COMPUTER ASSISTED RECORD

MANAGEMENT SYSTEM

FOR

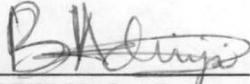# UNIVERSITY STAFF SCHOOL

MINNA

BY

ADENIJI BOLAWA B.
(85/350)

A PROJECT SUBMITTED TO THE DEPARTMENT OF MATHEMATIC/COMPUTER

SCIENCE IN PARTIAL FULFILMENT OF THE AWARD OF BACHELOR OF

TECHNOLOGY (B.TECH.) IN MATHEMATICS COMPUTER SCIENCE
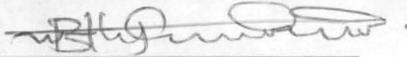
FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA.

SEPTEMBER, 1992

DECLARATION

I hereby declare that this project has been written solely by me. It is a record of my own research work and it has not been presented before in any previous application for a first or higher Degree. All sources of information are acknowledged by means of references.

ADENIJI B. B.

This Declaration is confirmed by

H. A. BABAGBALE

Date: 4 - 10 - 92

CERTIFICATION

This project titled "Computer Assisted Record Management System" carried out by ADENIJI BOLAWA B., of Department of Mathematic/Computer Science has been certified to meet the regulation governing the award of the Degree of Bachelor of Technology, of Federal University of Technology, Minna.

(PROJECT SUPERVISOR)
(MR. H. A. BABAGBALE)

DATE:...4 - 10 - 92......

HEAD OF DEPARTMENT
(MR. T. BAMKEFA)

DATE:........................

DEAN
(PROF. OLADIMEJI)

DATE:........................

EXTERNAL EXAMINER
(DR. A.D. AKINDE)

DATE:...15. 10. 92.........

DEDICATION

I dedicate this project to my father MR RASHEED ADENIJI and my mother MRS. FADEKE ADENIJI and all my brothers and sisters.

ACKNOWLEDGEMENT

With God, all things are possible. I give great thanks to God Almighty for guarding and guiding me all through the period of my stay in the University.

My sincere appreciation and thanks goes to Mr. H. A. Babagbale for his valuable criticism and supervision of this project. His understanding and co-operation has helped me to complete my project work without much difficulty.

I acknowledge Mr. T. Bamkefa - H. O. D Mathematic/Computer Science Department, Mr. Jibril of the Computer Centre, all the staff of the computer centre and also all the staff of the Maths/Computer department.

To all my wonderful friends who have made life an interesting place for me to live, I give my love and thanks, you have all stood by me through thick and thin and I pray that God repay you all in folds. These wonderful people are all my classmates, Eddy Obenny, Bayo Adeniji, Yemisi Balogun, Debo Lawal, Bolaji Sogunro and Inusa Isa.

ABSTRACT

This project is centred on how effective and cheap computer power can be utilized for accurate, fast and efficient method of processing records, particularly in primary Schools and other Institutions as applicable. The basis of this work is projected into the future in which an integrated computer system with conglomeration of several files will be used for record processing.

Based on the feasibility study conducted, a design was developed to computerize the University Staff School. The outcome of the design was generated into a report comprising the staff record, pupils academic record and the pupils personal records.

The computer-assisted Record Management System among other things focus its attention on techniques of simplifying record collation and processing. It also causes a complex change in the structure of record handlings.

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CHAPTER ONE

INTRODUCTION

The advent of technological revolution has brought about increase in the amount of data to be processed in shorter-time.

Though various types of automated devices were developed and introduced, the fastest and most sophisticated tool yet devised for processing record is the computer.

The project is based on how computer can be used to keep and manage records of the University Staff School, Minna Niger State. The main objective of this work is to eradicate to a large extent the manual processing of records. This is because the manual processing of records has been found to be inefficient and time consumming among other disadvantages.

In this vein, this work sets out to improve accuracy of keeping records of students and staff of University Staff School, and also to minimized loss of information through manual record processing.

The system entails the following components:

1.   pupils personal records

2.   pupils academic records

3.   staff records.

The system has been so designed to allow the school access and retrieve their records with ease. This will in no doubt improve their record management system.

1:1 THE UNIVERSITY STAFF SCHOOL

The Federal University of Technology Staff School, Minna was established on the 28th of January 1987 as a service arm of the University. Though it became operational on the 26th of February, 1989, the school has as its main objective the following:-

1. To serve as a moral and academic model for other schools to emulate.

2. To serve as one of the welfare services provided by the University to cater for the children of its staff.

3. To serve the community in which the University is established.

The present population of the School stands at eight hundred and one pupils and 40 teaching and non-teaching staff. The population of the school is known to increase yearly. With this yearly increase in population, it is only necessary to build a system that would cater adequately for the management of information relating to this circumstance.

The system should be such that records on each pupil and staff are kept securely and appropriately for easy retrieval and storage.

1:2   ORGANIZATIONAL STRUCTURE OF THE STAFF SCHOOL

The Federal University of Technology Staff School is managed by a central body called the University Staff School Management Board. This board is responsible for formulating policies and guidelines for the school. It is also responsible for making decisions concerning the general well being of the school and staff respectively.

The board is comprised of the Chairman, the Board Members, the Headmistress and some senior teachers of the school.

Simple and urgent decisions are normally attended to by the Headmistress and her teachers. The Federal University of Technology Staff School has a team of well co-ordinated and experienced management. As at now there are thirty-four teaching and six non-teaching staff in the school.

The Headmistress is the overall head and she is responsible for all the other staff. There is an assistant headmistress, who works closely with the Headmistress and acts in her place when she is not around. The teaching staff is comprised of teachers for the different subjects offered by the pupils. The non-teaching staff is comprised of the Typist, Matron, Store-keeper, Driver, Messenger and Cleaner.

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                    ┌─────────────────────────────┐
                    │         CHAIRMAN            │
                    │    U. S. S. MGT. BOARD      │
                    └─────────────────────────────┘
                    ┌─────────────────────────────┐
                    │       BOARD MEMBERS         │
                    └─────────────────────────────┘
                    ┌─────────────────────────────┐
                    │       HEADMISTRESS          │
                    │   (SEC. TO THE BOARD)       │
                    └─────────────────────────────┘
                    ┌─────────────────────────────┐
                    │     ASST. HEADMISTRESS      │
                    └─────────────────────────────┘
               ┌─────────────────────────────────────┐
               │          ACADEMIC STAFF             │
               └─────────────────────────────────────┘
        ┌────────────┐  ┌──────────┐  ┌──────────┐  ┌───────────┐
        │ SNR. MASTER│  │ MASTER I │  │ MASTER II│  │ MASTER III│
        └────────────┘  └──────────┘  └──────────┘  └───────────┘
               ┌─────────────────────────────────────┐
               │        NON-ACADEMIC STAFF           │
               └─────────────────────────────────────┘
   ┌──────────┐ ┌────────┐ ┌─────────────┐ ┌────────┐ ┌───────────┐ ┌─────────┐
   │ SECRETARY│ │ DRIVER │ │ STORE KEEPER│ │ MATRON │ │ MESSENGER │ │ CLEANER │
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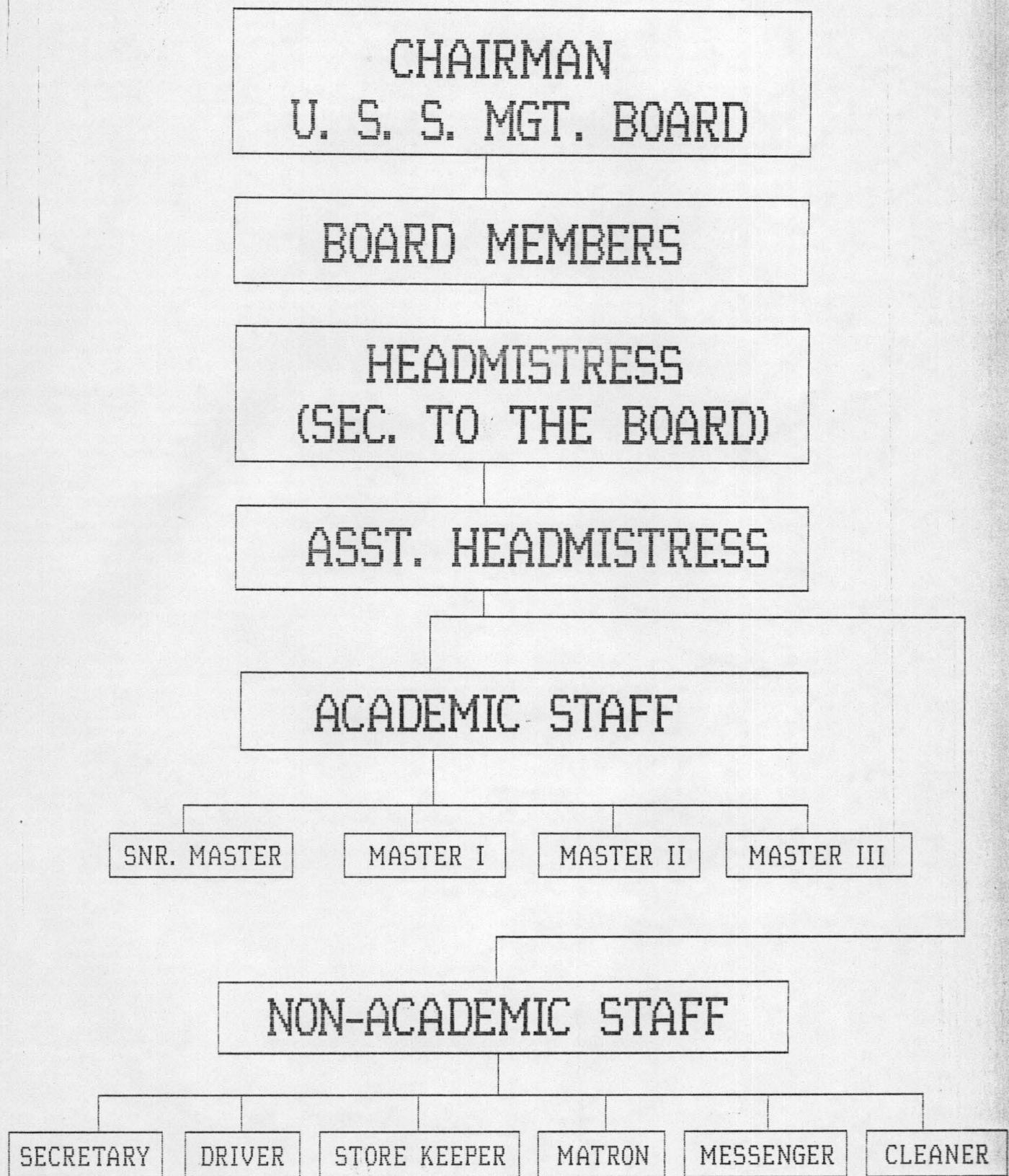
FIG. 1   ORGANISATIONAL STRUCTURE
OF UNIVERSITY STAFF SCHOOL

CHAPTER TWO

2:1   DESIGN DEVELOPMENT AND ANALYSIS

PROBLEM DEFINITION

This project which is titled "Computer-assisted record Management System" for Federal University of Technology, Minna Staff School, is formulated with a view to solving the problem of developing a system that would ease the storage and retrieval of pupils and staff records.

The main objectives of this project are:

(a)   To improve on the existing manual processing of records

(b)   To investigate, identify and implement other alternative cost effective and more efficient technique of record management.

(c)   To reduce unnecessary duplication of records.

(d)   To reduce management cost.

(e)   To minimize the loss of information through the manual processing.

(f)   To enhance the security and privacy of data and information.

(g)   To Demonstrate the application of DBASE III as a useful tool in management of information system.

2:2 OVERVIEW OF THE EXISTING SYSTEM

The Federal University of Technology Staff School, uses the manual method of record processing. This method is very cumbersome and time consuming. With this method, all information concerning each pupils and staff are stored in different manual files.

Information of all the pupils in the same class are kept in the same manual file. In this manual files only the academic records of the pupils are being kept. The personal details of each pupil can only be obtained from his/her application form, which are kept along with his/her admission form in the store. The manual file which holds this details are arranged according to the year and class which the pupil is admitted into.

For the staff records, individual staff employed by the school has its own personal manual file. The manual file consist of all personal details on the staff.

This method of record processing becomes very difficult to manage, especially when there are too many files to keep. Also this method does not provide facility for easy insertion and deletion of data items of a given record.

From the foregoing it is evident that the manual method certainly has many inherent defects and therefore deserves a replacement by an improved method.

2:3 RESEARCH METHODOLOGY

With the identification of the problems associated with the manual system, it was necessary to conduct a study into the posibility of designing an improved system that will not only meet the requirement of the school, but meet the operational targets required of it. This study was conducted by interviewing key officers of the staff school, most especially the Headmistress. Detail explanation on how the School's records are been operated was obtained.

The existing records were thoroughly examined with a view to identifying the way and manner they are being processed. The outcome of this research method provided a basis for the suggestion and designing a computer based system that can suitably replace the manual system.

2:4 BENEFITS AND PURPOSE OF THE PROPOSED SYSTEM

The main purpose of this system is to eradicate, to a large extent, most of the problems and inefficiencies associated with the manual system. On implementation, this system is certain to take care of most of the lapses created by the manual system. Among other things, it would cater for the following:

(a) Data redundancy which occurs from repeated records or from records that are no longer in use will be eradicated.

(b) The security of records will be assured.

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(c) Accuracy of imformation processing is satisfied by the computer.

(d) Complex operations are been handled with ease and minimum effort.

PROBLEM IDENTIFICATION

RESEARCH METHODOLOGY

FUNCTION DESIGN

TECHNICAL DESIGN

IMPLEMENTATION

EVALUATION

MAINTENANCE & ENHANCEMENT
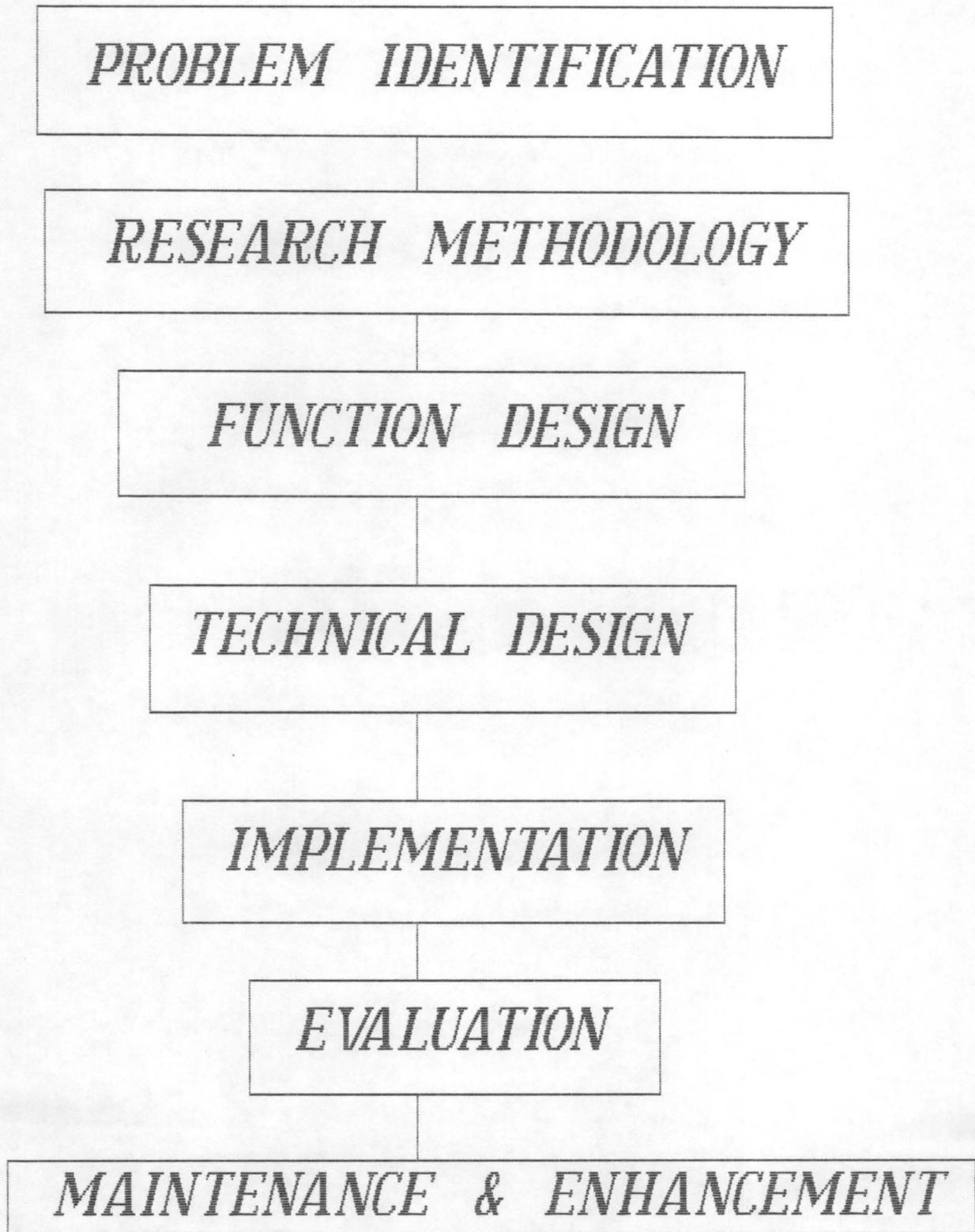
FIG. 2 STAGES ADOPTED FOR THE SYSTEM DEVELOPMENT

Summarily DBASE III+ has very powerful and useful features that are very commensurable with record management. Some of this features are:

i.   Information storage and retrieval; DBase III+ handles this aspect in a more efficient manner than most other Data Base Management System (DBMS) such as Cobol and Q&A.

ii.   DBase III+ is user friendly in all ways; it is very easy to learn and understand.

iii.   Easy Debbugging facilities are enhanced by DBase III+.

iv.   DBase III+ allows for customization of reports.

