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**STUDENT'S PERSONAL INFORMATION SYSTEM**

**BY**

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**ISLAMABAD**

**AUGUST, 1997.**



**TO OUR'S PARENTS,**

**WITH LOVE**

**COMPUTER CENTRE**  
**QUAID-E-AZAM UNIVERSITY**  
**ISLAMABAD**

**FINAL APPROVAL**

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**Date:** \_\_\_\_\_

This is to certify that we have read the project report submitted by Tabinda Siddiqi and Sajida Amin and it is our judgment that this report is of sufficient standard to warrant its acceptance by Quaid-e-Azam University , Islamabad, for the Post Graduate Diploma in Computer Sciences.

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*Tabinda Siddiqi*

*& Sajida Amin*

## PROJECT BRIEF

**Project Title** : Student's Personal Information System Of Computer Centre Quaid-e-Azam University, Islamabad.

**Undertaken by** : Tabinda Siddiqi  
&  
Sajida Amin

**Supervised by** : Dr. Ghulam Mohammad.

**Starting Month** : July, 1996.

**Completion Month** :

**Software used** : FOXPRO 2.5 for DOS.

**System used** : IBM Compatible 486 Machine.

**Operation System** : MS-dos 6.20.

## ABSTRACT

A computer based **STUDENT'S PERSONAL INFORMATION SYSTEM** for Computer Centre, Quaid-e-Azam University has been developed using Foxpro 2.5 for DOS. The purpose of this study is to facilitate data manipulation for students personal Information System. It is extremely difficult to handle large amount of data manually and achieve valuable results. Through computerization such sort of problems are solved and more reliable and efficient results can be obtained. It has number of facilities for handling data effectively to insert , delete or modify the records in a user friendly environment. Different statements and reports should be obtained every time for decision making. Keeping in view necessary requirements, software package for students personal information system has been developed.

This project report describes how computer can be used for developing an information system. As a model, an information system for the student's Personal information System, Computer Centre, Quaid-e-Azam University, Islamabad has been designed. The description of some important constituents of the above mention Information System has been presented in this report.

- Chapter 1** Gives an introduction to the Computer Centre, Quaid-e-Azam University Islamabad describes the existing system its drawbacks and requirements of the system.
- Chapter 2** States the proposed system design and its important features
- Chapter 3** Describes the hardware system , software requirements and consists of input, output and file designing of the proposed system.
- Chapter 4** Explains the system development its phases and system component.
- Chapter 5** Covers system implementation techniques, system testing and evaluation.
- Chapter 6** Is the user's guide.
- Appendices** Appendix A Contains Flowcharts.  
Appendix B Contains screen layout.  
Appendix C Contains Sample Report.

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# **I. THE EXISTING SYSTEM**

### **1.1 INTRODUCTION**

Computers have become indispensable in today's institutions of learning, just as in all fields of modern life. Rapid Processing of information is essential for every successful research and development organization. Considering this fact, computer centre was established in 1972 at Quaid-e-Azam University, Islamabad.

Computer Centre was established to train Computer Scientists in accordance with the contemporary State-of- technology at Post Graduate level. Computer Centre provides research aid facilities to the students and also gives advisory services to other departments of the University. In addition, it computerizes different procedures of the University's administrative departments.

Computer Centre has always endeavored to promote computer literacy and has enhanced technical and professional skills of those who wish to acquire knowledge about computer sciences and make this as their profession. In this respect, it offers a number of courses which are as follows:

- Post Graduate Diploma in Computer Science.
- Professional Certificate Courses.
- Morning Short Courses.

### **1.2 THE EXISTING SYSTEM**

Computer Centre is an integral part of Quaid-e-Azam University Islamabad and conducts computer courses. Its major responsibility is to provide computing facilities to various departments of the University according to their requirements. But in the recent past years the computer centre has taken one more positive step to enhance its efficiency in the field of education as well.

The Computer Centre, Quaid-e-Azam University, Islamabad mainly conducts the following courses.

**1.2.1 POST GRADUATE DIPLOMA IN COMPUTER SCIENCE.**

It is one year course introduced by the computer centre for the computer literacy of the students. The students admitted to this Diploma are considered to be the regular students of the university. It consists of three major semesters. Their description is enlisted below.

Following courses are taught in the first semester.

**1.2.1.1 FIRST SEMESTER**

- a) System Analysis and Design.
- b) COBOL language.
- c) C language
- d) Data structure
- e) Computing systems.

**1.2.1.2 SECOND SEMESTER.**

- a) Operating Systems.
- b) Operations Research.
- c) Accounting Information System.
- d) Data Base Management System.
- e) Data Communication and Networking.
- f) Graphics.

**1.2.1.3 THIRD SEMESTER.**

The third semester consists of project work. The students are asked to do a project of any nature as offered by the University according to the availability. The students are also allowed to take projects outside the university, if they have the sources or the desire to do so. The computer centre on its part also provides the students with a list of detailed projects offered by different esteemed teachers of the University.

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**1.2.2 PROFESSIONAL CERTIFICATE COURSE IN COMPUTER APPLICATIONS.**

This course is offered to those students who wish to have basic knowledge of computer science and application packages. The main subjects included in this course are listed below:-

- a. DBASE III+
- b. Systems analysis and Design.
- c. COBOL or C language.
- d. Computer Packages.
- e. Electronic Data Processing.

The duration of this course is five months and students are given extensive training on the most modern computers.

**1.2.3 MORNING SHORT COURSES.**

During Summer Vacation, Computer Centre offers a short term certificate course. This course is of two months duration. The syllabus normally comprises of the famous Application Packages like WordPerfect Lotus 123 and DBASE alongwith the basic knowledge of hardware and software in the field of computer science.

Presently, record of students for the above mentioned courses is maintained manually. Considering the difficulties of the present manual system, it was felt that this record should be computerized.

**1.3 DRAWBACKS OF THE EXISTING SYSTEM.**

After a deep study of the existing system, following drawbacks were found in the current system.

- A large number of files and huge registers have to be maintained for the purpose of handling data related to students personal information regarding their bio-data, result sheets, fee entry and daily attendance which results in the worthless extra effort as well as the wastage of large volume of stationary.

- Considering the storage media as another important function, are the information and any type of data are being stored on paper file registers etc. which are not reliable and can be lost or destroyed with the passage of time, so present system is not suitable. Moreover records reside on registers, therefore access, updating, deletion and insertion of any particular record are much time consuming.
- Searching of information about a particular student takes a lot of time because individual records cannot be maintained efficiently under a manual system.
- Since the information and data are stored in various files, registers etc. so there are chances of duplications.
- The present manual system is slow, cumbersome and laborious. It is difficult to make changes because for this purpose one has to do through many files, and this creates chances of errors in recording correct information.

Considering these difficulties it was felt that manual system should be replaced with a computerized system so that performance of the computer centre could be improved.

### **1.4 REQUIREMENTS OF THE SYSTEM.**

Nowadays, Computers are gaining importance in almost every field of our daily life. Whether an organization has scientific or business environment, computers are found everywhere. To cope with fast increasing pace in daily activities, it is important to realize the importance of computer in order to increase efficiency and for getting accurate information.

After studying the existing system and its drawbacks following suggestion are made for remedy.

- There should be a proper way of storing records.
- Easy and fast on-line retrieval of information should be made possible.
- Updation, deletion, insertion and search of a particular record should be quick and easy.

## *Chapter 1: The Existing System*

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- It should be able to generate different reports according to the requirements of the user's
- The system should conduct well, various on-line queries on various aspects using different criteria.
- Accurate data entry and maintain should be made possible.

## **2. THE PROPOSED SYSTEM**



### **2.1 INTRODUCTION**

Computerization means to change over from a manual system to a computer based system. To eliminate the major inefficiencies present in the existing manual system a computerized system is proposed. The proposed system has been designed in order to meet demands and requirements of the computer centre while keeping all the drawbacks and problems in mind. This proposed system will significantly improve the working of the computer centre by providing information correctly and efficiently.

### **2.2 PROJECT OBJECTIVES**

In order to develop a successful “Student’s Personal information System”, it is essential that certain objectives of the computer based system should be established before designing the system. In addition, the relative importance of each objective should also be established. In the present system, related staff has to carry out a huge amount of work by hand which is time consuming, difficult and uneconomic so concerned officers have to face tremendous hardship to monitor the activities. Keeping in mind the drawbacks of the existing system, the following objectives of the proposed system are made:

The proposed system should be,

- more efficient than the existing system.
- easy to use.
- fast and easy access of information.
- ensure security and protection of data.
- be a comprehensive database system with easy and quick insertion, updation, and retrieval of information.
- Provide on-line help for data entry.
- try to make an error free and reliable system.
- have the ability to generate reports required by the management.
- be flexible and capable of adapting changes according to the requirements
- be friendly in nature to the user.

### **2.3 IMPORTANT FEATURES**

Main features of the proposed system are briefly discussed below.

- **USE OF INDICES**

Where necessary, record in files will be indexed on different fields to make data retrieval quick and efficient.

- **USER INTERFACE**

The most important factor for success of any system is that it must be very attractive to the user that is system must be user friendly. Options will be displayed in well designed means. User will be able to choose any option by moving highlighted bar by using arrow keys or highlighted letter or just on click of the mouse. Screens will be designed in such a way that data entry may become easy and simple.

- **QUERIES AND REPORTS**

Proposed system will handle different on-line queries as well as reports on both screen and paper.

- **FLEXIBILITY**

It has been found that the cost involved in the development of the new systems is not only the cost of initial design, coding and testing of system, but also the cost of maintenance. Maintenance includes the repairing of errors when new software system is put into use and extension and enhancement to the software that are needed to meet new needs with slight changes and modification at later stages. The system could be expanded for future requirements.

- **CHECKS**

Various checks will be provided in data entry and updation to ensure data validity, integrity and consistency. Checks will also be available to check key duplications.

### **3. SYSTEM DESIGN**

### 3.1 INTRODUCTION

This phase of the system life cycle consists of the design of the system which is based on the first phase, gathering and analysis of data. Before development of any system, it is very important to sketch preliminary specifications and then with the help of these specifications and more analysis draw a detailed design which should consist of input details, output reports and query formats and layout of all the database files and their relationships.

The procedures and functions to be developed are also included in the detailed design. Economy, reliability, responsiveness and modularity should be taken into account in the design. These requirements may best be achieved with a modest start and careful testing of each phase before proceeding to the next. This chap deals with the designing of user interface, output forms and database files.

### 3.2 THE PHASE PARAMETERS

The proposed system is developed in three phases. These phases are discussed as follows:

#### 3.2.1 STUDY PHASE.

A detailed study and analysis was carried out to identify the following steps.

- Identify the problem
- Define the objectives of the proposed system.
- Study alternative solutions.
- Select the most feasible solution.
- Develop the system data flow.
- Write the study report.

#### 3.2.2 DESIGN PHASE

Design phase consists of the following steps.

- Identification of the procedures to be performed.
- Time allocation for each procedure.
- Perform input, output and file design.
- Write the design phase report.

#### 3.2.3 DEVELOPMENT PHASE

Development of the designed system was conducted as

- Develop computer programs.

- Prepare for conversion.
- Testing of components and complete system with dummy data.
- Testing of components and complete system with actual data.
- Writing development phase report.

