of Faith Foundation Church, Minna like BRO LUCKY OMUGBE and others who contributed to my spiritual strength and joy all through my programme.

Friends like BRO GBENGA ADANLAWO, MR FRIDAY OGBONYOMI, BRO MUYIWA NELSON AJAKAYE, BRO ADEOTI OLUWOLE, MR OLIVER UGOH, MR ABDULLAHI SAKA O. MR SUNDAY S. OGBETA, MR SUNDAY O. LINUS and my room mates like OKEME BENEDICT, MR FIDELIS I. ADO, MR IFY IKWE MR ABAH and others are highly esteemed.

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Finally, my regards to all well wishers whose names are not mentioned above. Thanks a lot!

AGAMAH CLEMENT O.

APRIL, 2002.

ABSTRACT

This project is aimed at transforming the manual of keeping and processing academic record within Post Graduate Programmes in Federal University of Technology, Minna into a Computerised system to ease and quicken necessary operations. Mathematics / Computer Science Department is chosen as a base or case study.

With the System (A.I.S) in place, vital academic information like academic staff records with their bio- data, students' personal records with their bio-data, students' semester reports, students' transcripts, a summarized students' records for all the students - both part time and full time can be generated on demand from the database.

Also, staff / students' exit from the institution can be updated, Post graduation records i.e. keeping with the institution tracks of a student achievement in the larger society can be kept and monitored by the department.

Hence, inherent delays, burden and cost attributed to the manual mode of keeping and processing academic information will be maximally handled with the Academic Information System (A.I.S) in place.

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CHAPTER ONE

1.0 GENERAL INTRODUCTION

This study is on Academic Information System (AIS), which incorporates all Departments in the Federal University of Technology, Minna-Niger State.

It is obvious that, to meet up with the challenges of our time in terms of data storage, speed and ease of operations, a computerized system for an organized body like F.U.T, Minna is needed. Hence, the idea of AIS is borne to generate a system that will handle the following Academic Information with relative ease, speed and accuracy. These areas include:

- * Academic staff records with their Bio-data.
- * Departments and courses offered.
- * Semester Records Involving course allocation for each lecturer.
- * Students record involving
 - ☞ Their Bio-Data.
 - ☞ Courses Registered Per Semester.
 - ☞ Examination Records.
- * Staff/Students exit i.e the system should have room for updating the exit of a staff or student from the institution.

- * Post Graduation Records i.e keeping with the institution tracks of a student's achievement in the larger society. It is worth noting that with the AIS in place within the institution, problems of manual processing and generating reports by examination officers and others, concerned with academic information will be maximally handled. Hence, reports on Academic Staff Information, enquiries on the Department about courses offered, students' personal examination records like semester results and transcripts, updating staff/students records, etc can easily be generated to meet up with the required operational speed within the university.

1.1 BRIEF HISTORICAL BACKGROUND OF FEDERAL UNIVERSITY OF TECHNOLOGY MINNA.

The Federal University of Technology Minna is a Federal University established on 1st February 1983. The basic objective is to achieve the drive for self-reliance in science, Engineering and Technology.

The foundation Vice-chancellor from 1983-1990 was Professor J. O. Ndagi who later handed over to Professor S.O Adeyemi as a Vice chancellor from 1990-1994. Professor I. H Umar was the Sole Administrator 1994-1997, Professor S. A Garba was appointed as the Acting Vice-Chancellor on 26th June 1997. From 7th August 1997 till date, Professor M.A Daniyan is the Vice Chancellor. Amongst those that served as Registrars are: Dr B. P Sawa from 1983-1986, Mrs L. S. T Ahmed 1988-1993 while the current Registrar is Alhaji U. A Sadiq who was appointed as substantive Registrar with effect from October 1998 after acting in that position since 1993.

Presently the university is located within Bosso Area of Minna as Bosso campus and work started on the main campus along Minna-Kataregi-Bida Road since Teusday, June 22nd 1992 after the foundation laying by General Ibrahim Badamasi Babangida .

So far, eight sets of students has graduated from the university and the total students enrolment is now about 5, 138 with academic staff of about 250.

1.2 SERVICES/ACTIVITIES OF THE UNIVERSITY

The university offers the following services to a wide range of students and staff alike.

- (i) Health services.
- (ii) Library services.
- (iii) Consultancy services.
- (iv) Works and Maintenance services.
- (v) An operational computer centre.
- (vi) Audio visuals centre with the following units namely:
 - ☞ Graphic/Visual aids Unit.
 - ☞ Photographic and Lamination Unit.
 - ☞ Audio/reproduction unit.
 - ☞ Instructional Technology Unit.

Further breakdown of the services and activities of the university can be seen in the organogram as in 1.3 under the various divisions and units.

1.3 ADMINISTRATIVE STRUCTURE (ORGANOGRAM) OF THE UNIVERSITY

A detailed description of the various parts that make up F.U.T, Minna is as shown in the organogram in the next page.

1.4 FUNCTIONS OF DIVISIONS AND UNITS

Various tasks are shared and grouped into divisions and units with the major aim of enhancing smooth running of the University through a co-ordinated effort from the various parts that make up the system

1.5 BREAKDOWN OF ACADEMIC AFFAIRS

Federal University of Technology, Minna is organized into five academic Units Known as schools, namely:

- (i) School of Science & Science Education (S.S.S.E).
- (ii) School of Environmental Technology (S.E.T).
- (iii) School of Engineering and Engineering Technology (S.E.E.T).
- (iv) School of Agriculture & Agricultural Technology (S.A.A.T)
- (v) Post Graduate School (PGS)

The head of each school is the DEAN who work hand in hand with an administrative head called School Secretary for the coordination of the school. The school secretary represent the Registrar at the school level. Each department under a school has its own Head called HEAD OF DEPARTMENT (H.O.D). There is also the Course Co-ordinator/Examination Officers who help the H.O.D(s) in the

running of the Departments. The lecturers fall under the course coordinator and finally, the students are under the lecturers.

Note that courses offered by the various Departments leads to the awards of B. Tech Degrees (After 4 or 5 years). An exception is the school of Eng. & Engineering Technology that awards B. Eng (Hons) Degrees and Post graduates school awards a higher degree i.e Post Graduate Diploma (PGD) in the chosen field of study. Normally, the PGD programme lasts for one year or two years for full time or part time respectively. The various courses are offered on a sessional basis and each session is broken into 2 semesters that last for at least 4 months for each semester.

Further breakdown of the courses under the various schools are as shown in the diagram below.

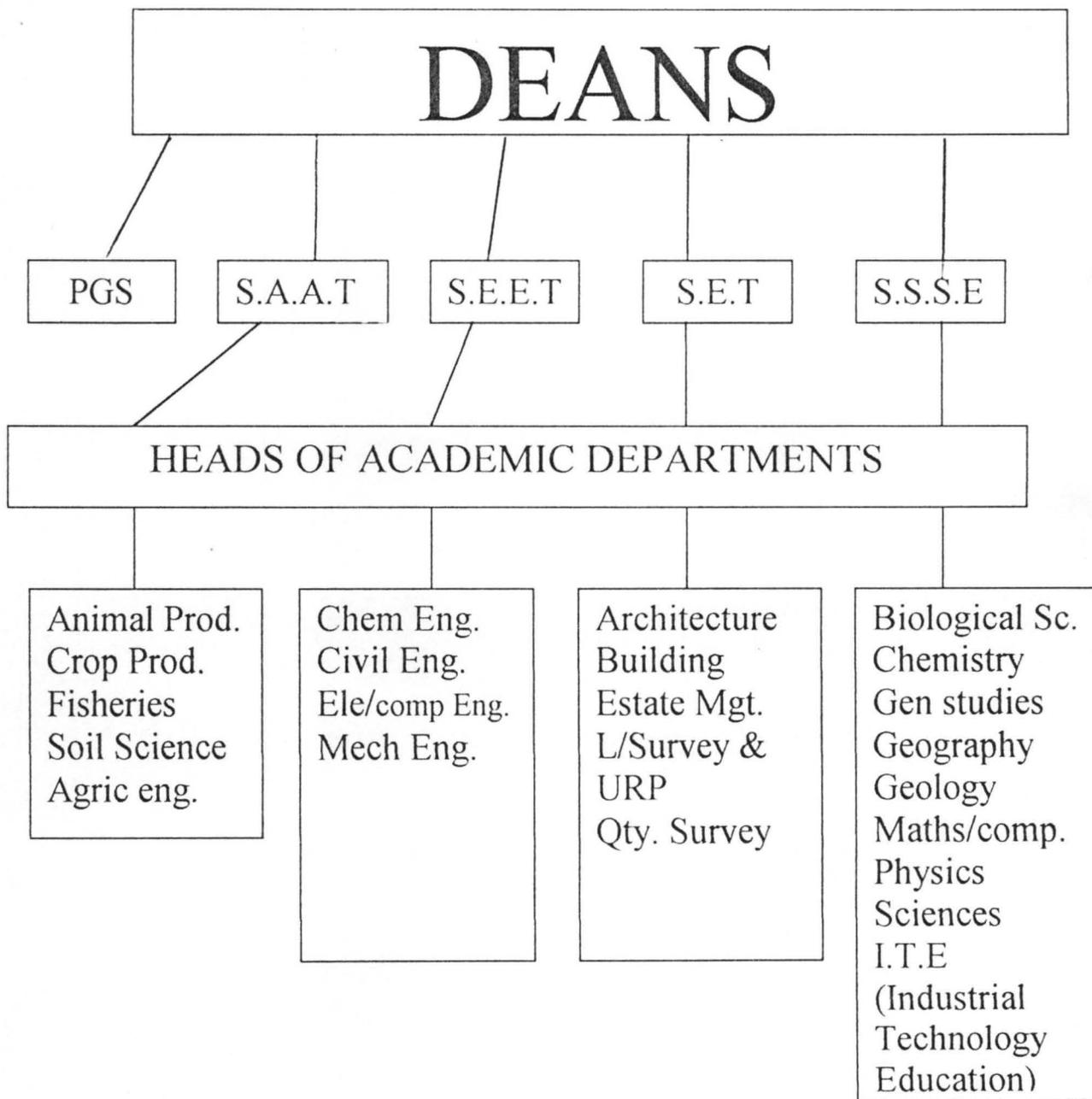


Fig. 2: BREAKDOWN OF SCHOOLS AND COURSES

POST GRADUATE SCHOOL

This school awards Post Graduate Diploma in the following disciplines:

- (i) Computer Science.
- (ii) Educational Technology.
- (iii) Mechanical Engineering.
- (iv) Chemical Engineering.
- (v) Agricultural Engineering.
- (vi) Environmental Technology.
- (vii) Soil Science.
- (viii) Project management.
- (ix) Landscape Architecture.

NOTE: The PG-School co-ordinates the award of masters degree and the Doctorate degrees (Ph.D). The PGD, Masters and Doctorate programmes are either on full time or part-time. For this project work, the scope shall be the Post Graduate programmes. Masters and Doctorate programmes shall not be involved so as to give room for full treatment of the chosen scope.

1.6 OBJECTIVES OF THE STUDY

- (i) To transform the manual mode of keeping and processing Academic records in the institution into a computerized system, to ease the operations within the institution.
- (ii) To be able to see at the click of a button, all Academic Staff Information on BioData, qualification, Job experience, etc.
- (iii) To be able to inquire on the departments and courses offered.
- (iv) To be able to view or print any information about any student in the area of:
 - Personal Records
 - Examination Records.
- (v) To be able to produce Academic Transcripts of students on demand from the database.
- (vi) To be able to update both students and staff records with new information.
- (vii) To be able to monitor graduated students, keeping tracks of their achievements in the larger society.

1.7. SCOPE OF THE STUDY

This project work is focused on all academic data from departments, Schools and the registry (MIS). The data for the project are obtained from the Registry, the departments and Schools of the university. It

is to be understood that the structure being designed is applicable and adaptable to all departments at the post Graduate level since they generate the same type of data and information.

However, for the limited time available for this project to be developed, the volume of work involved, the designed system is limited to the Mathematics/Computer Science Department under the school of Science and Science Education in the Post Graduate School. The design is the basis or insight with which similar systems can be designed for all the departments in the various schools.

