COMPUTER APPROACH TO SCREENING CANDIDATES FOR ADMISSION INTO DIPLOMA PROGRAMMES

(A CASE STUDY OF FEDERAL COLLEGE OF WILDLIFE MANAGEMENT TECHNOLOGY, NEW BUSSA, NIGER STATE)

BY

AJIBADE EMMANUEL (PGD/MCS/98/99/805)

SUBMITTED TO THE DEPARTMENT OF MATHS/COMPUTER SCIENCE FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA.

IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF POST GRADUATE DIPLOMA IN COMPUTER SCIENCE.

SEPTEMBER, 2000.

DEDICATION

This project work is dedicated to Almighty God who actualised my dream.

CERTIFICATION

This is to certify that this project work was carried out by AJIBADE EMMANUEL, REG. NO: PGD/MCS/98/99/805 of the MATHS/COMPUTER SCIENCE, FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA. In partial fulfilment for the award of post graduates Diploma in Computer Science.

PRINCE R.O. BADMUS (PROJECT SUPERVISOR)	D& 09/2000. DATE
DR . S. A. REJU	DATE
HEAD OF DEPARTMENT	
	
EXTERNAL EXAMINER	DATE .

ACKNOWLEDGEMENT

First and foremost, my gratitude goes to Almighty God WHO in His infinite mercy has always crowned my little efforts with resounding success.

My profound gratitude goes to my project supervisor, Prince R.O. Badmus for his continuous assistance and guidance in the course of my project development.

My thanks also go the Head of Department, DR. S.A. REJU who is always ready to offer assistance when he is consulted.

I must also thank the Dean school of Science and science Education in person of Prof. K.R. Adeboye, for his assistance right from my first day in the university to the period of my project development.

I will also not forget the course co – ordinator Mr. L.N. Ezeako whose door is always open for students. I am also grateful to my other lecturers namely Dr. Yomi Aiyesimi, Mallam Hakimi Dalandi, Mr. Kola Abdulraheem, Mallam Audu Isah, e.t.c. and other members of the staff in the department.

My most sincere appreciation goes to DFRIN (DIRECTOR, Forestry Research Institute of Nigeria) Prof. J.J Owonubi, who has played the role of a father more than a boss during the course of my studies.

I am also most grateful to following FRIN staff Ibadan station Headquarter Dr. J. A. Fagbenro (The Training Officer) Dr. M.O. Soladoye (Provost College of Forestry Ibadan),

Mrs. Agbeja, Mr. G.C. Onyekwere, Mr. G.A. Akinade and others.

I must also register my sincere happiness to my Provost Federal College of Wildlife Management Technology, New Bussa in person of Dr. A. E. Onyeanusi and other members of staff of the college.

I must not forget to thank the Sub-Dean school of Agric./Fisheries Dept. DR. S.L. LAMALFUT, Minna for his unforgettable assistance to me.

I must remember to thank my wife and the children for their support and understanding during the course of my studies.

Finally, I want to thank pastor J.A. Olatayo, Elder Emmanuel Dauda and other church members for the role they played towards my success.

ABSTRACT

In view of the modern technological development in all economic sectors across the globe brought about by computer, therefore this project is aimed at streamlining the admission process by introducing computer approach as a more reliable technically and economically alternative to traditional (manual) method of screening candidates for admission into Pre – National and National diploma programmes in Federal College of Wildlife Management Technology, New Bussa.

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CHAPTER ONE

1.1 INTRODUCTION

The Federal College of Wildlife Management Technology, New Bussa, Niger State, was established in 1980, through the collaboration of the FAO/UNDP and the Federal Government.

This college (a monotechnics), under the supervision of NBTE (National Board for Technical Education) presently runs the following programmes/courses

- 1. The Pre- National Diploma course in science and Technology.
- The Ordinary National Diploma programme in wildlife management.
- 3. The Higher National Diploma Programme in Wildlife Management.
- 4. Two certificate courses:
- (a) The Game Guards Course (6 months)
- (b) The Junior Zookeeper's course (6 months)
- 5. Short-term courses for senior and intermediate level staff of National Parks and Reserves.

Apart from these, work is at advanced stage towards the inclusion of Tourism and Animal Production Technology as part of the programmes run by the college. Also Wildlife undergraduates from Universities carry out their industrial attachment programmes in the College.

Research on the domestication of the cane rat is also in progress. Like any other monotechnics and polytechnics, admission requirements of candidates into diploma programmes / courses are spelt out in the NBTE course specification (this is the text that contains among other things, various programmes/courses and their corresponding entry requirements).

In other words, for any candidate to qualify for admission, he/she must satisfy the basic entry requirements.

However it is no doubt that the screening exercise is usually cumbersome, slow and time consuming task especially when there are many candidates to consider for admission.

Therefore, it is with the view of overcoming the above problem that this project is designed to examine how relevance is the application of computer to the admission screening exercise.

The college is one of the colleges under the umbrella of Forestry Research Institute of Nigeria (FRIN) whose Headquarters is at Ibadan, Oyo State.

The college is charged with the conservation and management of Wildlife resources, general control and superintendence of the policy,

finance and property of the college. It also undertakes the training of both the middle and high-level manpower resources that are needed in various Zoos, National Parks and other tourist centers. It is generally governed by the following committees:

- (a) Management Committee.
- (b) Academic Board.
- (c) Tender Board.

1.2 PROBLEM DEFINITION

The uses of computers in schools, colleges and Universities for various purposes have increased tremendously in the recent time. These educational institutions need computers to process their accounting systems, payrolls, budgets, purchases and payments, just as other business organisations do.

Apart from this, there are other computer applications that are peculiar to these institutions such as admission, student registrations, grades reporting, rooms utilization, research studies, e.t.c. This project is aimed at describing the use of computer in admission process.

The traditional method of students admission into diploma programmes is through processing of application forms submitted by the applicants. This is followed by screening of candidates, which involves selection of those that meet the admission requirements of the college.

The admission processing exercise is normally done manually which is quite cumbersome. The processing of applicants' credentials for a set of applicants is repeated over and over again, this being as a result of human error during processing or possibly due to wrong information. Admission is a selection exercise that involves applying a lot of conditions such as state of origin, age, qualification, e.t.c. Successful candidates are those that must have met the admission requirements used at Federal College of Wildlife Management Technology New Bussa.

Many of the major administrative application in the college centre around the students' master record. This record is normally created when the student first applies for admission. In every candidate application form, some vital data elements such as name, address, qualification are recorded for future reference. Thus these information need to be kept as a record; the traditional ways of doing so is only through files. However, keeping of records in this way has a lot of draw back especially at retrieval and in terms of security as the record increases, but with the computerization system both retrieval and storage becomes easy and effective.

1.3 LIMITATION OF THE PROJECT

This project, as the topic suggests is limited to the computerized system of screening candidates for admission into Pre-National and National Diploma in Wildlife Management programmes at Federal College of Wildlife Management Technology, New Bussa.

It considers some considerations that are confined to the admission procedures at FCWM, New Bussa. For example, in admitting candidates for Pre-ND and ND, the SSCE or GCE-O/L requirements must not be more than two sittings. Also, in some cases, Teacher Training College and Technical College certificates may be considered during admission process.

The scope of the project is also limited since the whole admission process of students for diploma programmes at Federal College of Wildlife Management Technology New Bussa, is exclusively handled by the college authority.

1.4 THE TRADITIONAL APPROACH OF ADMISSION

The traditional approach of admission in Federal College of Wildlife Management Technology, New Bussa involves many activities which include the following:

- (i) Advertisement for admission is normally made through the mass media and pasting of advert poster on the notice board of the College.
- (ii) The sale of admission forms to the prospective candidates.
- (iii) The submission of the filled forms to the registry department of the college.
- (iv) Opening of files for the prospective candidates where vital

Information (such as identity and academic qualification) concerning individual candidates are recorded.

When the above (i-iv) are in place, the college management will now sit to examine the prospective candidates' records one by one to know who have satisfied the basic entry, (admission) requirements in their various choice of programmes.

At the end of the screening exercise, the successful candidates are issued letters of admission for their desired various programmes.

From the above traditional approach, some drawbacks are noticed such as: -

- (i) It is cumbersome in nature.
- (ii) The whole process is slow and time consuming
- (iii) Retrieval of files is very slow.
- (iv) Security over the file records is not guaranteed- some records can easily get missed in the course of daily transaction.