CHAPTER THREE

3:0   COMPONENTS OF THE PROPOSED SYSTEM

The proposed system is the computerization of the records of university staff school. From the feasibility study conducted, the Federal University of Technology Staff School was found to be operating the manual system of processing records. This is made up of the staff records and the pupils records.

The proposed system is designed to improve upon the current method being used. It comprises three sub-systems, namely: pupils personal records, pupils academic records and staff records.

3:1   STAFF RECORDS

The staff record sub-system entails all personal information about every staff of the school. Personal information such as Age, Sex, Qualification, Rank, Employment-status, Nationality, Date of Appointment, State of Origin and Marital Status are stored. These records are classified into two categories namely: the teaching staff record and the non-teaching staff record. Both categories are basically of the same format. All the records of teaching and non-teaching staff are stored in a single file to ease retrieval and up-dating of records. This file is called STAFFREC.DBF. Reports of either of the two categories could be generated to the screen or printer as desired.

3:2   PUPILS PERSONAL RECORDS

The pupils personal record is made up of all the personal details on each pupil. Such details includes Age, Registration Number, Name, State of Origin, Class, Nationality and Sex. All these details are maintained in a file called PUPILS.DBF. In essence this implies that the collection of all the personal record on each and every pupil in the school is contained in one single file.

To access the information of any pupil in the school, the registration number and the class code of the pupil is supplied to the system. Information of all the pupils in a class can be displayed by supplying the class-code to the system, this way the number of pupils in a class can be known if desired.

3:3   PUPILS ACADEMIC RECORDS

The pupils academic record contains the academic performance of each pupil in the school. Among the details maintained by this component are continious assessment, homeworks, test, exam-score, grade, position in class and percentage obtained by each pupil.

The academic record sub-system is designed in a way that a file is created for every subject offered in the school. In each subject file, the registration number, class and performance of all the pupils offering the particular subject are stored. This sub-system is so flexible that file of any new subject can easily be created.

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All information stored in each subject file are appended to a general file. The general file serves as an input file to generate report output to the screen or printer whenever desired.
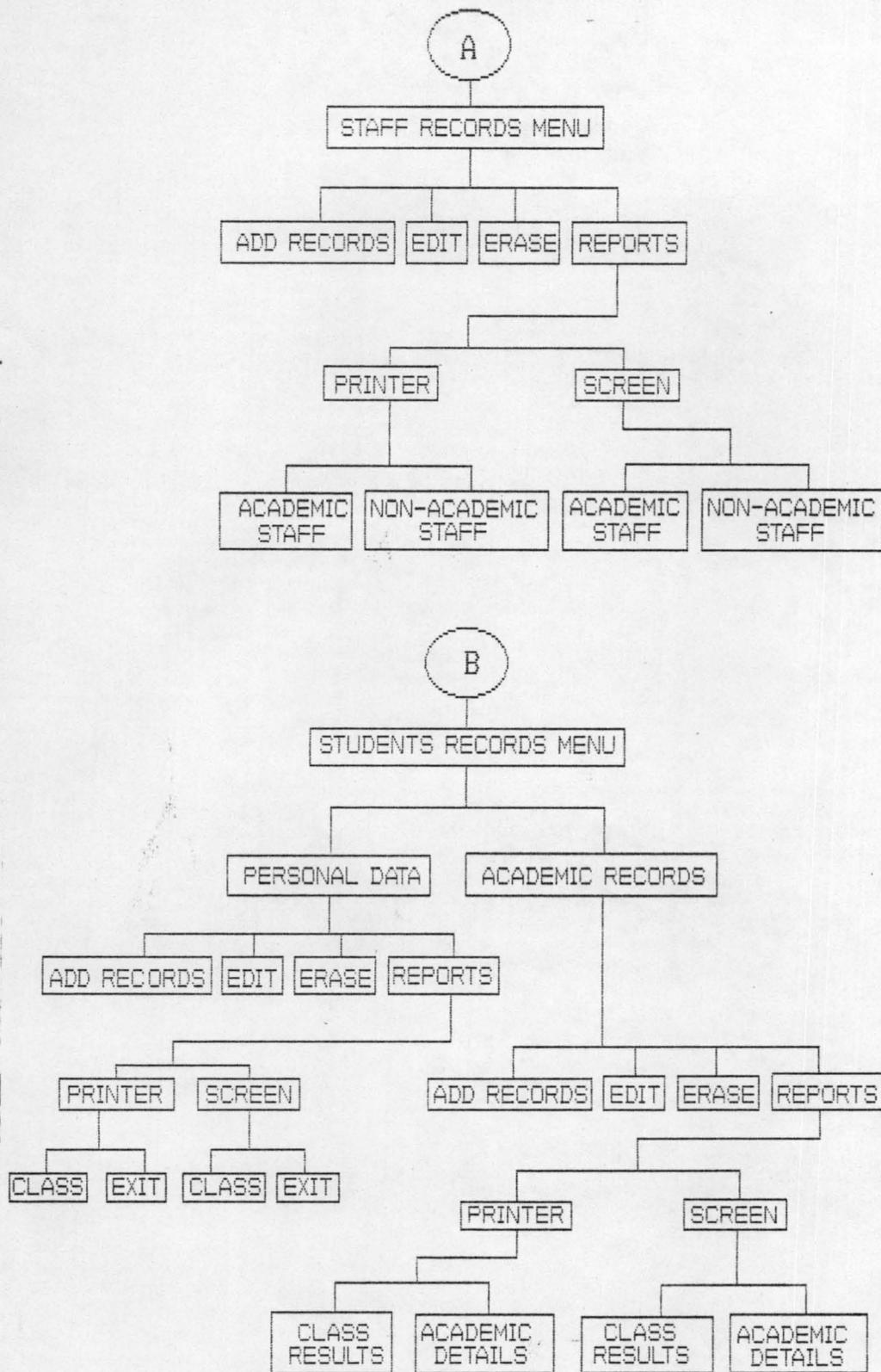
FIG. 3   MODULAR STRUCTURE FOR
THE PROPOSED SYSTEM.

CHAPTER FOUR

4:0   **SYSTEMS DESIGN**

The system design stage is based upon the findings obtained from the feasibility study conducted. In designing the new system, several criteria were considered, in addition to meeting the objectives of the design. Major consideration was given to the requirements of the end user. Apart from considering the user's requirements detailed specification such as flexibility, user friendliness, ease of maintainance and efficiency of the system were borne in mind.

4:1 LOGICAL DESIGN OF THE PROPOSED SYSTEM

The proposed system is designed logically to comprise of:

       --   Input specification

       --   Output specification

       --   Processing specification.

4:2 INPUT SPECIFICATION

The input specification can be described as a layout designed for data input in a machine oriented format. In all, there are three input files used by the system; they are:

(a)   STAFFREC.DBF

(b)   PUPILS.DBF

(c) SUBJECT.DBF.

The detailed specification of STAFF.REC.DBF which contains the staff records are as follows:

FIELD DESCRIPTION	FIELDNAME	FIELD TYPE	FIELDWITH
STAFF NUMBER	STAFF-NO	NUMERIC	5
STAFF SURNAME	SURNAME	CHARACTER	10
STAFF INITIALS	INITIALS	CHARACTER	6
STAFF RANK	RANK	CHARACTER	15
STAFF BIRTHDATE	BIRTH-DATE	DATE	8
STAFF SEX	SEX	CHARACTER	1
STAFF SALARY SCALE	SAL-SCALE	NUMERIC	2
STAFF APPOINT. DATE	APPT-DATE	DATE	8
STAFF QUALIFICATION	QUALIFN	CHARACTER	10
STAFF MARITAL STATUS	M-STATUS	CHARACTER	10
STAFF STATE OF ORIG.	STATE	CHARACTER	10
STAFF NATIONALITY	NATIONALITY	CHARACTER	10
STAFF EMPL. STATUS	EMP-STATUS	CHARACTER	1

The detailed specification of PUPILS.DBF is as follows:

FIELD NAME	FIELD TYPE	FIELD WIDTH
ADMIN-NO	NUMERIC	5
SURNAME	CHARACTER	10
INITIALS	CHARACTER	6
CLASS-SECT	CHARACTER	2
BIRTH-DATE	DATE	8

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SEX	CHARACTER	1
ATTENDANCE	NUMERIC	4
GRAND TOTAL	NUMERIC	7
PREV-POS	NUMERIC	2
PRS-POS	NUMERIC	2
YEAR	CHARACTER	7
STATE	CHARACTER	1
NATIONALTY	CHARACTER	10

The detailed specifiction of SUBJECT.DBF which contains the pupils academic records is as follows:

FIELD NAME	FIELD TYPE	FIELD WIDTH
ADM-NO	NUMERIC	5
CLASS-SEC	CHARACTER	2
CONT-ASSMT	NUMERIC	5.2
EXAMS	NUMERIC	5.2
TOTAL	NUMERIC	5.2
GRADE	CHARACTER	1
POSITN	NUMERIC	2

Every subject offered is treated as a file by this design, this is to facilitate the overall achievement of a relational database for the system.

The output specification describes the format in which information will be displayed or reported for useful decision making.

The structure of staff record output is as shown below:

FIELD NAME	FIELD TYPE	FIELD WIDTH
STAFF-NO	NUMERIC	5
NAME	CHARACTER	10
RANK	CHARACTER	15
SEX	CHARACTER	1
BIRTH-DATE	DATE	8
APPT-DATE	DATE	8
QUAL	CHARACTER	10
STATE	CHARACTER	10
NATIONALITY	CHARACTER	10

A screen display of the staff record output layout is as shown below:

STAFF-NO NAME RANK SEX BIRTH-DATE APPT-DATE QUALF STATE

The structure of pupils record output is as shown below:

FIELD NAME	FIELD TYPE	FIELD WIDTH
NAME	CHARACTER	10
SEX	CHARACTER	1
BIRTH-DATE	DATE	8
STATE	CHARACTER	10
NATIONALITY	CHARACTER	10
PREV-POS	NUMERIC	2
PRES-POS	NUMERIC	2

The screen display of the pupils output layout is as shown below:

NAME SEX BIRTH-DATE STATE NATIONALITY PREV-POS PRES-POS

The structure of the output specification of the SUBJECT record file is as shown below:

FIELD NAME	FIELD TYPE	FIELD WIDTH
CLASS SECT	NUMERIC	5
CONT-ASSMT	NUMERIC	2
EXAMS	NUMERIC	5.2
TOTAL	NUMERIC	5.2
GRADE	CHARACTER	1
POSTN	NUMERIC	2

The system was so designed in a way that various media could be used for the output report. For online viewing of the records, the monitor is used to display reports. While hard copies of the reports can be generated by the use of printers attached to the computer.

4:4   PROCESSING SPECIFICATION

The processing specification is a description of the capturing of information into the three dbase file maintained by the system. The following flow diagrams pictorially presents the processing specification of the designed system:
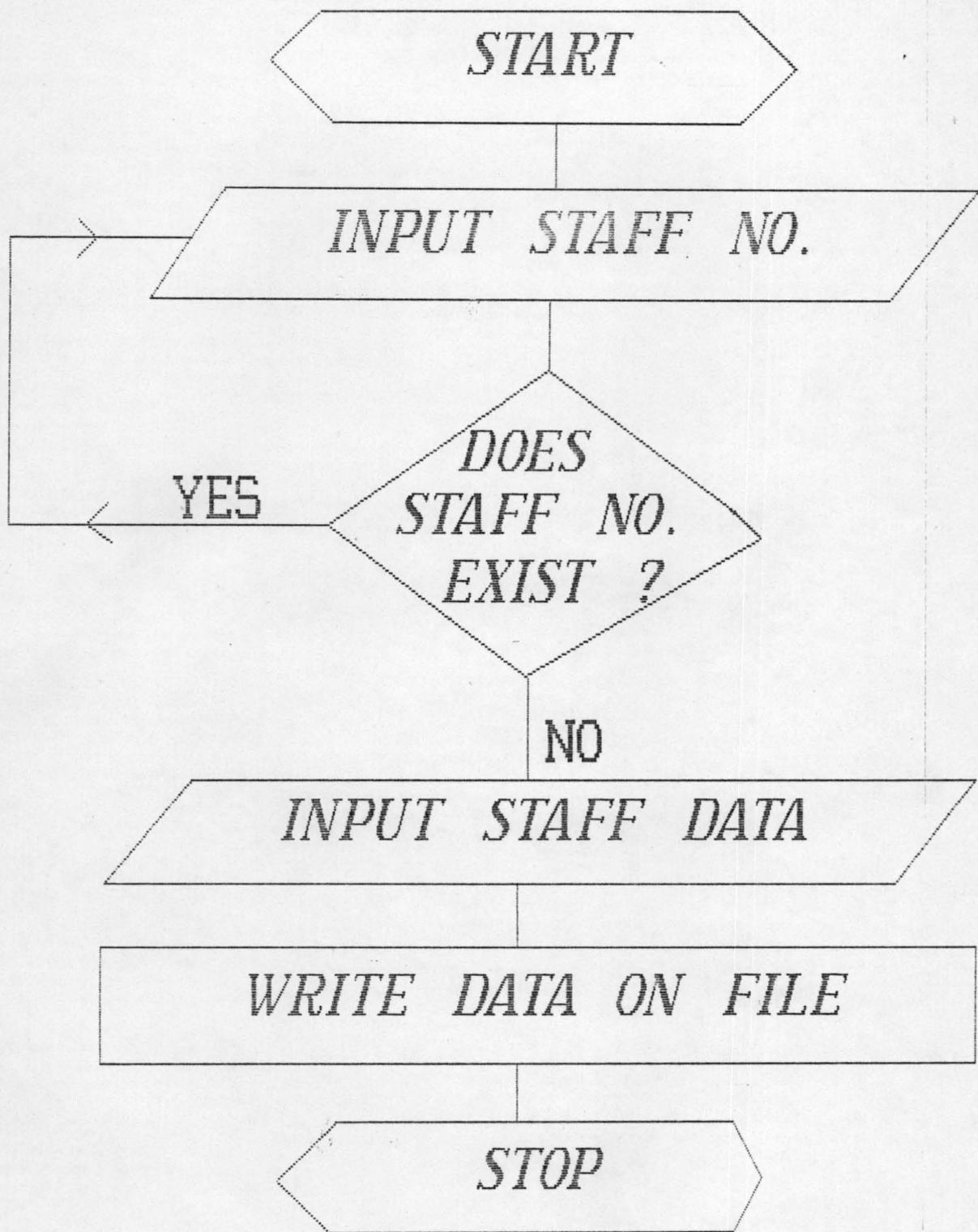
FIG. 4 FLOW DIAGRAM FOR STAFF RECORDS