CHAPTER TWO

REVIEW OF LITERATURES

2.1 DEFINITION OF TERMS

Relevant terms used in the project are defined as follows:

- a. **COMPUTER:** This is an electronic device, which stores information on discs or magnetic tapes, analyses it and produces information as required from the data on the discs or tapes. Defined in another way, computer is an electronic machine that can receive instruction through input, process the instructions and produce meaningful results.
- b. **HARDWARE:** These are the physical components of a computer which we can touch e.g. keyboard, system unit, mouse, printer, the Visual Display Unit (VDU), etc.
- c. **SOFTWARE:** These are set of instructions that direct the computer on what to do to perform a specific task.
- d. **TABLE:** A set of information about a particular subject. For Example, a table can contain information on the courses offered by a department.
- e. **RECORDS:** A record is made up of fields, which contain specific information about what the record represents.
- f. **FIELD:** This holds one piece of information and it is the smallest component or part in a database.

- g. KEY FIELD: This is a unique identifier within a record.
- h. QUERY: This is a method used to manipulate information in tables of a database. Such manipulations include sorting, calculating, extracting records that satisfy certain criteria.

There are of two types, namely:

SELECT QUERIES used to manipulate information, but information in the database cannot be changed with it.

UPDATE QUERIES used to add, remove or modify the information in the database tables.

- i. FORMS: These are used to ease the data entry work of getting information into the tables of the database.
- j. CONTROLS: A form is made up of controls. A control is used to facilitate the entry of information into the table(s) that the form represents. Usually, there are text boxes and free standing text assembled in the design on-screen which is easy to modify if it does not meet user's requirement.
- k. REPORT: Used to present the information in the database in an organized fashion, which can be printed out on paper (i.e. hardcopy).
- l. MACROS: These are named collections of keystrokes and menu choices that can be run just by referring to the macro's name.

m. DATA: This simply means, unstructured facts.

n. INFORMATION: Data, facts that has been structured or processed generates information.

2.2 COMPUTERISED STUDENT'S PERSONAL/EXAM RECORDS

A project to handle the student's personal/exam records had been handled by students prior to this time, but the scope is limited to the undergraduate alone and staff records was not given consideration in the designed system. Such projects include:

- ▶ Computerised Student's Record (A case study of Mechanical Engineering Dept; Federal University of Technology, Minna)
By Solomon Ikono Umoinyang, March 1994.
- ▶ Computerized Students Records (A case study of Mathematics/Computer Science Department, Federal University of Technology, Minna) By Fatima I. Yusuf, 1996 (PGD/MCS/032).
- ▶ Computerization of students Exam Records (A case study of Mathematics/Computer Science Department; FUT, Minna) by Adekola A. Tokunbo, 1996.

The overall objectives of these projects were to investigate the existing system in the department as at their time so as to:

- (i) Improve students' record keeping in the departments.
- (ii) To improve accuracy of students' record keeping.
- (iii) To minimize processing time of students' results.
- (iv) To generate students' semester reports at the departmental level and for presentation to the senate.

From enquiry made from departments, there is no functional computer based recording and processing of staff records, students' personal and exam records. To some extent, the Mathematics/Computer Science Department has a functional computer based record system that handle result processing for the undergraduates, but there is none for the postgraduate students.

Hence, the adoption of the proposed Academic information system (AIS) at the POST GRADUATE level to handle both students and staff records will go a long way to minimize inherent delays and burden in handling of records in the departments. The AIS has features that is applicable to all departments so, there is no limitation to its adoption.

2.3 DATABASE MANAGEMENT SYSTEM (DBMS)

A Database Management System (DBMS) is a collection of programmes, which stores, retrieves and processes data stored in

files. It is a unified integrated model for managing files stored in Computer storage devices and it gives room for easy editing and retrieval of the stored information. DBMS is possible through the use of database software like Microsoft Access, Microsoft FoxPro, Borland Dbase and Lotus Approach, etc. The DBMS serve as the interface between the users and the database. When users wants to access the database, users requests are directed to the DBMS which passes the requests to the Accesses, the Accesses go to the database and activate the required data into an organized form and then relay the information back to DBMS to add the correct level of details before the output is displayed to the user. The DBMS works hand in hand with the chosen programming language (Microsoft Visual FoxPro) used in the system development.

2.3.1 DATA BASE

A DATABASE is a collection of information related to a particular subject, stored and organized in a specific order. On the other hand, a database is a collection of tables, queries, forms, reports, etc that stores information about a related subject. Example of database include: music collection or video cassette collections, students' record files, hospital records, telephone directory, library catalogue scheme, e.t.c. One basic feature of databases is that there

is a clearly defined order of arranging the information in a database for example to locate a student's file from a department, his/her registration number or file number must be known. It is with the registration number that his/her file will be searched for and located. Hence, the definite order of arranging records makes it easy to locate the needed information with ease. It is to be noted that the databases obtainable in the university i.e F.U.T minna are generally MANUAL DATABASE except at the management information system (MIS) unit that management information are stored with computers. Databases stored in manual form (i.e on paper, forms, books) are MANUAL DATEBASE, but databases stored with the computer are referred to as ELECTRONIC DATABASE. The proposed academic information system (AIS), which is an electronic database, will go a long way to handle the inherent problems with the existing manual system. Such advantages we can attribute to the proposed AIS can be seen in 3.3.3 of chapter three.

2.4 MANAGEMENT INFORMATION SYSTEM (MIS)

Management information system is an organized information network using computer capabilities to provide management with vital information needed for decision making. MIS is of vital need

to managers at any level because information generated from the information system support or enhances their decision. All MIS has the following basic features;

- (i) It must have outlet for expansion i.e being flexible to handle organisation's changing needs.
- (ii) Must store and generate results needed by users.
- (iii) Must generate reports whose information are correct, timely, complete and straightforward.

MIS HAS THE FOLLOWING SPECIALISED SUB SYSTEM

- (i) Management Support System (MSS): This system provides concise timely and regular reports needed by managers in making effective decision. Information from MSS is a vital tool for all managerial decisions.
- (ii) Decision Support System (DSS): Information from DSS aids upper level decision makers by combining data with models and graphics to answer a decision maker's question about the data.
- (iii) Functional Information System (FIS): Every set up has its own functional areas like marketing unit, manufacturing unit, personnel unit, accounting unit, etc. An information

system that carryout operation in the various functional areas within an organisation is called the FIS.

- (iv) Office Information System (OIS): This is a machine or machines combined with communication system and users to enhance the task of obtaining, organizing, storing and retrieving data.
- (v) Expert System (ES): It is a programmed computer system to be like human specialist in a field to advice, diagnose, and behave in a pre-designed way. On another way round, an expert system is an organized collection of people, procedures, database, devices, etc used to generate expert advice or suggest a decision in an area or discipline. It is to be noted however, that the use of ES has not fully gained ground in our setting except in developed countries that the use is more.

2.4.1 ACADEMIC INFORMATION SYSTEM (AIS)

The AIS like the MIS and some of its sub system is a database that stores relevant or vital academic records needed at all level within the institution. It gives room for expansion and editing of its content and has other features in common with the MIS.

CHAPTER THREE

3.1.0 SYSTEM ANALYSIS AND DESIGN (SAD)

A system is an organized collection of interrelated elements that work together for a defined common goal. Put in another way, a system is an orderly and interconnected complex arrangement of parts for a common goal.

System Analysis and Design is a problem solving activity that involves a critical examination of a system, identification of function and devising improvements. The process of SAD is in 5 stages which are:

SYSTEM INVESTIGATION: This involves problem definition, identifying the information needs of a system and the feasibility of meeting these needs.

SYSTEM ANALYSIS: This involves a detailed study of the current system including procedures, information flows and methods of work organisation and control.

SYSTEM DESIGN: This involves devising an alternative information system using the current problems analysed as the beginning of system design to develop objectives for the proposed system.

SYSTEM DEVELOPMENT AND IMPLEMENTATION: This involves the acquisition of hardware/software or writing the needed software, testing and training of the end users of the system.

SYSTEM MAINTENANCE: This entails monitoring and evaluating the new information system and making necessary changes as applicable.

3.1.1 SYSTEM INVESTIGATION

The task at hand is to transform the manual mode of keeping and processing Academic records in the institution into a computerized system to ease the operations and remove the burden and delays in processing Academic Records.

On investigation, the problem is such that affect the entire academic system within F.U.T, Minna, but the scope of data coverage for this project is limited to the Post Graduate School, reasons being that the systems developed thus far by students to solve the inherent problem under discourse focused just on the undergraduate. Therefore, this AIS is to find solution to the problem at postgraduate level to avoid duplication of work.

3.1.2 FEASIBILITY STUDY

From the search and enquiry carried out, the possibility of the use of the proposed AIS can be grouped under the following headings:

- (i) **Technical Feasibility:** The university with its various departments has in place most of the computer hardware components and software that the new system will need. The specialist or lecturers with detailed knowledge of computer operations are also available and additional systems support personnel can be trained in house to use the system being developed.
- (ii) **Operational Feasibility:** The users of the new system namely – the H.O.D's, the exam officers, lecturers, secretaries, etc are engaged with much work which the coming of the new system of operation will greatly enhance their work and lessen the stress they go through in storing and processing records. Training of users without the knowledge of operating the new system is a task that can be handled through orientation.
- (iii) **Economic Feasibility:** The cost in implementing the new system cannot in any way be compared with the better users satisfaction like speed of processing records, good storage

system, less stress, easy management of vast records for many students, etc.

3.2.0 SYSTEM ANALYSIS

A detailed and careful study of the existing system shows that each course offered at the Post Graduate School (PGS) is under the control of the respective H.O.Ds. Hence, the lecturers for each course reports back to the exam officer.

The grade letter below is associated with a Grade point as follows:

GRADE	GRADE POINT
A	5
B	4
C	3
D	2
E	1
F	0

Each lecturer prepares result sheet mainly according to the format seen in appendix A and submit the result sheet to the exam officer for consideration and approval after which the exam officer/course coordinator prepares a report according to the format seen in Appendix B entering and calculating the CGPA of each student manually and then prepares the cumulative students exam record

sheet as in appendix C and presents to the H.O.D. and that is the format taken to the Dean of school and finally to the senate committee for approval.

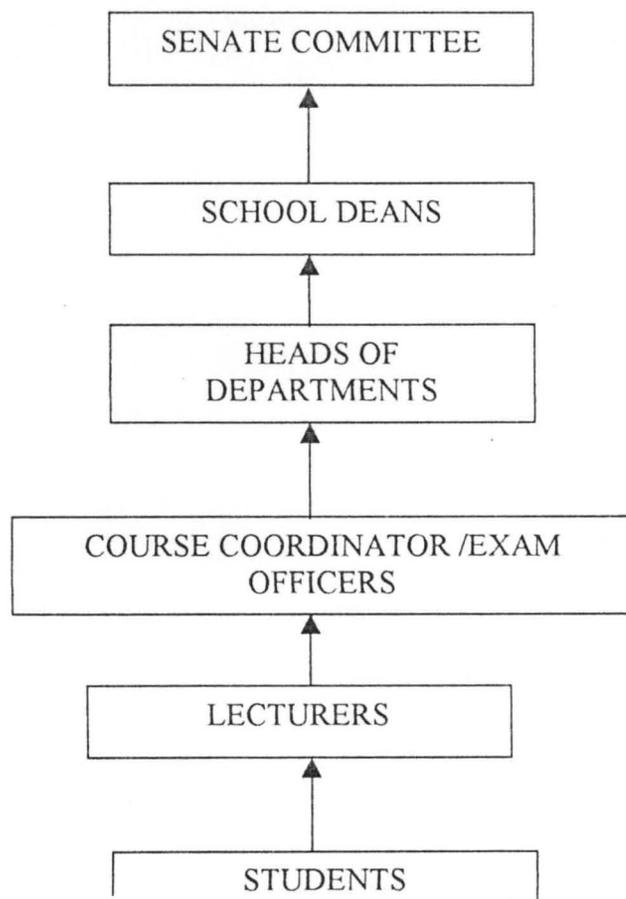
NOTE:

$$\text{CREDIT POINT} = \text{CREDIT UNIT} \times \text{GRADE POINT}$$

$$\text{CGPA} = \frac{\text{TOTAL CREDIT POINT}}{\text{TOTAL CREDIT PASSED}}$$

The exam officers in turn reports to the H.O.D. of respective department, the Head of Departments then report to the Dean of their respective schools. The Dean is answerable to the Senate Committee.