However, by the adoption of computer approach in admission process exercise, the above drawbacks associated with traditional approach are completely eliminated.

In any computerization process, the first thing that comes to the mind of a programmer is the fact that there must be an input to be processed and finally to yield an output which is supposed to be the desired result. This idea is the first approach to solving the computerizing admission procedures. The inputs is the applicant's credentials which contain the applicants identity and qualifications.

The processing on the other hand is the testing of various conditions set up by the college as admission requirements. It is at this point that the required number of passes are tested for pre-national diploma candidates and the required number of credits are tested for national diploma candidates.

Finally, the output is the result of the condition tested i.e the selection of those that satisfied all the laid down admission conditions.

1.5 AIM AND OBJECTIVES OF THE PROJECT.

This project is aimed at making a study on the traditional method of admission at Federal College of Wildlife Management (FCWM), New Bussa and provides a better method by the use of computer (see 1.4).

The project investigates the proposed method (Computer method) and the traditional method, in order to see how the computerization of the exercise can be made cost effective in terms of using fewer manpower and less time and yet achieving a better goal.

It is the objective of this project also to study ideal admission cases in order to design an acceptable computer program that will be able to accept data (inform of applicants identity and qualification) process

the data and finally produce an output (in form of report) of the admitted and non – admitted students.

Finally, the project aims at investigating the setbacks due to the present method (traditional method) of admission and provides alternative advantages of the computerized procedures over the traditional method

1.6 DEFINITION OF PERTINENT TERMS.

It suffices to define some pertinent terms used in this project. The word "Computer" can be defined as an electronic machine which accepts data from an input device, performs arithmetic and logical operations in accordance with a pre-defined program and finally transfers the processed data to an output device either for further processing or in final printed form.

In other words computer is an electronic device which performs three functions:

- (i) It receives data (INPUT).
- (ii) It processes data by various computations (PROCESSING).
- (iii) It emits data (OUTPUT).

Data are facts collected from measurements or observations about people, events, objects or concepts, while information (i.e output) is a processed form of data which aids individual or organisations in decision making.

Program is a sequence of instructions (unambiguous) to be executed by the computer. The program must be in a specified programming language.

Wildlife refers to the wild animals and their natural habitats – while Wildlife management describes the whole techniques involved in the conservation of wildlife resources....

UNDP means United Nation Development Programme.

NBTE means National Board for Technical Education.

CHAPTER TWO

ADMISSION ENTRY REQUIREMENT

2.1

The standard which qualifies an applicant for admission is by satisfying the basic entry requirement for the desired programme.

Therefore, there exist a standard for admission requirements, which is set out by the National Board for Technical Education (NBTE) for all Polytechnics, Monotechines and colleges of Agriculture in Nigeria.

The Board (NBTE) which in charge of accreditation of programmes in these schools also ensures that a sustainable level of standard is maintained for the running of the programmes.

Though admission of candidates into Pre-national and National diploma programmes in FCWM, New Bussa is done manually yet the NBTE specification entry requirements for various programmes/courses are strictly adhered to in the admission screening exercise.

2.2 PRE – NATIONAL DIPLOMA REQUIREMENT

The Pre – National Diploma programme is designed by the National Board for Technical Education (NBTE) for the candidates who do not satisfy the basic entry requirement for admission into National Diploma programme due to their inability to make the required

number of credits during the first two sittings. It is a one – year programme aimed at giving the defficient candidates the chance to remedy their SSCE or GCE O/L defficiencies to enable them qualify for admission into National Diploma programme.

Therefore, the minimum entry requirements into Pre – National Diploma programme at Federal College of Wildlife Management Technology. New Bussa is as follows:

- (a) Applicants must posse at least four passes in SSCE or GCE 'O'
 Level at not more than two sittings.
 The passes must include English language, Mathematics,
 Biology/Agricultural Science and Chemistry.
- (b) Applicants with Grade II Teacher's Certificate (TC II) must have at least passes in the following subjects: English Language, Mathematics, Biology/Agricultural Science and Chemistry.
- (c) Applicants with Technical College Certificate must posses at least C grade, which is equivalent to pass in the following: English Language, Mathematics, Biology/Agricultural Science and Chemistry.

Thus during the computerization, the program may be required to have about three condition tests for candidates with a, b and c above.

2.3 ABSORPTION REQUIREMENTS

At the end of the Pre – National Diploma programme, a successful candidate is then admitted into National Diploma programme.

In addition, the applicant is still expected to posses SSCE or GCE 'O' Level minimum entry requirement for National Diploma programme. This is necessary because any candidate that does not satisfy the SSCE or GCE 'O' Level will not be issued his/her final certificate.

2.4 NATIONAL DIPLOMA REQUIREMENTS

The admission requirement into National Diploma programme in Wildlife Management is given below:

- (i) Applicants must posses four credit passes in SSCE or GCE 'O'
 Level in not more than two sittings. The subject must include
 Biology/Agricultural Science, Chemistry and any other two
 from the following Geography, Mathematics, Economics,
 Statistics, English Language and Physics. Passes in English
 Language and Mathematics are compulsory.
- (ii) Candidates who have successfully completed the NBTE's recognized Pre ND (Science and Technology) may qualify for admission.

- (iii) Candidates with Grade II Teacher's certificate (TC II) with credits or merits in relevant subjects as (i) above may also be considered for admission.
- (iv) Applicant with Technical College Certificate with credits or merits in relevant subjects as (i) above may qualify for admission.

2.5 SSCE or GCE 'O' LEVEL GRADING SYSTEM

Grade	Remark
A_1	Excellent
A_2	Very Good
A_3	Good
C_4	Credit
C_5	Credit
C_6	Credit
P_7	Pass
P_8	Pass
F_9	Fail

2.6 (TEACHER'S COLLEGE CERTIFICATE) GRADING SYSTEM

Grade	Remark
A	Distinction
B ₁ B ₂ P	Credit 1 Credit 2 Pass
F	Refer

2.7 TECHNICAL COLLEGE GRADING SYSTEM (FEDERAL CRAFT CERTIFICATE)

Grade	Remark
A B C D	Distinction Credit Pass Fail

2.8 BENEFITS AND PURPOSE OF COMPUTER APPLICATIONS

According to Edward (1979) "The computer is an achievement of high technology. It is one of the possible wayward devices of which we speak. In just three decades, it has moved from a mysterious electronic marvel, hidden here and there in Mathematical Laboratories, to a work day machine which simply cannot be avoided by anyone having even the most casual contact with the major institutions of out society".

The central questions which have been attacked are:

- (i) How intelligent is a computer? And
- (ii) To what practical benefits can the intelligence of a computer be?

It was to this end that Edward (1979) defined a computer as an electronic device capable of following an intellectual map (program) by which it can perform arithmetic and logic operations.

There are at least six reasons why computers have become an indispensable part of our lives.

- (1) Speed: A computer carries out its work with great speed usually measured in micro seconds (one millionth of a second). The split second processing has made it ideal in providing efficient service in the handling of pay cheques, examination grades, telephone calls, travel reservations, bank balance etc. the speed of the computer also makes it ideal for processing large amounts of data, as in accounting systems and scientific applications.
- (2) Reliability: Computers are extremely reliable. Any error in the output of a computer system is as a result of human error input.
- (3) Storage capability: Computer systems are able to store tremendous amounts of data, which can then be retrieved quickly and efficiently. This storage capability is especially important in an information age.
- (4) Productivity: Computers are able to perform boring, dangerous, or highly sensitive jobs that people should not perform or in some cases cannot perform, such as working with

nuclear fuel rods. Computers also free human beings from other kinds of productivity.

- (5) Decision-making: because of expanding technology, communications, and the independency of people, we suffer from an information deluge. Although this is part brought on by the computer, it is also the computer that will help solve it. To make essential business and governmental decisions, managers need to take into account a variety of financial, geographical, and logistical factors. The computer helps the managers sort "wheat from chaff" and make better choices.
- (6) Reduction in cost: Finally, for all of these reasons, the computer helps reduce waste and hold down the cost of labour, energy, and paperwork. Thus, computers increase productivity and reduce the costs of goods and services.