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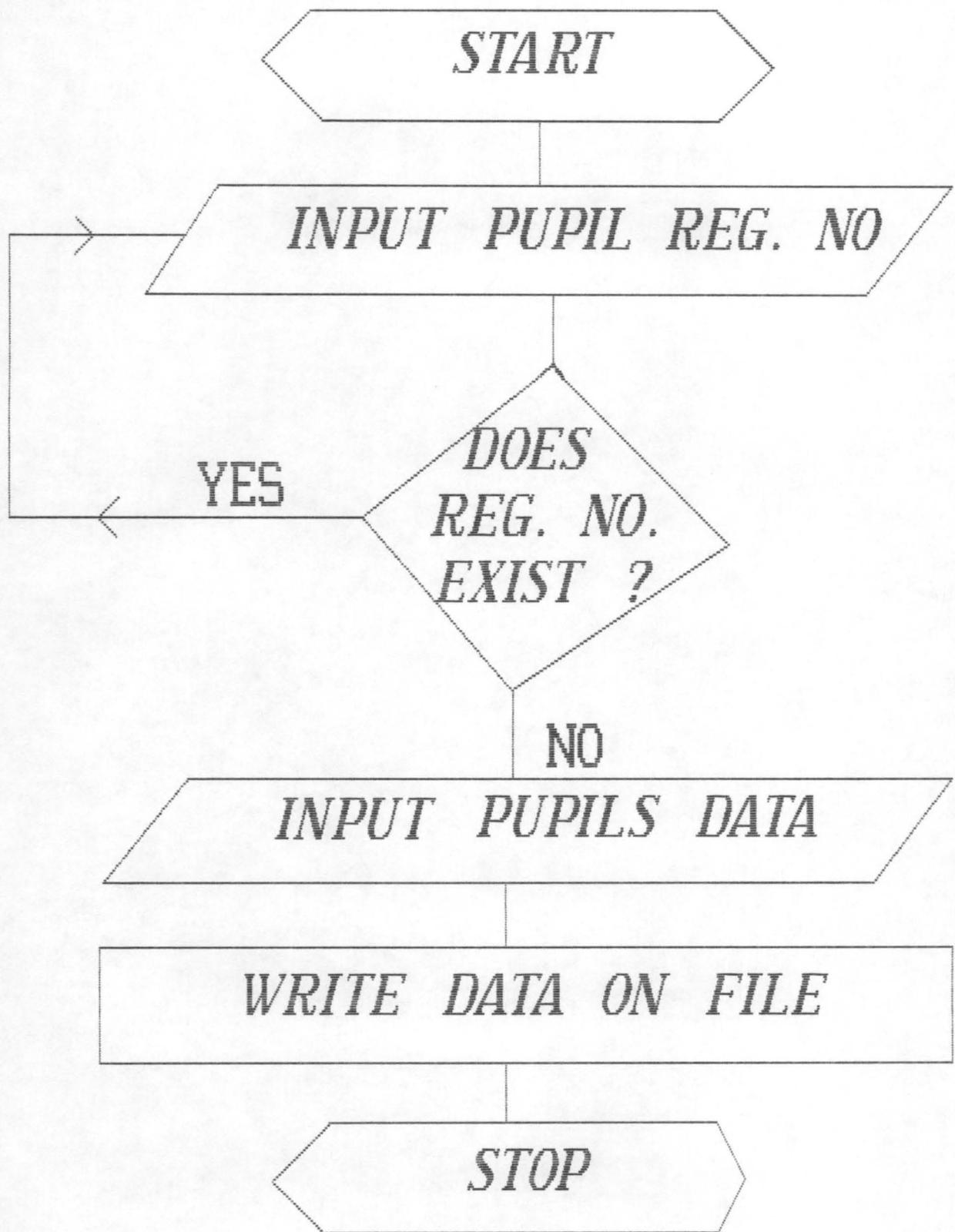
FIG. 5   FLOW DIAGRAM FOR
PUPILS PERSONAL RECORDS
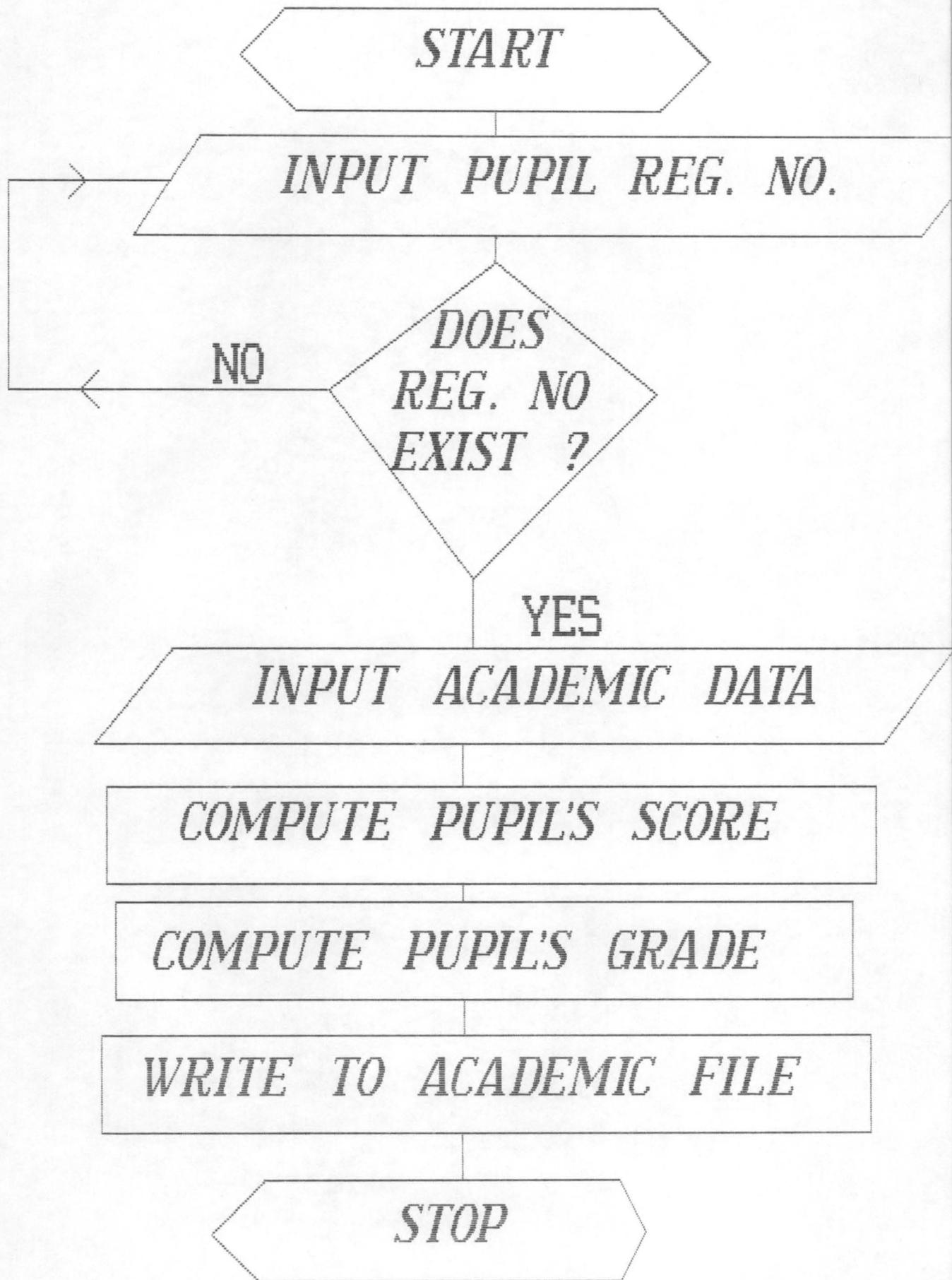
FIG. 6   FLOW DIAGRAM FOR PUPILS
ACADEMIC RECORDS.

CHAPTER FIVE

SYSTEMS OPERATIONS

5.0   SYSTEMS REQUIREMENTS

The efficiency of operation of the proposed system is enhanced by an adoption of appropriate system configuration. For ease and effective utilization of the design system, the following configuration (hardware, software and peripherals) are recommended.

5:1   HARDWARE REQUIREMENTS

The Hardware of a computer refers to the various mechanical, magnetic, electrical and electronic parts of the computer.

The more powerful the features of the hardward components, the better the utilization of the designed system.   For the hardware requirements, a computer with the following specifications will be ideal:

IBM AT   or   COMPATIBLE (Comprising)

- .   80 386 INTEL PROCESSOR
- .   20   MHZ OF SPEED
- .   640 KB RAM
- .   40 MB HARD DISK
- .   1.2 MB (5¼") FLOPPY DISK DRIVE
- .   1.44 MB (3 ½") FLOPPY DISK DRIVE
- .   VGA ADAPTOR
- .   14" VGA MONITOR
- .   ENGLISH KEYBOARD (101 KEYS)

5:2   **SOFTWARE REQUIREMENTS**

The software of a computer system is a collection of programs that are responsible for the controlling of the activities of the computer. The software requirements that are essential for the operation of the proposed system are as follows:

--   DISK OPERATION SYSTEM: MS DOS 3.3 or HIGHER VERSIONS

--   DATABASE MANAGEMENT SYSTEM PACKAGE (DBMS): DBASE 3+

5:3   **PERIPHERAL EQUIPMENT REQUIREMENTS**

(i).   **PRINTER**

A printer is essential in obtaining hard copies of reports. In view of this, the printing mechanism mentioned below will satisfy the printing requirements:

.   A FAST DOT MATRIX PRINTER: EPSON LQ 1050 OR EQUIVALENT.

(ii.   **UNINTERUPTED POWER SUPPLY (UPS)**

In order to avoid unnecessary interruption of power supply, which may eventually lead to loss of information. An uninterrupted power supply system (UPS) of about 500 VA will suit the purpose of this system.

Accusition of Backup equipments is recommended to this effect. Two numbers of equipment indicated in 5.1, 5.2 and 5.3 are recommended.

5:4   COST ANALYSIS OF THE SYSTEM

The estimated cost for implementing the designed system is as shown below:

(1) HARDWARE (with the following components)   N50,000.00

        (a)   386 MICRO PROCESSOR (VGA)

        (b)   640 KB RAM

        (c)   40 MB HARD DISK

        (d)   1.2 MB 5¼ " FLOPPY DISK DRIVE

        (e)   1.44 MB 3½" FLOPPY DISK DRIVE

(2)   IMPLEMENTATION (Installation)   N7,000.00

(3)   MAINTENANCE   N5,000.00

(4)   DOT MATRIX PRINTER   N22,000.00

(5)   STATIONERIES   N3,000.00

(6)   UNINTERRUPTED POWER SUPPLY (UPS)   N18,000.00

5:5   NARRATIVE PROCEDURE FOR USING THE SYSTEM

The system has been designed in such a way that not much knowledge of computer is required of the user. The following presents an instructional steps for operating the system:

        At the C> (Prompt)

        Type C> USSRS

This automatically loads the Computer Assisted record Management package.   Then press any key to continue, Immediately the screen display a message: "ENTER PASSWORD" (   )

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The user is at this point required to enter the password:

If an incorrect Password is entered

An error message "attempt by illegal user aborted"

is displayed on the screen.

However if the password is correctly entered

The user will be allowed entrance into the working area

by a screen display showing the main menu of the system.

The main menu of the system is as shown on screen 1 below.

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╔══════════════════════════════════════════════════════════════════════╗
║                                                                        ║
║        U N I V E R S I T Y   S T A F F   S C H O O L                   ║
║                                                                        ║
║        COMPUTER-ASSISTED RECORDS MANAGEMENT SYSTEM                     ║
║                                                                        ║
║                                                   DATE : 02/10/92      ║
║  ════════════════════════════════════════════════════════════════════ ║
║   STAFF    PUPILS    ACADEMICS   COMPUTATIONS   ON-SCREEN  REPORTS  EXIT║
║  ────────┬─────────────────────────────────────────────────────────── ║
║  ┌───────┴──────┐                                                      ║
║  │ NEW RECORDS  │                                                      ║
║  │ MODIFY       │                                                      ║
║  │ VEIW/DELETE  │                                                      ║
║  │ LIST         │                                                      ║
║  │ EXIT         │                                                      ║
║  └──────────────┘                                                      ║
║                                                                        ║
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║  ──────────────────────────────────────────────────────────────────── ║
║ OR  AND PRESS ┘                         ‖                              ║
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ADD NEW STAFF RECORDS

The main menu as shown is comprised of:

(i)   STAFF MENU

(ii) PUPILS MENU

(iii) ACADEMIC MENU

(iv) COMPUTATIONS MENU

(v)   ONSCREEN MENU

(vi) REPORT MENU

(vii) EXIT MENU.

STAFF MENU

When staff menu is choosen, the following sub-menus are displayed under it:

NEW RECORDS; MODIFY; VIEW/DELETE; LIST; EXIT

(1) NEW RECORDS: This option allows new entry of staff records

(2) MODITY: Already existing information of staff can be ammended and updated accordingly using this option.

(3) VIEW/DELETE: The view, enables the user to see the components of each staff record already existing, while the Delete allows information to be deleted.

(4) LIST: This option allows for the listing of all the staff records in the database file.

(5) EXIT: The exit option takes the user back to the main menu.

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PUPILS MENU

The pupils menu is comprised of the following options:
NEW PUPILS; MODIFY; VIEW/DELETE; LIST AND EXIT.
These options perform similar functions as the option
of the staff menu, except that they apply to the pupils.

ACADEMIC MENU

The ACADEMIC menu comprises of:
NEW-CLASS; MODIFY CLASS; NEW SUBJECT; ADD RESULTS MODIFY
RESULTS and EXIT.

(1)   NEW CLASS: New class codes or sections are stored by
                     means of this option.

(2)   MODIFY CLASS: This option allows the user to modify the
                     class section

(3)   NEW SUBJECTS: New subject names are allowed to be
                     appended to the record on chosing this
                     option.

(4)   ADD RESULTS: The pupils Continious Assessment and Exam
                     Scores are entered into the SUBJECT FILE
                     with the ADD RESULT option.

(5)   EXIT: This option takes the user back to the
                     main menu.

COMPUTATION MENU

This menu deals with all the necessary computations regarding the pupils performance in all the subjects offered. The sub-menu under the menu are:

ONE CLASS/SUBJECT; ALL CLASSES/SUBJECT; ALL CLASSES AND SUBJECT EXIT.

(1) ONE CLASS/SUBJECT: this option allows the user to compute the results of a particular class for a particular subject.

(2) ALL CLASSES/SUBJECT: This option allows computation for a particular subject across all the classes available in the school.

(3) ALL CLASSES AND SUBJECT: With this option results for all subjects of all classes are computed.

ONSCREEN MENU

The ONSCREEN MENU allows all records concerning the staff or pupils to be listed on the screen for on-line viewing. This options that can be selected on the onscreen menu are:

STAFF DATA; PUPILS DATA; CLASSES; SUBJECT; CLASS RESULTS; SUBJECT RESULTS; INDIVIDUAL RESULT and EXIT.

With this menu the staff record, pupils record and their relative fields could be listed on the screen for on-line viewing or report generation.

REPORTS MENU

The REPORT MENU allows the user to generate a comprehensive report on all the options of the onscreen menu. This report could be in the form of printed reports or visual reports.

EXIT MENU

This option takes the user to the operating system dot prompt.

CHAPTER SIX

6:1   CONCLUSION

Virtually all aspects of human endeavour has been taken over by computer. There is no limitation to the work a computer can perform. In this vein, this system has been designed to go in line with this trend.

The design and development of this project was based on information gathered from the University Staff Primary School. Also the system design will effectively take care of the inadequacies and inefficiencies of the manual method of processing.

The system has been tested and found to function effectively according to the requirements expected of it; and can therefore be fully implemented if so desired.

6:2   RECOMMENDATION

There is no doubt that the implementation of this system will offer unique advantages over the present manual system of record processing in the University Staff School.

However, in this research I wish to recommend, that a most cost effective implementation approach would be that of retraining an existing staff to master the overall operations of the computer base system. In this way the cost of recruiting a new staff would have been averted.

A further recommendation is that, towards achieving an effective security, control of the computer base system, the operation of the system should be based under the direct supervision of the Headmistress.

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* * * * * * * * * * * * * * * * * * * * *
*   COMPUTER-ASSISTED RECORDS MGT SYS   *
*   UNIVERSITY STAFF SCHOOL             *
*   DESIGNED AND DEVELOPED BY :-        *
*   ADENIJI BOLAWA B. (85/350)          *
*   DEPT. OF MATHS/COMPUTER SCIENCE     *
*   DATE :- MAY 1992                    *
* * * * * * * * * * * * * * * * * * * * *
CLEAR ALL
SET BELL OFF
SET TALK OFF
SET ECHO OFF
SET STAT OFF
SET SCOR OFF
SET INTE OFF
SET DELI ON
SET WRAP ON
SET PROC TO USSRS
SET DATE BRIT
SET DELI TO '<>'
DO COVERPAGE
DO PWORD
SET COLOR TO GR+/GB,RB+/*,B
SET MESS TO 23 CENTRE
DO MENUM
SET PROC TO
*****************************
PROC PWORD
DO WHILE .T.
 CLEAR
 @4,15 TO 12,55 DOUBLE
 @6,23 SAY "SYSTEM SECURITY CHECK"
 @7,23 TO 7,43
 PW=SPACE(4)
 MPW=SPACE(4)              && password var
 PW='BOLA'                 && the real password
 MSPAC4=SPACE(4)
 DO WHILE MPW = MSPAC4
  @10,23 SAY "Enter password : "
  @10,41 GET MPW PICT '@!'
  SET COLOR TO N/N,R,R
  READ
 ENDDO
  SET COLOR TO
  IF MPW <> 'BOLA'
    ? CHR(7)
    I=SPACE(1)
    @14,15 SAY "Invalid password - Try again ? (Y/N)";
    GET I PICT '!'
    READ
    IF I = 'N'
     SET COLOR TO
     CLEAR
     QUIT
    ELSE
```

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        LOOP
      ENDIF
    ELSE
      EXIT
    ENDIF
ENDDO
RETURN
****************************
PROC COVERPAGE
SET COLOR TO R+G,N,G
CLEAR
@0,1 TO 23,78 DOUBLE
@1,20 SAY "FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA"
@5,30 SAY "UNIVERSITY STAFF SCHOOL"
@8,18 SAY "COMPUTER-ASSISTED RECORDS MANAGEMENT SYSTEM"
@11,30 SAY "DESIGNED AND DEVELOPED"
@14,40 SAY "BY"
@18,20 SAY "Student name :-"
SET COLOR TO /W*
@18,37 SAY "ADENIJI BOLAWA B.  (85/350)"
SET COLOR TO R+G,N,G
@19,20 SAY "S c h o o l  :-  SCIENCE & SCIENCE EDUCATION"
@20,20 SAY "Department   :-  MATHEMATICS/COMPUTER SCIENCE"
@22,25 SAY "Strike any key when ready..."
 SET CONSOLE OFF
 WAIT
 SET CONSOLE ON
 SET COLO TO
 RETURN
****************
PROC MENUM
****************
CLEAR ALL
CHOICE=1
DO WHILE .T.
CLEAR
SET INTE ON
@0,1 TO 22,79 DOUBLE
@1,14 SAY "U N I V E R S I T Y   S T A F F   S C H O O L"
@3,15 SAY "COMPUTER-ASSISTED RECORDS MANAGEMENT SYSTEM"
@5,62 SAY "DATE :"
@5,69 SAY DATE()
@6,2 TO 6,78 DOUBLE
@8,2 TO 8,78 DOUBL
@20,2 TO 20,78
@21,20 SAY "HIGHLIGHT OPTION WITH "+CHR(26)+" OR "+CHR(27)+;
" AND PRESS "+CHR(17)+CHR(217)
@7,04 PROMPT "STAFF" MESSAGE "STAFF RECORDS SYSTEM MENU"
@7,13 PROMPT "PUPILS" MESSAGE "PUPILS RECORDS SYSTEM MENU"
@7,23 PROMPT "ACADEMICS";
 MESSAGE "PUPILS ACADEMIC RECORDS SYSTEM MENU"
@7,35 PROMPT "COMPUTATIONS";
 MESSAGE "ACADEMIC RECORDS COMPUTATION MENU"
@7,50 PROMPT "ON-SCREEN" MESSAGE "ON-SCREEN LISTING MENU"
@7,61 PROMPT "REPORTS" MESSAGE "REPORTS PRINTING MENU"
```

```
@7,72 PROMPT "EXIT" MESSAGE "EXIT SYSTEM..."
MENU TO CHOICE
@23,1 SAY SPACE(77)
@21,20 SAY "HIGHLIGHT OPTION WITH "+CHR(24)+" OR "+CHR(25)+;
" AND PRESS "+CHR(17)+CHR(217)
 DO CASE
    CASE CHOICE = 1
        DO MENU1
    CASE CHOICE = 2
        DO MENU2
    CASE CHOICE = 3
        DO MENU3
    CASE CHOICE = 4
        DO MENU4
    CASE CHOICE = 5
        DO MENU5
    CASE CHOICE = 6
        DO MENU6
    CASE CHOICE = 7
        @7,72 SAY "EXIT"
        YN=1
        @9,70 TO 12,76
        @08,73 SAY CHR(209)
        @09,73 SAY CHR(193)
        @10,72 PROMPT "YES" MESSAGE "PRESS ENTER KEY TO RETURN TO DOS"
        @11,72 PROMPT "NO"  MESSAGE "PRESS ENTER KEY TO RESUME"
        MENU TO YN
        IF YN=1
            CLEAR ALL
            CLEAR
            QUIT
        ENDIF
        @10,66 SAY SPACE(12)
  ENDCASE
ENDDO
RETURN
****************
PROC MENU1
****************
MENU1=1
DO WHILE .T.
DO MENUSAY
@9,2 TO 15,15
@08,6 SAY CHR(209)
@09,6 SAY CHR(193)
@10,3 PROMPT "NEW RECORDS" MESSAGE "ADD NEW STAFF RECORDS"
@11,3 PROMPT "MODIFY" MESSAGE "MODIFY STAFF RECORD"
@12,3 PROMPT "VEIW/DELETE" MESSAGE "VIEW/DELETE STAFF RECORD"
@13,3 PROMPT "LIST" MESSAGE "LIST STAFF RECORDS"
@14,3 PROMPT "EXIT" MESSAGE "GO TO MAIN MENU"
MENU TO MENU1
SET INTE OFF
 DO CASE
    CASE MENU1 = 1
        DO STAFF
```

```
        CASE MENU1 = 2
            DO STAFFM
        CASE MENU1 = 3
            DO STAFFV
        CASE MENU1 = 4
            DO STAFFL
        CASE MENU1 = 5
            EXIT
    ENDCASE
ENDDO
@8,6 SAY CHR(205)
@9,2 CLEAR TO 15,15
RETURN
****************
PROC MENU2
****************
MENU2=1
DO WHILE .T.
DO MENUSAY
SET INTE ON
@9,11 TO 15,25
@08,16 SAY CHR(209)
@09,16 SAY CHR(193)
@10,13 PROMPT "NEW PUPILS" MESSAGE "ADD NEW PUPILS RECORDS"
@11,13 PROMPT "MODIFY" MESSAGE "MODIFY PUPILS RECORD"
@12,13 PROMPT "VIEW/DELETE" MESSAGE "VIEW/DELETE PUPILS RECORD"
@13,13 PROMPT "LIST" MESSAGE "LIST PUPILS RECORDS"
@14,13 PROMPT "EXIT" MESSAGE "GO TO MAIN MENU"
MENU TO MENU2
SET INTE OFF
  DO CASE
    CASE MENU2 =  1
        DO PUPILS
    CASE MENU2 =  2
        DO PUPILSM
    CASE MENU2 =  3
        DO PUPILSV
    CASE MENU2 =  4
        DO PUPILSL
    CASE MENU2 =  5
        EXIT
    ENDCASE
ENDDO
@8,16 SAY CHR(205)
@9,11 CLEAR TO 15,25
RETURN
****************
PROC MENU3
****************
MENU3=1
DO WHILE .T.
DO MENUSAY
SET INTE ON
@9,21 TO 16,38
@08,26 SAY CHR(209)
```