The information flow can be simplified in the flow diagram below:



The lecturers teach the students for at most 4 months per semester for 2 semesters within which class assessment (CA) are done in the form of tests, assignments, term paper, e. t. c, after which exams are conducted. The sum of the CA score and Exam score form the total score and the grade allotted to each score fall within the grading system below;

70 ⁺	A
60-69	B
50-59	C
40-49	D
39 below	F

CLASS OF POST GRADUATE DIPLOMA CERTIFICATE

<u>C G P A</u>	<u>CLASS OF CERTIFICATE</u>
4.50-5.0	DISTINCTION
3.50-4.49	UPPER CREDIT
2.40-3.49	LOWER CREDIT
1.50-2.39	MERIT PASS
1.00-1.49	PASS

**ILLUSTRATION TO SHOW HOW THE CGPA IS
CALCULATED**

COURSE CREDIT UNIT GRADE GRADEPOINT CREDIT POINT

DCPT 011	3	A	5	$3*5=15$
DCPT 013	3	B	4	$3*4=12$
DCPT014	2	C	3	$2*3=6$
DCPT 015	4	D	2	$4*2=8$
DCPT 021	2	E	1	$2*1=2$
DCPT 022	2	F	0	$2*0=0$

TOTAL CREDIT POINT = 43

TOTAL CREDIT UNIT PASSED = 16

CGPA = $43/16 = 2.69$

∴ CLASS OF CERTIFICATE = LOWER CREDIT

NOTE: To get the GPA, computation is limited to just the courses offered in each semester respectively. Example, to get the GPA for FIRST SEMESTER considering the above scores, we have:

TOTAL CERDIT POINT = 41

TOTAL CERDIT UNIT PASSED = 12

GPA = $\frac{41}{12} = 3.42$

GPA 1 i.e. FIRST SEMESTER'S GPA is 3.42 ALSO, GPA2 SECOND SEMESTER COURSES IS CALCULATED USING SECOND SEMESTER COURSES.

⇒ CGPA here becomes:

$$\frac{\text{GPA 1} + \text{GPA2}}{\text{TOTAL CREDIT UNIT PASSED}}$$

PERSONAL RECORDS

Records about each student involving their particulars, courses registered, e.t.c are entered on forms by individual students which are then filed and kept with the course co-ordinators. Similarly, information about staffs are entered on forms, filed and kept with the H.O .D.

Information retrieval about any student or staff is by tracing their respective file and accessing the required record.

DATA GATHERING

All the vital data, forms and their formats used in this project were arrived at through the following tools;

- (i) INTERVIEW; In order to get a detailed and up to date information about the PGS academic records, the examination officer/course co-ordinator was interviewed and he gave the briefing on how the system

operates, description of the exact format of the required forms e.g. lecturer's result sheet, type of records kept about staff, etc. This was done so as not to deviate from the user is need.

- (ii) RECORD SEARCHING; Other vital information were gotten from records kept with secretaries at various department, the secretaries at various departments, the library, the management information unit (MIS) school hand books, e t c.
- (iii) OBSERVATION Some information were arrived at through observation of the system by the analyst having observed the methods of processing data, the time it takes for semester results to be released, e t c one was able to reach conclusion on some issues like the inefficiency of the existing system.

3.2.3 PROBLEMS/LIMITATION OF EXISTING SYSTEM

The investigation and thorough study of the existing system reveals that:

- (i) Processing procedure is too tedious for the lecturers and the exam officers.
- (ii) Processing is too slow.

- (iii) Poor efficiency in the use of resources as much resources is wasted on paper work.
- (iv) Insecurity of vital information.
- (v) Poor feedback system.
- (vi) No organized information system.

3.3.0 SYSTEM DESIGN

The analysis of the existing problems is used as the basis for which objectives are developed for the proposed system. Hence, the overall need for the proposed Academic Information System (AIS) is to fully handle the problems analysed in **3.2.3** above.

The system is designed to handle the following needs:

- (i) Academic staff records with their Biodata .
- (ii) List of Departments and courses offered.
- (iii) Semester Records involving
 - Course allocation for each lecturer.
- (iv) Students Record involving
 - Their Biodata
 - Courses Registered per semester or for the session.
 - Examination Records.
- (v) Staff/Student's Exit i.e. the system has room for updating the exit of a staff or student from the institution.
- (vi) Post Graduation Records.

Other features in the designed system include:

- * Security device i.e. password.
- * Set up/backup facilities.
- * Update screen as appropriate
- * Enquiry Screen.
- * Exit Screen.

3.3.1 DATA ENTRY

Various screens are designed for input data relating to:

- (i) Staff employment records.
- (ii) Student's Registration records.
- (iii) Student's personal data.
- (iv) Departmental data records for students.
- (v) Class Assessment/Examination records entries.

3.3.2 PROCESSING

Processing shall cover:

- (i) Deducing student's scores and grades in each course.
- (ii) Calculation of GPA.
- (iii) Calculation of CGPA.

3.3.3 OUTPUTS

Queries can be made on any of the inputs as in 3.3.0 and 3.3.1 depending on which information is needed.

Majorly, the following reports can be generated from the designed system:

- (i) Student's Report Sheet format as in appendix A.
- (ii) Student's Transcript as in Appendix B.
- (iii) A Summarized or Cumulative Student's Exam Record as in Appendix C.
- (iv) Report about staff records as in Appendix D.
- (v) Reports about student's personal Records as in Appendix E.

NOTE: Each of the generated reports are as attached in the Appendices.

3.4.0 COST AND BENEFIT ANALYSIS

The breakdown of costs as will be summarized later are as follows:

BREAKDOWN OF COSTS

(a) DEVELOPMENT COSTS	₦
(i) System Analyst's Charge	350,000
(ii) Programmer's Charge	400,000
	<u>750,000</u>
(b) PERSONNEL COSTS	
(i) 2 clerks or operators paid	240,000
₦10,000 per month for a year	
(c) HARDWARE COSTS	
(i) 1 Compaq Computer System	} 230,000
600 MHZ processor, 10 gigabyte-	
Hard disk, Multi-media system	
(ii) Printer – (Compaq Coloured Printer)	50,000
(iii) APC – Uninterrupted power supply	20,000
	<u>300,000</u>
(d) SOFTWARE COSTS	
(i) Microsoft Windows Me (Operating system)	40,000
(ii) Microsoft Visual Studio	40,000
(iii) Microsoft office	20,000
	<u>100,000</u>

(e) **SOFTWARE COSTS**

(i) Electricity Bill	10,000
(ii) Consumables (i.e. inks disks, Stationery, etc)	40,000
	<u>50,000</u>

SUMMARY OF COSTS

COSTS	2002	2003
Tangible Costs	₦	₦
Development costs	750,000	-
Personnel Costs	240,000	240,000
Hardware Costs	300,000	-
Software Costs	100,000	-
Operating Costs	50,000	50,000
TOTAL EXPECTED COSTS	<u>1,440,000</u>	<u>290,000</u>

BENEFITS

Tangible Benefits	2002	2003
Reduction in clerical salaries e.g. 12 clerks	240,000	240,000
Intangible Benefits		
Savings in time, labour in Producing results/transcripts and storage space, etc	2,000,000	2,000,000
Savings from errors	100,000	100,000
Total	<u>2,340,000</u>	<u>2,340,000</u>

COST/BENEFIT ANALYSIS

Benefits	2,340,000	2,340,000
Costs	<u>1,440,000</u>	<u>290,000</u>
TOTAL	<u>900,000</u>	<u>2,050,000</u>

The feasibility report reveals that the expected benefit of implementing the new computerized system will recover all costs within the first year of operation.

CHAPTER FOUR

4.0 SOFTWARE DEVELOPMENT

4.1 CHOICE OF PROGRAMMING LANGUAGE

The chosen programming language for the AIS is the Microsoft Visual FoxPro 6.0. Data for the proposed AIS is very voluminous and various manipulations like querying, reporting generation, etc are to be performed on the stored data. This will involve using database management software for its development.

4.2 FEATURES OF MICROSOFT VISUAL FOXPRO

Microsoft Visual FoxPro 6.0 is a database programming software, which has many features that will greatly enhance the AIS development, these features are:

- (i) It is an improvement on Dbase IV and it is one of the recent, well-established database applications that is useable with the windows operating system.
- (ii) It can build an executable file, which can be installed in any system running windows operating system not necessarily having the Microsoft Visual FoxPro built on it.
- (iii) It can contain as much as one billion records, a field in a table can contain about 258 characters and a table can contain 300 fields.

- (iv) It has a graphic user interface, which makes the logic of software development to be easily understood by users because program codes are written in modular structure.
- (v) It has built in data dictionary that has definition for tables; establish relationship between tables, etc.
- (vi) It has a general field in the table structure that can be used to call in files from other applications such as Microsoft Word, Microsoft Excel, and Graphics like pictures graphs and charts.

All the features mentioned above clearly shows that Microsoft Visual FoxPro would meet all the requirements needed for this project, hence its usage.

4.3 DESIGN OF A DATABASE AND TABLES

A database is a collection of related tables. A table is a structure designed to keep records. A record consists of rows of information and each column of the data or information is a field.

The major tool used to organize and manage files and to create data fields, tables, queries, forms, reports, building applications is called

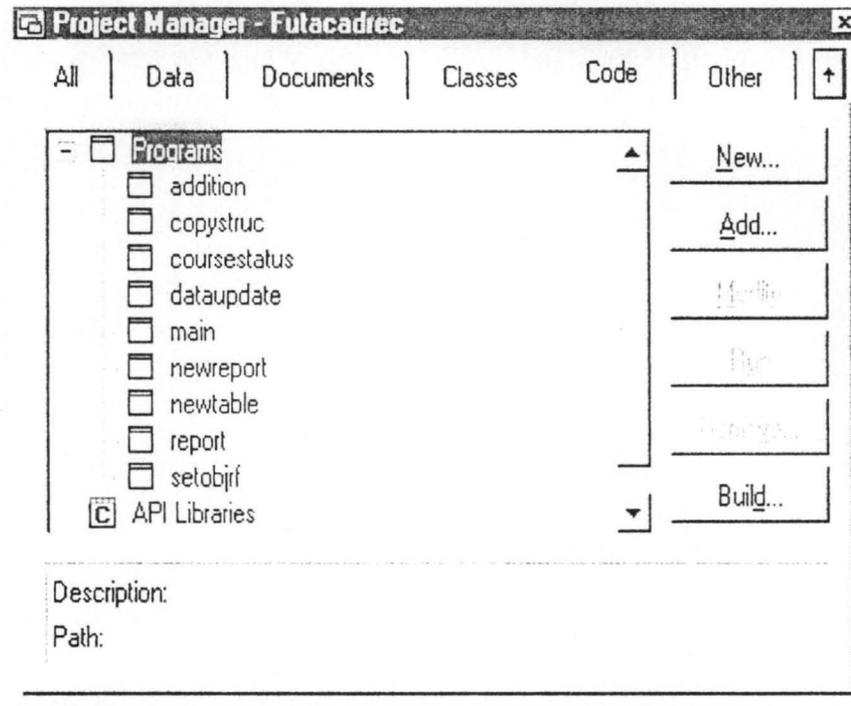


Fig. 3: PROJECT MANAGER

the Project Manager as displayed above.

In creating a table, the data types used are specified. Data types used in Microsoft Visual FoxPro include:

- a. **Character:** This allows the entry of alphanumeric texts e.g. letters, numbers, spaces, symbols and punctuations.
- b. **Numeric:** The Numeric data type is used for digits or numbers which may be integers or fractions.
- c. **Date:** This accepts date entries of day, month and year.

d. **Memo:** Memo data type is used to store blocks of data mainly text.

In creating a table, the following steps are usually followed:

- (i) From the Project Manager or the File menu, click on the **New** button and this activates the **Table Designer** and the **New Table** window opens.

