STUDENT'S PERSONAL INFORMATION SYSTEM OF COMPUTER CENTRE

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ISLAMABAD

DECEMBER 1995

DEDICATED

TO THE

DYNAMIC

WORLD

OF

COMPUTER SCIENCE

IQBAL AND FAROOQ

IN THE NAME
OF

ALMIGHTY
ALLAH

THE MOST
BENEFICENT

THE MERCIFUL

COMPUTER CENTRE

QUAID-I-AZAM UNIVERSITY

FINAL APPROVAL

It is a matter of pleasure to certify that we have read the project report submitted by Iqbal Ahmed and Mohammad Farooq Khan and it is in our judgement that this work is of sufficient standard and fulfills all the requirements to warrant its acceptance by Quaid-i-Azam University, Islamabad for the award of the Post Graduate Diploma in Computer Sciences.

COMMITTEE

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A C K N O W L E D G E M E N T

We would like to thank our esteemed teachers for their guidance and help and also the rest of the staff of the computer centre for always being so helpful and cooperative. We respectfully offer special thanks to our supervisor Dr. Ghulam Mohammad, who inspite of his administrative and teaching duties and responsibilities, found time to give us valuable advice and suggestions. We are also grateful to all our class fellows for their invaluable companionship, encouragement, moral support and kind cooperation during the course.

IQBAL AHMED KHAN
&
MOHAMMAD FAROOQ KHAN

P R E F A C E

Computers today are being used to take advantage in almost every field of human activity. Their use is expanding day by day, due to their speed and accuracy in handling information and performing calculations.

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-i-Azam University, Islamabad has been designed. The description of some important constituents of the above mentioned Information System has been presented in this report.

P R O J E C T   B R I E F

PROJECT TITLE   :   Student's Personal Information

System of Computer Centre,

Quaid-i-Azam University ISLAMABAD

UNDERTAKEN BY   :   Iqbal Ahmed Khan
                                          &
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SUPERVISED BY   :   Dr. Ghulam Mohammad

COMMENCEMENT DATE   :   September 1995

COMPLETION DATE   :   December 1995

SOURCE DATABASE   :   FOXPRO 2.5

OPERATING SYSTEM   :   MS DOS VERSION 3.0

SYSTEM USED   :   IBM COMPATIBLE PC/AT

A B S T R A C T

A Computer based system for the Students' Personal Information System, Computer Centre, Q.A.U. (Islamabad) has been developed using the Foxpro database. The purpose of this study is to facilitate data manipulation for the activities relating to the Students' affairs in the Computer Centre. It is difficult to handle large amount of data manually and achieve valuable results. Through computerization, such kinds of problems can be solved and more reliable results can be obtained.

The system developed has a number of facilities for handling data effectively to insert, delete or modify the records in a user friendly environment. In addition different reports and statements can be obtained.

Moreover, the System provides an efficient searching and query system for the convenience of the Computer Centre. The major objective was to give a death blow to the traditional manual system so that better results could be achieved in terms of speed, accuracy and storage.

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C H A P T E R   1

INTRODUCTION TO THE COMPUTER CENTRE

1.1   INTRODUCTION

Computers have become indispensable in today's
intitutions of learning, just as in every facet of modern life.
Rapid processing of information is essential for every successful
research and development organisation. Considering this fact,
Computer Centre was established in 1972 at Quaid-i-Azam
University, Islamabad.

Computer Centre was established to train Computer
Scientists in accordance with the contemporary state-of-technogy
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 computerises
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 knowlegde about Computer
Science and make this as their profession. In this respect, it
offers a number of courses which are as follows:-

    i)   Post Graduate Diploma in Computer Science

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ii)   Professional Certificate Courses.

Presently, record of students of the above mentioned courses is maintained manually which is inefficient and effects the working of the Computer Centre. Considering this it was felt that mannual system should be replaced with a Computerised system so that performance of the Computer Centre could be improved. The work presented in this report describes detail of the Computerised system which has been developed as a project work of the Post Graduate Diploma in Computer Sciences.

1.2   NEED OF COMPUTERIZATION

Nowadays, Computers are gaining importance in almost every field of our daily life. Whether an organisation has scientific or business environment, Computers are found everywhere.

We are living in computer age and many facts of our lives are faced somewhere somehow by computers. To cope with fast increasing pace in daily activities, it is important to realize the importance of computer in order to compete with other countries.

1.3 STEPS INCLUDED IN SYSTEM STUDY

During study, following steps are undertaken.

1. Analysis of the present system, gathering of data and analyzing the facts about the present system. This includes the study of objectives, input, output and resources.

2. Designing of the proposed system, a new computerized system to achieve the objectives. This includes examine inputs and output possibilities, form designing, file designing and code designing.