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```
@09,26 SAY CHR(193)
@10,23 PROMPT "NEW CLASS" MESSAGE "ADD NEW CLASS"
@11,23 PROMPT "MODIFY CLASS" MESSAGE "MODIFY CLASSES NAME"
@12,23 PROMPT "NEW SUBJECT" MESSAGE "ADD NEW SUBJECT"
@13,23 PROMPT "ADD RESULTS" MESSAGE "ADD PUPILS C.A & EXAMINATION DATA"
@14,23 PROMPT "MODIFY RESULTS" MESSAGE "MODIFY PUPILS C.A & EXAMS DATA"
@15,23 PROMPT "EXIT" MESSAGE "GO TO MAIN MENU"
MENU TO MENU3
SET INTE OFF
 DO CASE
    CASE MENU3 = 1
        DO NEWCLASS
    CASE MENU3 = 2
        DO CLASSM
    CASE MENU3 = 3
        DO NEWSUB
    CASE MENU3 = 4
        DO SUBJECT
    CASE MENU3 = 5
        DO SUBJECTM
    CASE MENU3 = 6
        EXIT
  ENDCASE
ENDDO
@8,26 SAY CHR(205)
@9,21 CLEAR TO 16,38
RETURN
****************
PROC MENU4
****************
MENU4=1
DO WHILE .T.
DO MENUSAY
SET INTE ON
@9,33 TO 14,58
@08,40 SAY CHR(209)
@09,40 SAY CHR(193)
@10,35 PROMPT "ONE CLASS/SUBJECT";
 MESSAGE "COMPUTE RESULTS FOR A CLASS ON A SUBJECT"
@11,35 PROMPT "ALL CLASSES/SUBJECT";
 MESSAGE "COMPUTE RESULTS FOR ALL CLASS SECTIONS ON A SUBJECT"
@12,35 PROMPT "ALL CLASSES & SUBJECTS";
 MESSAGE "COMPUTE RESULTS FOR ALL CLASS SECTIONS ON ALL SUBJECTS."
@13,35 PROMPT "EXIT" MESSAGE "GO TO MAIN MENU"
MENU TO MENU4
SET INTE OFF
 DO CASE
    CASE MENU4 = 1
        DO ONECOMP
    CASE MENU4 = 2
        DO SUBCOMP
    CASE MENU4 = 3
        DO CLASCOMP
    CASE MENU4 = 4
        EXIT
```

```
DO MENUSAY
SET INTE ON
@9,54 TO 19,77
@08,64 SAY CHR(209)
@09,64 SAY CHR(193)
@10,56 PROMPT "STAFF DATA" MESSAGE "PRINT STAFF PERSONAL DATA"
@11,56 PROMPT "PUPILS DATA" MESSAGE "PRINT PUPILS PERSONAL DATA"
@12,56 PROMPT "CLASSES NAME" MESSAGE "PRINT CLASSES NAME"
@13,56 PROMPT "SUBJECTS NAME" MESSAGE "PRINT SUBJECTS NAME"
@14,56 PROMPT "A CLASS/SUBJECT";
 MESSAGE "PRINT SUBJECT RESULT FOR A CLASS"
@15,56 PROMPT "CLASS EXAM RESULTS";
 MESSAGE "PRINT EXAM RESULTS FOR A CLASS"
@16,56 PROMPT "SUBJECT/ALL CLASSES";
 MESSAGE "PRINT SUBJECT RESULT FOR ALL CLASS SECTIONS"
@17,56 PROMPT "INDIVIDUAL RESULTS";
 MESSAGE "PRINT EXAM RESULTS FOR EACH PUPIL IN A CLASS"
@18,56 PROMPT "EXIT" MESSAGE "GO TO MAIN MENU"
MENU TO MENU6
SET INTE OFF
 DO CASE
    CASE MENU6 = 1
       DO STAFFR
    CASE MENU6 = 2
       DO PUPILSR
    CASE MENU6 = 3
       DO CLASSESP
    CASE MENU6 = 4
       DO SUBJECTP
    CASE MENU6 = 5
       DO ONEMERTP
    CASE MENU6 = 6
       DO SUBMERTP
    CASE MENU6 = 7
       DO SUBRESPR
    CASE MENU6 = 8
       DO PUPILRSP
    CASE MENU6 = 9
       EXIT
  ENDCASE
ENDDO
@8,64 SAY CHR(205)
@9,54 CLEAR TO 19,77
RETURN
****************
PROC MENUSAY
****************
CLEAR
@0,1 TO 22,79 DOUBLE
@1,14 SAY "U N I V E R S I T Y   S T A F F   S C H O O L"
@3,15 SAY "COMPUTER-ASSISTED RECORDS MANAGEMENT SYSTEM"
@23,1 SAY SPACE(77)
@21,20 SAY "HIGHLIGHT OPTION WITH "+CHR(24)+" OR "+CHR(25)+;
" AND PRESS "+CHR(17)+CHR(217)
@5,62 SAY "DATE :"
```

```
      ENDCASE
ENDDO
@8,40 SAY CHR(205)
@9,33 CLEAR TO 14,58
RETURN
****************
PROC MENU5
****************
MENU5=1
DO WHILE .T.
DO MENUSAY
SET INTE ON
@9,48 TO 18,70
@08,53 SAY CHR(209)
@09,53 SAY CHR(193)
@10,50 PROMPT "STAFF DATA" MESSAGE "LIST STAFF PERSONAL DATA"
@11,50 PROMPT "PUPILS DATA" MESSAGE "LIST PUPILS PERSONAL DATA"
@12,50 PROMPT "CLASSES" MESSAGE "LIST CLASSES NAME"
@13,50 PROMPT "SUBJECTS" MESSAGE "LIST SUBJECTS NAME"
@14,50 PROMPT "CLASS RESULTS";
 MESSAGE "LIST SUBJECT RESULT FOR A CLASS"
@15,50 PROMPT "SUBJECT RESULTS";
 MESSAGE "LIST SUBJECT RESULT FOR CLASS SECTIONS"
@16,50 PROMPT "INDIVIDUALS RESULTS";
 MESSAGE "LIST EXAM RESULTS FOR EACH PUPIL IN A CLASS"
@17,50 PROMPT "EXIT" MESSAGE "GO TO MAIN MENU"
MENU TO MENU5
SET INTE OFF
 DO CASE
    CASE MENU5 = 1
       DO STAFFL
    CASE MENU5 = 2
       DO PUPILSL
    CASE MENU5 = 3
       DO CLASSLST
    CASE MENU5 = 4
       DO SUBLST
    CASE MENU5 = 5
       DO ONEMERIT
    CASE MENU5 = 6
       DO SUBMERIT
    CASE MENU5 = 7
       DO PUPILRES
    CASE MENU5 = 8
       EXIT
  ENDCASE
ENDDO
@8,53 SAY CHR(205)
@9,48 CLEAR TO 18,70
RETURN
****************
PROC MENU6
****************
MENU6=1
DO WHILE .T.
```

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```
@5,69 SAY DATE()
@6,2 TO 6,78 DOUBLE
@8,2 TO 8,78 DOUBL
@20,2 TO 20,78
@22,2 TO 22,78
@7,04 SAY "STAFF"
@7,13 SAY "PUPILS"
@7,23 SAY "ACADEMICS"
@7,35 SAY "COMPUTATIONS"
@7,50 SAY "ON-SCREEN"
@7,61 SAY "REPORTS"
@7,72 SAY "EXIT"
RETURN
****************
PROC STAFF
****************
USE STAFF
DO WHILE .T.
CLEAR
@1,1 TO 20,78 DOUBLE
@5,2 to 5,77
@2,60 SAY '[0] to Quit'
MSTAFFNO=0
@3,27 SAY "NEW STAFF RECORD FORM"
@6,5 SAY "STAFF NO      :"
@6,21 GET MSTAFFNO PICT "9999"
READ
   IF MSTAFFNO = 0
      EXIT
   ENDIF
   LOCATE FOR STAFF_NO = MSTAFFNO
   IF .NOT. EOF()
@22,10 SAY "STAFF NO. ["+LTRIM(STR(MSTAFFNO))+"] EXISTS, PRESS A KEY."
      SET CONSOLE OFF
          WAIT
      SET CONSOLE ON
      LOOP
    ENDIF
 MSURNAME=SPACE(10)
 MINITIAL=SPACE(5)
 MRANK = SPACE(15)
 MBIRTH_DATE=SPACE(8)
 MSEX = SPACE(1)
 MSAL_SCALE=SPACE(4)
 MAPPT_DATE=SPACE(8)
 MQUALIF=SPACE(10)
 MMAR_STATUS=SPACE(10)
 MSTATE=SPACE(10)
 MNATIONALTY=SPACE(10)
 MEMP_STATUS=SPACE(1)
@6,47 SAY "DATE OF APPT.     :"
@8,5 SAY "SURNAME         :"
@8,47 SAY "HIGHEST QUAL.    :"
@10,5 SAY "INITIAL         :"
@10,47 SAY "MARITAL STATUS   :"
```

```
@12,5 SAY "RANK            :"
@12,47 SAY "STATE OF ORIG     :"
@14,5 SAY "BIRTH_DATE    :"
@14,47 SAY "NATIONALITY       :"
@16,5 SAY "SEX           :"
@16,47 SAY "EMP. STATUS (A/N):"
@18,5 SAY "SAL. SCALE    :"
DO WHILE .T.
 @8,21 GET MSURNAME PICT "@!"
 @10,21 GET MINITIAL PICT "@!"
 @12,21 GET MRANK PICT "@!"
 @14,21 GET MBIRTH_DATE PICT "99/99/99"
 @16,21 GET MSEX PICT "@!"
 @18,21 GET MSAL_SCALE PICT "99/9"
 @6,66 GET MAPPT_DATE PICT "99/99/99"
 @8,66 GET MQUALIF PICT "@!"
 @10,66 GET MMAR_STATUS PICT "@!"
 @12,66 GET MSTATE PICT "@!"
 @14,66 GET MNATIONALTY PICT "@!"
 @16,66 GET MEMP_STATUS PICT "@!"
        READ
@21,21 say '[S]AVE   [R]EPEAT   [C]ANCEL'
   I=0
DO WHILE I=0
   I=INKEY()
   IF UPPER(CHR(I)) $ 'SRC'
      EXIT
   ENDIF
   I=0
ENDDO
   DO CASE
      CASE CHR(I) $ 'Ss'
        APPEND BLANK
        REPLACE SURNAME WITH MSURNAME,INITIAL WITH MINITIAL
        REPLACE RANK WITH MRANK,BIRTH_DATE WITH CTOD(MBIRTH_DATE)
        REPLACE SEX WITH MSEX, SAL_SCALE WITH MSAL_SCALE
        REPLACE APPT_DATE WITH CTOD(MAPPT_DATE),QUALIF WITH MQUALIF
        REPLACE MAR_STATUS WITH MMAR_STATUS,STATE WITH MSTATE
        REPLACE NATIONALTY WITH MNATIONALTY,STAFF_NO WITH MSTAFFNO
        REPLACE EMP_STATUS WITH MEMP_STATUS
          EXIT
      CASE CHR(I) $ 'Rr'
          LOOP
      CASE CHR(I) $ 'Cc'
          EXIT
   ENDCASE
 ENDDO
ENDDO
CLEAR ALL
RETURN
****************
PROC STAFFM
****************
USE STAFF
DO WHILE .T.
```

```
CLEAR
 @1,1 TO 20,78 DOUBLE
 @5,2 to 5,77
 @2,60 SAY '[0] to Quit'
 MSTAFFNO=0
 @3,27 SAY "STAFF RECORD MODIFICATION"
 @6,5 SAY "STAFF NO       :"
 @6,21 GET MSTAFFNO PICT "9999"
READ
   IF MSTAFFNO = 0
      EXIT
   ENDIF
   LOCATE FOR STAFF_NO = MSTAFFNO
   IF EOF()
@22,10 SAY "STAFF NO. ["+LTRIM(STR(MSTAFFNO))+"] NOT FOUND, PRESS A KEY."
      SET CONSOLE OFF
           WAIT
      SET CONSOLE ON
      LOOP
    ENDIF
 MSURNAME=SPACE(10)
 MINITIAL=SPACE(5)
 MRANK = SPACE(15)
 MBIRTH_DATE=SPACE(8)
 MSEX = SPACE(1)
 MSAL_SCALE=SPACE(4)
 MAPPT_DATE=SPACE(8)
 MQUALIF=SPACE(10)
 MMAR_STATUS=SPACE(10)
 MSTATE=SPACE(10)
 MNATIONALTY=SPACE(10)
 MEMP_STATUS=SPACE(1)
 MSURNAME=SURNAME
 MINITIAL=INITIAL
 MRANK=RANK
 MBIRTH_DATE=DTOC(BIRTH_DATE)
 MSEX=SEX
 MSAL_SCALE=SAL_SCALE
 MAPPT_DATE=DTOC(APPT_DATE)
 MQUALIF=QUALIF
 MMAR_STATUS=MAR_STATUS
 MSTATE=STATE
 MNATIONALTY=NATIONALTY
 MEMP_STATUS=EMP_STATUS
@6,47 SAY "DATE OF APPT.    :"
@8,5 SAY "SURNAME        :"
@8,47 SAY "HIGHEST QUAL.    :"
@10,5 SAY "INITIAL        :"
@10,47 SAY "MARITAL STATUS   :"
@12,5 SAY "RANK           :"
@12,47 SAY "STATE OF ORIG    :"
@14,5 SAY "BIRTH_DATE     :"
@14,47 SAY "NATIONALITY      :"
@16,5 SAY "SEX            :"
@16,47 SAY "EMP. STATUS (A/N):"
```

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```
@18,5 SAY "SAL. SCALE    :"
DO WHILE .T.
 @8,21 GET MSURNAME PICT "@!"
 @10,21 GET MINITIAL PICT "@!"
 @12,21 GET MRANK PICT "@!"
 @14,21 GET MBIRTH_DATE PICT "99/99/99"
 @16,21 GET MSEX PICT "@!"
 @18,21 GET MSAL_SCALE PICT "99/9"
 @6,66 GET MAPPT_DATE PICT "99/99/99"
 @8,66 GET MQUALIF PICT "@!"
 @10,66 GET MMAR_STATUS PICT "@!"
 @12,66 GET MSTATE PICT "@!"
 @14,66 GET MNATIONALTY PICT "@!"
 @16,66 GET MEMP_STATUS PICT "@!"
        READ
@21,15 say '[S]AVE   [R]EPEAT   [C]ANCEL'
   I=0
DO WHILE I=0
   I=INKEY()
   IF UPPER(CHR(I)) $ 'SRC'
      EXIT
   ENDIF
   I=0
ENDDO
   DO CASE
      CASE CHR(I) $ 'Ss'
         REPLACE SURNAME WITH MSURNAME,INITIAL WITH MINITIAL
         REPLACE RANK WITH MRANK,BIRTH_DATE WITH CTOD(MBIRTH_DATE)
         REPLACE SEX WITH MSEX, SAL_SCALE WITH MSAL_SCALE
         REPLACE APPT_DATE WITH CTOD(MAPPT_DATE),QUALIF WITH MQUALIF
         REPLACE MAR_STATUS WITH MMAR_STATUS,STATE WITH MSTATE
         REPLACE NATIONALTY WITH MNATIONALTY,STAFF_NO WITH MSTAFFNO
         REPLACE EMP_STATUS WITH MEMP_STATUS
           EXIT
      CASE CHR(I) $ 'Rr'
           LOOP
      CASE CHR(I) $ 'Cc'
           EXIT
   ENDCASE
 ENDDO
ENDDO
CLEAR ALL
RETURN
****************
PROC STAFFV
****************
CLEAR
USE STAFF
DO WHILE .NOT. EOF()
@1,1 TO 20,78 DOUBLE
@5,2 to 5,77
@3,30 SAY "STAFF RECORD VIEWING"
@6,5 SAY "STAFF NO      :"
@6,21 GET STAFF_NO
@6,47 SAY "DATE OF APPT.    :"
```