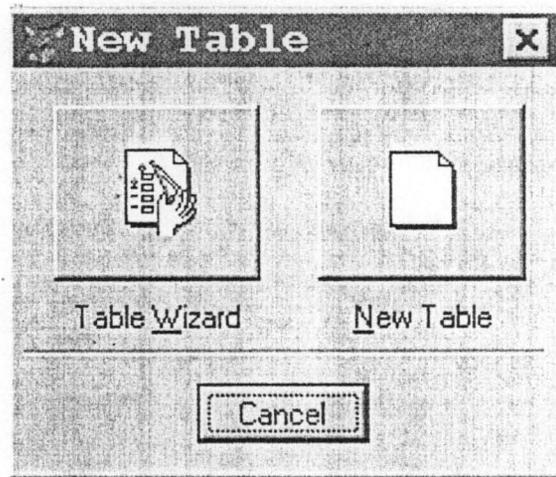


Fig. 4: NEW TABLE WINDOW

- (ii) Click on the New Table option

- (iii) On the CREATE window that opens, type the name of the table and save it and this will bring up the table designer

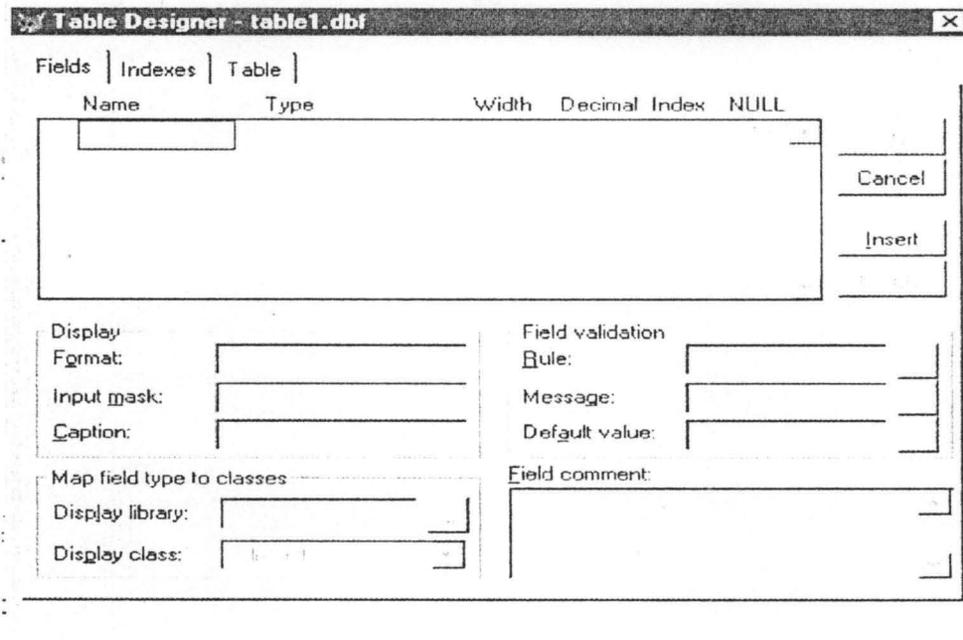


Fig 5: TABLE DESIGNER

as shown above:

From the 3 tabs –the **field**, **indexes** and **table** tabs,

- (i) Click on the field tab and type in the needed fields under the name column heading.
- (ii) Specify the data type under the type column heading .
- (iii) Type the width of the field under the width column (Note that the width is the maximum number of character spaces for each field.

- (iv) Under the decimal column, indicate the number of decimal spaces.

INDEXING FIELDS

To index fields,

- (i) Click on the Index tab.
- (ii) Specify if index is ascending or descending.

Within the table designer above, fields can be formatted to taste under the FORMAT box. A desired input format can be given to the field with the INPUT MASK.

Default value is the value that is automatically displayed whenever a new record is added to a table. This can be specified under the **default value box**.

Appropriate rules guiding the entry of data for each field can be specified in the **validation rules and message boxes**.

If all these operations are performed, click the OK button. Other buttons like cancel, delete, save perform functions as indicated by their names.

INDEX KEY FIELDS

Index key fields can be indexed in three major ways :

- (i) **Primary Index:** This key is used to identify a field that uniquely identifies a record.
- (ii) **Candidate Index:** Any index or a field apart from the primary index that also uniquely identifies a record.
- (iii) **Regular Index:** An index that is not primary or candidate.

The individual entities identified in system analysis and design stages are organized into tables.

The following tables, which are the bedrock of the software of this project, are organized in a database named **AcademicRecords**.

Table 1: qFullFirst.

NAME	TYPE	WIDTH
Session	Character	9
Regno	Character	24
Surname	Character	15
Firstname	Character	15
Sex	Character	6
M_of_study	Character	15
Degree	Character	24
Semester	Character	7
Course_code	Character	8

Course_title	Character	40
Course_unit	Numeric	1
Course_status	Character	1
C_assess	Numeric	2
Exam	Numeric	2
Total	Numeric	3
Grade	Character	1
Grade_point	Numeric	3
Credit_point	Numeric	3
Ccp	Numeric	3
Ecp	Numeric	3

Table 2: qfullsecond

{The same format as qfullfirst as above}

Table 3: qlecresult

NAME	TYPE	WIDTH	INDEX
Surname	character	15	
Firstname	character	15	
Course_code	character	10	Ascending
Couse_title	character	40	
Session	character	10	
Semester	character	7	

Course_unit	Numeric	1
-------------	---------	---

TABLE 4: qlist

NAME	TYPE	WIDTH	INDEX
Session	character	9	Ascending
Sno	character	4	Ascending
Regno	character	24	
Surname	character	15	
Firstname	character	15	
Othernames	character	30	
Sex	character	6	
Cgpa	character	4	

TABLE 5: qpartfirst

{with the same format as qfullfirst as above}

TABLE 6: qpartsecond

TABLE 7: qpartthird

TABLE 8: qpartfourth

} {same format as qfullfirst as above}

TABLE 9: qstureresults

NAME	TYPE	WIDTH	INDEX
Regno	character	24	
Surname	character	15	

Firstname	character	15	
Course_code	character	8	Ascending
C_assess	Numeric	3	
Exam	Numeric	3	
Total	Numeric	3	
Grade	character	3	

TABLE 10: tcourses_1

NAME	TYPE	WIDTH	INDEX
Regno	character	24	Ascending
Course_code	character	18	

TABLE 11: tfulltimecourses

NAME	TYPE	WIDTH	INDEX
Course_code	character	8	Ascending
Course_title	character	40	
Course_unit	character	1	
Course_status	character	1	
Semester	character	7	
Session	character	10	

TABLE 12: tgrade

NAME	TYPE	WIDTH	INDEX
------	------	-------	-------

Regno	character	20	Ascending
Course_code	character	11	Ascending
Grade	character	16	
Grade_point	character	16	
Unit	character	4	
Credit_point	character	12	
Course_status	character	13	

TABLE 13: tlecturercourses

NAME	TYPE	WIDTH	INDEX
Staff_id	character	10	Ascending
Course_code	character	10	Ascending

TABLE 14: tlecturerdata

NAME	TYPE	WIDTH	INDEX
Staff_id	character	10	Ascending
Surname	character	15	
Firstname	character	15	
Othernames	character	15	
Sex	character	6	
Highest_qual	character	30	
Discipline	character	25	
Area_of_spec	character	25	

Rank	character	15
Position	character	15
Year_of_grad	Date	8
Year_of_app	Date	8

TABLE 15: tpartimecourses

NAME	TYPE	WIDTH
Courses_code	character	10
Course_title	character	45
Course_status	character	10
Course_units	Numeric	10
Semester	character	10
Session	character	10

TABLE 16: tpostgraduation

NAME	TYPE	WIDTH	INDEX
Names	character	40	
Regno	character	25	
Year_of_grad	Date	8	
Area_of_spec	character	20	
Work_address	character	50	
Position	character	20	
Phone	character	10	

Email	character	30
-------	-----------	----

TABLE 17: tregister_1

NAME	TYPE	WIDTH	INDEX
Sno	Numeric	4	
Regno	character	25	

TABLE 18: tstudentscourses

{same as table 10 above}

TABLE 19: tstupersonalrec

NAME	TYPE	WIDTH	INDEX
Session	character	9	
Sno	character	4	
Regno	character	24	Ascending
Surname	character	15	
Firstname	character	15	
Othernames	character	15	
Sex	character	6	
State	character	10	
Nationality	character	10	
Birthday	Date	8	
Department	character	45	

School	character	45
M_of_study	character	15
Degree	character	24
Educ_institute	character	50
Educ_institute2	character	50
Educ_institute3	character	50
Educ_qual	character	40
Educ_qual2	character	40
Educ_qual3	character	40
Working_experi	character	35
Working_experi2	character	35
Place_of_work	character	60
Perm_address	character	50
Sessional_addre	character	50
Sponsor_addre	character	70
Research-Pub.	character	50

TABLE 20: ttotal

NAME	TYPE	WIDTH	INDEX
Regno	character	24	Ascending
Course_code	character	8	
C_assess	Double	8	

Exam	Double	8
Total	Double	8
Grade	character	1
Grade_point	Numeric	3
Credit_point	Numeric	3
Ccp	Numeric	3
Ecp	Numeric	3

NOTE: To modify any table, follow this steps:

From the project manager,

- (i) Select the table to be modified by clicking on it once.
- (ii) From the table on the right hand side, click on MODIFY and the modifying structure appears.
- (iii) Change or adjust field width, etc as desired and click on Ok.

4.4 DESIGN OF DATA ENTRY FORMS AND USER INTERFACES

Forms provide an interface to the user for viewing and entering data into a database easily with less time.

In this project, forms have been developed for the major tables in an attempt to build a clear, helpful and easy interface that are efficient and user friendly.

4.4.1 CREATING FORMS

The creation of forms within Visual Foxpro is done in the FORM DESIGNER which can be used in the designing and modifying forms. The diagram above shows a Form Designer and it's tool bars:

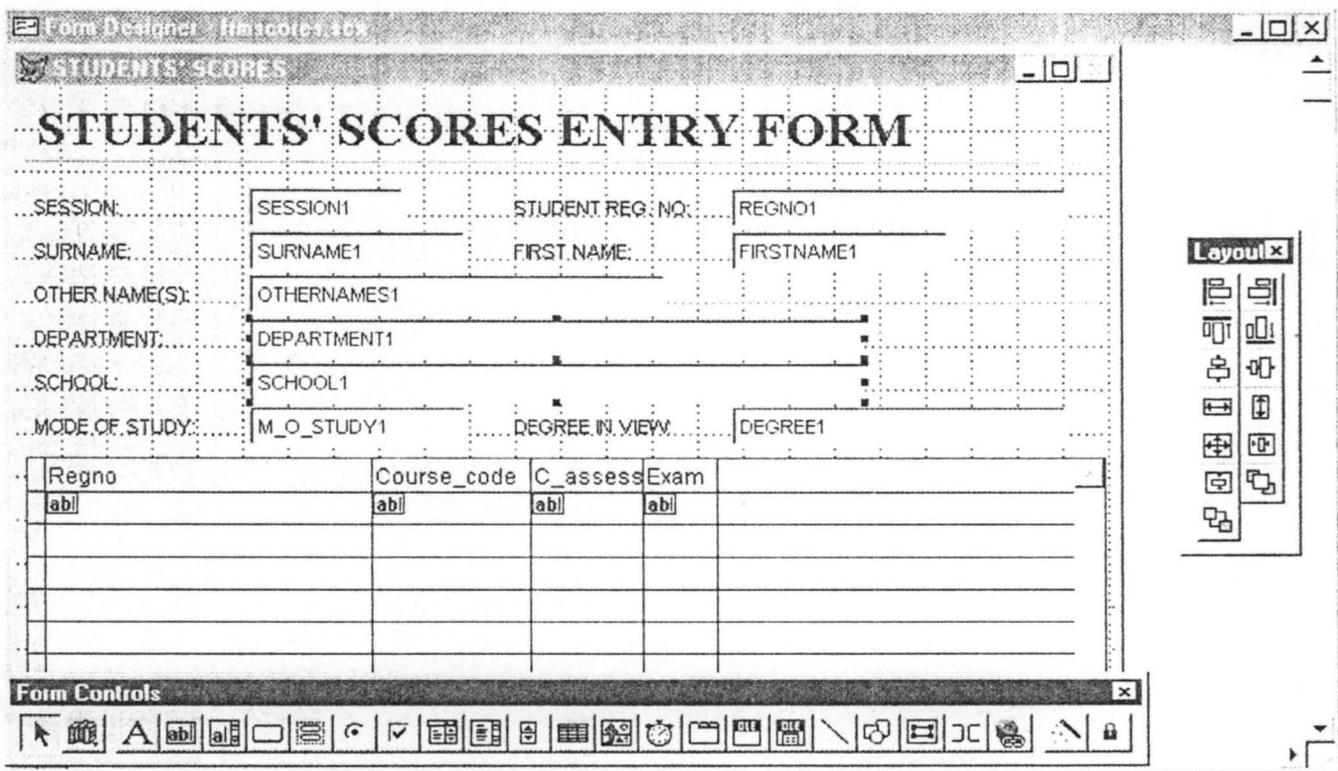


Fig. 6: FORM DESIGNER.