3. Implementation of the proposed system i.e. new system details and implementation. This includes change over techniques,program flow charts, instructions to the user etc.

1.4 OBJECTIVES OF THE PROPOSED SYSTEM

It is very important and helpful to establish the objectives that the Computer based system should satisfy. These objectives should reflect the total system objectives which in turn, should fulfill the needs of the Computer Centre. In the present system, related staff has to carry out a huge amount of work by hand which is time consuming, difficult and uneconomical

so concerned officers have to face tremendous hardships to monitor the activities. In order to remove difficulties of the Computer Centre, a Computerised system has been developed. It is hoped that this new sysytem will greatly help the Computer Centre to get timely information and help in its working efficiently.

The main objectives of this project are:-

1. It is cost beneficial system when compared with the old system as , less stationery is wasted, less manpower is needed and the project will be completed in the limited time.

2. To be effective, the system must be flexible and capable of adapting to changing environmental conditions.

3. The system is highly reliable and durable. It is tried that the turn around time and the execution time must be a as much less as possible.

4. The system is designed in such a way that it should provide accurate, up-to-date and error free information and timely reports to the management.

5. The proposed system is implementable in terms of technical feasibility and with due regards to the resources available.

6. The higher authorities require quick response of their queries because decisions are based on information. The proposed system is designed to cater for this requirement.

7. Security refers to protection from deliberate and accidental loss and destruction of data. The data required for decision making is very important and valuable, therefore, the reliability of the system may be secured by giving regular and guaranteed services to the user.

C H A P T E R   2

EXISTING SYSTEM

INTRODUCTION

Computer Centre is an integral part of Quaid-i-Azam
University Islamabad and conducts courses for the computer
literacy efforts in the country. Its major responsibility is to
prpvide computerization facilities to the various departments of
the University according to their requirement. The worthy
programmers of the University are on disposal of the management
of the University all the time to present their best efforts to
help the management and the departments to the best of their
effort. An example is the Computerization of the Central Library
of the University by the Assistant Programmers of the Computer
Centre. Such are the facilities that the Computer Centre provides
to all the concerned persons and departments.

In the recent past years the Computer Centre has
taken one more major positive step to enhance its efficiency in
the field of education as well.

Considering the expertise and experience of the
intelligent computer programmers in the Centre, the University
management allowed the Centre to come forward and introduce some

educational packages in the field of Computer Science. Accepting the challenge with open arms, the Computer Centre has been providing its best efforts to the entire satisfaction of the needs of the environment and the country to make the students efficient enough to meet the latest requirements of computerization as are extensively required in the country.

The Computer Centre, Quaid-i-Azam University, Islamabad mainly conducts the following courses :-

1.   Post Graduate Diploma in Computer Science (P.G.D)

2.   Personal Computer Course (P.C course)

3.   Morning Short Courses

The description of these courses is being given below:-

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 Post Graduate Diploma are considered to be the regular students of the University. This diploma consists of three major semesters. Their description is enlisted below:-

I.   FIRST SEMESTER

Following Courses are taught by the Computer Centre in
the First Semester:-

a.   Systems Analysis and Design

b.   COBOL Language

c.   C Language

d.   Data Structure

e.   Computing Systems

II.   SECOND SEMESTER

Following Subjects are taught by the Computer Centre in
the second Semester:-

a.   Operating Systems

b.   Operations Research

c.   Data Base Management System

d.   Accounting/Graphics

e.   Data Communication and Networking

III.   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.

The students are asked to select any one of them according to their proficiency in any specific computer language or related package that they think in their idea would help them in performing the major requirements of the project.The students are normally given three months to do this job. Successful completion of the project alongwith the previous two semesters makes a student eligible for the award of the Post Graduate Diploma in Computer Science.

The students securing 80% or more marks in any subject are awarded grade A in that subject. Similar is the case for the overall award of the Diploma, if the overall percentage is 80% or more than that. Students securing 60% or more but less than 80% marks are awarded grade B while those securing 50% or more but less than 60% marks are awarded grade C.

The Students securing marks whose percentage is below 50% marks, in any subject are considered to have failed in that subject.

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.   Systems Analysis and Design

b.   DBASE III+

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. After successful completion of this Course, the students are awarded a Certificate from the Computer Centre.

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 computerised. For this purpose, a computerised system has been developed whose details are provided in the next chapters.

C H A P T E R   3

PROPOSED SYSTEM

3.1   INTRODUCTION

To eliminate the major inefficiencies present in the existing manual system a computerised system is proposed. For this purpose, extensive and comprehensive questionnaires need to be designed to collect the information. Based upon available information, a computerized system is developed. This proposed system shall significantly improve the working of the computer centre by providing information correctly and efficiently.