CHAPTER THREE

DATA ORGANIZATION AND PROCESSING

Data is one of the most important resources during admission exercise. They are processed for the provision of information which in turn helps in the decision for admission since they clear uncertainties. It is a specialist activity performed by the admission officers as a whole and it is concerned with the systematic recording, arranging, filing, processing and dissipation facts relating to each applicant.

Data processing is the procedure of transforming, data into desired output while information processing, a special case of data processing, is the procedure of transforming data into information which can be used to make better decisions (Ralph M Star Jr. 1986).

It could mean simple manipulation of data in order to achieve a desire exercise in admitting new student.

However data processing for admission could be considered as a function undertaken by the academic department in the pursuit of fulfilling the college's aim.

3.2 SYSTEMS ANALYSIS

3.1

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

Organisation and method on the other hand can be defined as the systematic analysis of selected procedural problems in order to produce alternatives which will be more suitable, technically and economically.

The major relationship between systems Analysis and organisation and method is the deference between the specific (Systems Analysis) and general (Organisation and Method). While organisation and method is the general approach to solving procedural problems, systems Analysis applies this approach specifically towards computer solution.

3.2.1 SYSTEM DESIGN

In the admission department the processing of data involves the following:

- (i) Designing a data processing system, in which case is the whole department where it has been assigned for the collection of all applicants' records.
- (ii) Contracting a data processing system which is done through the application forms which is normally being filled by the applicants so as to fill in their personal data.

- (iii) Operating data processing system. This is the actual work carried out on all submitted forms. It is the manipulation of each file for the purpose of making decision on each applicant.
- (iv) Managing a data system. This however is the efficient way of storing all the applicant information for current and future reference. Each application form is collected and recorded in files which are then sorted into logical sequence based on either alphabetical arrangement or serial arrangements.

The credentials are then analysed and compared by the institutional admission requirements in order to make an exact determination of both admitted and non-admitted candidates.

3.3 SYSTEM SPECIFICATION

The system analyst by applying his judgement, skill and knowledge can interprete the requirement specification to create one or more system specifications.

A system specification provides detailed documentation of the entire system. It serves as.

(a) Communication to Management, Programmers, Operating Staff and user.

(b) Provides complete record of the system used for evaluation, modification and training purpose. The system should be well documented as analysts who design it can go to other projects or change employment.

3.3.1 CONTENTS OF SYSTEM SPECIFICATION

- (a) Preliminary information contents names of those who can change files, programs, etc.
- (b) Objectives of the system-depth involved, benefits.
- (c) System description detail procedures both clerical and consulting using flowcharts where applicable.
- (d) Detailed specification of input files, output files master files, source document and output document.
- (e) Time scale for getting the system working.
- (f) Plans to enable a smooth change over from the old to new system.

3.3.2 DESIGN ELEMENTS

The design of a new system can be conveniently divided into the following elements.

(i) INPUT: Considering of input will be influenced greatly by the needs of output e.g. the necessity for quick response from the system would determine the need for an on – line type of input.

Consideration would be given to: -

- (a) Data collection method and validation
- (b) Types of input media available
- (c) Volumes of input document
- (d) Design of input layouts
- (ii) OUTPUTS: it is necessary to consider what is required from the system before deciding how to set about producing it.

 The main things are:
- (a) How often are they required? That is the frequency of reports and documents. Choice of output media will have to be made.
- (b) Who needs the output and in what form?
- (c) Are multiple copies needed for circulation within and outside the institution?
- (d) Are pre printed forms needed (e.g. admission letters)
- (iii) FILES: in the design stage, the analyst is concerned with file structure and organisation. This element is very much linked to input and output.

Input is processed against the files to produce the necessary output. Files' handling depends on the input and output requirements and data volume to be retained in the system for reference purpose or updating.

Considerations involved in designing files are: -

- (a) Suitable storage facilities
- (b) Method of file organisation and access
- (c) File security
- (d) Record layouts
- (iv) PROCEDURE: these are the steps which unify the whole processes, which link everything together to produce the desired output. This will involve both computer and clerical procedures. They will start with the origination with the source document and end with the output document being distributed.

3.4 SYSTEM IMPLEMENTATION AND REVIEW

This is the coordination of the efforts of user department and data processing department in getting the new system into operation.

A coordinating committee is formed with some staff from users department, staff from computer department (analysts, programmers) as members. Details of the implementation would have been

stipulated in the systems specification. They would cover the following: -

- (a) Training of staff: The amount of training required for various categories of personnel will depend on the complexity of the system and the skills presently available.
- (b) **Programming:** The programmer must design programs which conform to the requirement set out in the system specification.
- (c) System testing: There is a need to ensure that both the individual programs have been written correctly and that the system as a whole will work.
- (d) Change over procedures: There are four method of changing over to new system.
- (i) Direct changer over: This method is the complete replacement of the old system by the new, in one move. This method is potentially the least expensive but the most risky. It's good for small and simple project.
- (ii) **Parallel running: -** This means processing of current data by both the old and new systems concurrently with the same inputs. The outputs are compared and reasons for differences resolved.

- (iii) Pilot running: This is similar in concept to parallel running.

 Data from one or more previous periods for the whole or part of the system is run on the new system after the results have been obtained from the old system, and the new results are compared with the old.
- (iv) Staged changeover: This involves a series of limited size direct changeovers, the new system being introduced piece by piece. A complete part, or logical section, is committed to the new system while the remaining parts or sections are processed by the old system. Only when the selected part is operating satisfactorily is the remainder transferred.

3.5 FILE ORGANISATION AND PROCESSING

A common characteristics of all data processing application is the presence and processing of files containing data that are useful to the organisation concerned. Data are grouped together in an ordered faction. Data items describing the same entity are grouped together to form file. A file can contain any number of records.

A file may be defined as a collection of items of data organised into records in such a way that specific item of data or record can be retrieved and accommodated, into the main memory when required for processing. A record is a group of related facts, treated as a unit representing a particular transaction.

A lot of files are used for this project. We have the files that contain the general lists of Pre – National and National Diploma applicants as well as files containing the records of admitted and non – admitted applicants for both Pre – National and National Diploma programmers, sort file, for all sorted list, etc.

Records to each of these files are organised according to their arrangements for instance, the Applicant file has such records like NAME, DATE OF BIRTH, ADDRESS, etc. all these files may be arranged logically.

e.g.

Applicant (APP) – File; as the master file e.g all Pre – all Pre - ND applicants all ND – all ND applicants

SORT – FILE; as sort file.e.g admitnd – all admitted ND candidatesAdmit Pre-ND-all admitted Pre – ND candidates

ADMT - FILE; for admitted candidates

Files can also be examined with respect to their record organisation and access method. The files are organised either serially, sequentially or randomly, etc.

MASTER FILE: - The master file is a permanent file. It contains records that are vital to the admission exercise e.g. NAME, STATE AND RESULTS. It always reflects the up - to - date state of applicants. The records in the master files are arranged randomly.

TRANSACTION FILE: - The transaction file is the file that contains all the condition tests and the possible actions to be take. It contains data about admission activities taking place within a specific period of time. This is used to up date either the admission file or the non – admission file based on the result of its test. The records are arranged serially in order to allow for step by step execution process.

SORT FILE: - The sort file however is created from all the existing files. It is used for altering the sequence of the records within the operational file. Records in this files are arranged sequentially based on a certain arrangement.

SERIAL FILE: - A serial file is a file whose records are not arranged in any particular form rather they are ordered in the way they are recorded. These files at best are crossed serially in the order they were stored.

SEQUENTIAL FILE: - In a sequential file organisation, the records are stored in a particular sequence according to a specified key field. It could be in ascending or descending, order of last name or registration number.

RANDOM FILE: - The file organisation provides for direct access of records without consideration for preceding/succeeding records, hence it is often called **DIRECT ACCESS METHOD (DAM).** That is give the address, the record is located directly even though the records are stored randomly not following a particular pattern or key field.

3.6 COST AND BENEFITS ANALYSIS

A cost – benefit analysis is necessary to determine economic feasibility of the project. The primary objective of cost – benefit analysis is to find out whether it is economically worthwhile to invest in the project.