METHODS: Any of these steps can be followed to create a form:

- (i) Select FORMS in the Project Manager and click on NEW button.
- (ii) Select the File Menu, click on FORM and then click on NEW FILE.

OR

Type `CREATE FORM` on the command window and press enter key.

In building a form, fields are dragged from a table in the Form's Data environment and dropped on the form and adjusted as desired.

To activate the DATA ENVIRONMENT where fields are dragged to the form, click on the View Menu and click on Data Environment. The environment is displayed as above:

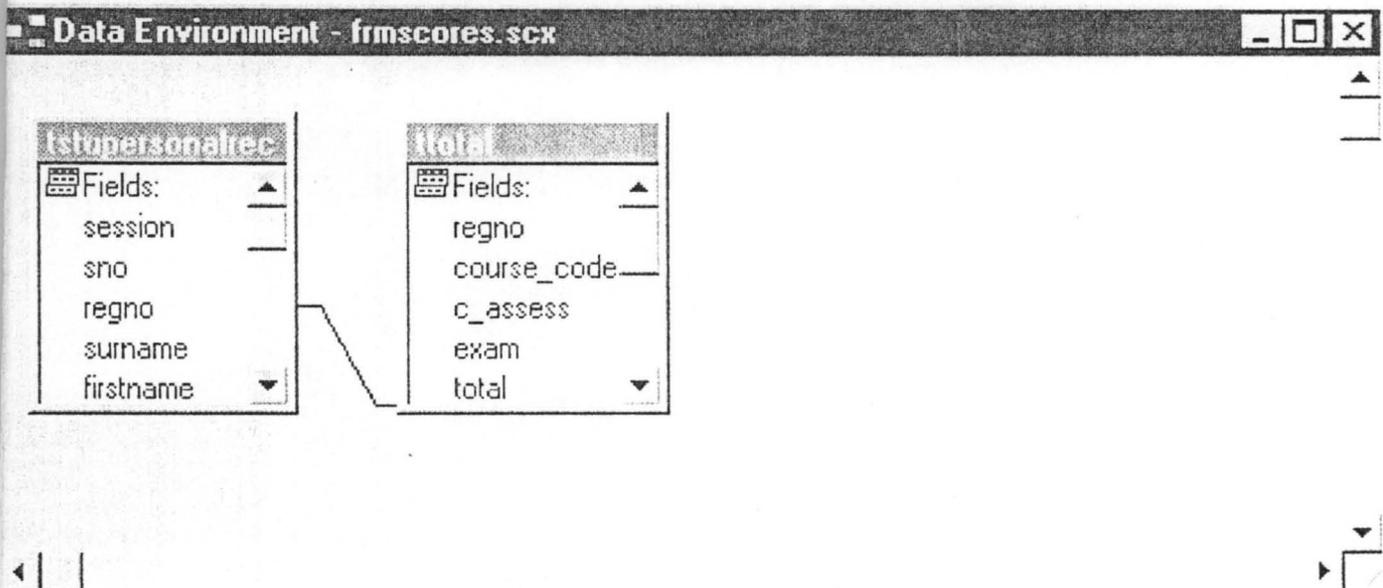


Fig .7 : DATA ENVIRONMENT

The data environment has a designer to which the tables and views are added. This data environment is where relationship between tables are established.

4.5 DESIGN OF QUERIES

To make information retrieval from the database easier and faster, queries can be designed any time to display certain aspect of the database based on certain criteria.

STEPS:

From the Project Manager, the query designer (shown below) is accessed as follows:

- (i) Select Queries under the ALL or DATA tab
- (ii) Click on NEW

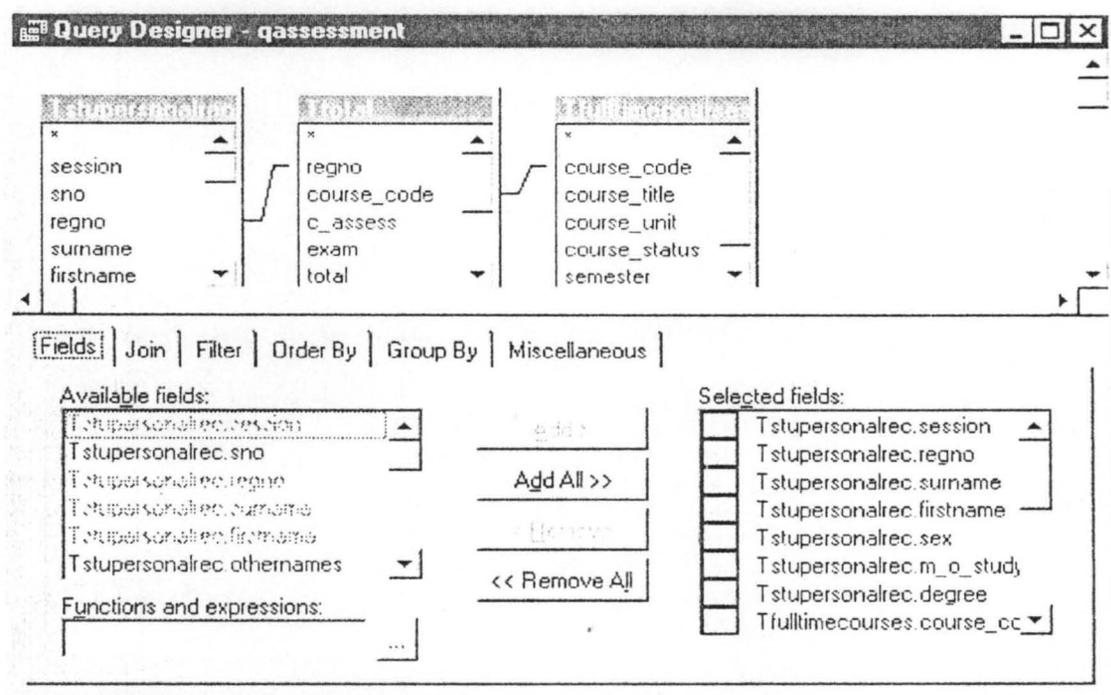


Fig. 8: QUERY DESIGNER

Alternatively, Type CREATE QUERY or MODIFY QUERY at the command window, the query designer will be accessed.

A sampled Query performed on the database through program, to display desired information from the database are as attached in the appendice.

4.6 DESIGN OF REPORTS

Reports show a display of summarized data or information in a printed document. Amongst the reports that can be generated from the AIS are:

- (i) Student's Result Sheet.
- (ii) Student's Transcript for two semesters for full time students and three semesters for part-time students.
- (iii) A summarized or cumulative student's Exam Records for all the students.
- (iv) Report about staff records.
- (v) Report about student's personal records.

A sample of these reports (outputs) are as displayed in appendix A, B, C, D, E.

4.7 BUILDING THE PROJECT

The necessary components of the project are the tables, forms, queries, reports, menus and the database itself. These components are linked together by a main program that controls every other program. The main program is automatically built into an executable file which makes the main program executable in a computer either with Visual FoxPro installed or not. In a system that Visual FoxPro is not installed, the program becomes read only. That is, users cannot see the source code and modify in any way.

4.8. SYSTEM IMPLEMENTATION AND DOCUMENTATION

As part of the implementation of the new AIS, that is, carrying out a thorough test of the hardware components, the software and its procedures and to confirm that it works to specification meeting the user's need, the AIS shall be ran on the department's personal computer. The users that will operate the new system are to be fully involved in the test.

4.8.1. SYSTEM DOCUMENTATION

In providing a detail explanation of the workings of the AIS to aid the end user of the application, a documentary is written which is attached in the appendix.

4.8.2. TRAINING

As part of the implementation plan for the AIS, the major users of the system i.e. the exam officers, the course co-ordinators, lecturers, etc shall be involved in the orientation process before the eventual usage of the new system.

4.8.3. CHANGEOVER

- (i) Direct Changeover: This is the process of changing from the old information system to the new one at a go. One inherent disadvantage of this method is that it is highly risky in case of failure.
- (ii) Parallel Changeover: This process involves using the old and the new information system concurrently thereby using one as a check and balance on the other. It is less risky and it is very expensive to run.
- (iii) Pilot Changeover: The new information system is applied on a part or section of the organisation using old data to test the

operation of the new system and when it is proved to be okay, it is applied to the whole organisation.

- (iv) Staged Changeover: This method involves introducing the new system to gradually replace the old system. This method is less risky and gives room for the analyst and users of the system to learn from mistakes.

For the purpose of this project, the PILOT CHANGEOVER is recommended. That is, using previous records and data to test the new AIS to deduce if the desired output is produced. If it works according to expectation, then its adoption is evident.

4.8.4. SYSTEM MAINTENANCE

A maintenance routine is necessary to monitor and evaluate the new system. The users of the new AIS should endeavour to check on the reliability, efficiency, targets and goals of the new information system being maintained in the course of using the new system. System review can be conducted periodically to make sure that all things are working to expectation.

CHAPTER FIVE

DISCUSSION OF RESULTS, RECOMMENDATION AND CONCLUSION

5.1. DISCUSSION OF RESULTS

Broadly speaking, in any system, speed of operation, accuracy and good performance with less effort is needed. With the computerization of the operations of keeping student's personal/exam records and other information needed about staff, work will be greatly enhanced with quick turnover. Hence, the need for having a computer based Academic Information System (AIS) as designed in this project cannot be over emphasized.

The output from the system are printed reports are as shown in the appendix A, B, C, D, E, F, respectively.

5.2. LIMITATION OF THE STUDY

The scope of the project is too wide if all schools and their departments are to be covered in this project. Therefore, for a start, the foundation has been laid using Mathematics/Computer Sc Department in the School Of Science and Science Education. Further researchers behind can build on this foundation years ahead to the stage that the whole schools and their departments are on network.

5.3. CONCLUSION

The goal of this project is to come up with a system that will aid keeping and processing of Academic records, and providing relevant academic information about students and staff which will aid decision at all levels. It is aimed that processing of these records will be done with ease, speed and accuracy using computers.

Hence, the computerization of Academic records within Mathematics/Computer Sc Department and the entire school at subsequent period is a drive for transformation to keep pace with the information need of our time thereby removing inherent delays, burdens and problems encountered with manual processing.

5.4. RECOMMENDATION

My Recommendations are as follows:

- (i) The operations of Academic records keeping in Mathematics/Computer Sc Department and the entire university be computerized.
- (ii) Principal Officers in the department (Head of Department, course coordinators, exam officers, the lectures, etc) should

have a personal computer at their disposal and maintain a well organized database and data structures so that data can be readily accessed and processed.

- (iii) The services of at least one system analyst and one programmer is needed either from amongst the lecturers or any other source so that the system can be closely monitored and relevant modification can be done from time to time.
- (iv) The backup of the new system should be constantly kept in case of any corruption of the copy on the personal computer.
- (v) All computer databases maintained by the principal officers should be interconnected to enhance exchange of data and information.
- (vi) Copying, deletion and modification of records should strictly be monitored by the database administrator (say the course coordinator/exam officer). This he can do by not allowing unauthorized users of the system through the use of the security device.
- (vii) The Scope of this project can be increased by further researchers to cover grounds not touched in this project. Effort should be geared towards maintaining a working computer based system and networking the entire system.

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HOW TO USE THE DESIGNED SYSTEM

- (i) Boot the Computer system.
- (ii) Click on the START button on the Desktop.
- (iii) Click ON PROGRAM on the Start menu
- (iv) Point to Microsoft Visual Studio 6.0
- (v) Click on the Microsoft Visual Foxpro 6.0
- (vi) Click on FILE on the Menu bar
- (vii) Click on the Futacademicrecord on the Pull down Menu. The main menu appears on the screen.
- (viii) Make the appropriate choice on the application main menu, for example:
 - ☞ Click on Forms to enter Data into the System.
 - ☞ Click on Reports to view or print any of the Reports.
 - ☞ Click on Utilities to backup or restore Data.
 - ☞ Click on Quit to exit the Application when through with the work.