### 3.3 SOFTWARE SELECTION

There are three aspects of a database input and output to and from the real world, the programs that manage all the operations and storage of information. Out of these the programming aspect is the most important one as it, controls both the input and output activities and storage information inside a database. Thus, it is very important that a suitable programming language or database management system should be chosen, keeping in view all aspects of the problem. After devoting a lot of time for this purpose, Foxpro 2.5 for DOS is considered to be quite appropriate.

- Foxpro is very powerful database management system.
- Its processing is fast and it is easy to handle.
- It has a complete set of diagnostic features that helps to locate and identify the errors.
- Foxpro is equally suitable for personal information systems and commercial purposes.
- It has the best facility regarding the file handling.
- It has the ability to handle large amount of inputs and produce reports of various formats.
- It is easy to modify, as its syntax resembling the language enables even non technical users to understand and have a good command on the Foxpro data base.

### 3.4 HARDWARE REQUIREMENTS.

For the proposed system, the minimum requirements for hardware and operating system are:

1. An IBM PC/AT or any other IBM compatible computer with a minimum 4 MB RAM and A 5.25 Inch OR 3.50 Inch floppy.
2. A color or monochrome monitor.
3. A Printer.
4. MS-DOS version 5.0 or above.

### 3.5 SYSTEM DESIGNING

System design is the initial step in the development phase of any system. It is the process of choosing various techniques for the purpose of defining a system in enough

detail so as to permit its physical realization. System design is in fact a formal procedure for combining human resources, equipments, techniques, information data and working procedures into an integrated whole in order to facilitate the organizational performance. It consists of the following three steps.

- Input designing.
- Output designing.
- File designing.

### 3.5.1 INPUT DESIGNING.

Following things must be taken under consideration while designing input forms.

- Design and color of screens.
- Inputs identification.
- Specification of fields and their types in a record.
- Adequate spaces for insertion of data.
- Checks for correct data entry.

### 3.5.2 OUTPUT DESIGNING

The end user of an information system is more concerned with the results and their formats, rather than the design and working of the system. Also, the main objective of the system is efficient, fast and reliable retrieval of information. Initial output considerations, in discussion with the users, include what information is needed, how it should be presented (Screen oriented or printed reports), what format it should have, when it is needed and what the volume will be. In designing outputs the following factors are kept in mind.

- It should be good looking ,
- It should be easy to understand ,
- Purpose of output should be clearly mentioned ,
- Output should be precise and without unnecessary information. The following queries/reports are provided by the new system ,
- Applicants list (for PGD,PC,SC students respectively) ,
- Selected student's list (for PGD,PC,SC students respectively) ,
- Attendance sheet (for PGD,PC,SC students respectively) ,
- Result sheet (for PGD,PC,SC students respectively, 1st,2nd,3rd semester in case of PGD students) ,
- Combined result sheet (for PGD,PC,SC students respectively)

### 3.5.3 FILE DESIGNING

File designing is considered to be the most important phase of any computerized system to produce the efficient retrievals, to provide better space utilization and to minimize data redundancy, duplication and inconsistency. The following files are designed for proposed system.

#### 3.5.3.1 Database files.

Database files stores data in the form of records containing fields. Each record is intended to store a set of unique information.

#### 3.5.3.2 Index Files.

Index files provide the means to use a database file in a logical order rather than a physical order. Physical order means that the order in which the records are entered, where as the logical order is an alphabetical or numerical order based on the field type for efficient retrieval. Indices Optimize the system performance in two ways, first they minimize database access time by reducing the number of disk input and output operations significantly. Secondly they enforce primary key uniqueness.

Index files relate a key to a corresponding database record number, which may provide the direct access to the particular record while using index file.

Several different files are designed for the system. A description of the files used by the system is as follows:

#### 1 FILE NAME: PER\_DATA.DBF

**PURPOSE: THIS FILE REPRESENTS THE PERSONAL DATA ENTRY FILE OF ALL THE PGD STUDENTS.**

#### RECORD LAYOUT:

FIELD NAME	TYPE	WIDTH	DESCRIPTION
REGD_NO	CHARACTER	10	REGISTRATION NO
NAME	CHARACTER	40	STUDENT'S NAME
FATHER	CHARACTER	40	FATHER'S NAME
ADDRESS	CHARACTER	80	HOME ADDRESS
PADDRESS	CHARACTER	80	PERMANENT ADDRESS

## Chapter 3: System Design

P_CODE	CHARACTER	01	PROVINCE CODE
BIRTH_DATE	DATE	08	DATE OF BIRTH
TEL_NO	CHARACTER	10	TELEPHONE NO
ID_CARD	CHARACTER	13	IDENTITY CARD
FORMNO	CHARACTER	03	FORM NO
INTER	NUMERIC	03	MARKS IN INTER
GRADUATION	NUMERIC	03	MARKS IN GRADUATION
NCC	LOGICAL	01	NATIONAL CADET CORP
HAFIZ	LOGICAL	01	HAFIZ_E_QURAN
MASTER	LOGICAL	01	IF MASTER'S DEGREE HOLDER
SUBJ_CODE	CHARACTER	03	SUBJECT CODE

2. **FILE NAME:** PGDMASTER.DBF

**PURPOSE:** THIS FILE REPRESENTS THE COMBINED DATA OF ALL THE PGD STUDENTS.

**RECORD LAYOUT:**

FIELD NAME	TYPE	WIDTH	DESCRIPTION
YEAR	CHARACTER	04	YEAR
CROLL_NO	CHARACTER	03	CLASS ROLL NO
REGD_NO	CHARACTER	10	REGISTRATION NO
NAME	CHARACTER	40	STUDENT'S NAME
FATHER	CHARACTER	40	FATHER'S NAME
ADDRESS	CHARACTER	80	HOME ADDRESS
PADDRESS	CHARACTER	80	POSTAL ADDRESS
P_CODE	CHARACTER	01	PROVINCE CODE
BIRTH_DATE	DATE	08	DATE OF BIRTH
TEL_NO	CHARACTER	10	TELEPHONE NO



### Chapter 3: System Design

FIELD NAME	TYPE	WIDTH	DESCRIPTION
ID_CARD	CHARACTER	13	IDENTITY CARD
FORMNO	CHARACTER	03	FORM NO
INTER	NUMERIC	03	MARKS IN INTER
GRADUATION	NUMERIC	03	MARKS IN GRADUATION
NCC	LOGICAL	01	NATIONAL CADET CORP
HAFIZ	LOGICAL	01	HAFIZ_E_QURAN
MASTER	LOGICAL	01	IF MASTER DEGREE HOLDER
SUBJ_CODE	CHARACTER	03	SUBJECT CODE
CS	NUMERIC	03	COMPUTING SYSTEMS
CP	NUMERIC	03	COBOL PROGRAMMING
SA	NUMERIC	03	SYSTEM ANALYSIS AND DESIGN
DS	NUMERIC	03	DATA STRUCTURES
CL	NUMERIC	03	C LANGUAGE
F_MARKS	NUMERIC	04	TATAL MARKS OBTAINED
OS	NUMERIC	03	OPERATING SYSTEMS
OR	NUMERIC	03	OPERATIONS RESEARCH
DC	NUMERIC	03	DATA COMMUNICATION
AIF	NUMERIC	03	ACCOUNTING INFORMATION SYSTEM
CG	NUMERIC	03	COMPUTER GRAPHICS
DBM	NUMERIC	03	DATA BASE MANAGEMENT SYSTEM
MARKS	NUMERIC	04	TOTAL MARKS
PRJ	NUMERIC	03	PROJECT
AMT_DET	NUMERIC	05	AMOUNT DEPOSIT
AMT_DUE	NUMERIC	05	AMOUNT DUE

3. FILE NAME: PCMAST.DBF

PURPOSE: THIS FILE REPRESENTS THE COMBINE DATA OF ALL THE PC STUDENTS.

RECORD LAYOUT

FIELD NAME	TYPE	WIDTH	DESCRIPTION
YEAR	CHARACTER	04	YEAR
REGD_NO	CHARACTER	10	REGISTRATION NO
NAME	CHARACTER	40	STUDENT'S NAME
FATHER	CHARACTER	40	FATHER'S NAME
ADDRESS	CHARACTER	80	HOME ADDRESS
PADDRESS	CHARACTER	80	POSTAL ADDRESS
P_CODE	CHARACTER	01	PROVINCE CODE
BIRTH_DATE	DATE	08	DATE OF BIRTH
TEL_NO	CHARACTER	10	TELEPHONE NO
ID_CARD	CHARACTER	13	IDENTITY CARD
FORMNO	CHARACTER	03	FORM NO
INTER	NUMERIC	03	MARKS IN INTER
GRADUATION	NUMERIC	03	MARKS IN GRADUATION
NCC	LOGICAL	01	NATIONAL CADET CORP
HAFIZ	LOGICAL	01	HAFIZ_E_QURAN
MASTER	LOGICAL	01	IF MASTER DEGREE HOLDER
SUBJ_CODE	CHARACTER	03	SUBJECT CODE
EDP	NUMERIC	03	ELECTRONIC DATA PROCESSING
SA	NUMERIC	03	SYSTEM ANALYSIS AND DESIGN
CP	NUMERIC	03	COBOL PROGRAMMING
DB	NUMERIC	03	DBASE III
AP	NUMERIC	03	APPLICATION PACKAGE
MARKS_OBT	NUMERIC	04	MARKS OBTAINED

## Chapter 3: System Design

FIELD NAME	TYPE	WIDTH	DESCRIPTION
ROLL_NO	CHARACTER	03	ROLL NO
AMT_DET	NUMERIC	05	AMOUNT DEPOSIT
AMT_DUE	NUMERIC	05	AMOUNT DUE

4. FILE NAME: SCMAST-DBF

PURPOSE: THIS FILE REPRESENTS THE COMBINE DATA OF ALL THE SC STUDENTS

### RECORD LAYOUT.

FIELD NAME	TYPE	WIDTH	DESCRIPTION
REGD_NO	CHARACTER	10	REGISTRATION NO
NAME	CHARACTER	40	STUDENT'S NAME
FATHER	CHARACTER	40	FATHER'S NAME
ADDRESS	CHARACTER	80	HOME ADDRESS
PADDRESS	CHARACTER	80	POSTAL ADDRESS
P_CODE	CHARACTER	01	PROVINCE CODE
BIRTH_DATE	DATE	08	DATE OF BIRTH
TEL_NO	CHARACTER	10	TELEPHONE NO
ID_CARD	CHARACTER	13	IDENTITY CARD
FORMNO	CHARACTER	03	FORM NO
INTER	NUMERIC	03	MARKS IN INTER
GRADUATION	NUMERIC	03	MARKS IN GRADUATION
NCC	LOGICAL	01	NATIONAL CADET CORP
HAFIZ	LOGICAL	01	HAFIZ-E-QURAN
MASTER	LOGICAL	01	IF MASTER DEGREE HOLDER
YEAR	CHARACTER	04	YEAR
TERM	CHARACTER	01	TERM

## Chapter 3: System Design

FIELD NAME	TYPE	WIDTH	DESCRIPTION
ROLL_NO	CHARACTER	03	CLASS ROLL NO
AMT_DET	NUMERIC	05	AMOUNT DEPOSIT
AMT_DUE	NUMERIC	05	AMOUNT DUE
LOTUS	NUMERIC	03	LOTUS
WS	NUMERIC	03	WORD STAR
DBASE	NUMERIC	03	DBASE III
MARKS_OBT	NUMERIC	04	MARKS OBTAINED

5. FILE NAME: FIRST.DBF

PURPOSE: IT HOLDS THE MARKS OF FIRST SEMESTER OF PGD STUDENTS.