Some of the elements of cost which must be considered by a management / cost accountant include:

- (a) Equipment Cost (Capital costs / leasing costs of computer and the peripheral devices).
- (b) **Installation Costs** (new building (if necessary) i.e the computer room).
- (c) **Development Costs** (software consultancy / changeover costs)
- (d) **Personnel Costs** (staff Training, staff recruitment / relocation, staff salaries, allowances and pensions, Redundancy payments, overhead).

(e) Operating Cost

- Consumable Materials (Tape, Cards, Disks, Stationery).
- Maintenance cost
- Accommodation cost
- Insurance / Power / Telephone cost
- Stand by arrangements
- Comparative cost of alternative methods of processing.

BENEFITS

Some of the benefits that can be derived with the use of computer system are as follows:

- (i) Faster rate of processing
- (ii) File (or data) security in maintained
- (iii) It enhances better relationship with the public
- (iv) It saves times and energy.
- (v) It eases data storage and retrieval process.

CHAPTER FOUR

PROGRAMMING / SOFTWARE DEVELOPMENT

4.1 INTRODUCTION

The use of computers in admission procedures is no doubt of very high necessity considering the various benefits provided by the computerized approach to admission procedures.

Software is the general term used to denote all forms of program that control the activities of a computer. It refers to the set of computer programs, procedures and associated documentation related to the effective operation of a data processing system. Software, therefore, enables us to exploit the capabilities of a computer. It can be classified into 2 namely: system softwares and Application softwares.

System Softwares – these are programs usually supplied by computer manufacturers which are designed to control the operation of a computer system. E.g. operating system, Translators, and Editors.

Application Softwares: these are general programs written with a view to solving a problem. This may appear in standard application packages or in the form of programs written by the users or programmers for specific application or local use (Home made packages).

Application Packages - An application package is a collection of fully documented programs designed to perform a particular data processing task in more than one organisation or installation e.g. word – processing packages, spreadsheet packages, Database Management packages, etc.

Home – Made packages – These are programs written to solve a local problem witting a particular ogranisation. Such programs are designed to suit what is obtainable within the organisation.

This implies that for a computer to be controlled, it requires writing a program and this process is referred to as programming. Therefore a program can them be defined as a set or sequence of instructions which informs a computer of the steps required for achieving a defined task. Each instruction define a basic operations to be performed, identifies the address of the data to be processed, the peripheral device (input or output device) to be used.

However, the act of giving instructions to computer is made possible through the computer programming languages. A programming language is simply the mode of communicating to computers. It is in the form of an artificially defined set of characters, symbols and words plus the rules for combining these characters, symbols and words into meaningful communications, so designed to be conveniently used by human beings in developing programs.

4.2 CHOICE OF LANGUAGE

Every conscientious programmer wants to write programs that run fast as well as minimizing the use of computer storage. Hence, the target of this project work is not only writing a program that accomplish a task, but accomplishing the task efficiently.

Therefore, for this project, a computer program was developed using visual FoxPro to implement the admission process, visual FoxPro being a database oriented programming language is quite suitable for the task because of the need for applicants record keeping.

Since visual FoxPro is windows oriented a little knowledge of windows environment may be necessary to effectively implement the software.

4.3 VISUAL FOXPRO AND FEATURES

Visual FoxPro is a database developed (Microsoft) by a Fox software. It is a database software that offer a host of features along with the speed and ease the end – user demand. Visual FoxPro is a living package in terms of invention, power and speed. The presentation of menu and command is completely simplified in this package.

The handy end – on – screen <u>calculation</u> and even an ASCII chart complement the standard menu. One important feature, of FoxPro is its interface with windowing application.

It has

- Minimum processor 386
- Minimum RAM 4MB
- Min Hard disk space 6MB

4.4 PROGRAM DESIGN

The admission-processing program generated for this project when executed loads a password program requesting for user's password. The user must enter a valid password for the program to continue, otherwise user is denied access to the program.

However, the password program allows three attempts of the password before user is disallowed access. If a valid password is entered, the user is granted access to the software, the main menu is activated from which user can make appropriate choices.

The program generated is executable in MS – DOS.

4.5 MAIN MENU

Data Manipulation

Reports

Quit

4.5.1 DATA MANIPULATION

The main form of the program is activated when the data manipulation option is selected.

On the form are text boxes, option boxes, combo boxes and command buttons.

The textboxes are used to enter such data as value and string. The option boxes are used to make a selection and the combo boxes to choose from a list of options.

There are two groups of command buttons on the form. The first group consists of the navigation buttons:

<<	Beginning of file (first record)
<	Previous record
>	Next record
>>	Last record (Bottom of file)

Add	To create space for a new record
Save	To write entered data into database
Modify	To edit records
Delete	To remove unwanted records from the file
Exit	To deactivate the form

4.5.2 REPORTS

The reports option is used to produce the various reports of the program. It also doubles as the processing option because the program processes before generating any report. When the report option is selected, the following menu is displayed.

4.6 SUB - MENU

List of PRE – ND Applicants

Admitted PRE – ND

LIST of ND applicants

Admitted ND

Quit

List of Pre – ND applicants is a general list of all Pre – ND Applicants whether qualified for admission or not.

Admitted Pre – ND is a list of all admitted Pre – ND Applicants

List of ND – Applicants is a general list of all ND applicants whether qualified or not.

Admitted ND is a list of all admitted ND – Applicants.

4.7 EXIT/QUIT MENU

The quit option is used to return to the main menu.

4.8 HARDWARE / SOFTWARE REQUIREMENTS

To achieve the numerous benefits of this project work, the following hardware and software requirements must be put in place.

HARDWARE REQUIREMENTS

Computer hardware's are the physical things one can see about the computer, feel and touch. In other words, hardware refers to the physical components of a computer. It is made up of mechanical, magnetic, electrical and electronic devices of a computer. Examples are printer, monitor, Head, Keyboard, mouse, and so on.

SOFTWARE REQUIREMENTS

Software is the general term used to denote all forms of programs that control the activities of a computer. It is the use of software that the computer users exploit the capabilities of a computer. Examples are: Microsoft word, word perfect, Excel, lotus 1-2-3, Quattro Pro, dbase iv, clippers, Visual FoxPro, Accuses, Paradox, etc.

For the purpose of this project work, the basic software requirements to enable the operation of the generated program are:

- The system must have database windows oriented with Visual FoxPro environment.
- It must be able to accommodate graphic designs and Microsoft word.
- It must be a Multi users environment
- It must allow users captured interface.
- The program diskettes must be compatible with the computer disk drives.

CHAPTER FIVE

1.5 RESULT ANALYSIS

The introduction of modern Technology to enhance productivity with little human resources and less time, is the basis on which this project work is built

The existence and effective use of computers has proved the efficiency and reliability of the modern Technology in all economic sectors around the globe.

Therefore, from the outcome of this project programming development (i.e chapter four), the use of computer approach to screening candidates for admission has yielded a better result over the traditional (Manual) approach. This is due to the following reasons.

The entire work of admission process was able to be simplified into a small program generated which computer needs to operate upon.

The program was designed to accommodate the records of individual applicants in terms of their identity and academic qualification.

With the generated program, each applicant was able to be tested whether he/she qualified for admission or not in their respective programmes of choice through the help of menu and sub-menu.

A setup information was provided to the program so that it worked correctly with the disk drives, Monitor, Printer, and other Hardware in the Computer System.

Also, various admission reports were able to be generated with ease, e.g, the reports on the admitted and non-admitted candidates for Pre – National and National Diplomas were generated.

The program was designed in a way to accommodate new applicants data.

5.2 SUMMARY AND CONCLUSION

Over the years, admission into various diploma programmes (especially Pre – National and National Diplomas) in federal college of Wildlife Management, New Bussa has been through traditional (Manual) process which required a great deal of human and material resources.

Apart form the fact that traditional method is laborious and time consuming, it gives room for admission forgery.

However, by the introduction of computer approach to screening candidates for admission as an alternative to replace the traditional method could be been as a more suitable method both technically and economically. It could also be seen as a welcome development to embrace modern technology.

Therefore, and contrary to the traditional method, computer approach to admission requires a little amount of human and material resources.

It does not allow forgery of admission records/letters. Provision can be made for backup in case of any disaster to files and records in the form of fire outbreak and stealing. This is done by storing of data in the diskettes.

Computer approach is faster and gives a more reliable accurate results.

5.3 IMPLEMENTATION

This is the process of coding, testing, and documenting programs in the system. It involves development of quality assurance procedures, including data security, backup and recovery, and system controls.