APPENDIX 1: PROGRAM CODE

MAIN PROGRAM

*Menu Section

*SET INITIAL ENVIRONMENT

set device to screen

SET SYSMENU OFF

CLOSE ALL

CLEAR

set safety off

set exclusive on

set date to brit

set century on

set status off

set talk off

clear

set path to C:\FUTMIN

PUBLIC MY, myear

store space(9) to myear

_screen.caption = "FEDERAL UNIVERSTY OF TECHNOLOGY-
ACADEMIC RECORDS"

PROGRAM TO COMPUTE THE TOTAL SCORES

*USE TTOTAL

DO ADDITION

PROCEDURE ADDITION

REPLACE ALL TOTAL WITH C_ASSESS + EXAM

ENDPROC

PROGRAM TO COMPUTE GRADES, GRADE POINTS AND CREDIT POINTS

USE QASSESSMENT

DO DataUpdate

PROCEDURE DataUpdate

REPLACE ALL GRADE WITH "A" FOR TOTAL ≥ 70

REPLACE ALL GRADE WITH "B" FOR TOTAL ≥ 60 AND
TOTAL ≤ 69

REPLACE ALL GRADE WITH "C" FOR TOTAL ≥ 50 AND
TOTAL ≤ 59

REPLACE ALL GRADE WITH "D" FOR TOTAL >=45 AND
TOTAL <=49

REPLACE ALL GRADE WITH "E" FOR TOTAL >=40 AND
TOTAL <=44

REPLACE ALL GRADE WITH "F" FOR TOTAL <40

REPLACE ALL GRADE_POIN WITH 5 FOR GRADE ="A"

REPLACE ALL GRADE_POIN WITH 4 FOR GRADE ="B"

REPLACE ALL GRADE_POIN WITH 3 FOR GRADE ="C"

REPLACE ALL GRADE_POIN WITH 2 FOR GRADE ="D"

REPLACE ALL GRADE_POIN WITH 1 FOR GRADE ="E"

REPLACE ALL GRADE_POIN WITH 0 FOR GRADE ="F"

REPLACE ALL CREDIT_POI WITH COURSE_UNI * GRADE_POIN
ENDPROC

**PROGRAM TO COMPUTE COURSE CORE/ELECTIVE COURSES
PASSED**

USE QASSESSMENT ALIAS QASSESSMENT
DO CourseStatus

PROCEDURE CourseStatus

REPLACE ALL CCP WITH COURSE_UNI FOR ;
COURSE_STA = "C" .AND. TOTAL >=40
REPLACE ALL ECP WITH COURSE_UNI FOR ;
COURSE_STA = "E" .AND. TOTAL >=40

ENDPROC

**PROGRAM TO SELECT RECORDS FOR FULL TIME FIRST
SEMESTER REPORT**

SELECT DISTINCT Tfulltimecourses.semester, Qassessment.*;
FROM academicrecords!tfulltimecourses LEFT OUTER JOIN
qassessment ;
ON Tfulltimecourses.course_code = Qassessment.course_cod;
HAVING Qassessment.m_o_study="FULL-
TIME".AND.Tfulltimecourses.semester="FIRST"

PROGRAM TO SELECT RECORDS FOR FULL-TIME SECOND SEMESTER REPORT

```
SELECT Qassessment.session, Qassessment.regno, Qassessment.surname,;
    Qassessment.firstname, Qassessment.sex, Qassessment.m_o_study,;
    Qassessment.degree, Qassessment.course_cod, Tfulltimecourses.semester,;
    Qassessment.course_tit, Qassessment.course_uni, Qassessment.course_sta,;
    Qassessment.c_assess, Qassessment.exam, Qassessment.total,;
    Qassessment.grade, Qassessment.grade_poin, Qassessment.credit_poi,;
    Qassessment.ccp, Qassessment.ecp;
    FROM qassessment LEFT OUTER JOIN
    academicrecords!tfulltimecourses ;
    ON Qassessment.course_cod = Tfulltimecourses.course_code;
    HAVING Qassessment.m_o_study = "FULL-TIME";
    AND Tfulltimecourses.semester = "SECOND"
```

PROGRAM TO SELECT RECORDS FOR PART-TIME FIRST SEMESTER REPORT

```
SELECT Qassessment.*, Tpartimecourses.semester;
    FROM qassessment LEFT OUTER JOIN academicrecords!tpartimecourses
    ;
    ON Qassessment.course_cod = Tpartimecourses.course_code;
    HAVING Qassessment.m_o_study = "PART-TIME";
    AND Tpartimecourses.semester = "FIRST"
```

PROGRAM TO SELECT RECORDS FOR PART-TIME SECOND SEMESTER REPORT

```

SELECT DISTINCT Qassessment.session, Qassessment.regno,;
    Qassessment.surname, Qassessment.firstname, Qassessment.sex,;
    Qassessment.m_o_study, Qassessment.degree, Tpartimecourses.semester,;
    Qassessment.course_cod, Qassessment.course_tit,
    Qassessment.course_uni,;
    Qassessment.course_sta, Qassessment.c_assess, Qassessment.exam,;
    Qassessment.total, Qassessment.grade, Qassessment.grade_poin,;
    Qassessment.credit_poi, Qassessment.ccp, Qassessment.ecp;
FROM qassessment LEFT OUTER JOIN academicrecords!tpartimecourses
;
    ON Qassessment.course_cod = Tpartimecourses.course_code;
HAVING Qassessment.m_o_study="PART-
TIME".AND.Tpartimecourses.semester="SECOND";
INTO TABLE qpartsecond_a.dbf

```

PROGRAM TO SELECT RECORDS FOR PART-TIME THIRD SEMESTER REPORT

```

SELECT Qassessment.session, Qassessment.regno, Qassessment.surname,;
    Qassessment.firstname, Qassessment.sex, Qassessment.m_o_study,;
    Qassessment.degree, Tpartimecourses.semester, Qassessment.course_cod,;
    Qassessment.course_tit, Qassessment.course_uni, Qassessment.course_sta,;
    Qassessment.c_assess, Qassessment.exam, Qassessment.total,;
    Qassessment.grade, Qassessment.grade_poin, Qassessment.credit_poi,;
    Qassessment.ccp, Qassessment.ecp;
FROM qassessment LEFT OUTER JOIN academicrecords!tpartimecourses
;

```

**PROGRAM TO SELECT RECORDS FOR PART-TIME FOURTH
SEMESTER REPORT**

```
SELECT Qassessment.*, Tpartimecourses.semester;  
FROM qassessment LEFT OUTER JOIN academicrecords!tpartimecourses  
;  
ON Qassessment.course_cod = Tpartimecourses.course_code;  
HAVING Qassessment.m_o_study = "PART-TIME";  
AND Tpartimecourses.semester = "FOURTH"
```

```

* *****
*
* 10/04/2002      MENU1.MPR      12:41:44
*
* *****
*
* Author's Name
*
* Copyright (C) 2002 Company Name
* Address
* City, Zip
*
* Description:
* This PROGRAM was automatically generated BY GENMENU.
*
* *****

```

```

* *****
*
*           Menu Definition
*
* *****
*

```

```

SET SYSMENU TO
SET SYSMENU AUTOMATIC

```

```

DEFINE PAD _msm_file OF _MSYSMENU PROMPT "\<File" COLOR
SCHEME 3 ;
    NEGOTIATE LEFT, NONE ;
    KEY ALT+F, "" ;
    MESSAGE "Creates, opens, saves, prints files or quits Visual
FoxPro"
DEFINE PAD _msm_edit OF _MSYSMENU PROMPT "\<Edit" COLOR
SCHEME 3 ;
    NEGOTIATE NONE, LEFT ;
    KEY ALT+E, "" ;
    MESSAGE "Edits text or current selection"

```

```
DEFINE PAD _0n60r7lp0 OF _MSYSMENU PROMPT "\<Forms"
COLOR SCHEME 3 ;
    KEY ALT+F, ""
DEFINE PAD _0n60r7lp2 OF _MSYSMENU PROMPT "\<Report"
COLOR SCHEME 3 ;
    KEY ALT+R, ""
DEFINE PAD _0n60r7lp4 OF _MSYSMENU PROMPT "\<Utilities"
COLOR SCHEME 3 ;
    KEY ALT+U, ""
ON PAD _msm_file OF _MSYSMENU ACTIVATE POPUP _mfile
ON PAD _msm_edit OF _MSYSMENU ACTIVATE POPUP _medit
ON PAD _0n60r7lp0 OF _MSYSMENU ACTIVATE POPUP forms
ON PAD _0n60r7lp2 OF _MSYSMENU ACTIVATE POPUP report
ON PAD _0n60r7lp4 OF _MSYSMENU ACTIVATE POPUP utilities
```

```
DEFINE POPUP _mfile MARGIN RELATIVE SHADOW COLOR
SCHEME 4
```

```
DEFINE BAR _mfi_new OF _mfile PROMPT "\<New..." ;
    KEY CTRL+N, "Ctrl+N" ;
    MESSAGE "Creates a new file"
DEFINE BAR _mfi_open OF _mfile PROMPT "\<Open..." ;
    KEY CTRL+O, "Ctrl+O" ;
    MESSAGE "Opens an existing file"
DEFINE BAR _mfi_close OF _mfile PROMPT "\<Close" ;
    MESSAGE "Closes the current file"
DEFINE BAR _mfi_clall OF _mfile PROMPT "Close All" ;
    MESSAGE "Closes all windows"
DEFINE BAR _mfi_sp100 OF _mfile PROMPT "\-"
DEFINE BAR _mfi_save OF _mfile PROMPT "\<Save" ;
    KEY CTRL+S, "Ctrl+S" ;
    MESSAGE "Saves changes to the current file"
DEFINE BAR _mfi_savas OF _mfile PROMPT "Save \<As..." ;
    MESSAGE "Saves changes to the current file with a new name"
DEFINE BAR _mfi_saveashtml OF _mfile PROMPT "Save As \<HTML..."
;
    MESSAGE "Saves the current file as HTML"
DEFINE BAR _mfi_revrt OF _mfile PROMPT "\<Revert" ;
    MESSAGE "Reverts the current file to the last saved version"
DEFINE BAR _mfi_sp200 OF _mfile PROMPT "\-"
DEFINE BAR _mfi_import OF _mfile PROMPT "\<Import..." ;
```

```

MESSAGE "Imports a Visual FoxPro file or a file from another
application"
DEFINE BAR _mfi_export OF _mfile PROMPT "\<Export..." ;
    MESSAGE "Exports a Visual FoxPro file to another application's
file"
DEFINE BAR _mfi_sp300 OF _mfile PROMPT "\-"
DEFINE BAR _mfi_pgset OF _mfile PROMPT "Page Set\<up..." ;
    MESSAGE "Changes the page layout and printer settings"
DEFINE BAR _mfi_prevu OF _mfile PROMPT "Print Pre\<view" ;
    MESSAGE "Displays full pages as they will be printed"
DEFINE BAR _mfi_sysprint OF _mfile PROMPT "\<Print..." ;
    KEY CTRL+P, "Ctrl+P" ;
    MESSAGE "Prints a text file, report, label, contents of the Command
window, or contents of the Clipboard"
DEFINE BAR _mfi_send OF _mfile PROMPT "Sen\<d..." ;
    MESSAGE "Displays Mail window for sending e-mail"
DEFINE BAR _mfi_sp400 OF _mfile PROMPT "\-"
DEFINE BAR _mfi_quit OF _mfile PROMPT "E\<xit" ;
    MESSAGE "Quits Visual FoxPro"

```

```

DEFINE POPUP _medit MARGIN RELATIVE SHADOW COLOR
SCHEME 4

```

```

DEFINE BAR _med_undo OF _medit PROMPT "\<Undo" ;
    KEY CTRL+Z, "Ctrl+Z" ;
    MESSAGE "Undoes the last command or action"
DEFINE BAR _med_redo OF _medit PROMPT "Re\<do" ;
    KEY CTRL+R, "Ctrl+R" ;
    MESSAGE "Repeats the last command or action"
DEFINE BAR _med_sp100 OF _medit PROMPT "\-"
DEFINE BAR _med_cut OF _medit PROMPT "Cu\<t" ;
    KEY CTRL+X, "Ctrl+X" ;
    MESSAGE "Removes the selection and places it onto the Clipboard"
DEFINE BAR _med_copy OF _medit PROMPT "\<Copy" ;
    KEY CTRL+C, "Ctrl+C" ;
    MESSAGE "Copies the selection onto the Clipboard"
DEFINE BAR _med_paste OF _medit PROMPT "\<Paste" ;
    KEY CTRL+V, "Ctrl+V" ;
    MESSAGE "Pastes the contents of the Clipboard"
DEFINE BAR _med_pstlk OF _medit PROMPT "Paste \<Special..." ;