RECORD LAYOUT.

FIELD NAME	TYPE	WIDTH	DESCRIPTION
CROLL_NO	CHARACTER	03	CLASS ROLL NO
CS	NUMERIC	03	COMPUTING SYSTEMS
CP	NUMERIC	03	COBOL PROGRAMMING
SA	NUMERIC	03	SYSTEM ANALYSIS AND DESIGN
DS	NUMERIC	03	DATA STRUCTURE
CL	NUMERIC	03	C LANGUAGE
SEMESTER	CHARACTER	03	SEMESTER

6. FILE NAME: SECOND.DBF

PURPOSE: THIS FILE REPRESENTS THE RESULT SHEET FOR SECOND SEMESTER,PGD STUDENTS.

RECORD LAYOUT.

FIELD NAME	TYPE	WIDTH	DESCRIPTION
CROLL_NO	CHARACTER	03	CLASS ROLL NO
SEMESTER	CHARACTER	02	SEMESTER

## Chapter 3: System Design

FIELD NAME	TYPE	WIDTH	DESCRIPTION
OS	NUMERIC	03	OPERATING SYSTEMS
OR	NUMERIC	03	OPERATIONS RESEARCH
DC	NUMERIC	03	DATA COMMUNICATION
AIF	NUMERIC	03	ACCOUNTING INFORMATION SYSTEM
CG	NUMERIC	03	COMPUTER GRAPHICS
DBM	NUMERIC	03	DATA BASE MANAGEMENT SYSTEMS

7. **FILE NAME: PROJECT.DBF**

**PURPOSE: THIS FILE HOLDS THE MARKS OF THIRD SEMESTER OF PGD STUDENTS.**

**RECORD LAYOUT.**

FIELD NAME	TYPE	WIDTH	DESCRIPTION
CROLL_NO	CHARACTER	03	CLASS ROLL NO
SEMESTER	CHARACTER	02	SEMESTER
PRJ	NUMERIC	03	PROJECT

8. **FILE NAME: FEES.DBF**

**PURPOSE: THIS FILE REPRESENTS FEES ENTRY FILE OF PGD STUDENTS.**

**RECORD LAYOUT.**

FIELD NAME	TYPE	WIDTH	DESCRIPTION
FEESNO	CHARACTER	05	FEES NO
CHALLAN_NO	CHARACTER	10	CHALLAN NO
DATE	DATE	08	DATE
AMT_DUE	NUMERIC	05	AMOUNT DUE
AMT_DET	NUMERIC	05	AMOUNT DEPOSIT

## Chapter 3: System Design

FIELD NAME	TYPE	WIDTH	DESCRIPTION
FINE	NUMERIC	03	FINE

9. FILE NAME: PC-PER.DBF

PURPOSE: THIS FILE SHOWS PERSONAL DATA ENTRY FILE OF PC STUDENTS.

### RECORD LAYOUT

FIELD NAME	TYPE	WIDTH	DESCRIPTION
REGD_NO	CHARACTER	10	REGISTRATION NO
NAME	CHARACTER	40	STUDENT'S NAME
FATHER	CHARACTER	40	FATHER'S NAME
ADDRESS	CHARACTER	80	HOME ADDRESS
PADDRESS	CHARACTER	80	PERMANENT ADDRESS
P_CODE	CHARACTER	01	PROVINCE CODE
BIRTH_DATE	DATE	08	DATE OF BIRTH
TEL_NO	CHARACTER	10	TELEPHONE NO
ID_CARD	CHARACTER	13	IDENTITY CARD
FORMNO	CHARACTER	03	FORM NO
INTER	NUMERIC	03	MARKS IN INTER
GRADUATION	NUMERIC	03	MARKS IN GRADUATION
NCC	LOGICAL	01	NATIONAL CADET CORP
HAFIZ	LOGICAL	01	HAFIZ-E-QURAN
MASTER	LOGICAL	01	IF MASTER'S DEGREE HOLDER
SUBJ_CODE	CHARACTER	03	SUBJECT CODE

10. FILE NAME: PC-FIRST-DBF

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**PURPOSE:** THIS FILE HOLDS THE RESULT SHEET OF ALL THE PC STUDENTS.

**RECORD LAYOUT.**

FIELD NAME	TYPE	WIDTH	DESCRIPTION
CROLL_NO	CHARACTER	03	CLASS ROLL NO
SEMESTER	CHARACTER	03	SEMESTER
EDP	NUMERIC	03	ELECTRONIC DATA PROCESSING
SA	NUMERIC	03	SYSTEM ANALYSIS AND DESIGN
CL	NUMERIC	03	C LANGUAGE
CP	NUMERIC	03	COBOL PROGRAMMING
DB	NUMERIC	03	DBASE III
AP	NUMERIC	03	APPLICATION PACKAGES

**11. FILE NAME: PC\_FEES.DBF**

**PURPOSE:** THIS FILE REPRESENTS THE FEE ENTRY FILE OF ALL THE PC STUDENTS.

**RECORD LAYOUT:**

FIELD NAME	TYPE	WIDTH	DESCRIPTION
FEESNO	CHARACTER	05	FEES NO
CHALLAN_NO	CHARACTER	10	CHALLAN NO
DATE	DATE	08	DATE
AMT_DUE	NUMERIC	05	AMOUNT DUE
AMT_DET	NUMERIC	05	AMOUNT DEPOSIT
FINE	NUMERIC	03	FINE

**12. FILE NAME: PC\_STD.DBF**

**PURPOSE:** THIS FILE HOLDS THE LIST OF SELECTED STUDENTS OF PC

**RECORD LAYOUT:**

## Chapter 3: System Design

FIELD NAME	TYPE	WIDTH	DESCRIPTION
NAME	CHARACTER	40	STUDENT'S NAME
FATHER	CHARACTER	40	FATHER'S NAME
REGD_NO	CHARACTER	10	REGISTRATION NO
ROLL_NO	CHARACTER	03	ROLL NO
TOTAL	NUMERIC	05	TOTAL
BAL	NUMERIC	05	BALANCE

13. FILE NAME : PC\_LINK.DBF

PURPOSE: THIS FILE REPRESENTS THE JOINED FILE OF PC\_FIRST AND PC\_PER.

### RECORD LAY OUT

FIELD NAME	TYPE	WIDTH	DESCRIPTION
CROLL_NO	CHARACTER	03	CLASS ROLL NO
SEMESTER	CHARACTER	03	SEMESTER
MARKS_OBT	NUMERIC	03	MARKS OBTAINED

14. FILE NAME: PCFELINK.DBF

PURPOSE: THIS FILE REPRESENTS THE JOINED FILE OF PC\_FEES AND PC\_STD

### RECORD LAYOUT:

FIELD NAME	TYPE	WIDTH	DESCRIPTION
CROLL_NO	CHARACTER	03	CLASS ROLL NO
FEESNO	CHARACTER	05	FEES

15. FILE NAME: SC\_PER.DBF

PURPOSE: THIS FILE CONTAINS THE PERSONAL DATA OF SC STUDENTS.

### RECORD LAYOUT:

FIELD NAME	TYPE	WIDTH	DESCRIPTION
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## Chapter 3: System Design

FIELD NAME	TYPE	WIDTH	DESCRIPTION
REGD_NO	CHARACTER	10	REGISTRATION NO
NAME	CHARACTER	40	STUDENT'S NAME
FATHER	CHARACTER	40	FATHER'S NAME
ADDRESS	CHARACTER	80	HOME ADDRESS
PADDRESS	CHARACTER	80	PERMANENT ADDRESS
P_CODE	CHARACTER	01	PROVINCE CODE
BIRTH_DATE	DATE	08	DATE OF BIRTH
TEL_NO	CHARACTER	10	TELEPHONE NO
ID_CARD	CHARACTER	13	IDENTITY CARD
FORMNO	CHARACTER	03	FORM NO
INTER	NUMERIC	03	MARKS IN INTER
GRADUATION	NUMERIC	03	MARKS IN GRADUATION
NCC	LOGICAL	01	NATIONAL CADET CORP
HAFIZ	LOGICAL	01	HAFIZ-E-QURAN
MASTER	LOGICAL	01	IF MASTER'S DEGREE HOLDER
SUBJ_CODE	CHARACTER	03	SUBJECT CODE

16. FILE NAME: SC\_FIRST.DBF

PURPOSE: IT REPRESENTS THE RESULT SHEET DATA ENTRY OF SC STUDENTS.

RECORD LAYOUT:

FIELD NAME	TYPE	WIDTH	DESCRIPTION
CROLL_NO	CHARACTER	03	CLASS ROLL NO
SEMESTER	CHARACTER	03	SEMESTER
LOTUS	NUMERIC	03	LOTUS
WS	NUMERIC	03	WORD STAR
DBASE	NUMERIC	03	DBASE III

17. FILE NAME: SC\_FEES.DBF

PURPOSE: THIS FILE REPRESENTS THE FEE ENTRY FILE OF SC STUDENTS

RECORD LAYOUT.

FIELD NAME	TYPE	WIDTH	DESCRIPTION
FEESNO	CHARACTER	05	FEES NO
CHALLAN_NO	CHARACTER	10	CHALLAN NO
DATE	DATE	08	DATE
AMT_DUE	NUMERIC	05	AMOUNT DUE
AMT_DET	NUMERIC	05	AMOUNT DEPOSIT
FINE	NUMERIC	03	FINE

18. FILE NAME: SC\_STD.DBF

PURPOSE: THIS FILE CONTAINS THE LIST OF SELECTED STUDENTS OF SC.

RECORD LAY OUT:

FIELD NAME	TYPE	WIDTH	DESCRIPTION
NAME	CHARACTER	40	STUDENT'S NAME
FATHER	CHARACTER	40	FATHER'S NAME
REGD_NO	CHARACTER	10	REGISTRATION NO
ROLL_NO	CHARACTER	03	ROLL NO
TOTAL	NUMERIC	05	TOTAL
BAL	NUMERIC	05	BALANCE

19. FILE NAME: SCLINK.DBF

PURPOSE: THIS FILE REPRESENTS THE JOINED FILE OF SC\_FIRST AND SC\_PER.

RECORD LAYOUT:

FIELD NAME	TYPE	WIDTH	DESCRIPTION
CROLL_NO	CHARACTER	03	CLASS ROLL NO
SEMESTER	CHARACTER	03	SEMESTER
MARKS_OBT	NUMERIC	03	MARKS OBTAINED

20. FILENAME: SCFELINK.DBF

PURPOSE: THIS FILE REPRESENTS THE JOINED FILE OF SC\_STD WITH SCLINK,SC\_FEES AND SC\_FIRST.