It also involves testing programs with both artificial and live data and training users and operating personnel.

In the program generated, six applicants were tested for Pre – National diploma programme where four were successful. Also for National diploma programme, nine applicants were tested and five were admitted.

It also creates room for additional records – through the help of program menus.

5.4 RECOMMENDATION

It is not wise enough for one to look at the short run of cost and benefits analysis of this project only but have an in-depth perspective of numerous benefits that would surface in the long run. Apart from the fact that one needs to be up-to date in information dissemination by embracing modern technology.

Through the use of computer, it is also important to imagine the college experiencing future organizational growth. This may take the form of tremendous increase in the number of students intake when many additional programmes are introduced.

As a result of this, the following recommendations are made: -

- (i) The program generated in this project, having tested okay, is recommended for use in the admission process of the college.
- (ii) For the program to run successfully, computer systems with visual FoxPro (database windows oriented) environment must be provided.
- (iii) Good training programs should be organised for the users (both the clerks and admission officers). The operation and maintenance of the system must be incorporated in the training

- (iv) The full support of the college management is necessary so that the use of the program is not limited to this project purpose alone but to ensure that it is made more productive.
- (v) Since files and record keeping are very important, the use of computer guarantees adequate safety of all documents stored in it.
- (vi) In order to avoid forgery during admission exercise and to make room for backup in time of disaster the use of computer approach to admission process is more reliable.

REFERENCE

(1) ADEWALE Pre written software packages (Lecture handout).

(2) AUSON D.E. (1986)

Information System development

Data base approach.

Published by Block well Scientific

Publication Inc; New York.

(3) BADMUS R.A. Systems Analysis and Design (Lecture handout)

(4) HAKIMI DALANDI Data base Management systems (Lecture handout)

(5) JAMES A. SENN (1989)

Analysis and Design of information

System.

(2nd Edition) Published by Mcgraw

Hill international Editions

(Computer Science series) Singapore.

(6) KOLA ABDULRAHEEM Computer Programming made easy (Lecture handout).

(7) National Board for Technical Education Kaduna.

```
SET SYSMENU OFF
close all
clear all
CLEAR
set safety off
set color to w/b
clear
set path to c:\admit
set dire to c:\admit
sele a
use admprint exclusive
sele b
use admmain exclusive
PUBLIC choice, ch
CLEAR
 screen.caption = "FEDERAL COLLEGE OF WILDLIFE MANAGEMENT (Admission
System)"
do fpass with "WILDFED"
@ 1,55 say "MAIN MENU" color B+W font "ARIAL",23 STYLE "BS"
ch = 0
define window fed2 from 4,15 to 30,60 color scheme 3
do while ch <> 3
activate window fed2
move window fed2 center
@1,2 GET ch FUNCTION '*vt Data Manipulation; Reports; Quit' font "ARIAL",18 STYLE
"BS";
SIZE 2, 30, 1 VALID GOR2() DEFAULT 1
READ CYCLE
if lastkey() =27
 deactivate window fed2
 clear
endif
if ch = 1
  do form frmadmit
endif
if ch = 2
 do repmenu
endif
enddo
PROCEDURE gor2
deactivate window fed2
clear
do case
case ch = 1
 do form fimadmit
case ch = 2
 do repmenu
CASE ch = 3
 quit
endcase
```