Details of the proposed system, designed questionnaires and the improvements offered by the proposed system are described in this chapter.

3.2   DESCRIPTION OF THE PROPOSED SYSTEM

The existing system, as described earlier, was analyzed carefully . While the system was being analyzed , some obvious problems did come in our notice that are likely to weigh heavily on the proposed computerized system.

THE ATTENDANCE PAGE

As soon as the students come to submit the forms the dealing person assigns them consecutive numbers like 1,2,3 and so on. Let us suppose that at the end of the form submission date the Centre receives 200 applications for admission in P.G.D. When the admission process is over the final list is displayed on the notice board. This list contains the above mentioned diary numbers under the heading "Roll no". Out of the 200 applications normally 45 students get admission and the remaining 155 Roll numbers/diary numbers must be discarded.

But the problem is that the Attendance Page, even till the last class day, contains all the 200 Roll numbers/Diary numbers. The students while signing seek for their own diary nos and there are say 155 blank spaces in the page. This process needs to be improved by adopting the following technique:-

Proper Roll nos should be provided to the students on the day they get admission. The Roll nos should not be the diary nos written in a haphazard manner. First delete the diary nos of the unsuccessful candidates of your file. Then sort them on the key "Diary no" and finally let the computer assign consecutive Roll nos like 1,2,3,........,45   in the same sequence.

In this case, on one hand, the diary nos will be preserved and on the other hand Roll nos will be given to all

the students that are both distinct and consecutive. The print
out of this page can easily be used as the attendance page.

3.2.1   DATA ENTRY FORMS

It was necessary to change the pattern of data entry
forms because previous data entry forms not only seemed to be
full of redundant data, but repetition of data was a regular
feature.

Most of the questions of these forms used to be answered in
large text and the tasks of both entering data and retrieving
data were very tiring and time consuming.

The proposed data entry forms are free from redundancies in
the data. Big questions of the forms are analyzed
carefully and then are slitted to small questions that need to be
answered in just two or three words instead of answering them in
the form of a text of about a page.

This phenomena not only facilitates the process of data
entry but same thought has also been applied on retrieval forms
also that a person can easily understand all the questions within
a reasonable time and can go through all of them very quickly
without getting tired or bored as the answers contain only the
relevant data.

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3.2.2   AMENDMENT OF DATA

In the present system, the process of the amendments in records is time consuming and inefficient and up-to-date data is not always available. Like fast and efficient data entry forms, amendment forms may also be developed on computer in such a way that data can be amended without much wastage of time and can be kept as much up-to-date as possible.

3.2.3   PRINTING REPORTS

The Forms are normally maintained on the computer in the form of records, the same are also kept on paper in the form of reports. As the data entered is only the relevant and accurate as entered through the proposed data entry and amendment forms, the reports developed from such a data is really impressive. Another brilliant aspect of the proposed report printing feature is that , while printing, the data is displayed on the screen as well. If the data is not found to be perfect, it can be made perfect by using the amendment form facility and thus after making it perfect, can be sent to printer to print a perfect report.

3.3 DESIGN OF THE OBJECTIVES

There are some of the objectives which the proposed system should fulfill, as already explained in Chapter No 1, and are again mentioned to keep relevancy and for convenience of the reader :-

1. It is cost beneficial system when compared with the old system as , less stationery is wasted, less manpower is needed and the project will be completed in the limited time.

2. To be effective, the system must be flexible and capable of adapting to changing environmental conditions.

3. The system is highly reliable and durable. It is tried that the turn around time and the execution time must be a as much less as possible.

4. The system is designed in such a way that it should provide accurate, up-to-date and error free information and timely reports to the management.

5. The proposed system is implementable in terms of technical feasibility and with due regards to the resources available.

6. The higher authorities require quick response of their queries because decisions are based on information. The proposed system is designed to cater for this requirement.

7. Security refers to protection from deliberate and accidental loss and destruction of data. The data required for decision making is very important and valuable, therefore, the reliability of the system may be secured by giving regular and guaranteed services to the user.

3.4   PROGRAMMING LANGUAGE USED

Selection of suitable programming language keeping in view all the aspects of the problem is very important.

The problem under consideration is such that it involves the storage and processing of a large amount of data. So keeping in view of handling lot of files the most suitable package/language is Foxpro. There are different version of Foxpro but the version that is selected for the system is Foxpro

3.4.1   REASONS FOR FOXPRO SELECTION

1.   Its processing is fast and it is easy to handle.

2.   It has a complete set of diagnostic features
      that helps to locate and identify the errors.

3.   Foxpro is equally suitable for personal
      information systems and commercial purposes.

4.   It has the best facility regarding the file
      handling.

5.   It has the ability to handle large amount of
      inputs and produce reports of various formats.

6.   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
      database.