RECORD LAYOUT:

FIELD NAME	TYPE	WIDTH	DESCRIPTION
CROLL_NO	CHARACTER	03	CLASS ROLL NO
FEESNO	CHARACTER	05	FEES NO
SCLINK	CHARACTER	03	SC LINK
SEMESTER	CHARACTER	03	SEMESTER
MARKS_OBT	NUMERIC	03	MARKS OBTAINED

21. FILE NAME: FEESLINK.DBF

PURPOSE: THIS FILE REPRESENTS THE JOINED FILE OF STD\_DATA AND FEES.

RECORD LAYOUT.

FIELD NAME	TYPE	WIDTH	DESCRIPTION
CROLL_NO	CHARACTER	03	CLASS ROLL NO
FEESNO	CHARACTER	05	FEES NO

22. FILE NAME: NAMELINK.DBF

PURPOSE: THIS FILE REPRESENTS THE JOINED FILE OF PER\_DATA WITH FIRST,SECOND AND PROJECT.

RECORD LAYOUT:

FIELD NAME	TYPE	WIDTH	DESCRIPTION
CROLL_NO	CHARACTER	03	CLASS ROLL NO
SEMESTER	CHARACTER	02	SEMESTER
MARKS_OBT	NUMERIC	03	MARKS OBTAINED

23. FILE NAME: INITIAL.DBF

PURPOSE: THIS FILE IS USED TO ASSIGN THE REGISTRATION NUMBER OF ALL THE STUDENTS.

RECORD LAYOUT:

FIELD NAME	TYPE	WIDTH	DESCRIPTION
REGD_ NO	CHARACTER	03	REGISTRATION NO
PCREGDNO	CHARACTER	03	PC REGISTRATION NO
FEESNO	CHARACTER	05	FEES NO
FEE	NUMERIC	05	FEE
PCFEESNO	CHARACTER	05	PC FEES NO
PCFEE	NUMERIC	05	PC FEE
SCREGDNO	CHARACTER	03	SC REGISTRATION NO
SCFEESNO	CHARACTER	05	SC FEES NO
SCFEE	NUMERIC	05	SC FEE
YEAR	CHARACTER	04	YEAR

24. FILE NAME: STD\_DATA.DBF

PURPOSE: THIS FILE CONTAINS THE LIST OF SELECTED STUDENTS OF PGD STUDENTS.

RECORD LAYOUT:

FIELD NAME	TYPE	WIDTH	DESCRIPTION
NAME	CHARACTER	40	STUDENT'S NAME
FATHER	CHARACTER	40	FATHER'S NAME
REGD_NO	CHARACTER	10	REGISTRATION NO
CROLL_NO	CHARACTER	03	CLASS ROLL NO
TOTAL	NUMERIC	05	TOTAL
BAL	NUMERIC	05	BALANCE

## **4. SYSTEM DEVELOPMENT**

### **4.1 INTRODUCTION**

Once the system is proposed and designed, its development phase starts. In the development phase, the system is built to meet the proposed and designed phase specifications. The development phase focuses on the description how data structures and software architectures are to be designed, how procedural details are to be implemented how the design will be translated into a programming language and how testing will be performed.

### **4.2 DEVELOPMENT PHASE**

The method applied during the development phase will very depending upon the software engineering paradigm applied. However, the most important steps are:

- Development approach
- Implementing the database design.
- Choose the appropriate software tool
- Development application to store and retrieve information from the database.
- Test the application with sample data for debugging.
- Produce the desired outputs.

### **4.3 DEVELOPMENT APPROACH.**

Object oriented approach has been used with the following properties.

- Modules are high cohesive that is each module accomplish one and only one function.
- Modules are loosely coupled which implies that there is minimum data passing between the modules.

Moreover reusable codes and procedures have been adopted for most of the screens e.g., in most of the screens the push buttons are common. In order to provide security the access control is provided for the most important data such as ;initial values, Delete pgd, Delete PC, Delete Sc, options. This would prevent the incorrect data entry or deletion by unauthorized users.

### **4.4 IMPLEMENTING DATABASE DESIGN.**

A good file design is an asset to the system development. If the files are properly designed there is no reason why they should give trouble in the future when certain changes have to be made.

In this system a relational database technique has been used which prevents the duplication of fields in various databases. Utmost effort is put in designing the files in such a manner that redundancy can be reduced and integrity is maintained. Programs are written for insertion, modification and deletion records. At the time of insertion all efforts are made that accurate data entry is done, through the use of valid data entry checks and by providing range of values for each data field in the data entry screens. Moreover the same data cannot be entered more than once.

### **4.5 DEVELOPMENT OF APPLICATION**

Once the software tool is selected the applications were written. All the applications are developed independently and later linked together by using the project Manager. This project file with an extension of .PJX, was then used to generate an application file to display screens and menus for input and output.

### **4.6 SOFTWARE TESTING**

The importance of software testing and its importance w.r.t. software quality cannot be over emphasized. Software testing is a critical element of software quality assurance and represents the ultimate review of specification, design and coding. The results of software testing eventually shows that data and logic are behaving in predictable and correct ways.

Each application was subjected to initial testing using the test data to look for any malfunction in i/o, data formats, record keys, calculations and comparisons. Alternatives were made when necessary.

### **4.7 GENERATION OF OUTPUT.**

In generating reports some of the actions are kept in mind. The reports should be simple, accurate and easily recognizable. Structured query language (SQL) has been used to filter the required data for generating output reports and to query databases.

### **4.8 SYSTEM COMPONENTS**

The main aim of software development is to develop a computer program capable of processing input information into desired output forms. The developed system programs written in FOXPRO 2.5 for DOS. Each program fulfills different needs of the system. The main directory consists of the following modules.



1. DBFS.
2. MENUS
3. SCREENS
4. PRGS
5. REPORTS

DBFS consists of data files. Other modules that is menus, screens, reports and DBFS are linked together through programming module that is prgs. PRGS consists of the following four PRGS files

- a) Pgdmain.Prg.
- b) Pgdlib.Prg.
- c) Dofind.Prg.
- d) Sql\_Val Prg.

## **5. SYSTEM IMPLEMENTATION AND EVALUATION**

The process in which the present system is replaced by a new one is called implementation. In this section first of all we will discuss all the possible methods that can be used to implement the new system. At the end suitable methods for conversion is recommended. The major parts of this phase are as under.

- System testing.
- System conversion.

### **5.1 SYSTEM TESTING.**

Testing and validation of results is very important to make the system acceptable. Even if the system is developed using correct algorithms, its reliability remains doubtful. The system can not be handed over to the user, until its accuracy is proved mathematically and by hand. System testing is the process of executing a program, with the intent of finding errors.

System implementation and evaluation is the final phase in the system development life cycle, after development of the software. In this chapter various methods of system implementation, description of testing and conversion techniques used for the developed system are discussed. The system is then evaluated according to the standard. The system testing is performed in the following three steps.

1. Unit Testing.
2. Integrated Testing.
3. System Testing.

#### **5.1.1 Unit Testing.**

In unit testing, different modules of the developed system are tested independently of each other. The purpose is to determine whether each module is working properly and to locate the logical and coding bugs.

#### **5.1.2 Integrated Testing.**

After testing the system at unit level, all these units are combined in a menu driven environment, and then their testing is carried out. The main purpose is to determine that the modules are correctly interacting with each other.

### **5.1.3 System Testing**

System testing is performed to ensure, that it is operating according to the desired specifications and requirements of the organization. The size and structure of data fields are checked while using the actual data. The reports generated by the system were checked against the requirements.

### **5.2 System Conversion**

There are three basic conversion methods which are used to implement a new system. Their brief description is as follows:-

#### **5.2.1 Direct Conversion.**

In this method, a completely new system is introduced without any reference to any previous similar system which may exist. This conversion approach is adopted only when new system is totally different from the existing system.

#### **5.2.2 Pilot Conversion.**

In this type of conversion the current data is processed simultaneously by both the old and new system in order to cross check the results. When the organization is fully satisfied that new system provides the desired results, the old system is then replaced by new one.

#### **5.2.3 Parallel Conversion.**

In this type of conversion a subsystem of proposed system is replaced with apart of the old system. At the lend of the parallel run period, if the new system is approved on the basis of results produced, the existing system will be dropped and the designed system will continue from ;the onward.

### **5.3 PROPOSED SYSTEM CONVERSION**

Since the existing system cannot be discarded at once, direct conversion was not suitable. Pilot conversion was also not good, because the system works as a unit, not in parts. Phase in conversion was also not applicable due to its similar nature as of Pilot Conversion. Therefore, the parallel conversion strategy is recommended for this system implementation. Although this implementation approach is more expensive and involves additional work load the old system will be safe. This approach is selected because:

- It is normally the safest and suitable conversion strategy.

- It minimize the problems that may arise from system failure.
- If unfortunately, system fails, data would not be last because the old system would also be working in parallel.

### **5.4 SYSTEM EVALUATION**

Another activity to judge whether the developed system has meet the desired objectives of the proposed system, which are set in the system description by comparing its merits and demerits, is called system evaluation. The system description is reviewed and evaluated with respect to its completion and efficiency. It also suggests future enhancements in the developed system.

The objectives of system evaluation is to determine, whether the desired objectives are accomplished or not. This is done by determining the merits and demerits of the proposed system. This chapter is concerned with the detail study of the developed system, from the implementation point of view. At the end some suggestions for the improvements of the system are coded.

#### **5.4.1 Merits.**

The new system has number of advantages over the manual system as described below;

#### **5.4.2 Efficiency**

The new system is very effective. Data entry task is easier and faster as compared to the manual system

#### **5.4.3 Accuracy**

- The new system gives a higher degree of correctness and produces reliable results. The outputs are sufficiently precise for the desired purpose.

#### **5.4.4 Modularity**

The system is divided into number of modules integrated together to fulfill user requirements. There modules are independent of each other. An other advantage, of modularity is the ease of modification, extension and enhancement of the developed system.

#### **5.4.5 Ease of use.**

The developed system is menu driven and very easy to use for a user having even little knowledge of data processing, on-line help, proper error messages and respective information messages are provided to make the system user friendly.

## *Chapter 5: System Implementation and Evaluation*

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### **5.4.6 Consistency**

Uniform notation within the system are used to ensure that progress contents make its purpose clear to other programmers.

### **5.4.7 Future Precautions**

Regular backup strategy should employed to seek protection of data and facilitate recovery in the event of loss or destruction of data.

## **G. USER'S GUIDE**

## 6.1 INTRODUCTION

Every new thing like new computerized system is challenging for every one. Although the developed system is menu driven, on line help and proper error messages are provided but still a lay man or a user can feel difficulty in using this system, then this user guide can help him.

The considered system is developed in Foxpro 2.5 for DOS.

## 6.2 GETTING STARTED.

To activate the package you are supposed to type CD PROJECT at the DOS prompt and after that type simple PGDPROG..After the command is given a password screen appears and system asks for password in order to continue execution.After the entry of correct password the system will display the "MAIN MENU" which contains the following options;

- File
- Edit.
- Info.
- Fees
- Results
- Reports
- Combined Data
- Gen Info.

FILE	EDIT	INFO	FEES	RESULTS	REPORTS	COMBINED DATA	UTILITIES
------	------	------	------	---------	---------	------------------	-----------

### 6.2.1 FILE OPTION

When you select this option from the main menu, another menu having six options appears as follows:



- Calculator
- Calendar/Diary.
- Puzzle.
- Print Setup
- Print
- Quit

On selection of any one of these, the relative function is performed. The facilities of calculator, Calendar/Diary, Puzzle and printer are provided within the new system.