return

```
Procedure repmenu
choice =0
define window fed1 from 4.15 to 28.58 color scheme 3
do while choice <> 5
activate window fed1
move window fed1 center
@1,2 GET choice FUNCTION '*vt List of Pre-ND Applicants; Pre-ND Admitted List; List of
ND Applicants; ND Admitted List; Quit Program' font "Roman", 16 STYLE "BS";
SIZE 1.2, 30, 1 VALID GOR() DEFAULT 1
READ CYCLE
if lastkey() =27
 deactivate window fed1
 clear
endif
enddo
return
PROCEDURE gor
deactivate window fed1
clear
do case
 case choice = 1
    DO ADMITTER WITH "Pre-National Diploma",1
 CASE choice = 2
        DO ADMITTER WITH "Pre-National Diploma",2
 case choice = 3
    DO ADMITTER WITH "National Diploma ",1
 case choice = 4
        DO ADMITTER WITH "National Diploma
endcase
return
parameter passw
 close all
 set cursor off
 Clear
 set status off
 set talk off
 define window pass from 6,32 to 15,70
 move window pass center
 Trial =0
 DO WHILE TRIAL < 3
 activate window pass
 clear
 @1,10 SAY "SECURITY" FONT "ROMAN",8 STYLE "BS"
 @3,1 SAY "Enter Your Password:" FONT "ROMAN",8 STYLE "BS"
   STORE 0 TO I, CNT
   CPASS = ""
   J = 23
```

```
DO WHILE CNT < 10 .AND. 1 <> 13
         J = J + 1
         l = 0
         DO WHILE I = 0
         I = INKEY()
         ENDDO
         IF I<>13
          @3,J SAY "*" font "Roman",10
          CNT = CNT + 1
          CPASS = CPASS + CHR(I)
         ENDIF
   ENDDO
   trial = trial + 1
   IF UPPER(CPASS) = passw
       DEACTIVATE WINDOW PASS
       messagebox("CORRECT PASSWORD! ACCESS ALLOWED")
         set cursor on
       EXIT
   else
       DEACTIVATE WINDOW PASS
       messagebox("WRONG PASSWORD! TRY AGAIN")
   endif
 ENDDO
if upper(cpass) <> passw
 quit
endif
cntpas = 0
store space(3) to msub1,msub2,msub3,msub4,msub5,msub6,msub7,msub8,msub9
store space(2) to mgr1,mgr2,mgr3,mgr4,mgr5,mgr6,mgr7,mgr8,mgr9
if result = "Grade II"
 if english1 <> "F" .and. !empty(english1)
   cntpas = cntpas + 1
 endif
 if maths1 <> "F" .and. !empty(maths1)
   cntpas = cntpas + 1
 endif
 if (biology1 <> "F" .and. !empty(biology1)) .or.;
   (agric1 <> "F" .and. !empty(agric1)) .or.;
   (intersc1 <> "F" .and. !empty(intersc1))
   cntpas = cntpas + 1
 endif
 if chemistry1 <> "F" .and. !empty(chemistry1)
   cntpas = cntpas + 1
 endif
 if physics1 <> "F" .and. !empty(physics1)
   cntpas = cntpas + 1
 endif
 if geography1 <> "F" .and. !empty(geography1)
   cntpas = cntpas + 1
```

```
endif
 msub1 = "Eng"
 msub2 = "Mth"
 msub3 = "Int"
 msub4 = "Bio"
 msub5 = "Agr"
 msub6 = "Che"
 msub7 = "Phy"
 msub8 = "Geo"
 mgr1 = english1
 mgr2 = maths1
 mgr3 = Intersc1
 mgr4 = Biology1
 mgr5 = Agric1
 mgr6 = Chemistry1
 mgr7 = Physics1
 mgr8 = Geography1
endif
if result = "Tech. College"
 if english2 <> "F" .and. !empty(english2)
   cntpas = cntpas + 1
  endif
 if maths2 <> "F" .and. !empty(maths2)
   cntpas = cntpas + 1
 if science2 <> "F" .and. !empty(science2)
   cntpas = cntpas + 1
 endif
 if physic2 <> "F" .and. !empty(physic2)
   cntpas = cntpas + 1
 endif
 if chemistry2 <> "F" .and. !empty(chemistry2)
   cntpas = cntpas + 1
 endif
 msub1 = "Eng"
 msub2 = "Mth"
 msub3 = "Phv"
 msub4 = "Che"
 msub5 = "Sci"
 mgr1 = english2
 mgr2 = maths2
 mgr3 = physic2
 mgr4 = chemistry2
 mgr5 = science2
endif
if result = "SSCE/GCE"
 if english3 <> "F" .and. !empty(english3)
   cntpas = cntpas + 1
 endif
 if maths3 <> "F" .and. !empty(maths3)
```

```
cntpas = cntpas + 1
 endif
 if (biology3 <> "F" .and. !empty(biology3)) .or.;
   (agric3 <> "F" .and. !empty(agric3))
   cntpas = cntpas + 1
 endif
 if chemistry3 <> "F" .and. !empty(chemistry3)
   cntpas = cntpas + 1
 endif
 msub1 = "Eng"
 msub2 = "Mth"
 msub3 = "Bio"
 msub4 = "Agr"
 msub5 = "Che"
 msub6 = "Geo"
 msub7 = "Eco"
 msub8 = "Sta"
 msub9 = "Phy"
 mgr1 = english3
 mqr2 = maths3
 mar3 = Biology3
 mgr4 = Agric3
 mgr5 = Chemistry3
 mgr6 = Geography3
 mgr7 = Econs3
 mar8 = statistics3
 mgr9 = physics3
endif
if cntpas >= 4
 sele a
 append blank
 repl num with b->num
 repl name with b->name
 repl programme with b->programme
 repl result with b->result
 repl sub1 with msub1
 repl sub2 with msub2
 repl sub3 with msub3
 repl sub4 with msub4
 repl sub5 with msub5
 repl sub6 with msub6
 repl sub7 with msub7
 repl sub8 with msub8
 repl sub9 with msub9
 repl grd1 with mgr1
 repl grd2 with mgr2
 repl grd3 with mgr3
 repl grd4 with mgr4
 repl grd5 with mgr5
 repl grd6 with mgr6
 repl grd7 with mgr7
```

```
repl grd8 with mgr8
 repl grd9 with mgr9
 repl remark with "Admitted"
else
 sele a
 append blank
 repl num with b->num
 repl name with b->name
 repl programme with b->programme
 repl result with b->result
 repl sub1 with msub1
 repl sub2 with msub2
 repl sub3 with msub3
 repl sub4 with msub4
 repl sub5 with msub5
 repl sub6 with msub6
 repl sub7 with msub7
 repl sub8 with msub8
 repl sub9 with msub9
 repl ard1 with mar1
 repl grd2 with mgr2
 repl grd3 with mgr3
 repl grd4 with mgr4
 repl grd5 with mgr5
 repl grd6 with mgr6
 repl grd7 with mgr7
 repl grd8 with mgr8
 repl grd9 with mgr9
 repl remark with "Not Admitted"
endif
cntpas = 0
ccnt = 0
cntpas2 = 0
store space(3) to msub1,msub2,msub3,msub4,msub5,msub6,msub7,msub8,msub9
store space(2) to mgr1,mgr2,mgr3,mgr4,mgr5,mgr6,mgr7,mgr8,mgr9
if result = "Grade II"
 if english1 <> "F" .and. !empty(english1)
   ccnt = ccnt + 1
 endif
 if maths1 <> "F" .and. !empty(maths1)
   ccnt = ccnt + 1
 endif
 if english1 = "A" .or. english1 = "B1" .or. english1 = "B2"
   cntpas = cntpas + 1
 endif
 if maths1 = "A" .or. maths1 = "B1" .or. maths1 = "B2"
```

```
cntpas = cntpas + 1
  endif
  if (biology1 = "A" .or. biology1 = "B1" .or. biology1 = "B2") .or.;
    (agric1 = "A" .or. agric1 = "B1" .or. agric1 = "B2") .or.;
    (intersc1 = "A" .or. intersc1 = "B1" .or. intersc1 = "B2")
    cntpas = cntpas + 1
  endif
  if chemistry1 = "A" .or. chemistry1 = "B1" .or. chemistry2 = "B2"
    cntpas = cntpas + 1
  endif
  if physics1 = "A" .or. physics1 = "B1" .or. physics1 = "B2"
    cntpas = cntpas + 1
  endif
  if geography1 = "A" .or. geography1 = "B1" .or. geography1 = "B2"
    cntpas = cntpas + 1
  endif
  msub1 = "Eng"
  msub2 = "Mth"
  msub3 = "Int"
  msub4 = "Bio"
  msub5 = "Agr"
  msub6 = "Che"
  msub7 = "Phy"
  msub8 = "Geo"
  mgr1 = english1
  mgr2 = maths1
  mgr3 = Intersc1
  mgr4 = Biology1
  mgr5 = Agric1
  mgr6 = Chemistry1
  mgr7 = Physics1
  mgr8 = Geography1
endif
if result = "Tech. College"
  if english2 <> "F" .and. !empty(english2)
   ccnt = ccnt + 1
 endif
 if maths2 <> "F" .and. !empty(maths2)
   ccnt = ccnt + 1
 endif
 if english2 = "A" .or. english2 = "B"
   cntpas = cntpas + 1
 endif
 if maths2 = "A" .or. maths2 = "B"
   cntpas = cntpas + 1
 endif
 if science2 = "A" .or. science2 = "B"
   cntpas = cntpas + 1
 endif
 if physic2 = "A" .or. physic2= "B"
```

```
cntpas = cntpas + 1
 endif
 if chemistry2 = "A" .or. chemistry2="B"
   cntpas = cntpas + 1
 endif
 msub1 = "Eng"
 msub2 = "Mth"
 msub3 = "Phy"
 msub4 = "Che"
 msub5 = "Sci"
 mar1 = english2
 mgr2 = maths2
 mgr3 = physic2
 mgr4 = chemistry2
 mar5 = science2
endif
if result = "SSCE/GCE"
 if english3 <> "F" .and. !empty(english3)
   ccnt = ccnt + 1
  endif
 if maths3 <> "F" .and. !empty(maths3)
   ccnt = ccnt + 1
  endif
 if (left(biology3,1) = "A" .or. left(biology3,1) = "C") .or.;
   (left(agric3,1) = "A" .or. left(agric3,1) = "C")
   cntpas = cntpas + 1
 endif
 if left(chemistry3,1) = "A" .or. left(chemistry3,1) = "C"
      cntpas = cntpas + 1
 endif
 if left(english3,1) = "A" .or. left(english3,1) = "C"
     cntpas2 = cntpas2 + 1
 endif
 if left(maths3,1) = "A" .or. left(maths3,1) = "C"
     cntpas2 = cntpas2 + 1
 endif
 if left(econs3,1) = "A" .or. left(econs3,1) = "C"
     cntpas2 = cntpas2 + 1
 if left(physics3,1) = "A" .or. left(physics3,1) = "C"
     cntpas2 = cntpas2 + 1
 endif
 if left(geography3,1) = "A" .or. left(geography3,1) = "C"
     cntpas2 = cntpas2 + 1
 endif
 if left(statistics3,1) = "A" .or. left(statistics3,1) = "C"
     cntpas2 = cntpas2 + 1
 endif
 cntpas = cntpas + cntpas2
 if ccnt <> 2
```

```
cntpas = 0
 endif
 msub1 = "Eng"
 msub2 = "Mth"
 msub3 = "Bio"
 msub4 = "Agr"
 msub5 = "Che"
 msub6 = "Geo"
 msub7 = "Eco"
 msub8 = "Sta"
 msub9 = "Phy"
 mgr1 = english3
 mgr2 = maths3
 mgr3 = Biology3
 mgr4 = Agric3
 mgr5 = Chemistry3
 mgr6 = Geography3
 mgr7 = Econs3
 mgr8 = statistics3
 mgr9 = physics3
endif
 if ccnt <> 2
   cntpas = 0
 endif
if cntpas >= 4
 sele a
 append blank
 repl num with b->num
 repl name with b->name
 repl programme with b->programme
 repl result with b->result
 repl sub1 with msub1
 repl sub2 with msub2
 repl sub3 with msub3
 repl sub4 with msub4
 repl sub5 with msub5
 repl sub6 with msub6
 repl sub7 with msub7
 repl sub8 with msub8
 repl sub9 with msub9
 repl grd1 with mgr1
 repl grd2 with mgr2
 repl grd3 with mgr3
 repl grd4 with mgr4
 repl grd5 with mgr5
 repl grd6 with mgr6
 repl grd7 with mgr7
 repl grd8 with mgr8
 repl grd9 with mgr9
 repl remark with "Admitted"
else
```

```
sele a
  append blank
  repl num with b->num
  repl name with b->name
 repl programme with b->programme
 repl result with b->result
  repl sub1 with msub1
  repl sub2 with msub2
  repl sub3 with msub3
  repl sub4 with msub4
  repl sub5 with msub5
 repl sub6 with msub6
  repl sub7 with msub7
  repl sub8 with msub8
  repl sub9 with msub9
  repl ard1 with mar1
  repl grd2 with mgr2
  repl grd3 with mgr3
  repl grd4 with mgr4
  repl grd5 with mgr5
  repl grd6 with mgr6
  repl grd7 with mgr7
  repl grd8 with mgr8
  repl grd9 with mgr9
  repl remark with "Not Admitted"
endif
parameter prog, mvar
sele a
use admprint exclusive again
zap
sele b
use admmain exclusive again
go top
do while .not. eof()
 if prog <> programme
   skip
 if prog = "Pre-National Diploma"
   if mvar = 1
     do allpre
   else
    do admitpre
   endif
  else
   if mvar = 1
     do alind
   else
     do admitnd
   endif
  endif
```