3.4.2   HARDWARE SELECTION

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

1.   IBM PC/AT or any other IBM compatible computer
      with a minimum 386 KB RAM and a 5.25 inch or 3.50
      inch floppy diskette and hard disk drive having

capacity of 40 Mega Byte.

2. A colour or monochrome monitor

3. Printer with 80 columns paper width and of 132
    columns as well.

4. MS-DOS ver. 3.10 or any late version.

5. 40 MB hard drive can hold records of about 1000
    persons. It will also contain the DOS and word
    processing editor.

    The cost estimate for the system having above
    specifications is:-

        System price   Rs 30,000
        Printer price   Rs 6,000

C H A P T E R   4

SYSTEM DESIGN

4.1   INTRODUCTION

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.

The system has been designed keeping in view the objectives
which were set up during proposing the system. During the
designing of this particular system the following phases were
considered:-

* Input form designing
* Output designing
* File designing

4.2   DESIGN OF THE SYSTEM

The design of this system is based on two software
techniques. These are data flow oriented design and the structure
oriented design. The data flow design precedes a systematic
approach for the development of the system, whereas the structure
oriented design is s hierarical design in which the various
segments associated with the system are represented by different
modules of software, therefore maintaining a hierarchy control.
While designing, an effort was also made to increase cohesion and
to reduce coupling.

4.3   OUTPUT DESIGNING

Outputs are designed keeping in view the following
aspects

*   Purpose of the output
*   Provide precise and accurate information
*   Easy to understand

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4.4   FILE ORGANIZATION

In file organization, the basic object is to keep
permanent records about the function which must be carried as a
part of the organization. Files are maintained for different
purposes. They are created keeping in view the necessities of
organization.

For selection of file organization, some of the factors must
be kept in mind which are volatility, activity and size.

File organization can be categorized in different ways
depending on the different modes of accessing.

There are three types of file organization in all:

*   Sequential file organization

*   Indexed file organization

*   Relative file organization

4.5   PROPOSED FILE ORGANIZATION

Data regarding the Computer Centre need sequential
access as well as direct access. Both the indexed and the
sequential file organizations have extensively been used
according to the specific and immediate requirements. For
instance the seek command is used with the "SET RELATION TO "
command while searching for appropriate records that match the
user supplied criteria and indexed files are used when such an

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strategy is adopted. The major objectives are:-

*   To make addition to the file without having to sort and
        merge.
*   No extra search is required if the desired record is absent.
*   Effort is minimized during sequential or random retrieval.

        As the proposed system has to deal with heavy flow of
data it is significant to use and define some files for this
propose.

        Let us have a view on their structure.

        Files are essential for proper storage and efficient
retrieval of data. Moreover, the different searching requirements
are easily fulfilled if files are created for this purpose.
Creating and managing files is the most difficult in COBOL and
the C language while the FOXPRO database is specially designed to
facilitate the process of file handling. Simply issuing the CREAT
FILENAME command and pressing return lets you create the initial
file structure and further prompts you to input records if you so
desire at this stage. However screen may also be designed for
inputting the data according to a specific format.

        Forms are designed on the screen of the computer exactly as
they exist on the paper to facilitate the usual data entry by the
key punch operator. However, the data entered through keyboard
into the form on the computer screen goes into the relevant files
created for the same purpose.

4.6 FILE DESIGNING

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

==

1.	FILE NAME :-	SMF.DBF

==

FIELD NAME	DESCRIPTION	WIDTH	TYPE
CROLL_NO	CLASS ROLL NO	8	CHARACTER
REGDNO	REGISTERATION NO	13	CHARACTER
NAME	STUDENT'S NAME	25	CHARACTER
FATHER	FATHER'S NAME	25	CHARACTER
ADDRESS	STUDENT'S ADDRESS	45	CHARACTER
PADDRESS	PERMANENT ADDRESS	45	CHARACTER
INTER	MARKS IN INTER	3	NUMERIC
GRADUATION	MARKS IN GRADUATION	3	NUMERIC
P_CODE	PROVINCE CODE	1	CHARACTER
BIRTH_DATE	DATE OF BIRTH	8	CHARACTER
TNO	TELEPHONE NO	8	CHARACTER
ID_CARD	IDENTITY CARD NO	13	CHARACTER
NCC	NATIONAL CADET CORP	1	CHARACTER
HAFIZ	HAFIZ-E-QURAN	1	CHARACTER
MM	IF MASTER HOLDER	1	CHARACTER
F_NO	FORM NO	3	NUMERIC