```
@8,5 SAY "SURNAME        :"
@8,47 SAY "HIGHEST QUAL.     :"
@10,5 SAY "INITIAL        :"
@10,47 SAY "MARITAL STATUS    :"
@12,5 SAY "RANK            :"
@12,47 SAY "STATE OF ORIG    :"
@14,5 SAY "BIRTH_DATE   :"
@14,47 SAY "NATIONALITY        :"
@16,5 SAY "SEX            :"
@16,47 SAY "EMP. STATUS (A/N):"
@18,5 SAY "SAL. SCALE    :"
 @8,21 GET SURNAME
 @10,21 GET INITIAL
 @12,21 GET RANK
 @14,21 GET BIRTH_DATE
 @16,21 GET SEX
 @18,21 GET SAL_SCALE
 @6,66 GET APPT_DATE
 @8,66 GET QUALIF
 @10,66 GET MAR_STATUS
 @12,66 GET STATE
 @14,66 GET NATIONALTY
 @16,66 GET EMP_STATUS
    CLEAR GETS
@21,10 SAY "[M]ove to next  [D]elete record  [S]top now"
   I=0
DO WHILE I=0
   I=INKEY()
   IF UPPER(CHR(I)) $ 'SMD'
      EXIT
   ENDIF
   I=0
ENDDO
   DO CASE
      CASE CHR(I) $ 'Ss'
          EXIT
      CASE CHR(I) $ 'Dd'
          @21,21 SAY "ARE YOU SURE  (Y/N)"
             I=0
             DO WHILE I=0
             I=INKEY()
             IF UPPER(CHR(I)) $ 'YN'
             EXIT
             ENDIF
             I=0
             ENDDO
            IF CHR(I) $ "Yy"
             DELETE
             PACK
            ENDIF
      ENDCASE
 SKIP
ENDDO
CLEAR ALL
RETURN
```

```
****************
PROC STAFFL
****************
CLEAR
@10,20 SAY '[A]CADEMIC STAFF LIST'
@12,20 SAY '[N]ON-ACADEMIC STAFF LIST'
@14,20 SAY '[E]XIT...'
I=0
DO WHILE I=0
I=INKEY()
IF UPPER(CHR(I)) $ 'ANE'
   EXIT
ENDIF
I=0
ENDDO
DO CASE
   CASE CHR(I) $ 'Aa'
      MEMPSTATUS='A'
       TITLE='ACADEMIC STAFF LIST'
   CASE CHR(I) $ 'Nn'
      MEMPSTATUS='N'
       TITLE='NON-ACADEMIC STAFF LIST'
   OTHERWISE
      RETURN
ENDCASE
SN=0
USE STAFF
SET FILTER TO EMP_STATUS=MEMPSTATUS
GO TOP
SORT ON STAFF_NO TO TEMP
SET FILTER TO
USE TEMP
GO 1
CLEAR
@1,20 SAY "U N I V E R S I T Y   S T A F F   S C H O O L"
@2,30 SAY TITLE
@3,1 TO 3,78
@4,1 SAY "S/NO"
@4,6 SAY 'STAFF NO.'
@4,16 SAY 'N A M E'
@4,30 SAY 'R A N K'
@4,45 SAY 'SEX'
@4,49 SAY 'BIRTH-DATE'
@4,60 SAY 'QUALIF.'
@4,70 SAY 'STATE'
@5,1 TO 5,78
L=6
SN=1
DO WHILE .NOT. EOF()
@L,1 SAY LTRIM(STR(SN))+"."
@L,6 SAY STAFF_NO
@L,15 SAY RTRIM(SURNAME)+' '+INITIAL
@L,30 SAY RANK
```

```
            REPLACE SURNAME WITH MSURNAME,INITIAL WITH MINITIAL
            REPLACE CLASSCODE WITH MCLASSCODE, SEX WITH MSEX
            REPLACE BIRTH_DATE WITH CTOD(MBIRTH_DATE),YEAR WITH MYEAR
            REPLACE ATTENDANCE WITH MATTENDANCE, STATE WITH MSTATE
            REPLACE NATIONALTY WITH MNATIONALTY,ADM_NO WITH MADM_NO
              EXIT
          CASE CHR(I) $ 'Rr'
              LOOP
          CASE CHR(I) $ 'Cc'
              EXIT
        ENDCASE
    ENDDO
    ENDDO
    CLEAR ALL
    RETURN
    ****************
    PROC PUPILSM
    ****************
    USE PUPILS
    DO WHILE .T.
    CLEAR
    MADM_NO=SPACE(7)
    @1,60 SAY '[00/0000] Quit'
    @2,1 TO 19,74 DOUBLE
    @7,2 TO 7,73
    @3,15 SAY "U N I V E R S I T Y   S T A F F   S C H O O L"
    @5,20 SAY "PUPILS PERSONAL DATA MODIFICATION"
    @8,5 SAY "ADM. NO       :"
    @08,22 GET  MADM_NO PICT '99/9999'
    READ
       IF MADM_NO = '00/0000'
          EXIT
       ENDIF
       LOCATE FOR ADM_NO = MADM_NO
       IF EOF()
    @21,22 SAY "ADM. NO. ["+TRIM(MADM_NO) +"] NOT FOUND, PRESS ANY KEY"
          SET CONSOLE OFF
             WAIT
          SET CONSOLE ON
          LOOP
       ENDIF
    MSURNAME=SPACE(10)
    MINITIAL=SPACE(5)
    MCLASSCODE=SPACE(2)
    MBIRTH_DATE=SPACE(8)
    MSEX=SPACE(1)
    MATTENDANCE=0
    MYEAR=SPACE(4)
    MSTATE=SPACE(15)
    MNATIONALTY=SPACE(10)
    MSURNAME=SURNAME
    MINITIAL=INITIAL
    MCLASSCODE=CLASSCODE
    MBIRTH_DATE=DTOC(BIRTH_DATE)
    MSEX=SEX
```

```
MATTENDANCE=MATTENDANCE
MYEAR=YEAR
MSTATE=STATE
MNATIONALTY=NATIONALTY
@8,42 SAY "SEX            :"
@10,5 SAY "SURNAME        :"
@10,42 SAY "ATTENDANCE    :"
@12,5 SAY "INITIALS       :"
@12,42 SAY "YEAR OF ADM.  :"
@14,5 SAY "CLASS CODE     :"
@14,42 SAY "STATE OF ORIG :"
@16,5 SAY "DATE OF BIRTH :"
@16,42 SAY "NATIONALITY   :"
DO WHILE .T.
@10,22 GET MSURNAME PICT "@!"
@12,22 GET MINITIAL PICT "@!"
@14,22 GET MCLASSCODE PICT "@!"
@16,22 GET MBIRTH_DATE PICT "99/99/99"
@08,58 GET MSEX PICT "!"
@10,58 GET MATTENDANCE PICT "99.99"
@12,58 GET MYEAR PICT "9999"
@14,58 GET MSTATE PICT "@!"
@16,58 GET MNATIONALTY PICT "@!"
READ
@20,15 SAY '[S]AVE   [R]EPEAT    [C]ANCEL'
I=0
DO WHILE I=0
   I=INKEY()
   IF UPPER(CHR(I)) $ 'SRC'
      EXIT
   ENDIF
   I=0
ENDDO
   DO CASE
      CASE CHR(I) $ 'Ss'
        REPLACE SURNAME WITH MSURNAME,INITIAL WITH MINITIAL
        REPLACE CLASSCODE WITH MCLASSCODE, SEX WITH MSEX
        REPLACE BIRTH_DATE WITH CTOD(MBIRTH_DATE),YEAR WITH MYEAR
        REPLACE ATTENDANCE WITH MATTENDANCE, STATE WITH MSTATE
        REPLACE NATIONALTY WITH MNATIONALTY,ADM_NO WITH MADM_NO
          EXIT
      CASE CHR(I) $ 'Rr'
          LOOP
      CASE CHR(I) $ 'Cc'
          EXIT
    ENDCASE
ENDDO
ENDDO
CLEAR ALL
RETURN
****************
PROC PUPILSV
****************
CLEAR
USE PUPILS
```

```
DO WHILE .NOT. EOF()
@2,1 TO 19,74 DOUBLE
@7,2 TO 7,73
@3,15 SAY "U N I V E R S I T Y   S T A F F   S C H O O L"
@5,27 SAY "PUPILS PERSONAL DATA VIEWING"
@8,5 SAY "ADM. NO        :"
@08,22 GET ADM_NO
@8,42 SAY "SEX            :"
@10,5 SAY "SURNAME        :"
@10,42 SAY "ATTENDANCE    :"
@12,5 SAY "INITIALS       :"
@12,42 SAY "YEAR OF ADM.  :"
@14,5 SAY "CLASS CODE    :"
@14,42 SAY "STATE OF ORIG :"
@16,5 SAY "DATE OF BIRTH :"
@16,42 SAY "NATIONALITY   :"
@10,22 GET SURNAME
@12,22 GET INITIAL
@14,22 GET CLASSCODE
@16,22 GET BIRTH_DATE
@08,58 GET SEX
@10,58 GET ATTENDANCE
@12,58 GET YEAR
@14,58 GET STATE
@16,58 GET NATIONALTY
  CLEAR GETS
@20,10 SAY '[M]ove to next  [D]elete record   [S]top now'
I=0
DO WHILE I=0
   I=INKEY()
   IF UPPER(CHR(I)) $ 'SMD'
      EXIT
   ENDIF
   I=0
ENDDO
   DO CASE
      CASE CHR(I) $ 'Ss'
          EXIT
      CASE CHR(I) $ 'Dd'
          @20,15 SAY "ARE YOU SURE ? (Y/N)"
          I=0
          DO WHILE I=0
          I=INKEY()
          IF UPPER(CHR(I)) $ 'YN'
             EXIT
          ENDIF
          I=0
          ENDDO
          IF CHR(I) $ "Yy"
             DELETE
             PACK
          ENDIF
    ENDCASE
  SKIP
ENDDO
```

```
CLEAR ALL
RETURN
****************
PROC PUPILSL
****************
DO WHILE .T.
CLEAR
MCLASS=SPACE(2)
@7,50 SAY "[9X] TO EXIT..."
@8,5 TO 12,65
@10,15 SAY 'CLASS CODE 'GET MCLASS PICT 'X!'
READ
   IF MCLASS = '9X'
      EXIT
   ENDIF
USE CLASSES
MCLASSNAME=SPACE(15)
LOCATE FOR CLASSCODE = MCLASS
   IF EOF()
      @14,15 SAY 'INVALID CLASS, PRESS ANY KEY.'
      SET CONSOLE OFF
      WAIT
      SET CONSOLE ON
      LOOP
    ENDIF
MCLASSNAME=CLASSNAME
SN=0
GO 1
USE PUPILS
SET FILTER TO CLASSCODE = MCLASS
SORT ON ADM_NO TO  TEMP
SET FILTER TO
USE TEMP
GO 1
CLEAR
@1,20 SAY "U N I V E R S I T Y   S T A F F   S C H O O L"
@3,25 SAY 'CLASS '+RTRIM(MCLASSNAME)+' - PUPILS LIST'
@4,1 TO 4,78
@5,1 SAY 'S/NO'
@5,6 SAY 'ADM. NO.'
@5,15 SAY 'N A M E'
@5,32 SAY 'SEX'
@5,36 SAY 'BIRTH-DATE'
@5,47 SAY 'STATE'
@5,57 SAY 'NATIONALITY'
@5,70 SAY 'ADM. YEAR'
@6,1 TO 6,78
L=7
SN=1
DO WHILE .NOT. EOF()
@L,1 SAY LTRIM(STR(SN))+"."
@L,6 SAY ADM_NO
@L,15 SAY RTRIM(SURNAME)+' '+INITIAL
@L,33 SAY SEX
@L,37 SAY BIRTH_DATE
```

```
@L,47 SAY STATE
@L,58 SAY NATIONALTY
@L,73 SAY YEAR
SKIP
  L=L+1
  SN=SN+1
  IF L > 19
    L=6
    K=SPACE(1)
@21,10 SAY '[E]nd, any other key to cont...' GET K PICT "!"
 READ
    IF UPPER(K)='Ee'
       EXIT
    ENDIF
    L=7
    @L,1 CLEAR TO 24,79
  ENDIF
 ENDDO
 @L,1 SAY REPLICATE('-',78)
 CLOSE DATABASES
 ERASE TEMP.DBF
 WAIT
ENDDO
RETURN
****************
PROC PUPILSR
****************
DO WHILE .T.
CLEAR
MCLASS=SPACE(2)
@7,50 SAY "[9X] TO EXIT..."
@8,5 TO 12,65
@10,15 SAY 'CLASS CODE 'GET MCLASS PICT 'X!'
READ
    IF MCLASS = '9X'
       EXIT
    ENDIF
USE CLASSES
MCLASSNAME=SPACE(15)
LOCATE FOR CLASSCODE = MCLASS
    IF EOF()
       @14,15 SAY 'INVALID CLASS, PRESS ANY KEY.'
       SET CONSOLE OFF
       WAIT
       SET CONSOLE ON
       LOOP
    ENDIF
MCLASSNAME=CLASSNAME
SN=0
L=60
GO 1
SN=1
USE PUPILS
SET FILTER TO CLASSCODE = MCLASS
SORT ON ADM_NO TO TEMP
```

```
SET FILTER TO
USE TEMP
GO 1
 CLEAR
 @10,20 SAY "PLEASE WAIT,  PRINTING..."
SET DEVICE TO PRINT
DO WHILE .T.
IF L > 54
  @1,20 SAY "U N I V E R S I T Y   S T A F F   S C H O O L"
  @3,25 SAY 'CLASS '+RTRIM(MCLASSNAME)+' - PUPILS LIST'
  @4,1 SAY REPLICATE('-',78)
  @5,1 SAY 'S/NO'
  @5,6 SAY 'ADM. NO.'
  @5,15 SAY 'N A M E'
  @5,32 SAY 'SEX'
  @5,36 SAY 'BIRTH-DATE'
  @5,47 SAY 'STATE'
  @5,57 SAY 'NATIONALITY'
  @5,70 SAY 'ADM. YEAR'
  @6,1 SAY REPLICATE('-',78)
 ENDIF
 L=7
DO WHILE .NOT. EOF()
@L,1 SAY LTRIM(STR(SN))+"."
@L,6 SAY ADM_NO
@L,15 SAY RTRIM(SURNAME)+' '+INITIAL
@L,33 SAY SEX
@L,37 SAY BIRTH_DATE
@L,47 SAY STATE
@L,58 SAY NATIONALTY
@L,73 SAY YEAR
SKIP
  IF L > 54
    EXIT
  ENDIF
  L=L+1
  SN=SN+1
 ENDDO
ENDDO
 @L,1 SAY REPLICATE('-',78)
 CLOSE DATABASES
 ERASE TEMP.DBF
 SET DEVICE TO SCREEN
ENDDO
RETURN
****************
PROC NEWCLASS
****************
USE CLASSES
DO WHILE .T.
CLEAR
MCLASSCODE=SPACE(2)
MCLASSNAME=SPACE(15)
@3,42 SAY "[9X] to exit..."
@4,9 TO 18,60 DOUBLE
```

```
@5,20 SAY "UNIVERSITY STAFF SCHOOL"
@7,21 SAY "INTRODUCING NEW CLASS"
@9,10 TO 9,59
@11,20 SAY "NEW CLASS CODE " GET MCLASSCODE PICT "9!"
READ
   IF MCLASSCODE="9X"
      EXIT
   ENDIF
   GO TOP
   LOCATE FOR CLASSCODE = MCLASSCODE
   IF .NOT. EOF()
      @19,20 SAY "CLASS CODE EXITS, PRESS ANY KEY..."
      SET CONSOLE OFF
      WAIT
      SET CONSOLE ON
      LOOP
    ENDIF
@13,20 SAY "NEW CLASS NAME " GET MCLASSNAME PICT "@!"
READ
@19,20 SAY 'Save information ? (Y/N)'
I=0
DO WHILE I=0
   I=INKEY()
   IF UPPER(CHR(I)) $ 'YN'
      EXIT
   ENDIF
   I=0
ENDDO
   DO CASE
      CASE CHR(I) $ 'Nn'
           LOOP
      CASE CHR(I) $ 'Yy'
           APPEND BLANK
           REPLACE CLASSCODE WITH MCLASSCODE,CLASSNAME WITH MCLASSNAME
    ENDCASE
ENDDO
CLEAR ALL
RETURN
****************
PROC CLASSM
****************
USE CLASSES
DO WHILE .T.
CLEAR
MCLASSCODE=SPACE(2)
MCLASSNAME=SPACE(15)
@3,42 SAY "[9X] to exit..."
@4,9 TO 18,60 DOUBLE
@5,20 SAY "UNIVERSITY STAFF SCHOOL"
@7,20 SAY "CLASS NAME MODIFICATION"
@9,10 TO 9,59
@11,20 SAY "CLASS CODE " GET MCLASSCODE PICT "9!"
READ
   IF MCLASSCODE="9X"
      EXIT
```