<b>FILE</b>	<b>EDIT</b>	<b>INFO</b>	<b>FEES</b>	<b>RESULTS</b>	<b>REPORTS</b>	<b>COMBINED DATA</b>	<b>UTILITIES</b>
<b>Calculator</b>							
<b>Calendar / Diary</b>							
<b>Puzzle</b>							
<b>Print Setup</b>							
<b>Print</b>							
<b>Quit</b>							

### **6.2.2 EDIT OPTION**

When the user selects this option another menu having six other options appear as shown in the figure below;

FILE	EDIT	INFO	FEES	RESULTS	REPORTS	COMBINED DATA	UTILITIES
	Undo						
	Redo						
	cut						
	Copy						
	Paste						
	Clear						

In Foxpro All these options are added in the new system. Undo Option can be used to revise an already performed action. Redo option undoes an undo. Similarly cut, copy, paste and clear options perform their related functions.

### 6.2.3 Info Option

On selecting this option from the main menu another list containing six options is displayed as shown below:

FILE	EDIT	INFO	FEES	RESULTS	REPORTS	COMBINED DATA	UTILITIES
		PGD Applications					
		PGD Selection					
		PC Applications					
		PC Selection					
		SC Applications					
		SC Selection					

On selection of one of these options and clicking, data entry screen for the relative item appears. All screens are made at the same pattern so that the user may not feel any difficulty while inserting data.

User can move easily to any field up or down using arrow keys. "PGD Applications" option contains the personal Data entry screen for PGD students. Whereas "PGD selection" contains the list of selected PGD students. Similar is the case with PC and SC options. All these screens contain the following buttons:

- <Prev> To go to the previous record
- <Next> To go to the next record.
- <Append> To create space for new record entry.
- <Edit> To change the existing record.
- <Delete> To delete a record from screen.
- <Browse> To display record.
- <Find> To search a record.
- <Reorder> To arrange alphabetically or in ascending order.
- <Quit> To quit the screen.

#### 6.2.4 Fees Option

When a user selects this option a menu with three options appears as shown in the figure.

FILE	EDIT	INFO	FEES	RESULTS	REPORTS	COMBINED DATA	UTILITIES
			PGD Fees Entry				
			PC Fees Entry				
			SC Fees Entry				

On selection of one of these options, data entry screen for the relative item appears. "PGD Fees Entry" Option contains the Fee entry screen for PGD students. Similarly "PC Fees Entry" and "SC fees Entry" options contains the fee entry screen for professional certificate and short course students respectively. All these fees entry screens contain the previously discussed push buttons.

6.2.5 Result Option

On selecting this option a menu with the following options appears.

FILE	EDIT	INFO	FEES	RESULTS	REPORTS	COMBINED DATA	UTILITIES
				PGD---			
				First Semester			
				Second Semester			
				Third Semester			
				PC			
				SHORT COURSE			

The Result Option contains the data entry screens for PGD, PC and short courses result sheets respectively. Moreover the PGD option further contains three other options that is result sheet data entry screens for first second and third semesters respectively. The third option contain details about project.

6.2.6 Reports Option

When a user selects this option a menu with three options appears as shown in the figure below.

FILE	EDIT	INFO	FEES	RESULTS	REPORTS	COMBINED DATA	UTILITIES
				PGD Reports			
				PC Reports			
				SC Reports			

By selecting this option from the main menu, further three options appears. The output of a report can be viewed on the screen as well as printed on the paper. Output for the following reports can be generated.

- Applicants list (For PGD, PC, SC Students respectively)
- Selected student's list (For PGD, PC, SC Students respectively)
- Attendance Sheet (For PGD, PC, SC Students respectively)
- Result Sheet (For PGD, PC SC Students respectively)
- 1st, 2nd, 3rd semester in case of PGD Students.
- Combined Result Sheet (For PGD, PC, SC Students respectively)

Output can be ordered according to registration number, Roll number or name.

### 6.2.7 Combined Data Option

This option contains the following nine options as shown in the figure below.

FILE	EDIT	INFO	FEES	RESULTS	REPORTS	COMBINED DATA	UTILITIES
						PGD Update	
						PGD Previous Data	
						PGD Previous Reports	
						PC Update	
						PC Previous Data	
						PC Previous Reports	
						SC Update	
						SC Previous Data	
						SC Previous Reports	

PGD update option can be used to update all records. PGD previous data option contains complete information about a student's bio-data, result and dues. It also keeps a backup copy of data which has been deleted by using delete option. PGD Previous Reports Option generate reports related to PGD previous data. Similarly all the PC and SC Options perform the same functions for PC and SC students respectively.

**6.2.8 Utilities Option.**

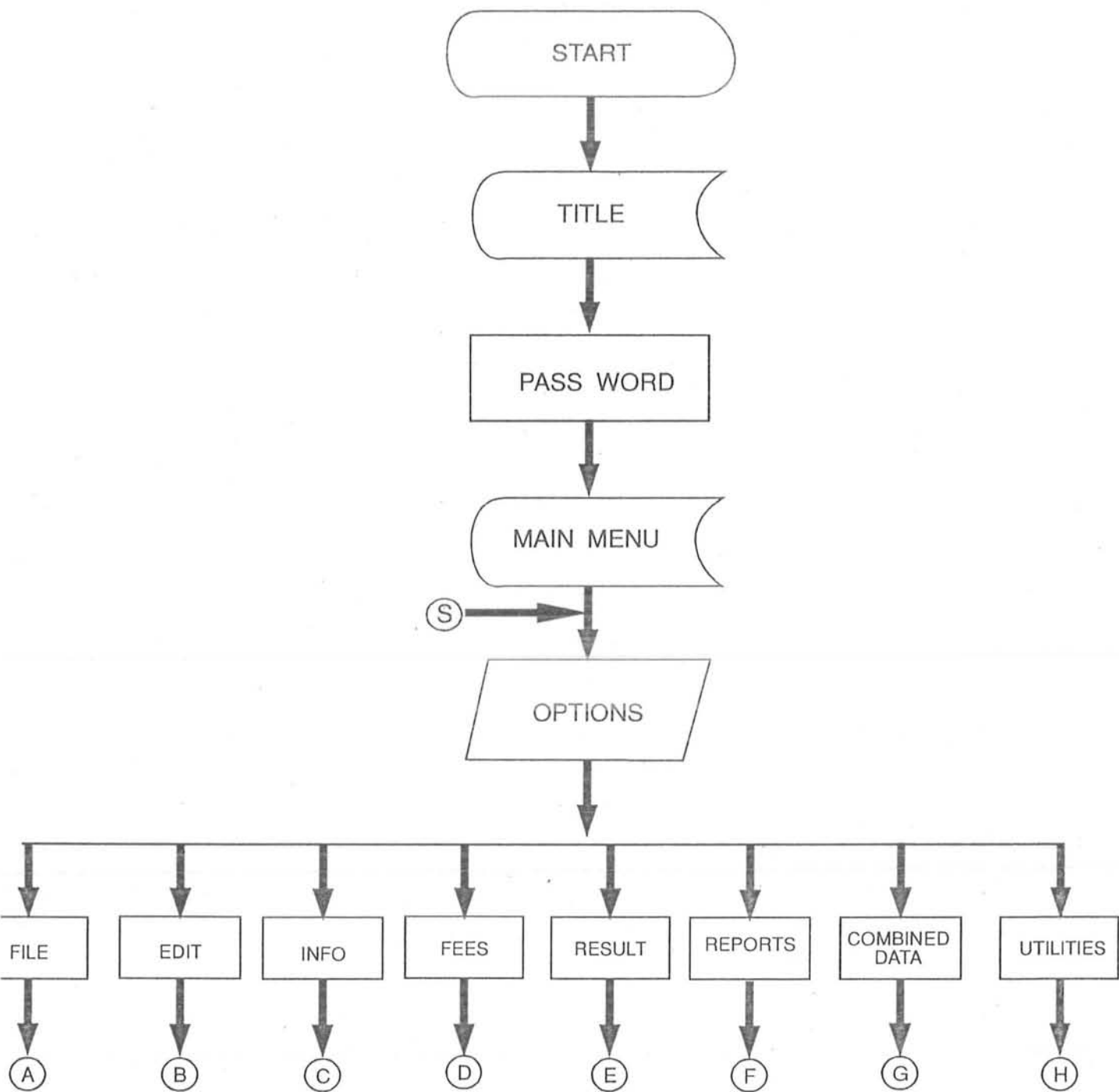
This is the last option in the main menu. Selection of this displays four options as shown in the figure below.

FILE	EDIT	INFO	FEES	RESULTS	REPORTS	COMBINED DATA	UTILITIES
							Delete PGD
							Delete PC
							Delete SC
							Initial Values

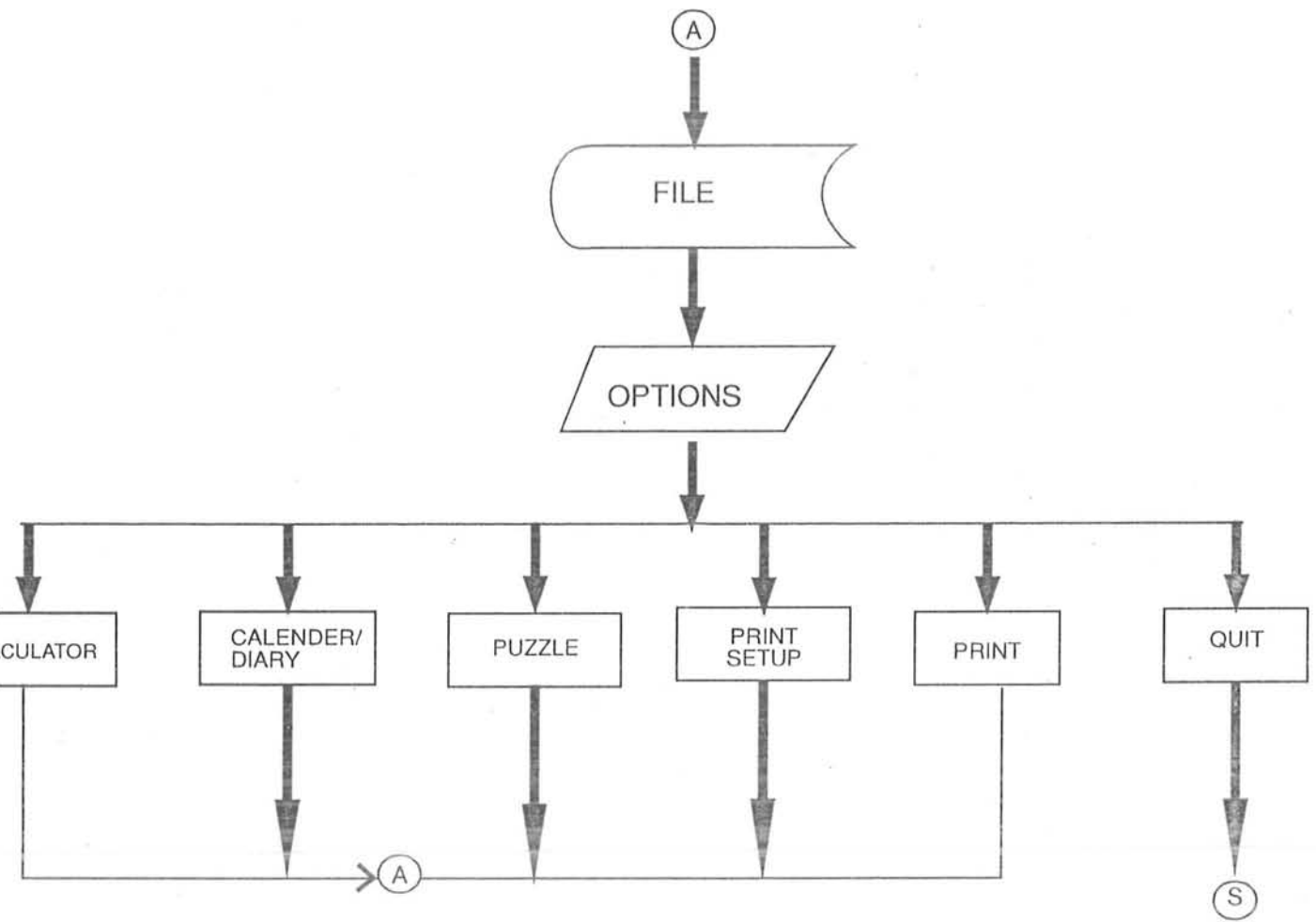
Initial values option can be used to change initial parameters like year and dues for PGD, PC and delete any record.