PURPOSE :-   THIS FILE REPRESENTS THE PERSONAL DATA ENTRY FILE OF ALL THE P.G.D STUDENTS.

```
================================================================
2.              FILE NAME :-    DFS.DBF
================================================================
```

FIELD NAME	DESCRIPTION	WIDTH	TYPE
ROLL_NO	CLASS ROLL NO	3	NUMERIC
CC_1	COMPUTING SYSTEM	3	CHARACTER
CC_2	COBOL PROGRAMMING	3	CHARACTER
CC_3	SYSTEM ANALYSIS & DESIGN	3	CHARACTER
CC_4	DATA STRUCTURE	3	CHARACTER
CC_5	C-LANGUAGE	3	CHARACTER

PURPOSE :-   THIS FILE REPRESENTS THE DATA ENTRY FILE FOR FIRST
SEMESTER OF PGD.

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```
================================================================
3.              FILE NAME :-    DFS1.DBF
================================================================
```

FIELD NAME	DESCRIPTION	WIDTH	TYPE
ROLL_NO	CLASS ROLL NO	3	NUMERIC
CC_1	COMPUTING SYSTEM	3	CHARACTER
CC_2	COBOL PROGRAMMING	3	CHARACTER
CC_3	SYSTEM ANALYSIS & DESIGN	3	CHARCATER
CC_4	DATA STRUCTURE	3	CHARACTER
CC_5	C-LANGUAGE	3	CHARACTER

PURPOSE :-   THIS FILE REPRESENTS THE DATA ENTRY FILE FOR FIRST
SEMESTER SUPPLIMENTARY OF PGD.

==

4.   FILE NAME :-   DSS.DBF

==

FIELD NAME	DESCRIPTION	WIDTH	TYPE
ROLL_NO	CLASS ROLL NO	3	NUMERIC
CC_9	OPERTING SYSTEM	3	CHARACTER
CC_10	OPERATION RESEARCH	3	CHARACTER
CC_11	DATA COMMUNICATION	3	CHARACTER
CC_12	ACCOUNTING INFORMATION SYSTEM	3	CHARACTER
CC_13	COMPUTER GRAPHICS	3	CHARACTER
CC_14	DATA BASE MANAGEMENT SYSTEM	3	CHARACTER

PURPOSE :-   THIS FILE REPRESENTS THE DATA ENTRY FILE FOR SECOND SEMESTER OF PGD.

```
==============================================================
5.              FILE NAME :-    DSS1.DBF
==============================================================

FIELD NAME       DESCRIPTION                        WIDTH     TYPE

ROLL_NO          CLASS ROLL NO                        3       NUMERIC

CC_9             OPERTING SYSTEM                      3       CHARACTER

CC_10            OPERATION RESEARCH                   3       CHARACTER

CC_11            DATA COMMUNICATION                   3       CHARACTER

CC_12            ACCOUNTING INFORMATION SYSTEM 3              CHARACTER

CC_13            COMPUTER GRAPHICS                    3       CHARACTER

CC_14            DATA BASE MANAGEMENT SYSTEM   3              CHARACTER
```

PURPOSE :-   THIS FILE REPRESENTS DATA ENTRY FILE FOR SECOND

SEMESTER SUPPLEMENTARY OF PGD.

==

6.   FILE NAME :- PRJ.DBF

==

FIELD NAME	DESCRIPTION	WIDTH	TYPE
ROLL_NO	CLASS ROLL NO	3	NUMERIC
DD	PRESENTATION DATE	8	DATE
TT	TOTAL MARKS	5	NUMERIC

PURPOSE :- THIS FILE REPRESENTS THE DATA ENTRY FILE FOR THIRD
SEMESTER PROJECT OF PGD.

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================================================================

7.              FILE NAME :-   MASTER1.DBF

================================================================

FIELD NAME      DESCRIPTION              WIDTH      TYPE

CROLL_NO        CLASS ROLL NO              8        CHARACTER

REGDNO          REGISTERATION NO          13        CHARACTER

NAME            STUDENT'S NAME            25        CHARACTER

FATHER          FATHER'S NAME             25        CHARACTER

ADDRESS         STUDENT'S ADDRESS         45        CHARACTER

PADDRESS        PERMANENT ADDRESS         45        CHARACTER

INTER           MARKS IN INTER             3        NUMERIC

GRADUATION      MARKS IN GRADUATION        3        NUMERIC

P_CODE          PROVINCE CODE              1        CHARACTER

BIRTH_DATE      DATE OF BIRTH              8        CHARACTER

TNO             TELEPHONE NO               8        CHARACTER

ID_CARD         IDENTITY CARD NO          13        CHARACTER

NCC             NATIONAL CADET CORP        1        CHARACTER

HAFIZ           HAFIZ-E-QURAN              1        CHARACTER

MM              IF MASTER HOLDER           1        CHARACTER

F_NO            FORM NO                    3        NUMERIC

CC_1            COMPUTING SYSTEM   .       3        CHARACTER
```