```
        ENDIF
        GO TOP
        LOCATE FOR CLASSCODE = MCLASSCODE
        IF EOF()
           @19,20 SAY "CLASS CODE EXITS, PRESS ANY KEY..."
           SET CONSOLE OFF
           WAIT
           SET CONSOLE ON
           LOOP
        ENDIF
MCLASSNAME=CLASSNAME
@13,20 SAY "NEW CLASS NAME " GET MCLASSNAME PICT "@!"
READ
@19,20 SAY 'Save information ? (Y/N)'
I=0
DO WHILE I=0
   I=INKEY()
   IF UPPER(CHR(I)) $ 'YN'
      EXIT
   ENDIF
   I=0
ENDDO
   DO CASE
    CASE CHR(I) $ 'Nn'
     LOOP
    CASE CHR(I) $ 'Yy'
     REPLACE CLASSCODE WITH MCLASSCODE,CLASSNAME WITH MCLASSNAME
    ENDCASE
ENDDO
CLEAR ALL
RETURN
****************
PROC NEWCLASSD
****************
USE CLASSES
DO WHILE .T.
CLEAR
MCLASSCODE=SPACE(2)
MCLASSNAME=SPACE(15)
@3,42 SAY "[9X] to exit..."
@4,9 TO 18,60 DOUBLE
@5,20 SAY "UNIVERSITY STAFF SCHOOL"
@7,21 SAY "INTRODUCING NEW CLASS"
@9,10 TO 9,59
@11,20 SAY "NEW CLASS CODE " GET MCLASSCODE PICT "9!"
READ
   IF MCLASSCODE="9X"
      EXIT
   ENDIF
   GO TOP
   LOCATE FOR CLASSCODE = MCLASSCODE
   IF .NOT. EOF()
      @19,20 SAY "CLASS CODE EXITS, PRESS ANY KEY..."
      SET CONSOLE OFF
      WAIT
```

```
      SET CONSOLE ON
      LOOP
   ENDIF
@13,20 SAY "NEW CLASS NAME " GET MCLASSNAME PICT "@!"
READ
@19,20 SAY 'Save information ? (Y/N)'
I=0
DO WHILE I=0
   I=INKEY()
   IF UPPER(CHR(I)) $ 'YN'
      EXIT
   ENDIF
   I=0
ENDDO
   DO CASE
      CASE CHR(I) $ 'Nn'
           LOOP
      CASE CHR(I) $ 'Yy'
       APPEND BLANK
       REPLACE CLASSCODE WITH MCLASSCODE
       REPLACE CLASSNAME WITH MCLASSNAME
    ENDCASE
ENDDO
CLEAR ALL
RETURN
****************
PROC CLASSLST
****************
CLEAR
@1,25 SAY "UNIVERSITY STAFF SCHOOL"
@3,1 TO 3,78
@4,10 SAY 'CLASS CODE'
@4,30 SAY 'CLASS NAME'
@5,1 TO 5,78
L=6
USE CLASSES
SORT ON CLASSCODE TO TEMP
USE TEMP
GO TOP
DO WHILE .NOT. EOF()
@1,14 SAY CLASSCODE
@1,30 SAY CLASSNAME
SKIP
  IF L > 19
    L=6
    K=SPACE(1)
  @22,10 SAY '[E]nd, any other key to cont...' GET K PICT "!"
    READ
    IF K='Ee'
       EXIT
    ENDIF
    @L,1 CLEAR TO 23,79
   ENDIF
   L=L+1
ENDDO
```

```
       @L,1 TO L,78
       @L+1,10 SAY "END OF LIST,  PRESS ANY KEY..."
       SET CONSOLE OFF
       WAIT
       SET CONSOLE ON
       CLOSE DATABASES
       ERASE TEMP.DBF
RETURN
****************
PROC CLASSESP
****************
P=0
L=60
USE CLASSES
SORT ON CLASSCODE TO TEMP
USE TEMP
GO 1
CLEAR
@10,20 SAY "PLEASE WAIT,  PRINTING..."
SET DEVICE TO PRINT
DO WHILE .NOT. EOF()
IF L > 54
  @1,20 SAY "U N I V E R S I T Y   S T A F F   S C H O O L"
  @3,5 SAY "DATE :- "
  @3,12 SAY DATE()
  @3,60 SAY "PAGE : "+STR(P+1,3)
  @4,25 SAY "CLASSES LIST"
  @5,1 SAY REPLICATE('-',78)
  @6,10 SAY 'CLASS CODE'
  @6,40 SAY 'CLASS NAME'
  @7,1 SAY REPLICATE('-',78)
  L=8
ENDIF
 @L,14 SAY CLASSCODE
 @L,40 SAY CLASSNAME
SKIP
   L=L+1
ENDDO
   @L,1 SAY REPLICATE('-',78)
   @L+1,10 SAY "END OF LIST..."
   CLOSE DATABASES
   ERASE TEMP.DBF
   SET DEVICE TO SCREEN
RETURN
****************
PROC NEWSUB
****************
USE SUBJECT
DO WHILE .T.
CLEAR
MSUBCODE=SPACE(3)
MSUBNAME=SPACE(15)
@3,42 SAY "[XXX] to exit..."
@4,9 TO 18,60 DOUBLE
@5,20 SAY "UNIVERSITY STAFF SCHOOL"
```

```
@7,20 SAY "INTRODUCING NEW SUBJECT"
@9,10 TO 9,59
@11,20 SAY "NEW SUBJECT CODE " GET MSUBCODE PICT "!!!"
READ
   IF MSUBCODE="XXX"
      EXIT
   ENDIF
   GO TOP
   LOCATE FOR SUBCODE = MSUBCODE
   IF .NOT. EOF()
      @19,20 SAY "SUBJECT CODE EXITS, PRESS ANY KEY..."
      SET CONSOLE OFF
      WAIT
      SET CONSOLE ON
      LOOP
    ENDIF
@13,20 SAY "NEW SUBJECT NAME " GET MSUBNAME PICT "@!"
READ
@19,20 SAY 'Save information ? (Y/N)'
I=0
DO WHILE I=0
   I=INKEY()
   IF UPPER(CHR(I)) $ 'YN'
      EXIT
   ENDIF
   I=0
ENDDO
   DO CASE
      CASE CHR(I) $ 'Nn'
           LOOP
      CASE CHR(I) $ 'Yy'
           APPEND BLANK
           REPLACE SUBCODE WITH MSUBCODE
           REPLACE SUBNAME WITH MSUBNAME
    ENDCASE
ENDDO
CLEAR ALL
RETURN
****************
PROC NEWSUBD
****************
USE SUBJECT
DO WHILE .T.
GO TOP
CLEAR
MSUBCODE=SPACE(3)
MSUBNAME=SPACE(15)
@3,42 SAY "[XXX] to exit..."
@4,9 TO 18,60 DOUBLE
@5,20 SAY "UNIVERSITY STAFF SCHOOL"
@7,21 SAY "DELETING SUBJECT NAME"
@9,10 TO 9,59
@11,20 SAY "SUBJECT CODE " GET MSUBCODE PICT "!!!"
READ
   IF MSUBCODE="XXX"
```

```
        EXIT
    ENDIF
    GO TOP
    LOCATE FOR SUBCODE = MSUBCODE
    IF EOF()
        @19,20 SAY "SUBJECT CODE NOT FOUND, PRESS ANY KEY..."
        SET CONSOLE OFF
        WAIT
        SET CONSOLE ON
        LOOP
    ENDIF
MSUBNAME=SUBNAME
@13,20 SAY "SUBJECT NAME " GET MSUBNAME
CLEAR GETS
@19,20 SAY 'Delete information ? (Y/N)'
I=0
DO WHILE I=0
    I=INKEY()
    IF UPPER(CHR(I)) $ 'YN'
        EXIT
    ENDIF
    I=0
ENDDO
    DO CASE
        CASE CHR(I) $ 'Nn'
            LOOP
        CASE CHR(I) $ 'Yy'
            DELETE
            PACK
    ENDCASE
ENDDO
CLEAR ALL
RETURN
****************
PROC SUBLST
****************
CLEAR
@1,25 SAY "UNIVERSITY STAFF SCHOOL"
@3,1 TO 3,78
@4,10 SAY 'SUBJECT CODE'
@4,30 SAY 'SUBJECT NAME'
@5,1 TO 5,78
L=6
USE SUBJECT
SORT ON SUBCODE TO TEMP
USE TEMP
GO TOP
DO WHILE .NOT. EOF()
@1,14 SAY SUBCODE
@1,30 SAY SUBNAME
SKIP
  L=L+1
  IF L > 19
    L=6
    K=SPACE(1)
```

```
    @21,10 SAY '[E]nd,  any other key to cont...' GET K PICT "!"
      READ
      IF K='Ee'
         EXIT
      ENDIF
      @L,1 CLEAR TO  23,79
    ENDIF
ENDDO
    @L,1 TO L,78
    @L+1,10 SAY "END OF LIST,  PRESS ANY KEY..."
    SET CONSOLE OFF
    WAIT
    SET CONSOLE ON
    CLOSE DATABASES
    ERASE TEMP.DBF
RETURN
****************
PROC SUBJECTP
****************
P=0
L=60
USE SUBJECT
SORT ON SUBCODE TO TEMP
USE TEMP
GO 1
CLEAR
@10,20 SAY "PLEASE WAIT,  PRINTING..."
SET DEVICE TO PRINT
DO WHILE .NOT. EOF()
IF L > 54
  @1,20 SAY "U N I V E R S I T Y   S T A F F   S C H O O L"
  @3,5 SAY "DATE :- "
  @3,12 SAY DATE()
  @3,60 SAY "PAGE : "+STR(P+1,3)
  @4,25 SAY "SUBJECTS LIST"
  @5,1 SAY REPLICATE('-',78)
  @6,10 SAY 'SUBJECT CODE'
  @6,40 SAY 'SUBJECT NAME'
  @7,1 SAY REPLICATE('-',78)
  L=8
ENDIF
 @L,14 SAY SUBCODE
 @L,40 SAY SUBNAME
SKIP
   L=L+1
ENDDO
    @L,1 SAY REPLICATE('-',78)
    @L+1,10 SAY "END OF LIST..."
    CLOSE DATABASES
    ERASE TEMP.DBF
    SET DEVICE TO SCREEN
RETURN
****************
PROC SUBJECT
****************
```

```
DO WHILE .T.
CLEAR
MCLASS=SPACE(2)
@7,50 SAY "[9X] TO EXIT..."
@8,5 TO 16,65 DOUBLE
@10,15 SAY "WHICH CLASS " GET MCLASS PICT "9!"
READ
   IF MCLASS = "9X"
      EXIT
   ENDIF
USE CLASSES
LOCATE FOR CLASSCODE=MCLASS
IF EOF()
  @18,15 SAY "INVALID CLASS, PRESS ANY KEY"
  SET CONSOLE OFF
  WAIT
  SET CONSOLE ON
  LOOP
ENDIF
MCFILE=SPACE(8)
CFILE=SPACE(11)
@12,15 SAY "CLASS ACADEMIC RECORDS FILE " GET MCFILE PICT "@!"
READ
  CFILE=RTRIM(MCFILE)+".DBF"
  IF .NOT. FILE(CFILE)
    @18,15 SAY "FILE NOT FOUND, CREATE NEW ONE ? (Y/N)"
    I=0
    DO WHILE I=0
       I=INKEY()
    IF UPPER(CHR(I)) $ "YN"
       EXIT
    ENDIF
    I=0
    ENDDO
      IF CHR(I) $ "Nn"
        LOOP
      ENDIF
      @18,15 SAY SPACE(50)
      USE GENSTRUC
        COPY STRUCTURE TO &CFILE
      CLOSE DATABASES
  ENDIF
MSUBCODE=SPACE(3)
MSUBNAME=SPACE(15)
MSFILE=SPACE(3)
SFILE=SPACE(6)
@14,15 SAY "SUBJECT FILE CODE " GET MSUBCODE PICT "@!"
READ
MSFILE=MSUBCODE
USE SUBJECT
LOCATE FOR SUBCODE=MSUBCODE
IF EOF()
  @18,15 SAY "NOT FOUND, GO TO NEW SUBJ. OPTION - PRESS ANY KEY"
  SET CONSOLE OFF
  WAIT
```

```
   SET CONSOLE ON
   LOOP
ENDIF
MSUBNAME=SUBNAME
SFILE=RTRIM(MSFILE)+".DBF"
IF .NOT. FILE(SFILE)
   @18,15 SAY "FILE NOT FOUND, CREATE NEW ONE ? (Y/N)"
   I=0
   DO WHILE I=0
      I=INKEY()
      IF UPPER(CHR(I)) $ "YN"
         EXIT
      ENDIF
      I=0
   ENDDO
   IF CHR(I) $ "Nn"
      LOOP
   ENDIF
   USE SUBSTRUC
    COPY STRUCTURE TO &SFILE
    CLOSE DATABASES
  ENDIF
SELECT 1
USE PUPILS
SET FILTER TO CLASSCODE = MCLASS
SELECT 2
USE &CFILE
SELECT 3
USE &SFILE
DO WHILE .T.
CLEAR
@2,2 TO 20,70 DOUBLE
@18,3 TO 18,69
MADM_NO=SPACE(7)
@3,20 SAY "STUDENTS' ACADEMIC DETAILS"
@5,10 SAY "SUBJECT :- "+MSUBNAME
@6,3 TO 6,69
@1,54 SAY "[00/0000] to quit"
@7,10 SAY "ADM. NO           :"
@7,35 GET MADM_NO PICT '99/9999'
READ
   IF MADM_NO = "00/0000"
      EXIT
   ENDIF
SELECT 1
GO TOP
LOCATE FOR ADM_NO=MADM_NO
  IF EOF()
     ? CHR(7)
     @19,10 SAY "ADM. NUMBER NOT FOUND !, PRESS ANY KEY"
     SET CONSOLE OFF
     WAIT
     SET CONSOLE ON
     LOOP
   ENDIF
```

```
SELECT 3
GO TOP
LOCATE FOR ADM_NO=MADM_NO
  IF .NOT. EOF()
     ? CHR(7)
     @19,10 SAY "EXAM. RESULT ALREADY EXITS !  PRESS ANY KEY"
     SET CONSOLE OFF
     WAIT
     SET CONSOLE ON
     LOOP
   ENDIF
MCA=0.00
MEXAM=0.00
MTOTAL=0.00
MGRADE=SPACE(1)
@7,10 SAY "ADM. NO           :"
@9,10 SAY "CLASS CODE        :"
@9,35 GET MCLASS
@11,10 SAY "CONT. ASSESMENT   :"
@13,10 SAY "EXAMINATIONS      :"
@15,10 SAY "TOTAL             :"
@17,10 SAY "GRADE             :"
CLEAR GETS
DO WHILE .T.
@11,35 GET MCA PICT "99.99"
@13,35 GET MEXAM PICT "99.99"
READ
 IF MCA > 40 .OR. MEXAM > 60
    ? CHR(7)
    @19,10 SAY "ABNORMAL SCORES NOT ALLOWED !  PRESS ANY KEY"
    SET CONSOLE OFF
    WAIT
    SET CONSOLE ON
  ELSE
    EXIT
  ENDIF
  @19,10 SAY SPACE(60)
ENDDO
MTOTAL=MCA+MEXAM
@15,35 GET MTOTAL PICT "99.99"
IF MTOTAL > 39 .AND. MTOTAL < 50
   MGRADE="D"
ENDIF
IF MTOTAL > 49 .AND. MTOTAL < 61
   MGRADE="C"
ENDIF
IF MTOTAL > 60 .AND. MTOTAL < 71
   MGRADE="B"
ENDIF
IF MTOTAL > 70
   MGRADE = "A"
ENDIF
@17,35 GET MGRADE PICT "X"
CLEAR GETS
@19,10 SAY "[E]XIT/SAVE  [S]SAVE CONT..  [C]ANCEL"
```

```
I=0
DO WHILE I=0
I=INKEY()
  IF UPPER(CHR(I)) $ "ESC"
     EXIT
  ENDIF
  I=0
ENDDO
  IF CHR(I) $ "Cc"
     EXIT
  ENDIF
SELECT 2
APPEND BLANK
  REPLACE ADM_NO WITH MADM_NO,STOTAL WITH MTOTAL
  REPLACE SUBCODE WITH MSUBCODE,GRADE WITH MGRADE
  REPLACE CLASSCODE WITH MCLASS
SELECT 3
  APPEND BLANK
  REPLACE ADM_NO WITH MADM_NO,CONT_ASSMT WITH MCA
  REPLACE EXAM WITH MEXAM,STOTAL WITH MTOTAL
  REPLACE GRADE WITH MGRADE,CLASSCODE WITH MCLASS
  IF CHR(I) $ "Ee"
     EXIT
  ENDIF
 ENDDO
ENDDO
CLEAR ALL
RETURN
****************
PROC SUBJECTM
****************
DO WHILE .T.
CLEAR
MCLASS=SPACE(2)
@7,50 SAY "[9X] TO EXIT..."
@8,5 TO 16,65 DOUBLE
@10,15 SAY "WHICH CLASS " GET MCLASS PICT "9!"
READ
    IF MCLASS = "9X"
       EXIT
    ENDIF
USE CLASSES
LOCATE FOR CLASSCODE=MCLASS
IF EOF()
  @18,15 SAY "INVALID CLASS, PRESS ANY KEY"
  SET CONSOLE OFF
  WAIT
  SET CONSOLE ON
  LOOP
ENDIF
MCFILE=SPACE(8)
CFILE=SPACE(11)
@12,15 SAY "CLASS ACADEMIC RECORDS FILE " GET MCFILE PICT "@!"
READ
  CFILE=TRIM(MCFILE)+".DBF"
```