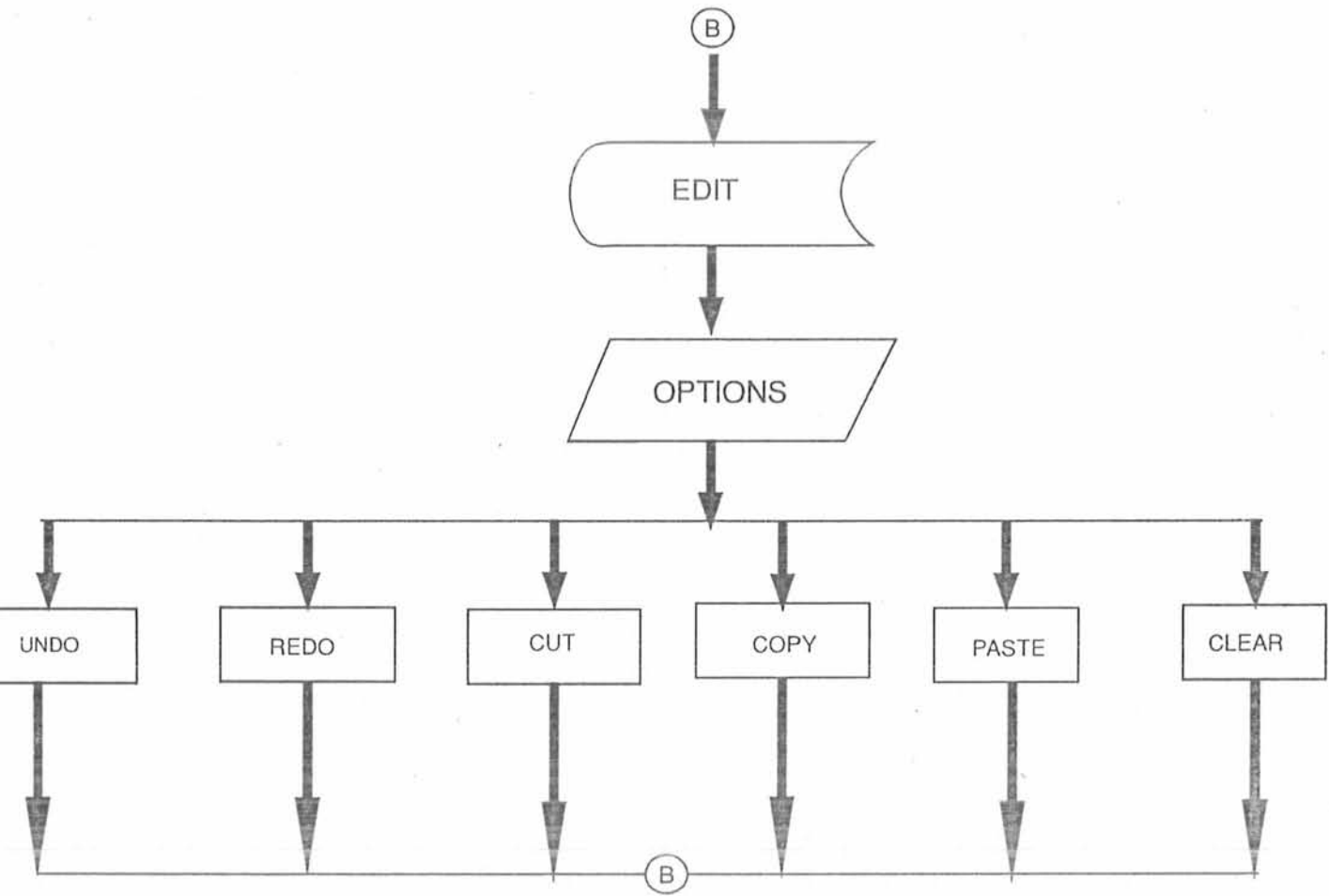
# **A P P E N D I X - A**

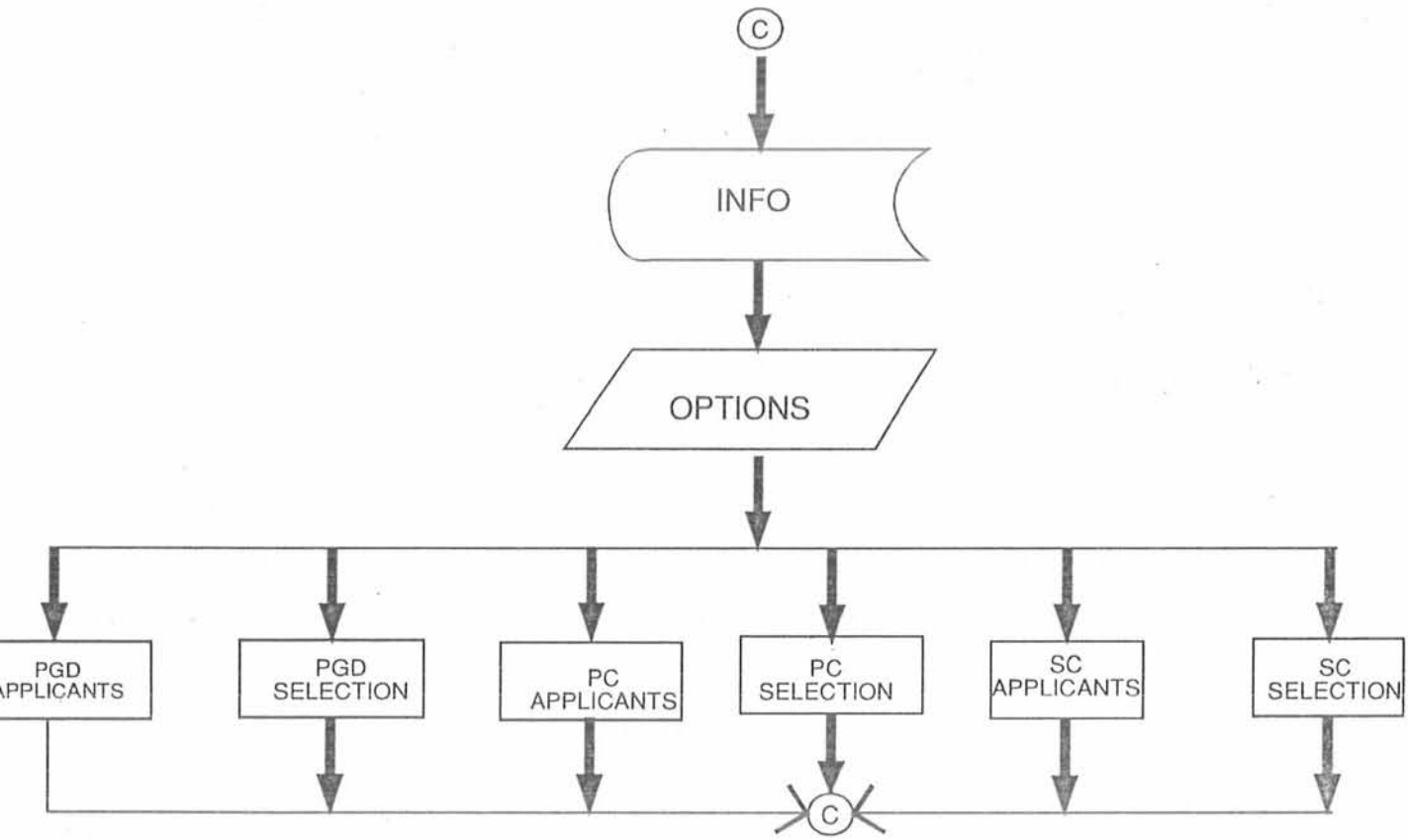
## **F L O W C H A R T S**

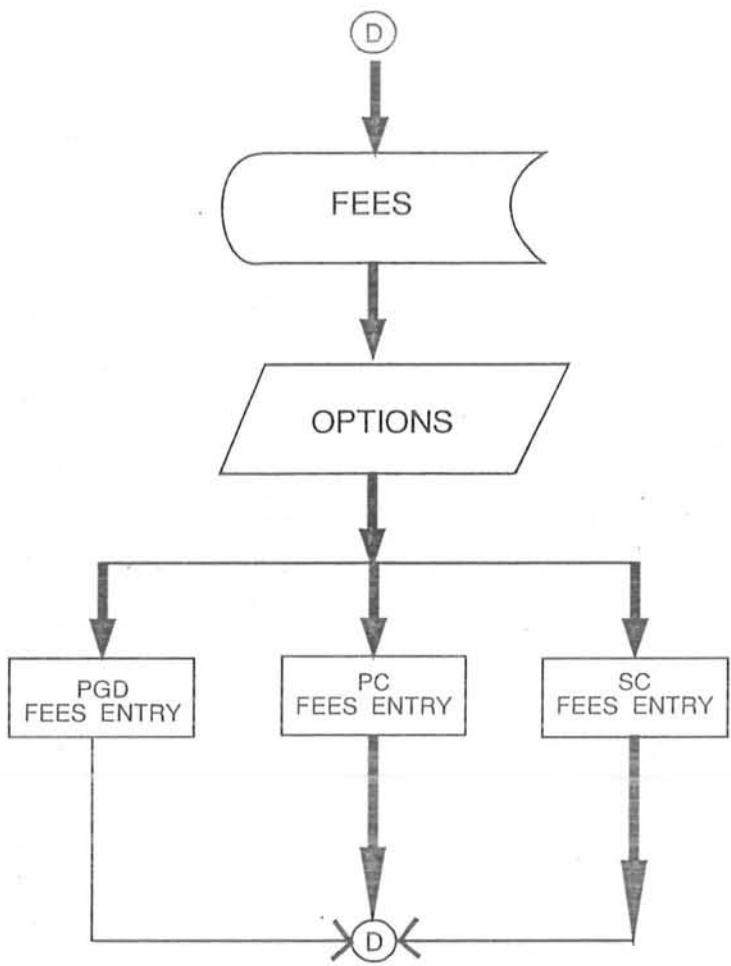


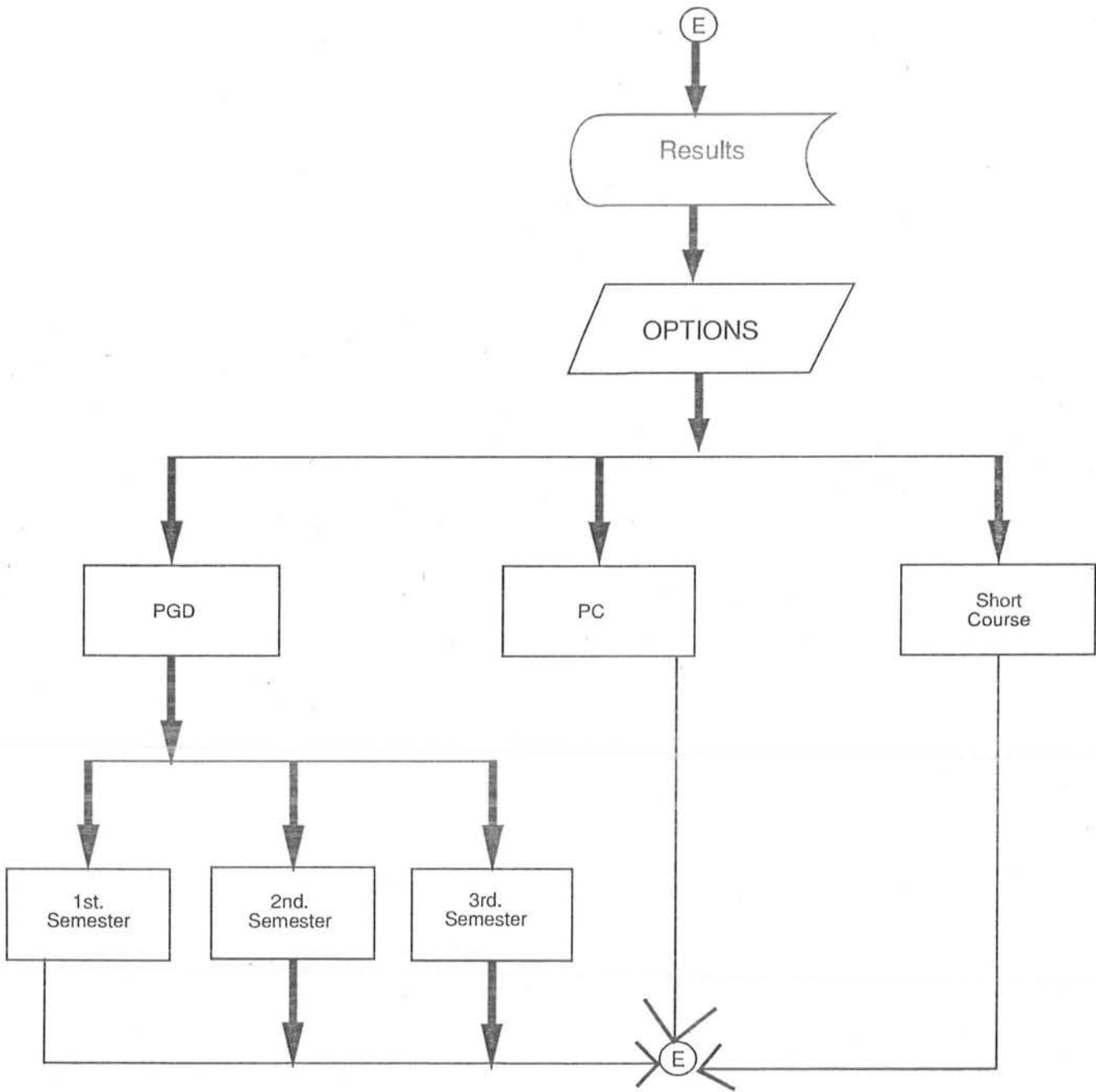


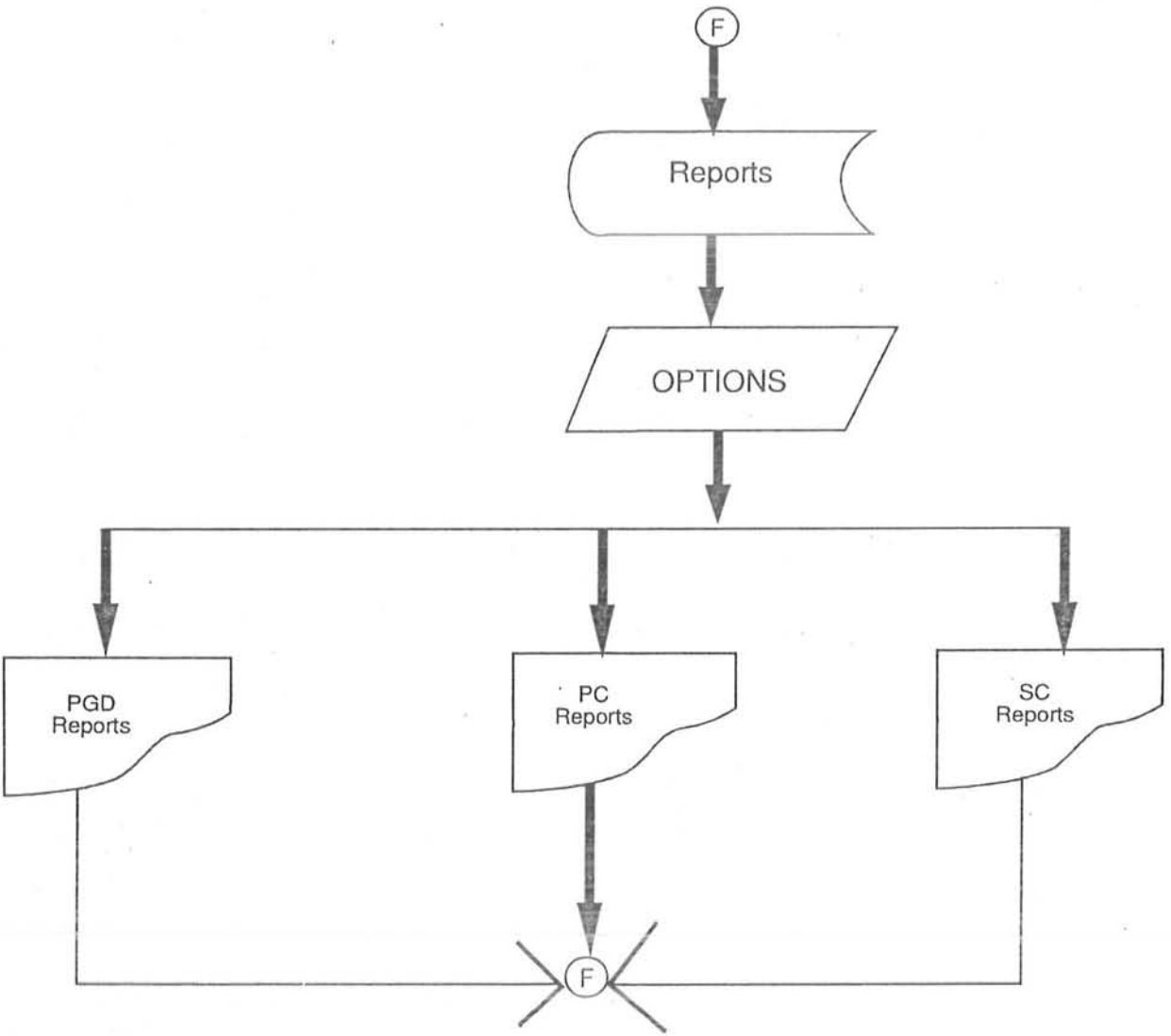


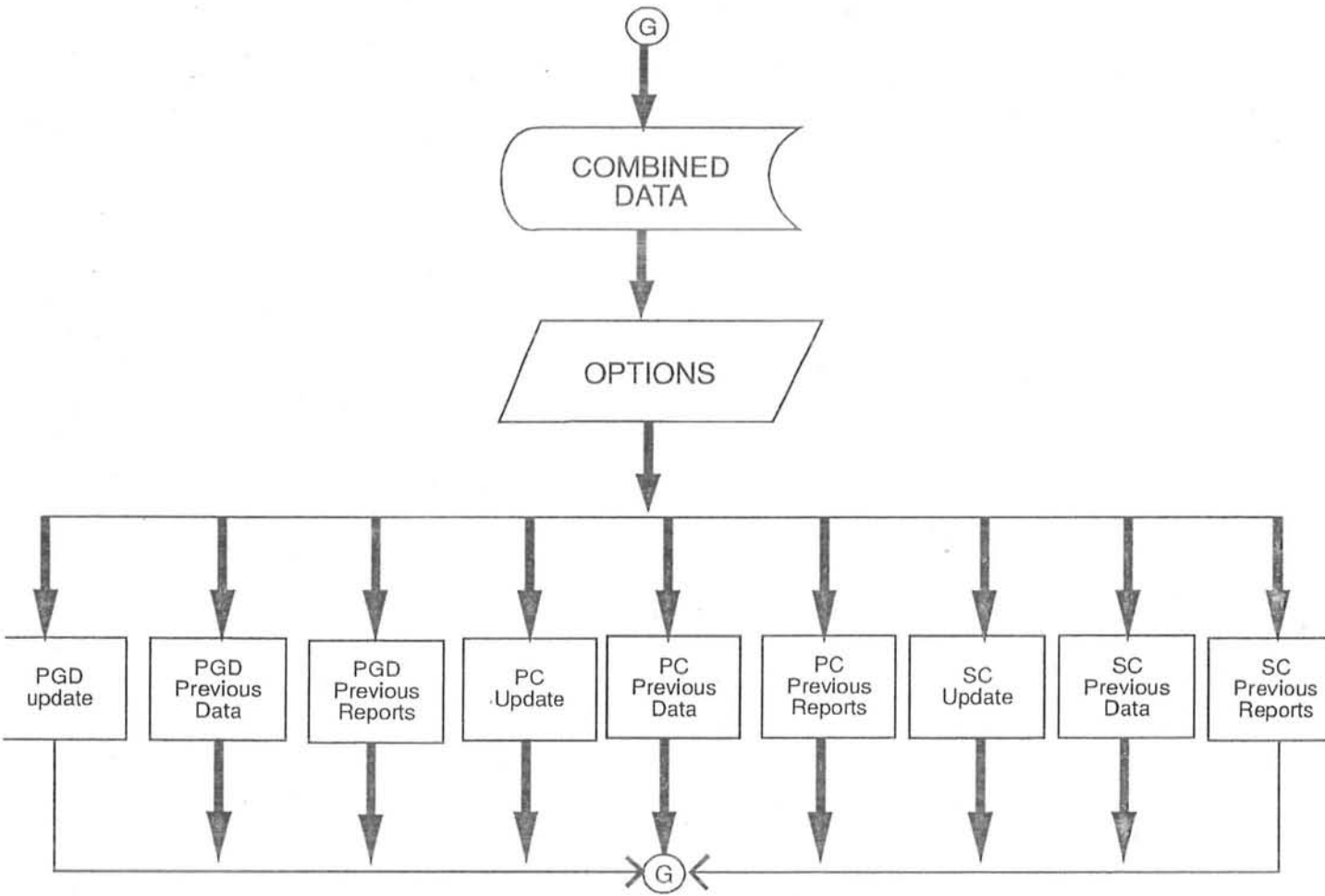


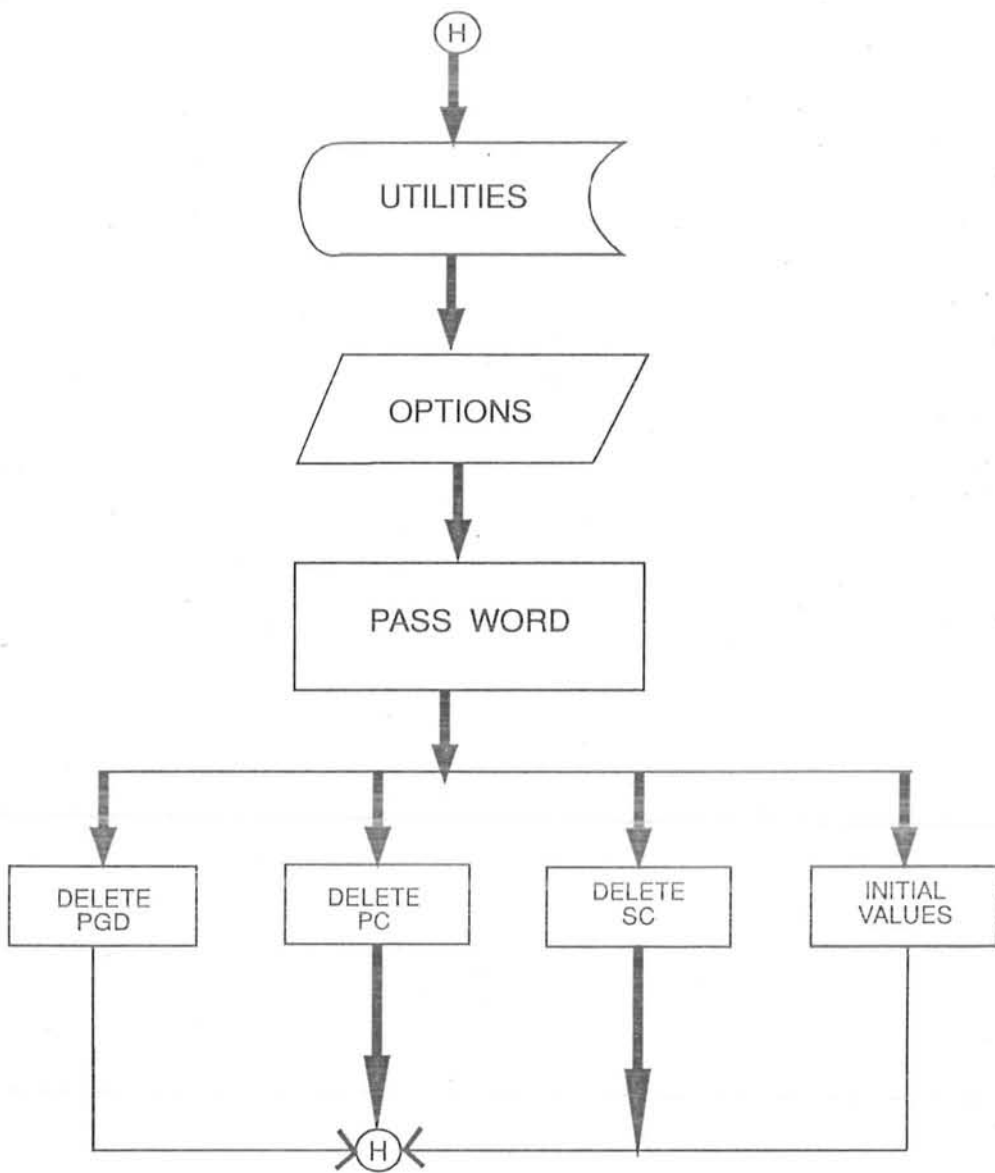














# **A P P E N D I X - B**

## **S C R E E N   L A Y O U T S**

PGD Student Personal Data

Regd No	Form No	Subject Code	Province Code
Candidate's Name		ID Card No	
Date of Birth	Father		
Address	P Address		
Telephone	Graduation		
Max Marks	Obtained	Max Marks	Obtained
<input type="checkbox"/> N.C.C		<input type="checkbox"/> Hafiz	
		<input checked="" type="checkbox"/> Master	

- < Prev >
- < Next >
- < Append >
- < Edit >
- < Delete >
- < Browse >
- < Find >
- < Reorder >
- < Quit >

( ) Save ( ) Cancel

Student Fees Entry Screen

Roll No		Name			
Challan No		Date of Deposit	/	/	
Actual Fees		Amount Deposited		Fine	Amount Due
Total		Current Balance		( ) Save	( ) Cancel

- < Prev >
- < Next >
- < Append >
- < Edit >
- < Delete >
- < Browse >
- < Find >
- < Reorder >
- < Quit >

Student's Fees				
Date	Challan #	Deposited	Fine	Due

PGD Student Data

Regd No	Roll No
<input type="text"/>	<input type="text"/>
Name	
<input type="text"/>	
Father's Name	
<input type="text"/>	

- < Prev >
- < Next >
- < Append >
- < Edit >
- < Delete >
- < Browse >
- < Find >
- < Reorder >
- < Quit >

PGD Student's List

Regd No	R.No	Student Name	Father's Name

FIRST SEMESTER RESULT ENTRY SCREEN

Roll No	<input type="text"/>	Name	<input type="text"/>
<input type="button" value="Regular"/>			
Computing System	<input type="text"/>		
Cobol Programming	<input type="text"/>		
System Analysis and Design	<input type="text"/>		
Data Structure	<input type="text"/>		
C Language	<input type="text"/>		
Max Marks	<input type="text"/>	Marks Obtained	<input type="text"/>
( ) Save ( ) Cancel			