CC_2	COBOL PROGRAMMING	3	CHARACTER
CC_3	SYSTEM ANALYSIS & DESIGN	3	CHARCATER
CC_4	DATA STRUCTURE	3	CHARACTER
CC_5	C-LANGUAGE	3	CHARACTER

PURPOSE :-   THIS FILE   REPRESENTS THE   JOINED FILE OF   SMF AND
DFS.

==

8.   FILE NAME :-   MASTER2.DBF

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FIELD NAME	DESCRIPTION	WIDTH	TYPE
CROLL_NO	CLASS ROLL NO	8	CHARACTER
REGDNO	REGISTERATION NO	13	CHARACTER
NAME	STUDENT'S NAME	25	CHARACTER
FATHER	FATHER'S NAME	25	CHARACTER
ADDRESS	STUDENT'S ADDRESS	45	CHARACTER
PADDRESS	PERMANENT ADDRESS	45	CHARACTER
INTER	MARKS IN INTER	3	NUMERIC
GRADUATION	MARKS IN GRADUATION	3	NUMERIC
P_CODE	PROVINCE CODE	1	CHARACTER
BIRTH_DATE	DATE OF BIRTH	8	CHARACTER
TNO	TELEPHONE NO	8	CHARACTER
ID_CARD	IDENTITY CARD NO	13	CHARACTER

NCC	NATIONAL CADET CORP	1	CHARACTER
HAFIZ	HAFIZ-E-QURAN	1	CHARACTER
MM	IF MASTER HOLDER	1	CHARACTER
F_NO	FORM NO	3	NUMERIC
CC_1	COMPUTING SYSTEM	3	CHARACTER
CC_2	COBOL PROGRAMMING	3	CHARACTER
CC_3	SYSTEM ANALYSIS & DESIGN	3	CHARCATER
CC_4	DATA STRUCTURE	3	CHARACTER
CC_5	C-LANGUAGE	3	CHARACTER
CC_9	OPERTING SYSTEM	3	CHARACTER
CC_10	OPERATION RESEARCH	3	CHARACTER
CC_11	DATA COMMUNICATION	3	CHARACTER
CC_12	ACCOUNTING INFORMATION SYSTEM	3	CHARACTER
CC_13	COMPUTER GRAPHICS	3	CHARACTER
CC_14	DATA BASE MANAGEMENT SYSTEM	3	CHARACTER

PURPOSE :-   THIS FILE REPRESENTS   THE JIONED   FILE OF   MASTER1
AND DSS.

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==============================================================
9.              FILE NAME :-    MASTER3.DBF
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FIELD NAME	DESCRIPTION	WIDTH	TYPE
CROLL_NO	CLASS ROLL NO	8	CHARACTER
REGDNO	REGISTERATION NO	13	CHARACTER
NAME	STUDENT'S NAME	25	CHARACTER
FATHER	FATHER'S NAME	25	CHARACTER
ADDRESS	STUDENT'S ADDRESS	45	CHARACTER
PADDRESS	PERMANENT ADDRESS	45	CHARACTER
INTER	MARKS IN INTER	3	NUMERIC
GRADUATION	MARKS IN GRADUATION	3	NUMERIC
P_CODE	PROVINCE CODE	1	CHARACTER
BIRTH_DATE	DATE OF BIRTH	8	CHARACTER
TNO	TELEPHONE NO	8	CHARACTER
ID_CARD	IDENTITY CARD NO	13	CHARACTER

NCC	NATIONAL CADET CORP	1	CHARACTER
HAFIZ	HAFIZ-E-QURAN	1	CHARACTER
MM	IF MASTER HOLDER	1	CHARACTER
F_NO	FORM NO	3	NUMERIC
CC_1	COMPUTING SYSTEM	3	CHARACTER
CC_2	COBOL PROGRAMMING	3	CHARACTER
CC_3	SYSTEM ANALYSIS & DESIGN	3	CHARCATER
CC_4	DATA STRUCTURE	3	CHARACTER
CC_5	C-LANGUAGE	3	CHARACTER
CC_9	OPERTING SYSTEM	3	CHARACTER
CC_10	OPERATION RESEARCH	3	CHARACTER
CC_11	DATA COMMUNICATION	3	CHARACTER
CC_12	ACCOUNTING INFORMATION SYSTEM	3	CHARACTER
CC_13	COMPUTER GRAPHICS	3	CHARACTER
CC_14	DATA BASE MANAGEMENT SYSTEM	3	CHARACTER
DD	PRESENTATION DATE	8	DATE
TT	TOTAL MARKS	5	NUMERIC