```

```

MESSAGE "Pastes the Clipboard contents as a linked object,
embedded object, or other object type"
DEFINE BAR _med_clear OF _medit PROMPT "Cle\<ar" ;
    MESSAGE "Removes the selection and does not place it onto the
Clipboard"
DEFINE BAR _med_sp200 OF _medit PROMPT "\-"
DEFINE BAR _med_slcta OF _medit PROMPT "Se\<lect All" ;
    KEY CTRL+A, "Ctrl+A" ;
    MESSAGE "Selects all text or items in the current window"
DEFINE BAR _med_sp300 OF _medit PROMPT "\-"
DEFINE BAR _med_find OF _medit PROMPT "\<Find..." ;
    KEY CTRL+F, "Ctrl+F" ;
    MESSAGE "Searches for specified text"
DEFINE BAR _med_finda OF _medit PROMPT "Find A\<gain" ;
    KEY CTRL+G, "Ctrl+G" ;
    MESSAGE "Repeats the last search"
DEFINE BAR _med_repl OF _medit PROMPT "R\<eplace..." ;
    KEY CTRL+L, "Ctrl+L" ;
    MESSAGE "Replaces specified text with different text"
DEFINE BAR _med_sp400 OF _medit PROMPT "\-"
DEFINE BAR _med_insob OF _medit PROMPT "\<Insert Object..." ;
    MESSAGE "Embeds an object in a General field type"
DEFINE BAR _med_obj OF _medit PROMPT "\<Object..." ;
    MESSAGE "Edits the selected object"
DEFINE BAR _med_link OF _medit PROMPT "Lin\<ks..." ;
    MESSAGE "Opens linked files or changes links"
DEFINE BAR _med_sp500 OF _medit PROMPT "\-"
DEFINE BAR _med_pref OF _medit PROMPT "Prope\<rties..." ;
    MESSAGE "Set editor properties"

```

```

DEFINE POPUP forms MARGIN RELATIVE SHADOW COLOR
SCHEME 4

```

```

DEFINE BAR 1 OF forms PROMPT "Assessment Scores"
DEFINE BAR 2 OF forms PROMPT "Students Data"
DEFINE BAR 3 OF forms PROMPT "Full-Time"
DEFINE BAR 4 OF forms PROMPT "Part-Time"
ON SELECTION BAR 1 OF forms ;
    DO _0n60r7lqu ;
    IN LOCFILE("\FUTMIN\MENU1" ,"MPX;MPR\FXP;PRG"
,"WHERE is MENU1?")

```

```
ON SELECTION BAR 2 OF forms ;
    DO _0n60r7lqz ;
    IN LOCFILE("\FUTMIN\MENU1" ,"MPX;MPR\FXP;PRG"
,"WHERE is MENU1?")
ON SELECTION BAR 3 OF forms ;
    DO _0n60r7lr2 ;
    IN LOCFILE("\FUTMIN\MENU1" ,"MPX;MPR\FXP;PRG"
,"WHERE is MENU1?")
ON SELECTION BAR 4 OF forms ;
    DO _0n60r7lr5 ;
    IN LOCFILE("\FUTMIN\MENU1" ,"MPX;MPR\FXP;PRG"
,"WHERE is MENU1?")
```

```
DEFINE POPUP report MARGIN RELATIVE SHADOW COLOR
SCHEME 4
```

```
DEFINE BAR 1 OF report PROMPT "SEMESTER REPORT"
```

```
DEFINE BAR 2 OF report PROMPT "SESSION REPORT"
```

```
DEFINE BAR 3 OF report PROMPT "STUDENT'S DATA"
```

```
DEFINE BAR 4 OF report PROMPT "TRANSCRIPT"
```

```
DEFINE BAR 5 OF report PROMPT "POST GRADUATION"
```

```
DEFINE BAR 6 OF report PROMPT "LECTURERS DATA"
```

```
ON BAR 1 OF report ACTIVATE POPUP semesterre
```

```
ON SELECTION BAR 3 OF report ;
```

```
    DO _0n60r7lrg ;
```

```
    IN LOCFILE("\FUTMIN\MENU1" ,"MPX;MPR\FXP;PRG"
,"WHERE is MENU1?")
```

```
ON SELECTION BAR 4 OF report ;
```

```
    DO _0n60r7lrj ;
```

```
    IN LOCFILE("\FUTMIN\MENU1" ,"MPX;MPR\FXP;PRG"
,"WHERE is MENU1?")
```

```
ON SELECTION BAR 6 OF report ;
```

```
    DO _0n60r7lrn ;
```

```
    IN LOCFILE("\FUTMIN\MENU1" ,"MPX;MPR\FXP;PRG"
,"WHERE is MENU1?")
```

```
DEFINE POPUP semesterre MARGIN RELATIVE SHADOW COLOR
SCHEME 4
```

```
DEFINE BAR 1 OF semesterre PROMPT "SEMESTER REPORT"
```

```
DEFINE BAR 2 OF semesterre PROMPT "SESSION REPORT"
```

```
ON BAR 1 OF semesterre ACTIVATE POPUP _0n60ogct4
```

ON BAR 2 OF semesterre ACTIVATE POPUP _0n60ogct5

DEFINE POPUP _0n60ogct4 MARGIN RELATIVE SHADOW COLOR
SCHEME 4

DEFINE BAR 1 OF _0n60ogct4 PROMPT "FULL-TIME"

DEFINE BAR 2 OF _0n60ogct4 PROMPT "PART-TIME"

ON BAR 1 OF _0n60ogct4 ACTIVATE POPUP fulltime

DEFINE POPUP fulltime MARGIN RELATIVE SHADOW COLOR
SCHEME 4

DEFINE BAR 1 OF fulltime PROMPT "DETAIL"

DEFINE BAR 2 OF fulltime PROMPT "SUMMARY"

ON BAR 1 OF fulltime ACTIVATE POPUP detail

DEFINE POPUP detail MARGIN RELATIVE SHADOW COLOR
SCHEME 4

DEFINE BAR 1 OF detail PROMPT "FIRST SEMESTER"

DEFINE BAR 2 OF detail PROMPT "SECOND SEMESTER"

ON SELECTION BAR 1 OF detail ;

DO _0n60r7ls5 ;

IN LOCFILE("\FUTMIN\MENU1" ,"MPX;MPR\FXP;PRG"
,"WHERE is MENU1?")

ON SELECTION BAR 2 OF detail ;

DO _0n60r7ls8 ;

IN LOCFILE("\FUTMIN\MENU1" ,"MPX;MPR\FXP;PRG"
,"WHERE is MENU1?")

DEFINE POPUP _0n60ogct5 MARGIN RELATIVE SHADOW COLOR
SCHEME 4

DEFINE BAR 1 OF _0n60ogct5 PROMPT "DETAIL REPORTS"

DEFINE BAR 2 OF _0n60ogct5 PROMPT "SUMMARY"

ON SELECTION BAR 1 OF _0n60ogct5 ;

DO _0n60r7lsg ;

IN LOCFILE("\FUTMIN\MENU1" ,"MPX;MPR\FXP;PRG"
,"WHERE is MENU1?")

ON SELECTION BAR 2 OF _0n60ogct5 ;

DO _0n60r7lsj ;

IN LOCFILE("\FUTMIN\MENU1" ,"MPX;MPR\FXP;PRG"
,"WHERE is MENU1?")

DEFINE POPUP utilities MARGIN RELATIVE SHADOW COLOR
SCHEME 4

DEFINE BAR 1 OF utilities PROMPT "\<BACKUP"

DEFINE BAR 2 OF utilities PROMPT "\<RESTORE"

ON SELECTION BAR 1 OF utilities ;

DO _0n60r7lsq ;

IN LOCFILE("\FUTMIN\MENU1" ,"MPX;MPR|FXP;PRG"
,"WHERE is MENU1?")

ON SELECTION BAR 2 OF utilities ;

DO _0n60r7lsu ;

IN LOCFILE("\FUTMIN\MENU1" ,"MPX;MPR|FXP;PRG"
,"WHERE is MENU1?")

```
* *****  
* *  
* * _0N60R7LQU ON SELECTION BAR 1 OF POPUP forms  
* *  
* * Procedure Origin:  
* *  
* * From Menu: MENU1.MPR, Record: 48  
* * Called By: ON SELECTION BAR 1 OF POPUP forms  
* * Prompt: Assessment Scores  
* * Snippet: 1  
* *  
* *****  
*
```

PROCEDURE _0n60r7lqu
DO FORM FRMSCORES

```
* *****  
* *  
* * _0N60R7LQZ ON SELECTION BAR 2 OF POPUP forms  
* *  
* * Procedure Origin:  
* *  
* * From Menu: MENU1.MPR, Record: 49  
* * Called By: ON SELECTION BAR 2 OF POPUP forms  
* * Prompt: Students Data
```

```
* * Snippet: 2
* *
* *****
*
```

```
PROCEDURE _0n60r7lqz
DO FORM FRMSTUDENTSDATA
```

```
* *****
* *
* * _0N60R7LR2 ON SELECTION BAR 3 OF POPUP forms
* *
* * Procedure Origin:
* *
* * From Menu: MENU1.MPR, Record: 50
* * Called By: ON SELECTION BAR 3 OF POPUP forms
* * Prompt: Full-Time
* * Snippet: 3
* *
* *****
*
```

```
PROCEDURE _0n60r7lr2
DO FORM FRMSFULLTIME
```

```
* *****
* *
* * _0N60R7LR5 ON SELECTION BAR 4 OF POPUP forms
* *
* * Procedure Origin:
* *
* * From Menu: MENU1.MPR, Record: 51
* * Called By: ON SELECTION BAR 4 OF POPUP forms
* * Prompt: Part-Time
* * Snippet: 4
* *
* *****
*
```

```
PROCEDURE _0n60r7lr5
DO FORM FRMSPARTIME
```

```
* *****
*
* * _0N60R7LRG ON SELECTION BAR 3 OF POPUP report
* *
* * Procedure Origin:
* *
* * From Menu: MENU1.MPR,      Record: 74
* * Called By: ON SELECTION BAR 3 OF POPUP report
* * Prompt:  STUDENT'S DATA
* * Snippet: 5
* *
* *****
*
```

PROCEDURE _0n60r7lrg
REPORT FORM TSTUPERSONALREC PREVIEW

```
* *****
*
* * _0N60R7LRJ ON SELECTION BAR 4 OF POPUP report
* *
* * Procedure Origin:
* *
* * From Menu: MENU1.MPR,      Record: 75
* * Called By: ON SELECTION BAR 4 OF POPUP report
* * Prompt:  TRANSCRIPT
* * Snippet: 6
* *
* *****
*
```

PROCEDURE _0n60r7lrj
REPORT FORM TTRANSCRIPT PREVIEW

```
* *****
*
* * _0N60R7LRN ON SELECTION BAR 6 OF POPUP report
* *
```

* * Procedure Origin:
* *
* * From Menu: MENU1.MPR, Record: 77
* * Called By: ON SELECTION BAR 6 OF POPUP report
* * Prompt: LECTURERS DATA
* * Snippet: 7
* *
* *****
*

PROCEDURE _0n60r7lrn
REPORT FORM RLECTURER PREVIEW

* *****
* *
* * _0N60R7LS5 ON SELECTION BAR 1 OF POPUP detail
* *
* * Procedure Origin:
* *
* * From Menu: MENU1.MPR, Record: 62
* * Called By: ON SELECTION BAR 1 OF POPUP detail
* * Prompt: FIRST SEMESTER
* * Snippet: 8
* *
* *****
*

PROCEDURE _0n60r7ls5
REPORT FORM RFULLFIRST PREVIEW

* *****
* *
* * _0N60R7LS8 ON SELECTION BAR 2 OF POPUP detail
* *
* * Procedure Origin:
* *
* * From Menu: MENU1.MPR, Record: 63
* * Called By: ON SELECTION BAR 2 OF POPUP detail
* * Prompt: SECOND SEMESTER
* * Snippet: 9

* *
* *****
*

PROCEDURE _0n60r7ls8
REPORT FORM RFULLSECOND PREVIEW

* *****
* *
* * _0N60R7LSG ON SELECTION BAR 1 OF POPUP _0n60ogct5
* *
* * Procedure Origin:
* *
* * From Menu: MENU1.MPR, Record: 70
* * Called By: ON SELECTION BAR 1 OF POPUP _0n60ogct5
* * Prompt: DETAIL REPORTS
* * Snippet: 10
* *
* *****
*