```
    IF .NOT. FILE(CFILE)
        @18,15 SAY "FILE NOT FOUND, PRESS ANY KEY..."
        SET CONSOLE OFF
        WAIT
        SET CONSOLE ON
        LOOP
      ENDIF
MSUBCODE=SPACE(3)
MSUBNAME=SPACE(15)
MSFILE=SPACE(3)
SFILE=SPACE(6)
@14,15 SAY "SUBJECT FILE CODE " GET MSUBCODE PICT "@!"
READ
MSFILE=MSUBCODE
USE SUBJECT
LOCATE FOR SUBCODE=MSUBCODE
IF EOF()
   @18,15 SAY "FILE NOT FOUND,  PRESS ANY KEY..."
   SET CONSOLE OFF
   WAIT
   SET CONSOLE ON
   LOOP
ENDIF
MSUBNAME=SUBNAME
SFILE=RTRIM(MSFILE)+".DBF"
IF .NOT. FILE(SFILE)
    @18,15 SAY "FILE NOT FOUND, PRESS ANY KEY..."
    SET CONSOLE OFF
    WAIT
    SET CONSOLE ON
    LOOP
 ENDIF
CLOSE ALL
SELECT 1
USE PUPILS
SET FILTER TO CLASSCODE = MCLASS
SELECT 2
USE &CFILE
SELECT 3
USE &SFILE
DO WHILE .T.
CLEAR
@2,2 TO 20,70 DOUBLE
@18,3 TO 18,69
MADM_NO=SPACE(7)
@3,20 SAY "STUDENTS' ACADEMIC DETAILS"
@5,10 SAY "SUBJECT :- "+MSUBNAME
@6,3 TO 6,69
@1,54 SAY "[00/0000] to quit"
@7,10 SAY "ADM. NO            :"
@7,35 GET MADM_NO PICT '99/9999'
READ
    IF MADM_NO = "00/0000"
       EXIT
    ENDIF
```

```
SELECT 3
GO TOP
LOCATE FOR ADM_NO=MADM_NO
   IF EOF()
      ? CHR(7)
      @19,10 SAY "ADM. NUMBER NOT FOUND !, PRESS ANY KEY"
      SET CONSOLE OFF
      WAIT
      SET CONSOLE ON
      LOOP
   ENDIF
MCA=0.00
MEXAM=0.00
MTOTAL=0.00
MGRADE=SPACE(1)
MCA=CONT_ASSMT
MEXAM=EXAM
MTOTAL=STOTAL
MGRADE=GRADE
@7,10 SAY "ADM. NO          :"
@9,10 SAY "CLASS CODE       :"
@9,35 GET MCLASS
@11,10 SAY "CONT. ASSESMENT  :"
@13,10 SAY "EXAMINATIONS     :"
@15,10 SAY "TOTAL            :"
@17,10 SAY "GRADE            :"
CLEAR GETS
DO WHILE .T.
@11,35 GET MCA PICT "99.99"
@13,35 GET MEXAM PICT "99.99"
READ
 IF MCA > 40 .OR. MEXAM > 60
    ? CHR(7)
    @19,10 SAY "ABNORMAL SCORES NOT ALLOWED !  PRESS ANY KEY"
    SET CONSOLE OFF
    WAIT
    SET CONSOLE ON
  ELSE
    EXIT
  ENDIF
  @19,10 SAY SPACE(60)
ENDDO
MTOTAL=MCA+MEXAM
@15,35 GET MTOTAL PICT "99.99"
IF MTOTAL > 39 .AND. MTOTAL < 50
   MGRADE="D"
ENDIF
IF MTOTAL > 49 .AND. MTOTAL < 61
   MGRADE="C"
ENDIF
IF MTOTAL > 60 .AND. MTOTAL < 71
   MGRADE="B"
ENDIF
IF MTOTAL > 70
   MGRADE = "A"
```

```
ENDIF
@17,35 GET MGRADE PICT "X"
CLEAR GETS
@19,10 SAY "[E]XIT/SAVE  [S]SAVE CONT..  [C]ANCEL"
I=0
DO WHILE I=0
I=INKEY()
  IF UPPER(CHR(I)) $ "ESC"
     EXIT
  ENDIF
  I=0
ENDDO
  IF CHR(I) $ "Cc"
     EXIT
  ENDIF
  LOCATE FOR ADM_NO=MADM_NO
  REPLACE ADM_NO WITH MADM_NO,CONT_ASSMT WITH MCA
  REPLACE EXAM WITH MEXAM,STOTAL WITH MTOTAL
  REPLACE GRADE WITH MGRADE,CLASSCODE WITH MCLASS
SELECT 2
  LOCATE FOR ADM_NO=MADM_NO .AND. SUBCODE=MSUBCODE
  REPLACE ADM_NO WITH MADM_NO,STOTAL WITH MTOTAL
  REPLACE SUBCODE WITH MSUBCODE,GRADE WITH MGRADE
  REPLACE CLASSCODE WITH MCLASS
  IF CHR(I) $ "Ee"
    EXIT
  ENDIF
 ENDDO
ENDDO
CLEAR ALL
RETURN
****************
PROC PUPILRES
****************
DO WHILE .T.
 CLEAR
 MCLASS=SPACE(2)
 MCLASSNAME=SPACE(15)
 MTERM=SPACE(3)
 @8,5 TO 16,65 DOUBLE
 @7,50 SAY "[9X] TO EXIT..."
 @10,15 SAY 'WHAT CLASS 'GET MCLASS PICT '9!'
READ
   IF UPPER(MCLASS) = '9X'
      EXIT
   ENDIF
 USE CLASSES
 LOCATE FOR CLASSCODE = MCLASS
    IF EOF()
       @18,15 SAY 'INVALID CLASS, PRESS ANY KEY.'
       SET CONSOLE OFF
       WAIT
       SET CONSOLE ON
       LOOP
     ENDIF
```

```
@12,15 SAY "TERM (1ST,2ND OR 3RD) :- " GET MTERM PICT "@!"
READ
MCLASSNAME=CLASSNAME
MCFILE=SPACE(3)
CFILE=SPACE(6)
@14,15 SAY "CLASS ACADEMIC RECORDS FILE " GET MCFILE PICT "@!"
READ
CFILE=RTRIM(MCFILE)+".DBF"
IF .NOT. FILE(CFILE)
   @18,10 SAY "FILE NOT FOUND, PRESS ANY KEY"
   SET CONSOLE OFF
   WAIT
   SET CONSOLE ON
   LOOP
 ENDIF
SELECT 1
USE &CFILE
SELECT 2
USE PUPILS
SET FILTER TO CLASSCODE = MCLASS
SORT ON ADM_NO TO TEMP
SET FILTER TO
SELECT 3
USE SUBJECT
SELECT 4
USE TEMP
GO 1
DO WHILE .NOT. EOF()
  CLEAR
  SN=0
  MSUBCODE=SPACE(3)
  MADM_NO=SPACE(7)
  MSURNAME=SPACE(10)
  MINITIAL=SPACE(5)
  MPRESPOS=SPACE(3)
  MPREVPOS=SPACE(3)
  MPUPILCENT=0
  MPRESPOS=PRES_POS
  MPREVPOS=PREV_POS
  MADM_NO=ADM_NO
  MSURNAME=SURNAME
  MINITIAL=INITIAL
  MPUPILCENT=PUPILCENT
  L=0
@1,20 SAY "U N I V E R S I T Y   S T A F F   S C H O O L"
@2,25 SAY "EXAMINATION REPORT CARD"
@4,5 SAY "NAME/NO :- "+RTRIM(MSURNAME)+" "+INITIAL+" ["+MADM_NO+"]"
@4,50 SAY "CLASS   :- "+MCLASSNAME
@6,5 SAY "TERM    :- "+MTERM
@6,50 SAY "PUPIL % :- "+STR(MPUPILCENT,4)
@8,5 SAY "PREV POS:- "+MPREVPOS
@8,50 SAY "PRES POS:- "+MPRESPOS
@9,1 TO 9,78
 @10,5 SAY "S/NO"
 @10,12 SAY "SUBJ CODE"
```

```
  @10,26 SAY "SUBJECT NAME"
  @10,48 SAY "S C O R E"
  @10,65 SAY "G R A D E"
@11,1 TO 11,78
 L=12
 SN=1
 SELECT 1
 SET FILTER TO ADM_NO = MADM_NO .AND. CLASSCODE=MCLASS
 GO TOP
DO WHILE .NOT. EOF()
  @L,6 SAY LTRIM(STR(SN))+"."
  MSUBCODE=SUBCODE
  @L,14 SAY SUBCODE
  SELECT 3
  LOCATE FOR SUBCODE=MSUBCODE
  @L,26 SAY SUBNAME
  SELECT 1
  @L,50 SAY STOTAL
  @L,70 SAY GRADE
   SKIP
   L=L+1
   SN=SN+1
ENDDO
 @L,1 TO L,78
 SET FILTER TO
 @22,10 SAY "[C]ontinue        [S]top..."
     I=0
     DO WHILE I=0
     I=INKEY()
     IF UPPER(CHR(I)) $ "CS"
        EXIT
     ENDIF
     I=0
     ENDDO
     IF CHR(I) $ "Ss"
        EXIT
     ENDIF
     SELECT 4
   SKIP
ENDDO
 CLOSE DATABASES
 ERASE TEMP.DBF
ENDDO
 CLEAR ALL
 RETURN
****************
PROC ONEMERIT
****************
DO WHILE .T.
 CLEAR
 MCLASS=SPACE(2)
 MCLASSNAME=SPACE(15)
 MTERM=SPACE(3)
 @8,5 TO 18,65 DOUBLE
 @7,50 SAY "[9X] TO EXIT..."
```

```
@10,15 SAY 'CLASS CODE  'GET MCLASS PICT 'X!'
   READ
   IF UPPER(MCLASS) = '9X'
      EXIT
   ENDIF
USE CLASSES
LOCATE FOR CLASSCODE = MCLASS
    IF EOF()
       @19,15 SAY 'INVALID CLASS, PRESS ANY KEY.'
       SET CONSOLE OFF
       WAIT
       SET CONSOLE ON
       LOOP
     ENDIF
@12,15 SAY "TERM (1ST,2ND OR 3RD) :- " GET MTERM PICT "@!"
READ
MCLASSNAME=CLASSNAME
MSFILE=SPACE(3)
SFILE=SPACE(6)
MSUBNAME=SPACE(15)
@14,15 SAY "SUBJECT FILE CODE " GET MSFILE PICT "@!"
@16,15 SAY "SUBJECT FILE NAME " GET MSUBNAME PICT "@!"
READ
SFILE=RTRIM(MSFILE)+".DBF"
IF .NOT. FILE(SFILE)
   @19,15 SAY "FILE NOT FOUND, PRESS ANY KEY"
   SET CONSOLE OFF
   WAIT
   SET CONSOLE ON
   LOOP
 ENDIF
L=0
P=0
SN=0
USE &SFILE
SET FILTER TO CLASSCODE=MCLASS
GO 1
SN=1
L=60
DO WHILE .NOT. EOF()
 IF L > 56
  CLEAR
  @1,20 SAY "U N I V E R S I T Y   S T A F F   S C H O O L"
  @2,25 SAY "CLASS "+TRIM(MCLASSNAME)+" "+"EXAMINATION RESULT"
  @3,1 SAY "DATE :"
  @3,9 SAY DATE()
  @3,65 SAY "PAGE : "+STR(P+1,3)
  @5,1 SAY "SUBJECT :- "+MSUBNAME
  @6,1 TO 6,78
  @7,1 SAY "S/NO"
  @7,7 SAY "ADM NO."
  @7,20 SAY "CONT. ASSMT"
  @7,35 SAY "E X A M."
  @7,50 SAY "TOTAL %"
  @7,60 SAY "GRADE"
```

```
      @7,70 SAY "POSITION"
      @8,1 TO 8,78
      L=9
ENDIF
      @L,2 SAY LTRIM(STR(SN))+"."
      @L,7 SAY ADM_NO
      @L,23 SAY CONT_ASSMT
      @L,35 SAY EXAM
      @L,50 SAY STOTAL
      @L,62 SAY GRADE
      @L,72 SAY POSITION
      SKIP
      L=L+1
      SN=SN+1
      IF L > 19
         @23,10 SAY "[C]ontinue        [S]top..."
         I=0
         DO WHILE I=0
         I=INKEY()
         IF UPPER(CHR(I)) $ "CS"
            EXIT
         ENDIF
         I=0
         ENDDO
         IF CHR(I) $ "Ss"
            EXIT
         ENDIF
      ENDIF
      IF EOF()
         @L,1 TO L,78
      ENDIF
ENDDO
 CLOSE DATABASES
 WAIT
ENDDO
 CLEAR ALL
 RETURN
****************
PROC ONEMERTP
****************
DO WHILE .T.
 CLEAR
 MCLASS=SPACE(2)
 MCLASSNAME=SPACE(15)
 MTERM=SPACE(3)
 @8,5 TO 18,65 DOUBLE
 @7,50 SAY "[9X] TO EXIT..."
 @10,15 SAY 'CLASS CODE  'GET MCLASS PICT 'X!'
   READ
   IF UPPER(MCLASS) = '9X'
      EXIT
   ENDIF
 USE CLASSES
 LOCATE FOR CLASSCODE = MCLASS
    IF EOF()
```

```
        @19,15 SAY 'INVALID CLASS, PRESS ANY KEY.'
        SET CONSOLE OFF
        WAIT
        SET CONSOLE ON
        LOOP
      ENDIF
@12,15 SAY "TERM (1ST,2ND OR 3RD) :- " GET MTERM PICT "@!"
READ
MCLASSNAME=CLASSNAME
MSFILE=SPACE(3)
SFILE=SPACE(6)
MSUBNAME=SPACE(15)
@14,15 SAY "SUBJECT FILE CODE " GET MSFILE PICT "@!"
@16,15 SAY "SUBJECT FILE NAME " GET MSUBNAME PICT "@!"
READ
SFILE=RTRIM(MSFILE)+".DBF"
IF .NOT. FILE(SFILE)
    @19,15 SAY "FILE NOT FOUND, PRESS ANY KEY"
    SET CONSOLE OFF
    WAIT
    SET CONSOLE ON
    LOOP
  ENDIF
L=0
P=0
SN=0
USE &SFILE
SET FILTER TO CLASSCODE=MCLASS
GO 1
SN=1
L=60
CLEAR
@10,20 SAY "PLEASE WAIT,  PRINTING..."
SET DEVICE TO PRINT
DO WHILE .NOT. EOF()
 IF L > 56
  CLEAR
  @1,20 SAY "U N I V E R S I T Y   S T A F F   S C H O O L"
  @2,25 SAY "CLASS "+TRIM(MCLASSNAME)+" "+"EXAMINATION RESULT"
  @3,1 SAY "DATE :"
  @3,9 SAY DATE()
  @3,65 SAY "PAGE : "+STR(P+1,3)
  @5,1 SAY "SUBJECT :- "+MSUBNAME
  @6,1 SAY REPLICATE('-',78)
  @7,1 SAY "S/NO"
  @7,7 SAY "ADM NO."
  @7,20 SAY "CONT. ASSMT"
  @7,35 SAY "E X A M."
  @7,50 SAY "TOTAL %"
  @7,60 SAY "GRADE"
  @7,70 SAY "POSITION"
  @8,1 SAY REPLICATE('-',78)
  L=9
ENDIF
  @L,2 SAY LTRIM(STR(SN))+"."
```