PURPOSE :-   THIS FILE   REPRESENTS THE JOINED   FILE OF   MASTER2
AND PRJ.

```
================================================================
```

10.   FILE NAME :-   F1.DBF

```
================================================================
```

FIELD NAME	DESCRIPTION	WIDTH	TYPE
CHALLAN_NO	BANK CHALLAN NO	10	CHARACTER
DATE	DATE OF DEPOSIT	8	DATE
ROLL_NO	STUDENT'S ROLL NO	3	NUMERIC
NAME	STUDENT'S NAME	25	CHARACTER
FATHER	FATHER'S NAME	25	CHARACTER
AMT_DUE	AMOUNT DUE	4	NUMERIC
AMT_DET	AMOUNT DEPOSITED	4	NUMERIC
BAL1	BALANCE FOR MONTH 1	5	NUMERIC
FINE1	FINE FOR MONTH 1	3	NUMERIC
TB1	TOTAL CURRENT BALANCE	5	NUMERIC

PURPOSE :-   THIS FILE REPRESENTS THE FEES ENTRY FOR THE FIRST
MONTH.

===

11.   FILE NAME :-   F2.DBF

===

FIELD NAME	DESCRIPTION	WIDTH	TYPE
CHALLAN_NO	BANK CHALLAN NO	10	CHARACTER
DATE	DATE OF DEPOSIT	8	DATE
ROLL_NO	STUDENT'S ROLL NO	3	NUMERIC
NAME	STUDENT'S NAME	25	CHARACTER
FATHER	FATHER'S NAME	25	CHARACTER
AMT_DUE	AMOUNT DUE	4	NUMERIC
AMT_DET	AMOUNT DEPOSITED	4	NUMERIC
BAL2	BALANCE FOR MONTH 2	5	NUMERIC
FINE2	FINE FOR MONTH 2	3	NUMERIC
TB2	TOTAL CURRENT BALANCE	5	NUMERIC

PURPOSE :-   THIS FILE REPRESENTS THE FEES ENTRY FOR THE SECOND

MONTH.

==

12.   FILE NAME :-   F3.DBF

==

FIELD NAME	DESCRIPTION	WIDTH	TYPE
CHALLAN_NO	BANK CHALLAN NO	10	CHARACTER
DATE	DATE OF DEPOSIT	8	DATE
ROLL_NO	STUDENT'S ROLL NO	3	NUMERIC
NAME	STUDENT'S NAME	25	CHARACTER
FATHER	FATHER'S NAME	25	CHARACTER
AMT_DUE	AMOUNT DUE	4	NUMERIC
AMT_DET	AMOUNT DEPOSITED	4	NUMERIC
BAL3	BALANCE FOR MONTH 3	5	NUMERIC
FINE3	FINE FOR MONTH 3	3	NUMERIC
TB3	TOTAL CURRENT BALANCE	5	NUMERIC

PURPOSE :-   THIS FILE REPRESENTS THE FEES ENTRY FOR THE THIRD
MONTH.

```
=============================================================
13.            FILE NAME :-    F4.DBF
=============================================================
```

FIELD NAME	DESCRIPTION	WIDTH	TYPE
CHALLAN_NO	BANK CHALLAN NO	10	CHARACTER
DATE	DATE OF DEPOSIT	8	DATE
ROLL_NO	STUDENT'S ROLL NO	3	NUMERIC
NAME	STUDENT'S NAME	25	CHARACTER
FATHER	FATHER'S NAME	25	CHARACTER
AMT_DUE	AMOUNT DUE	4	NUMERIC
AMT_DET	AMOUNT DEPOSITED	4	NUMERIC
BAL4	BALANCE FOR MONTH 4	5	NUMERIC
FINE4	FINE FOR MONTH 4	3	NUMERIC
TB4	TOTAL CURRENT BALANCE	5	NUMERIC

PURPOSE :-   THIS FILE REPRESENTS THE FEES ENTRY FOR THE FOURTH
MONTH.

```
========================================================================
14.            FILE NAME :-    F5.DBF
========================================================================
```

FIELD NAME	DESCRIPTION	WIDTH	TYPE
CHALLAN_NO	BANK CHALLAN NO	10	CHARACTER
DATE	DATE OF DEPOSIT	8	DATE
ROLL_NO	STUDENT'S ROLL NO	3	NUMERIC
NAME	STUDENT'S NAME	25	CHARACTER
FATHER	FATHER'S NAME	25	CHARACTER
AMT_DUE	AMOUNT DUE	4	NUMERIC
AMT_DET	AMOUNT DEPOSITED	4	NUMERIC
BAL5	BALANCE FOR MONTH 5	5	NUMERIC
FINE5	FINE FOR MONTH 5	3	NUMERIC
TB5	TOTAL CURRENT BALANCE	5	NUMERIC

PURPOSE :-   THIS FILE REPRESENTS THE FEES ENTRY FOR THE FIVTH
MONTH.