- < Prev >
- < Next >
- < Append >
- < Edit >
- < Delete >
- < Browse >
- < Find >
- < Reorder >
- < Quit >

PC Result Entry Screen

Roll No

Name

Regular

Electronic Data Processing

System Analysis and Design

C Language

Cobol Programming

Data Base

Application Packages

Total

Marks Obtained

( ) Save ( ) Cancel

< Prev >

< Next >

< Append >

< Edit >

< Delete >

< Browse >

< Find >

< Reorder >

< Quit >

SC Result Entry Screen

Roll No	<input type="text"/>	Name	<input type="text"/>
<input type="button" value="Regular"/>			
Lotus 123	<input type="text"/>		
WordStar	<input type="text"/>		
Dbase III	<input type="text"/>		
Total	<input type="text"/>	Marks Obtained	<input type="text"/>
( ) Save ( ) Cancel			

- < Prev >
- < Next >
- < Append >
- < Edit >
- < Delete >
- < Browse >
- < Find >
- < Reorder >
- < Quit >

PGD Reports

Semester	Examination	Order Output By	Output Device
PGD Applications	Regular	Registration	( ) Screen ( ) Printer

Selection Criteria

Roll No >=	<=
Registration No >=	<=
Name >=	<=

< Clear Values > < Execute > < Quit >

- < Prev >
- < Next >
- < Append >
- < Edit >
- < Delete >
- < Browse >
- < Find >
- < Reorder >
- < Quit >



File Edit Info Fees Results Reports Combined Data Gen Info

PGD Combined DataBase

Year	Regd-No	Croll-No	Form No	Subj-Code	P-Code
Name					
Father					
Birth-date	/ /	Id-Card No			Tel-No
Address					
P Address					
Inter	Max Marks	<input type="text"/>	Obtained		
Graduation	Max Marks	<input type="text"/>	Obtained		
				Amount Deposit	
[ ] NCC [ ] Master [ ] Hafiz				Amount Due	
Computing System	COBOL Programming		System Analysis & Design		
Data Structure	C Language	Max Marks		Obtained	
Operating System	Operational Research	Data Communication	Account.Info. System		
Computer Graphics	Database Management	Max Marks		Obtained	
Project					

< Save > < Cancel >

< Year > < Prev > < Next > < Edit > < Delete > < Browse > < Find > < Reorder > < Quit >