```
    @L,7 SAY ADM_NO
    @L,23 SAY CONT_ASSMT
    @L,35 SAY EXAM
    @L,50 SAY STOTAL
    @L,62 SAY GRADE
    @L,72 SAY POSITION
    SKIP
    L=L+1
    SN=SN+1
    IF EOF()
        @L,1 SAY REPLICATE('-',78)
    ENDIF
ENDDO
 CLOSE DATABASES
 SET DEVICE TO SCREEN
ENDDO
 CLEAR ALL
 RETURN
****************
PROC PUPILRSP
****************
DO WHILE .T.
 CLEAR
 MCLASS=SPACE(2)
 MCLASSNAME=SPACE(15)
 MTERM=SPACE(3)
 @8,5 TO 16,65 DOUBLE
 @10,10 SAY 'CLASS  OR [9X] Exit 'GET MCLASS PICT '9!'
READ
   IF MCLASS = '9X'
       EXIT
   ENDIF
 USE CLASSES
 LOCATE FOR CLASSCODE = MCLASS
    IF EOF()
        @18,10 SAY 'INVALID CLASS, PRESS ANY KEY.'
        SET CONSOLE OFF
        WAIT
        SET CONSOLE ON
        LOOP
     ENDIF
@12,10 SAY "TERM (1ST,2ND OR 3RD) :- " GET MTERM PICT "@!"
 READ
 MCLASSNAME=CLASSNAME
 MCFILE=SPACE(3)
 CFILE=SPACE(6)
 @14,10 SAY "CLASS ACADEMIC RECORDS FILE " GET MCFILE PICT "@!"
 READ
 CFILE=RTRIM(MCFILE)+".DBF"
 IF .NOT. FILE(CFILE)
    @18,10 SAY "FILE NOT FOUND, PRESS ANY KEY"
    SET CONSOLE OFF
    WAIT
    SET CONSOLE ON
    LOOP
```

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```
   ENDIF
SELECT 1
USE &CFILE
SELECT 2
USE PUPILS
SET FILTER TO CLASSCODE = MCLASS
SORT ON ADM_NO TO TEMP
SET FILTER TO
SELECT 3
USE SUBJECT
SELECT 4
USE TEMP
GO 1
CLEAR
@10,20 SAY "PLEASE WAIT,  PRINTING..."
SET DEVICE TO PRINT
DO WHILE .NOT. EOF()
  SN=0
  MSUBCODE=SPACE(3)
  MADM_NO=SPACE(7)
  MSURNAME=SPACE(10)
  MINITIAL=SPACE(5)
  MPRESPOS=SPACE(3)
  MPREVPOS=SPACE(3)
  MPUPILCENT=0
  MPRESPOS=PRES_POS
  MPREVPOS=PREV_POS
  MADM_NO=ADM_NO
  MSURNAME=SURNAME
  MINITIAL=INITIAL
  MPUPILCENT=PUPILCENT
  L=0
@1,20 SAY "U N I V E R S I T Y   S T A F F   S C H O O L"
@2,25 SAY "EXAMINATION REPORT CARD"
@4,5 SAY "NAME/NO :- "+RTRIM(MSURNAME)+" "+INITIAL+" ["+MADM_NO+"]"
@4,50 SAY "CLASS   :- "+MCLASSNAME
@6,5 SAY "TERM    :- "+MTERM
@6,50 SAY "PUPIL % :- "+STR(MPUPILCENT,4)
@8,5 SAY "PREV POS :- "+MPREVPOS
@8,50 SAY "PRES POS :- "+MPRESPOS
@9,1 SAY REPLICATE('-',78)
 @10,5 SAY "S/NO"
 @10,10 SAY "SUBJ CODE"
 @10,25 SAY "SUBJECT NAME"
 @10,48 SAY "S C O R E"
 @10,65 SAY "G R A D E"
@11,1 SAY REPLICATE('-',78)
 L=12
 SN=1
 SELECT 1
 SET FILTER TO ADM_NO = MADM_NO .AND. CLASSCODE=MCLASS
 GO TOP
DO WHILE .NOT. EOF()
  @L,6 SAY LTRIM(STR(SN))+"."
  MSUBCODE=SUBCODE
```

```
  @L,12 SAY SUBCODE
  SELECT 3
  LOCATE FOR SUBCODE=MSUBCODE
  @L,25 SAY SUBNAME
  GO TOP
  SELECT 1
  @L,50 SAY STOTAL
  @L,70 SAY GRADE
   SKIP
   L=L+1
   SN=SN+1
 ENDDO
   @L,1 SAY REPLICATE('-',78)
   SET FILTER TO
   SELECT 4
   SKIP
ENDDO
 CLOSE DATABASES
 ERASE TEMP.DBF
 SET DEVICE TO SCREEN
ENDDO
RETURN
****************
PROC SUBRESPR
****************
DO WHILE .T.
 CLEAR
 MCLASS=SPACE(2)
 MCLASSNAME=SPACE(15)
 MTERM=SPACE(3)
 @7,50 SAY "[9X] TO EXIT..."
 @8,5 TO 16,65 DOUBLE
 @10,15 SAY 'CLASS CODE 'GET MCLASS PICT '9!'
READ
   IF MCLASS = '9X'
      EXIT
   ENDIF
 USE CLASSES
 LOCATE FOR CLASSCODE = MCLASS
   IF EOF()
      @18,15 SAY 'INVALID CLASS, PRESS ANY KEY.'
      SET CONSOLE OFF
      WAIT
      SET CONSOLE ON
      LOOP
   ENDIF
 @12,15 SAY "TERM (1ST,2ND OR 3RD) :- " GET MTERM PICT "@!"
 READ
 MCLASSNAME=CLASSNAME
 MSFILE=SPACE(3)
 SFILE=SPACE(6)
 @14,15 SAY "SUBJECT RECORDS FILE " GET MSFILE PICT "@!"
 READ
 SFILE=RTRIM(MSFILE)+".DBF"
 IF .NOT. FILE(SFILE)
```

```
    @18,15 SAY "FILE NOT FOUND, PRESS ANY KEY"
    SET CONSOLE OFF
    WAIT
    SET CONSOLE ON
    LOOP
  ENDIF
 L=0
 P=0
 SN=0
 MSUBNAME=SPACE(15)
 USE SUBJECT
 LOCATE FOR SUBCODE=MSFILE
 MSUBNAME=SUBNAME
SELECT 1
 USE PUPILS
 SET FILTER TO CLASSCODE = MCLASS
 SORT ON ADM_NO TO TEMP
 SET FILTER TO
 SELECT 3
 USE TEMP
 GO 1
SELECT 2
 USE &SFILE
 SET FILTER TO CLASSCODE = MCLASS
 GO TOP
 SN=1
 L=60
SELECT 3
CLEAR
@10,20 SAY "PLEASE WAIT,  PRINTING..."
SET DEVICE TO PRINT
DO WHILE .NOT. EOF()
  MADM_NO=SPACE(7)
  MSURNAME=SPACE(10)
  MINITIAL=SPACE(5)
  MADM_NO=ADM_NO
  MSURNAME=SURNAME
  MINITIAL=INITIAL
 IF L > 54
  @1,20 SAY "U N I V E R S I T Y   S T A F F   S C H O O L"
  @2,5 SAY "DATE :"
  @2,13 SAY DATE()
  @2,65 SAY "PAGE : "+STR(P+1,3)
  @3,25 SAY "CLASS "+TRIM(MCLASSNAME)+" "+"EXAMINATION RESULT"
  @5,5 SAY "SUBJECT :- "+MSUBNAME
  @6,1 SAY REPLICATE('-',78)
  @7,1 SAY "S/NO"
  @7,7 SAY "ADM NO."
  @7,17 SAY "CANDIDATE NAME"
  @7,39 SAY "CONT. ASSMT"
  @7,52 SAY "E X A M."
  @7,62 SAY "TOTAL %"
  @7,72 SAY "GRADE"
  @8,1 SAY REPLICATE('-',78)
  L=9
```

```
ENDIF
  @L,2 SAY LTRIM(STR(SN))+"."
  @L,7 SAY MADM_NO
  @L,17 SAY TRIM(MSURNAME)+" "+MINITIAL
  SELECT 2
  GO TOP
  LOCATE FOR ADM_NO=MADM_NO
  IF .NOT. EOF()
      @L,42 SAY CONT_ASSMT
      @L,53 SAY EXAM
      @L,63 SAY STOTAL
      @L,74 SAY GRADE
  ELSE
      @L,42 SAY "-"
      @L,53 SAY "-"
      @L,64 SAY "-"
      @L,74 SAY "-"
  ENDIF
  SELECT 3
   SKIP
   L=L+1
   SN=SN+1
 ENDDO
 @L,1 SAY REPLICATE('-',78)
 SET FILTER TO
 CLOSE DATABASES
 ERASE TEMP.DBF
 SET DEVICE TO SCREEN
ENDDO
 CLEAR ALL
 RETURN
****************
PROC SUBMERIT
****************
DO WHILE .T.
 CLEAR
 MCLASS=SPACE(5)
 MCLASSNAME=SPACE(15)
 MTERM=SPACE(3)
 @8,5 TO 18,65 DOUBLE
 @7,50 SAY "[XXXXX] TO EXIT..."
 @10,15 SAY 'WHICH CLASS ? (ONE, TWO ETC...) 'GET MCLASS PICT '@!'
   READ
   IF UPPER(MCLASS) = 'XXXXX'
      EXIT
   ENDIF
 @12,15 SAY "TERM (1ST,2ND OR 3RD) :- " GET MTERM PICT "@!"
 READ
 MSFILE=SPACE(3)
 SFILE=SPACE(6)
 MSUBNAME=SPACE(15)
 @14,15 SAY "SUBJECT FILE CODE " GET MSFILE PICT "@!"
 @16,15 SAY "SUBJECT FILE NAME " GET MSUBNAME PICT "@!"
 READ
 SFILE=RTRIM(MSFILE)+".DBF"
```

```
    IF .NOT. FILE(SFILE)
        @19,15 SAY "FILE NOT FOUND, PRESS ANY KEY"
        SET CONSOLE OFF
        WAIT
        SET CONSOLE ON
        LOOP
     ENDIF
    L=0
    P=0
    SN=0
    USE &SFILE
    GO TOP
    SN=1
    L=60
 DO WHILE .NOT. EOF()
  IF L > 56
    CLEAR
    @1,20 SAY "U N I V E R S I T Y    S T A F F    S C H O O L"
    @3,25 SAY "CLASS "+TRIM(MCLASS)+" "+"EXAMINATION RESULT"
    @4,1 SAY "DATE :"
    @4,9 SAY DATE()
    @4,65 SAY "PAGE : "+STR(P+1,3)
    @5,1 SAY "SUBJECT :- "+MSUBNAME
    @6,1 TO 6,78
    @7,1 SAY "S/NO"
    @7,7 SAY "ADM NO."
    @7,17 SAY "CLASS"
    @7,25 SAY "C. A."
    @7,37 SAY "E X A M."
    @7,50 SAY "TOTAL %"
    @7,60 SAY "GRADE"
    @7,70 SAY "POSITION"
    @8,1 TO 8,78
    L=9
 ENDIF
    @L,2 SAY LTRIM(STR(SN))+"."
    @L,7 SAY ADM_NO
    @L,18 SAY CLASSCODE
    @L,25 SAY CONT_ASSMT
    @L,38 SAY EXAM
    @L,50 SAY STOTAL
    @L,62 SAY GRADE
    @L,72 SAY POSITION
    SKIP
    L=L+1
    SN=SN+1
    IF L > 19
        @23,10 SAY "[C]ontinue       [S]top..."
        I=0
        DO WHILE I=0
        I=INKEY()
        IF UPPER(CHR(I)) $ "CS"
            EXIT
        ENDIF
        I=0
```

```
      ENDDO
      IF CHR(I) $ "Ss"
         EXIT
      ENDIF
  ENDIF
  IF EOF()
      @L,1 TO L,78
  ENDIF
ENDDO
 CLOSE DATABASES
 WAIT
ENDDO
 CLEAR ALL
 RETURN
****************
PROC SUBMERTP
****************
DO WHILE .T.
 CLEAR
 MCLASS=SPACE(5)
 MCLASSNAME=SPACE(15)
 MTERM=SPACE(3)
 @8,5 TO 18,65 DOUBLE
 @7,50 SAY "[XXXXX] TO EXIT..."
 @10,15 SAY 'WHICH CLASS ? (ONE, TWO ETC...) 'GET MCLASS PICT '@!'
   READ
   IF UPPER(MCLASS) = 'XXXXX'
      EXIT
   ENDIF
 @12,15 SAY "TERM (1ST,2ND OR 3RD) :- " GET MTERM PICT "@!"
 READ
 MSFILE=SPACE(3)
 SFILE=SPACE(6)
 MSUBNAME=SPACE(15)
 @14,15 SAY "SUBJECT FILE CODE " GET MSFILE PICT "@!"
 @16,15 SAY "SUBJECT FILE NAME " GET MSUBNAME PICT "@!"
 READ
 SFILE=RTRIM(MSFILE)+".DBF"
 IF .NOT. FILE(SFILE)
    @19,15 SAY "FILE NOT FOUND, PRESS ANY KEY"
    SET CONSOLE OFF
    WAIT
    SET CONSOLE ON
    LOOP
 ENDIF
 L=0
 P=0
 SN=0
 USE &SFILE
 GO TOP
 SN=1
 L=60
 CLEAR
 @10,20 SAY "PLEASE WAIT,  PRINTING..."
 SET DEVICE TO PRINT
```

```
DO WHILE .NOT. EOF()
 IF L > 56
  CLEAR
  @1,20 SAY "U N I V E R S I T Y   S T A F F   S C H O O L"
  @3,25 SAY "CLASS "+TRIM(MCLASS)+" "+"EXAMINATION RESULT"
  @4,1 SAY "DATE :"
  @4,9 SAY DATE()
  @4,65 SAY "PAGE : "+STR(P+1,3)
  @5,1 SAY "SUBJECT :- "+MSUBNAME
  @6,1 SAY REPLICATE('-',78)
  @7,1 SAY "S/NO"
  @7,7 SAY "ADM NO."
  @7,17 SAY "CLASS"
  @7,25 SAY "C. A."
  @7,37 SAY "E X A M."
  @7,50 SAY "TOTAL %"
  @7,60 SAY "GRADE"
  @7,70 SAY "POSITION"
  @8,1 SAY REPLICATE('-',78)
  L=9
 ENDIF
  @L,2 SAY LTRIM(STR(SN))+"."
  @L,7 SAY ADM_NO
  @L,18 SAY CLASSCODE
  @L,25 SAY CONT_ASSMT
  @L,38 SAY EXAM
  @L,50 SAY STOTAL
  @L,62 SAY GRADE
  @L,72 SAY POSITION
  SKIP
  L=L+1
  SN=SN+1
  IF EOF()
     @L,1 SAY REPLICATE('-',78)
  ENDIF
ENDDO
 CLOSE DATABASES
 SET DEVICE TO SCREEN
ENDDO
 CLEAR ALL
 RETURN
****************
PROC ONECOMP
****************
DO WHILE .T.
CLEAR
MCLASS=SPACE(2)
@8,5 TO 16,65 DOUBLE
@7,50 SAY "[9X] TO EXIT..."
@10,10 SAY "WHICH CLASS " GET MCLASS PICT "9!"
READ
   IF MCLASS="9X"
      EXIT
   ENDIF
USE CLASSES
```

```
LOCATE FOR CLASSCODE=MCLASS
IF EOF()
  @17,20 SAY "INVALID CLASS, PRESS ANY KEY"
  SET CONSOLE OFF
  WAIT
  SET CONSOLE ON
  LOOP
ENDIF
MSFILE=SPACE(3)
SFILE=SPACE(7)
@12,10 SAY "SUBJECT RECORDS FILE " GET MSFILE PICT "@!"
READ
  SFILE=RTRIM(MSFILE)+".DBF"
  IF .NOT. FILE(SFILE)
    @17,10 SAY "FILE NOT FOUND,  PRESS ANY KEY..."
    SET CONSOLE OFF
    WAIT
    SET CONSOLE ON
    LOOP
  ENDIF
@17,10 SAY "W A I T,  COMPUTING SUBJECT RESULTS PER CLASS..!"
MOFILE=SPACE(3)
OFILE=SPACE(7)
@14,10 SAY "SUBJECT OUTPUT FILE " GET MOFILE PICT "@!"
READ
  OFILE=RTRIM(MOFILE)+".DBF"
  IF FILE(OFILE)
    @17,10 SAY "FILE ["+OFILE+"] EXITS, OVER WRITE ? (Y/N)"
    I=0
    DO WHILE I=0
    I=INKEY()
    IF UPPER(CHR(I)) $ "YN"
      EXIT
    ENDIF
    I=0
    ENDDO
    IF CHR(I) $ "Nn"
      LOOP
    ENDIF
    ERASE &OFILE
  ENDIF
USE &SFILE
SET FILTER TO CLASSCODE=MCLASS
SORT ON STOTAL/D TO &OFILE
SET FILTER TO
USE &OFILE
GO TOP
POS=0
DO WHILE .NOT. EOF()
MPOS=SPACE(4)
POS=POS+1
  IF POS=1 .OR. POS=21 .OR. POS=31 .OR. POS=41 .OR. POS=51
    MPOS=LTRIM(STR(POS))+"ST"
  ENDIF
  IF POS=2 .OR. POS=22 .OR. POS=32 .OR. POS=42 .OR. POS=52
```

50

```
****************
DO WHILE .T.
CLEAR
MCLASS=SPACE(2)
@9,50 SAY "[XXX] TO EXIT..."
MSFILE=SPACE(3)
SFILE=SPACE(7)
@10,5 TO 14,65 DOUBLE
@12,10 SAY "SUBJECT RECORDS FILE " GET MSFILE PICT "@!"
READ
  IF MSFILE="XXX"
     EXIT
  ENDIF
  SFILE=RTRIM(MSFILE)+".DBF"
  IF .NOT. FILE(SFILE)
     @14,10 SAY "FILE NOT FOUND,  PRESS ANY KEY..."
     SET CONSOLE OFF
     WAIT
     SET CONSOLE ON
     LOOP
  ENDIF
@14,10 SAY "W A I T,  COMPUTING SUBJECT RESULTS..!"
USE &SFILE
SORT ON STOTAL/D TO TEMP
USE TEMP
GO TOP
POS=0
DO WHILE .NOT. EOF()
MPOS=SPACE(4)
POS=POS+1
   IF POS=1 .OR. POS=21 .OR. POS=31 .OR. POS=41 .OR. POS=51
     MPOS=LTRIM(STR(POS))+"ST"
   ENDIF
   IF POS=2 .OR. POS=22 .OR. POS=32 .OR. POS=42 .OR. POS=52
     MPOS=LTRIM(STR(POS))+"ND"
   ENDIF
   IF POS=3 .OR. POS=23 .OR. POS=33 .OR. POS=43 .OR. POS=53
     MPOS=LTRIM(STR(POS))+"RD"
   ENDIF
   IF LEN(TRIM(MPOS)) < 2
    MPOS=LTRIM(STR(POS))+"TH"
   ENDIF
   REPLACE POSITION WITH MPOS
  SKIP
 ENDDO
  CLOSE DATABASES
  ERASE &SFILE
  RENAME TEMP.DBF TO &SFILE
ENDDO
RETURN
* ''''''''''''''''''''' EOF PROFILE '''''''''''''''''''''''''
```

APPENDIX   A

SCREEN DISPLAY OF PUPILS PERSONAL RECORD.

```
┌─────────────────────────────────────────────────────────────────────┐
│           U N I V E R S I T Y   S T A F F   S C H O O L               │
│                                                                       │
│                   NEW PUPILS PERSONAL DATA                            │
├───────────────────────────────────────────────────────────────────── │
│  ADM. NO       :  <87/990 >         SEX           : <F>               │
│                                                                       │
│  SURNAME       :  <KOLADE     >     ATTENDANCE    : <77.00>           │
│                                                                       │
│  INITIALS      :  <Y.M >            YEAR OF ADM.  : <1988>            │
│                                                                       │
│  CLASS CODE    :  <4B>              STATE OF ORIG : <KOGI      >      │
│                                                                       │
│  DATE OF BIRTH :  <14/12/67>        NATIONALITY   : <NIGERIAN >       │
│                                                                       │
└─────────────────────────────────────────────────────────────────────┘
```

              [S]AVE   [R]EPEAT   [C]ANCEL

APPENDIX B

SCREEN DISPLAY OF STAFF RECORD.

```
┌─────────────────────────────────────────────────────────────────────┐
│                                                      [0] to Quit      │
│                        NEW STAFF RECORD FORM                          │
├─────────────────────────────────────────────────────────────────────┤
│                                                                       │
│   STAFF NO     :  <  10>            DATE OF APPT.     : <12/04/90>     │
│                                                                       │
│   SURNAME      :  <GANA       >     HIGHEST QUAL.     : <N.C.E      >  │
│                                                                       │
│   INITIAL      :  <Y.T >            MARITAL STATUS    : <MARRIED    >  │
│                                                                       │
│   RANK         :  <HEADMASTER    >  STATE OF ORIG     : <NIGER      >  │
│                                                                       │
│   BIRTH_DATE   :  <01/07/70>        NATIONALITY       : <NIGERIAN   >  │
│                                                                       │
│   SEX          :  <M>               EMP. STATUS (A/N): <A>             │
│                                                                       │
│   SAL. SCALE   :  <10/ >                                              │
│                                                                       │
└─────────────────────────────────────────────────────────────────────┘

           [S]AVE    [R]EPEAT    [C]ANCEL
```

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