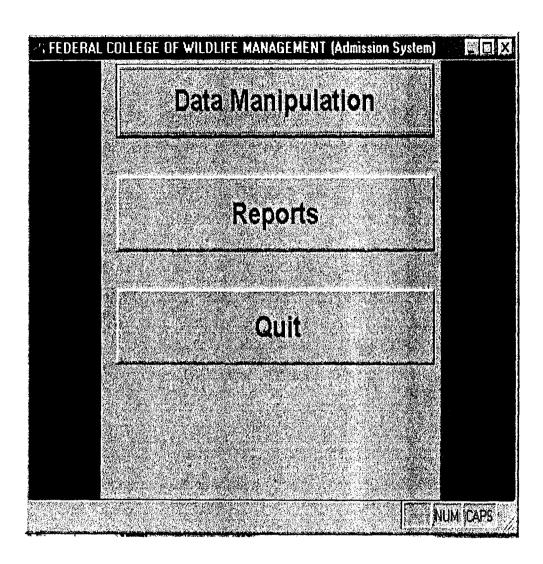
```
sele b
 skip
 endif
enddo
 if prog = "Pre-National Diploma"
   if mvar = 1
     do allpre
              sele a
              locate for num = " " .and. name = " "
         dele
              pack
     report form admrep1 preview
     sele b
   else
     do admitpre
              sele a
              locate for num = " " .and. name = " "
              dele
         pack
     report form admrep2 preview
     sele b
   endif
 else
   if mvar = 1
     do alind
              sele a
              locate for num = " " .and. name = " "
              dele
              pack
     report form admrepn1 preview
     sele b
   else
     do admitnd
              sele a
              locate for num = " " .and. name = " "
              dele
              pack
    report form admrepn2 preview
    sele b
   endif
 endif
return
cntpas = 0
store space(3) to msub1,msub2,msub3,msub4,msub5,msub6,msub7,msub8,msub9
store space(2) to mgr1,mgr2,mgr3,mgr4,mgr5,mgr6,mgr7,mgr8,mgr9
if result = "Grade II"
 if english1 <> "F" .and. !empty(english1)
   cntpas = cntpas + 1
 endif
```

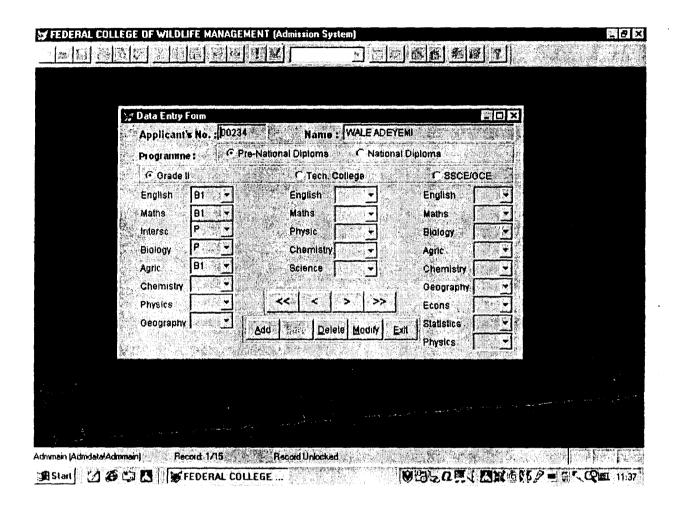
```
if maths1 <> "F" .and. !empty(maths1)
   cntpas = cntpas + 1
 endif
 if (biology1 <> "F" .and. !empty(biology1)) .or.;
   (agric1 <> "F" .and. !empty(agric1)) .or.;
   (intersc1 <> "F" .and. !empty(intersc1))
   cntpas = cntpas + 1
 endif
 if chemistry1 <> "F" .and. !empty(chemistry1)
   cntpas = cntpas + 1
 endif
 if physics1 <> "F" .and. lempty(physics1)
   cntpas = cntpas + 1
 if geography1 <> "F" .and. !empty(geography1)
   cntpas = cntpas + 1
 endif
 msub1 = "Eng"
 msub2 = "Mth"
 msub3 = "Int"
 msub4 = "Bio"
 msub5 = "Agr"
 msub6 = "Che"
 msub7 = "Phy"
 msub8 = "Geo"
 mgr1 = english1
 mar2 = maths1
 mgr3 = Intersc1
 mgr4 = Biology1
 mgr5 = Agric1
 mgr6 = Chemistry1
 mgr7 = Physics1
 mgr8 = Geography1
endif
if result = "Tech. College"
 if english2 <> "F" .and. !empty(english2)
   cntpas = cntpas + 1
 endif
 if maths2 <> "F" .and. !empty(maths2)
   cntpas = cntpas + 1
 if science2 <> "F" .and. !empty(science2)
   cntpas = cntpas + 1
 if physic2 <> "F" .and. !empty(physic2)
   cntpas = cntpas + 1
 endif
 if chemistry2 <> "F" .and. !empty(chemistry2)
   cntpas = cntpas + 1
 endif
```