Initial Values Adjustments

PGD Parameters

Regd No for next applicant

Year(9999)

PGD Monthly Fee

PC Parameters

Regd No for next applicant

Year(9999)

PC Monthly Fee

Short Course Parameters

Regd No for next applicant

Year(9999)

SC Monthly Fee

Short Course(1st or 2nd)

Password

Utilities Password

< Change Values > < Quit >

# **A P P E N D I X - C**

## **SAMPLE REPORTS**

ATTENDENCE SHEET

Subject: \_\_\_\_\_

No	Name					
	Amina Arshad					
	Farooq Khan					
	Naseem Akhtar					
	Ayesha Aziz					
	Ali Asghar					
	Sana Ejaz					
	Asnia Asim					

List of PG Students

No	Student Name	Birth	Prov	Grad	Inter	NCC	HAF	MAS
/97	Amina Arshad	01/01/70	P	500	750	.	.	.
/97	Farooq Khan	08/08/73	P	510	720	.	.	.
/97	Naseem Akhtar	12/12/69	P	530	756	.	.	.
/97	Ayesha Aziz	07/08/72	P	540	754	.	.	.
/97	Saleem Malik	05/05/69	P	480	680	.	.	.
/97	Ali Asghar	11/11/71	P	505	707	.	.	.
/97	Sana Ejaz	08/06/68	P	450	700	.	.	.
/97	Asnia Asim	03/02/70	P	520	720	.	.	.

List of PG Selected Student's

R.No	Student Name	Father's Name
4	Amina Arshad	M Arshad
7	Farooq Khan	Asghar Khan
8	Naseem Akhtar	Akhtar Ali
6	Ayesha Aziz	Abdul Aziz
3	Ali Asghar	M Asghar
10	Sana Ejaz	
5	Asnia Asim	M Asim

Quaid -i-Azam University  
Islamabad  
PGD Second Semester  
Comprehensive Result Sheet

Name	OS	OR	DC	AIS	CG	DBM	Total
Amina Arshad	111	112		113	114	115	565
Farooq Khan	116	117		118	119	110	580
Naseem Akhtar	119	110	111	112		113	565
Ayesha Aziz	103	104	106	106		109	528
Ali Asghar	123	122	122		121	111	599
Sana Ejaz	100	121	122		121	121	585
Asnia Asim	113	114		115	116	117	575

S Operating System  
R Operation Research  
C Data Communication

AIS Accounting Information System  
CG Computer Graphics  
DBM Data Base Management System

Quaid -i-Azam University  
Islamabad  
PGD Third Semester  
Comprehensive Reult Sheet

R.No	Name	Project
4	Amina Arshad	255
7	Farooq Khan	245
8	Naseem Akhtar	267
6	Ayesha Aziz	270
3	Ali Asghar	280
10	Sana Ejaz	250
5	Asnia Asim	245