PROCEDURE _0n60r7lsg
REPORT FORM RASSESSMENT PREVIEW

* *****
* *
* * _0N60R7LSJ ON SELECTION BAR 2 OF POPUP _0n60ogct5
* *
* * Procedure Origin:
* *
* * From Menu: MENU1.MPR, Record: 71
* * Called By: ON SELECTION BAR 2 OF POPUP _0n60ogct5
* * Prompt: SUMMARY
* * Snippet: 11
* *
* *****
*

PROCEDURE _0n60r7lsj
REPORT FORM RESULTS PREVIEW

```

* *****
*
* *_0N60R7LSQ ON SELECTION BAR 1 OF POPUP utilities
*
* * Procedure Origin:
*
* * From Menu: MENU1.MPR, Record: 80
* * Called By: ON SELECTION BAR 1 OF POPUP utilities
* * Prompt: BACKUP
* * Snippet: 12
*
* *****
*

```

```

PROCEDURE _0n60r7lsq
ans = MESSAGEBOX("Are you sure you want to BACKUP your files?", 4
+ 32, "Warning")
IF ans = 6
    MESSAGEBOX("Please insert a formatted Diskette into Floppy
Drive!", 0 + 48, "Warning")
    USE

    !COPY c:\FUTMIN\T*.* a:
    !COPY c:\FUTMIN\ACADEMICRECORDS.* a:

    MESSAGEBOX("You have successfully BACKUP Files ....", 0 + 48,
"Congratulations")

ELSE
    MESSAGEBOX("Please, backup your files at the right time!", 0 + 48,
"Warning")
ENDIF

```

```

* *****
*
* *_0N60R7LSU ON SELECTION BAR 2 OF POPUP utilities
*
* * Procedure Origin:
*

```

```
* * From Menu: MENU1.MPR, Record: 81
* * Called By: ON SELECTION BAR 2 OF POPUP utilities
* * Prompt: RESTORE
* * Snippet: 13
```

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

```
PROCEDURE _0n60r7lsu
ans = MESSAGEBOX("Are you sure you want to RESTORE files?", 4 +
32, "Warning!")
IF ans = 6
MESSAGEBOX("Please insert the BACKUP Diskette into Floppy
Drive!", 0 + 48, "Warning!")
USE
SET DIRE TO a:
SET PATH TO a:

!COPY a:\T*.* c:\FUTMIN
!COPY a:\ACADEMICRECORDS.* c:\FUTMIN

SET DIRE TO c:\FUTMIN
SET PATH TO c:\FUTMIN

MESSAGEBOX("You have successfully RESTORED data....", 0 +
48, "Congratulations!")
ELSE
MESSAGEBOX("You can always RESTORE your files from the
backup diskettes....", 0 + 48, "Take note!")

ENDIF
```



FEDERAL UNIVERSITY OF TECHNOLOGY

MINNA

SCHOOL OF SCIENCE AND SCIENCE EDUCATION

DEPARTMENT OF MATHEMATICS / COMPUTER SCIENCE

STUDENT'S REPORT

REGNO: PGD/MCS/2000/2001/1000 NAMES: ADAMA NDAKO SAMUEL

MODE OF STUDY: FULL TIME DEGREE IN VIEW: POST GRADUATE DIPLOMA

SEX: MALE

SESSION: 2000/2001

COURSE TITLE	CODE	UNIT	STATUS	CA	EXAM	TOTAL	GRADE
Introduction to Computer System	DCPT011	3	C	23	35	58	C
General Mathematics	DCPT013	3	C	25	31	56	C
Algorithms	DCPT014	3	C	34	28	62	B
Programming	DCPT015	4	C	32	22	54	C
Pre-Written Software	DCPT016	4	E	24	34	58	C
Hardware Components and Systems	DCPT017	3	C	25	31	56	C
Introduction to Statistics I	DCPT018	3	C	26	26	52	C
Numerical Analysis	DCPT020	3	C	14	44	58	C
Operating System	DCPT021	3	E	25	32	57	C
Compiler Construction	DCPT022	3	E	16	33	49	D
Operations Research	DCPT024	3	C	23	41	64	B

EXAMINATION OFFICER: _____

HEAD OF DEPARTMENT: _____



**FEDERAL UNIVERSITY OF TECHNOLOGY
MINNA**

**SCHOOL OF SCIENCE AND SCIENCE EDUCATION
DEPARTMENT OF MATHEMATICS/COMPUTER SCIENCE
ACADEMIC TRANSCRIPT**

REGNO: PGD/MCS/2000/2001/1000

NAMES: ADAMA

NDAKO

SAMUEL

MODE OF STUDY: FULL TIME

DEGREE IN VIEW: POST GRADUATE DIPLOMA

SEX: MALE

SESSION: 2000/2001

COURSE TITLE	COURSE CODE	UNIT	STATUS	GRADE	GRADE POINT
Introduction to Computer System	DCPT011	3	C	C	3
General Mathematics	DCPT013	3	C	C	3
Algorithms	DCPT014	3	C	B	4
Programming	DCPT015	4	C	C	3
Pre-Written Software	DCPT016	4	E	C	3
Hardware Components and Systems	DCPT017	3	C	C	3
Introduction to Statistics I	DCPT018	3	C	C	3
Numerical Analysis	DCPT020	3	C	C	3
Operating System	DCPT021	3	E	C	3
Compiler Construction	DCPT022	3	E	D	2
Operations Research	DCPT024	3	C	B	4
Database Management	DCPT026	3	E	D	2
Introduction to Statistics II	DCPT027	3	C	B	4
System Analysis & Design	DCPT028	3	C	A	5
Project	DCPT029	6	C	C	3

TOTAL GRADE POINTS: 159

CREDITS REQUIRED

CREDITS PASSED

TOTAL CREDITS TAKEN: 50

CORE COURSES:

25

CORE COURSES:

37

CGPA : 3.2

ELECTIVE COURSES:

11

ELECTIVE COURSES:

13

CLASS: LOWER CREDIT

TOTAL CREDITS

36

TOTAL PASSED

50

REMARKS

GOOD STANDING

CREDIT RATING :

PASS

HEAD OF DEPARTMENT _____

DEAN SSSE: _____

DEAN, POSTGRADUATE SCHOOL: _____



**FEDERAL UNIVERSITY OF TECHNOLOGY
MINNA**

**SCHOOL OF SCIENCE AND SCIENCE EDUCATION
DEPARTMENT OF MATHEMATICS/COMPUTER SCIENCE**

ACADEMIC TRANSCRIPT

REGNO: PGD/MCS/2000/2001/1002

NAMES: GANA

KOLO

MODE OF STUDY: FULL-TIME

DEGREE IN VIEW: POST GRADUATE DIPLOMA

SEX: MALE

SESSION: 2000/2001

COURSE TITLE	COURSE CODE	UNIT	STATUS	GRADE	GRADE POINT
Introduction to Computer System	DCPT011	3	C	E	1
General Mathematics	DCPT013	3	C	B	4
Algorithms	DCPT014	3	C	F	0
Programming	DCPT015	4	C	B	4
Pre-Written Software	DCPT016	4	E	C	3
Hardware Components and Systems	DCPT017	3	C	C	3
Introduction to Statistics I	DCPT018	3	C	B	4
Numerical Analysis	DCPT020	3	C	F	0
Operating System	DCPT021	3	E	F	0
Compiler Construction	DCPT022	3	E	E	1
Operations Research	DCPT024	3	C	C	3
Database Management	DCPT026	3	E	D	2
Introduction to Statistics II	DCPT027	3	C	B	4
System Analysis & Design	DCPT028	3	C	C	3
Project	DCPT029	6	C	F	0

TOTAL GRADE POINTS: 103

CREDITS REQUIRED

CREDITS PASSED

TOTAL CREDITS TAKEN: 50

CORE COURSES:

25

CORE COURSES:

25

CGPA : 2.1

ELECTIVE COURSES:

11

ELECTIVE COURSES:

10

CLASS: MERIT PASS

TOTAL CREDITS

36

TOTAL PASSED

35

REMARKS

REPEAT COURSES FAILED

CREDIT RATING

:

FAIL

HEAD OF DEPARTMENT _____

DEAN SSSE: _____

DEAN, POSTGRADUATE SCHOOL: _____

FEDERAL UNIVERSITY OF TECHNOLOGY MINNA



SCHOOL OF SCIENCE AND SCIENCE EDUCATION DEPARTMENT OF MATHEMATICS/COMPUTER SCIENCE SUMMARY OF ACADEMIC RECORDS

SESSION: 2000/2001

DEGREE-IN-VIEW: POST GRADUATE DIPLOMA IN COMPUTER SCIENCE

REGNO:	NAMES:	SEX:	CGPA	CLASS
PGD/MCS/2000/2001/1000	ADAMA NDAKO SAMUEL	MALE	3.1800	LOWER CREDIT
PGD/MCS/2000/2001/1001	BABATUNDE SHEYI OLUWATOSIN	MALE	3.2000	LOWER CREDIT
PGD/MCS/2000/2001/1002	GANA KOLO	MALE	2.0600	MERIT PASS
PGD/MCS/2000/2001/1003	BLACKSON VIVIAN	FEMALE	2.1200	MERIT PASS
PGD/MCS/2000/2001/1004	EDUKORE IGHO	MALE	3.3400	LOWER CREDIT
PGD/MCS/2000/2001/1005	BABAKUDU EDATI	MALE	2.2200	MERIT PASS
PGD/MCS/2000/2001/1006	AGAMAH CLEMENT	MALE	4.7400	DISTINCTION
PGD/MCS/2000/2001/1007	EKONG BASSEY	MALE	3.1000	LOWER CREDIT
PGD/MCS/2000/2001/1008	EKI EFOSA	MALE	4.0400	UPPER CREDIT



FEDERAL UNIVERSITY OF TECHNOLOGY MINNA

SCHOOL OF SCIENCE AND SCIENCE EDUCATION
DEPARTMENT OF MATHEMATICS/COMPUTER SCIENCE

LIST OF LECTURERS AND COURSES TAKEN

2000/2001

FILE No.	NAME	SEX	RANK	COURSE CODE	COURSE TITLE	DATE OF FIRST
FUT/105	MISS OLA YEMI SANDRA	FEMALE	GRADUATE ASSISTANT	DCPT011	INTRODUCTION TO COMPUTER SYSTEM	05/01/199
FUT/133	DR. ALABI GABRIEL SOJI	MALE	SENIOR LECTURER	DCPT013	GENERAL MATHEMATICS	02/05/199
FUT/112	MR ALIU GARBA MUSA	MALE		DCPT014	ALGORITHM	/ /
FUT/054	MALLAM ABU MOHAMMED	MALE		DCPT015	PROGRAMMING	/ /
FUT/094	PASTOR JOHN MATTHEW	MALE		DCPT016	PRE-WRITTEN SOFTWARE	/ /
FUT/121		MALE		DCPT017	HARDWARE COMPONENTS AND SYSTEM	/ /
FUT/086		MALE		DCPT018	INTRODUCTION TO STATISTICS	/ /
FUT/075		MALE		DCPT020	NUMERICAL ANALYSIS	/ /
FUT/132		MALE		DCPT021	OPERATING SYSTEM	/ /

**FEDERAL UNIVERSITY OF TECHNOLOGY
MINNA**



**SCHOOL OF SCIENCE AND SCIENCE EDUCATION
DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCES**

10/04/2002

STUDENT'S PERSONAL RECORDS

Sno	Surname	Firstname	Othernames
2	ADAMA	NDAKO	SAMUEL
Regno	PGD/MCS/2000/2001/1000		
Department	MATHEMATICS & COMPUTER SCIENCE		
Birthday	04/05/1976		
Sex	MALE		
Nationality	NIGERIAN		
State	NIGER		
Session	2000/2001		
School	SCHOOL OF SCIENCE AND SCIENCE EDUCATION		
M O Study	FULL TIME		
Degree	PGD COMPUTER SCIENCE		
Educ Institute	ST PETER'S COLLEGE IDAH , KOGI STATE, 1992		
Educ Institute2	UNIVERSITY OF AGRIC. MAKURDI, BENUE STATE, 1996		
Educ Institute3	NIL		
Educ Qual	SENIOR SCHOOL CERTIFICATE, 1992		
Educ Qual2	B.TECH, 1996		
Educ Qual3	NIL		
Working Experience	EXEMPTED		
Working Experience2	NIL		
Place Of Work	APTECH COMPUTERS, PORT-HARCOURT		
Permanent Address	22 BOSSO RD MINNA		
Session Address	22 BOSSO RD MINNA		
Sponsor Address	SELF		
Research Publication	THESIS ON TRACTORS AND IT'S APPLICATION IN FARMING		