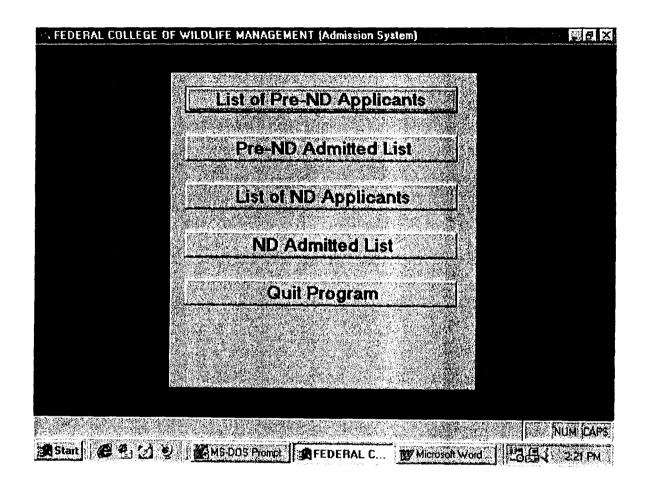
```
msub1 = "Eng"
 msub2 = "Mth"
 msub3 = "Phy"
 msub4 = "Che"
 msub5 = "Sci"
 mgr1 = english2
 mgr2 = maths2
 mgr3 = physic2
 mgr4 = chemistry2
 mar5 = science2
endif
if result = "SSCE/GCE"
 if english3 <> "F" .and. !empty(english3)
   cntpas = cntpas + 1
 endif
 if maths3 <> "F" .and. !empty(maths3)
   cntpas = cntpas + 1
 endif
 if (biology3 <> "F" .and. !empty(biology3)) .or.;
   (agric3 <> "F" .and. !empty(agric3))
   cntpas = cntpas + 1
  endif
 if chemistry3 <> "F" .and. !empty(chemistry3)
   cntpas = cntpas + 1
 endif
 msub1 = "Eng"
 msub2 = "Mth"
 msub3 = "Bio"
 msub4 = "Agr"
 msub5 = "Che"
 msub6 = "Geo"
 msub7 = "Eco"
 msub8 = "Sta"
 msub9 = "Phy"
 mgr1 = english3
 mgr2 = maths3
 mgr3 = Biology3
 mgr4 = Agric3
 mgr5 = Chemistry3
 mgr6 = Geography3
 mgr7 = Econs3
 mgr8 = statistics3
 mgr9 = physics3
endif
if cntpas >= 4
 sele a
 append blank
 repl num with b->num
 repl name with b->name
 repl programme with b->programme
 repl result with b->result
```

```
repl sub1 with msub1
 repl sub2 with msub2
 repl sub3 with msub3
 repl sub4 with msub4
 repl sub5 with msub5
 repl sub6 with msub6
 repl sub7 with msub7
 repl sub8 with msub8
 repl sub9 with msub9
 repl ard1 with mar1
 repl grd2 with mgr2
 repl grd3 with mgr3
 repl grd4 with mgr4
 repl grd5 with mgr5
 repl grd6 with mgr6
 repl grd7 with mgr7
 repl ard8 with mar8
 repl grd9 with mgr9
 repl remark with "Admitted"
endif
cntpas = 0
ccnt = 0
cntpas2 = 0
store space(3) to msub1,msub2,msub3,msub4,msub5,msub6,msub7,msub8,msub9
store space(2) to mgr1,mgr2,mgr3,mgr4,mgr5,mgr6,mgr7,mgr8,mgr9
if result = "Grade II"
 if english1 <> "F" .and. !empty(english1)
   ccnt = ccnt + 1
 endif
 if maths1 <> "F" .and. !empty(maths1)
   ccnt = ccnt + 1
 endif
 if english1 = "A" .or. english1 = "B1" .or. english1 = "B2"
   cntpas = cntpas + 1
 endif
 if maths1 = "A" .or. maths1 = "B1" .or. maths1 = "B2"
   cntpas = cntpas + 1
 endif
 if (biology1 = "A" .or. biology1="B1" .or. biology1 = "B2") .or.;
   (agric1 = "A" . or. agric1 = "B1" . or. agric1 = "B2") . or.;
   (intersc1 = "A" .or. intersc1 = "B1" .or. intersc1 = "B2")
   cntpas = cntpas + 1
 endif
 if chemistry1 = "A" .or. chemistry1 = "B1" .or. chemistry2 = "B2"
   cntpas = cntpas + 1
 endif
 if physics1 = "A" .or. physics1 = "B1" .or. physics1 = "B2"
   cntpas = cntpas + 1
```

```
endif
 if geography1 = "A" .or. geography1 = "B1" .or. geography1 = "B2"
   cntpas = cntpas + 1
 endif
 msub1 = "Eng"
 msub2 = "Mth"
 msub3 = "Int"
 msub4 = "Bio"
 msub5 = "Agr"
 msub6 = "Che"
 msub7 = "Phy"
 msub8 = "Geo"
 mgr1 = english1
 mgr2 = maths1
 mgr3 = Intersc1
 mgr4 = Biology1
 mgr5 = Agric1
 mgr6 = Chemistry1
 mgr7 = Physics1
 mgr8 = Geography1
endif
if result = "Tech. College"
 if english2 <> "F" .and. !empty(english2)
   ccnt = ccnt + 1
 endif
 if maths2 <> "F" .and. !empty(maths2)
   ccnt = ccnt + 1
 endif
 if english2 = "A" .or. english2 = "B"
   cntpas = cntpas + 1
 endif
 if maths2 = "A" .or. maths2 = "B"
   cntpas = cntpas + 1
 endif
 if science2 = "A" .or. science2 = "B"
   cntpas = cntpas + 1
 if physic2 = "A" .or. physic2= "B"
   cntpas = cntpas + 1
 endif
 if chemistry2 = "A" .or. chemistry2="B"
   cntpas = cntpas + 1
 endif
 msub1 = "Eng"
 msub2 = "Mth"
 msub3 = "Phy"
 msub4 = "Che"
 msub5 = "Sci"
 mar1 = enalish2
 mgr2 = maths2
```







FEDERAL COLLEGE OF WILDLIFE MANAGEMENT FORESTRY RESEARCH INSTITUTE OF NIGERIA

GENERAL LIST OF APPLICANTS (NATIONAL DIPLOMA)

Number	Name	Sub1	Sub2	Sub3	Sub4	Sub5	Sub6	Sub7	Sub8	Sub9	Remark
rade II											
11233	POPOOLA NIKE	Eng	Mth	Int	Bio	Agr	Che	Phy	Geo	-	Not Admitted
		B1	F	B1	P	Α	B1	B1			
11290	JAMES FRED	Eng	Mth	Int	Bio	Agr	Che	Phy	Geo		Admitted
		B1	B1	Α	Α	F	B2	B1			
SCE/GCE											<u> </u>
11002	PARIOLA BANKS	Eng	Mth	Bio	Agr	Che	Geo	Eco	Sta	Phy	Admitted
		P7	A1	C4	P7	C4	F9	F9	A3	P7	
11067	OWO BAMIDELE	Eng	Mth	Bio	Agr	Che	Geo	Eco	Sta	Phy	Not Admitted
		F9	А3	C4	C5	C6	P7	P7			
11099	KOKA HUSSENI	Eng	Mth	Bio	Agr	Che	Geo	Eco	Sta	Phy	Admitted
		P7	P7	C4	C5	C6	C6	C4			
11211	KUNLE CLAIR	Eng	Mth	Bio	Agr	Che	Geo	Eco	Sta	Phy	Admitted
		C4	C5	C4	A1	C6	P7	C6		P7	
ech. College											<u> </u>
00666	GODFREY WILLIAMS	Eng	Mth	Phy	Che	Sci					Not Admitted
		В	В	С	Α	D					
11677	GBADE JAMES	Eng	Mth	Phy	Che	Sci					Admitted
		A	Α	Α	Α	Α			•		
11078	CHIDI OGWE	Eng	Mth	Phy	Che	Sci					Not Admitted
		D	С	Α	В	В					

FEDERAL COLLEGE OF WILDLIFE MANAGEMEN I FORESTRY RESEARCH INSTITUTE OF NIGERIA P.M.B 268, NEW BUSSA

ADMISSION INTO

PRE – ND, ND AND HND PROGRAMMES FOR 2000/2001 ACADEMIC SESSION.

Interested candidates are hereby informed that admission chances are available in the Pre-National, National Diploma and Higher National Diploma Programmes of the College for 2000/2001 Academic Session.

Prospective Candidates should write or report to:

The Provost, Federal College of Wildlife Management, P.M.B, 268, New Bussa, for application form with a remittance of three hundred Naira (N300.00) in cash or Bank Draft made payable to the Provost.

1. PRE - NATIONAL DIPLOMA (SCIENCE AND TECHNOLOGY) (1 YEAR)

Applicants must possess the following: Four passes in SSCE or GCE "O" level at not more than two sittings. The passes must include English Language, Mathematics, Biology/Agriculture Science and Chemistry.

2. NATIONAL DIPLOMA IN WILDLIFE MANAGEMENT (2 YEARS)

Applicants must possess the following: Four credit passes in SSCE or GCE "O" level in not more than two sittings. The subjects must include Biology/ Agricultural Sciences, Chemistry and any other two from the following: Geography, Mathematics, Economics, Statistics, English Language and Physics.

Passes in English Language and Mathematics are compulsory. Candidates who have successfully completed the NBTE'S recognised Pre-ND (Science and Technology) may qualify for admission.

3. NATIONAL DIPLOMA IN TOURISM (2 YEARS)

Applicants must possess the following: Four credit level passes in WASC, SSCE or GCE 'O' level in not more than two sittings. The subjects must include English Language, Geography or Economics and any two from the following: History, Government, Mathematics, Biology, Food and Nutrition/ Chemistry and French. At least a pass in Mathematics is compulsory.

Candidates who have successfully completed NBTE's recognized Pre -ND (Science and Technology) course may be admitted. Such students must have passed English Language and Biology or Food and Nutrition at WASC, SSEC, GCE 'O' Level or their equivalent before undertaking the Pre -ND course.

- 4. HIGHER NATIONAL DIPLOMA IN WILDLIFE MANAGEMENT TECHNOLOGY (2 YEARS)
 Applicants must posses the following:
 - i. Any of the requirements for admission into the National Diploma Programmes.
 - ii. A minimum of lower credit pass in National Diploma in Wildlife Management, Forestry, Agriculture, Horticulture and allied disciplines obtained from a recognized college of Agriculture or Polytechnic.
 - A minimum of one-year cognate working experience is required.
 - iii. National Diploma holders with passes in the Diploma Examinations with two or more years of cognate experience in the specific field, may be considered.

For: PROVOST

FEDERAL COLLEGE OF WILDLIFE MANAGEMENT.