===

15.   FILE NAME :-   F6.DBF

===

FIELD NAME	DESCRIPTION	WIDTH	TYPE
CHALLAN_NO	BANK CHALLAN NO	10	CHARACTER
DATE	DATE OF DEPOSIT	8	DATE
ROLL_NO	STUDENT'S ROLL NO	3	NUMERIC
NAME	STUDENT'S NAME	25	CHARACTER
FATHER	FATHER'S NAME	25	CHARACTER
AMT_DUE	AMOUNT DUE	4	NUMERIC
AMT_DET	AMOUNT DEPOSITED	4	NUMERIC
BAL6	BALANCE FOR MONTH 6	5	NUMERIC
FINE6	FINE FOR MONTH 6	3	NUMERIC
TB6	TOTAL CURRENT BALANCE	5	NUMERIC

PURPOSE :-   THIS FILE REPRESENTS THE FEES ENTRY FOR THE SIXTH
MONTH.

==

16.　　　　　　FILE NAME :-　　F7.DBF

==

FIELD NAME	DESCRIPTION	WIDTH	TYPE
CHALLAN_NO	BANK CHALLAN NO	10	CHARACTER
DATE	DATE OF DEPOSIT	8	DATE
ROLL_NO	STUDENT'S ROLL NO	3	NUMERIC
NAME	STUDENT'S NAME	25	CHARACTER
FATHER	FATHER'S NAME	25	CHARACTER
AMT_DUE	AMOUNT DUE	4	NUMERIC
AMT_DET	AMOUNT DEPOSITED	4	NUMERIC
BAL7	BALANCE FOR MONTH 7	5	NUMERIC
FINE7	FINE FOR MONTH 7	3	NUMERIC
TB7	TOTAL CURRENT BALANCE	5	NUMERIC

PURPOSE :-　　　THIS　FILE　REPRESENTS　THE　FEES　ENTRY　FOR　THE SEVENTH MONTH.

```
================================================================

17.            FILE NAME :-    F8.DBF

================================================================
```

FIELD NAME	DESCRIPTION	WIDTH	TYPE
CHALLAN_NO	BANK CHALLAN NO	10	CHARACTER
DATE	DATE OF DEPOSIT	8	DATE
ROLL_NO	STUDENT'S ROLL NO	3	NUMERIC
NAME	STUDENT'S NAME	25	CHARACTER
FATHER	FATHER'S NAME	25	CHARACTER
AMT_DUE	AMOUNT DUE	4	NUMERIC
AMT_DET	AMOUNT DEPOSITED	4	NUMERIC
BAL8	BALANCE FOR MONTH 8	5	NUMERIC
FINE8	FINE FOR MONTH 8	3	NUMERIC
TB8	TOTAL CURRENT BALANCE	5	NUMERIC

PURPOSE :-   THIS FILE REPRESENTS THE FEES ENTRY FOR THE EIGHTH
MONTH.

```
================================================================
18.              FILE NAME :-    F9.DBF
================================================================
```

FIELD NAME	DESCRIPTION	WIDTH	TYPE
CHALLAN_NO	BANK CHALLAN NO	10	CHARACTER
DATE	DATE OF DEPOSIT	8	DATE
ROLL_NO	STUDENT'S ROLL NO	3	NUMERIC
NAME	STUDENT'S NAME	25	CHARACTER
FATHER	FATHER'S NAME	25	CHARACTER
AMT_DUE	AMOUNT DUE	4	NUMERIC
AMT_DET	AMOUNT DEPOSITED	4	NUMERIC
BAL9	BALANCE FOR MONTH 9	5	NUMERIC
FINE9	FINE FOR MONTH 9	3	NUMERIC
TB9	TOTAL CURRENT BALANCE	5	NUMERIC

PURPOSE :-   THIS FILE REPRESENTS THE FEES ENTRY FOR THE NINTH
MONTH.

```
================================================================

19.              FILE NAME :-    F10.DBF

================================================================

FIELD NAME        DESCRIPTION                  WIDTH      TYPE

CHALLAN_NO        BANK CHALLAN NO              10         CHARACTER

DATE              DATE OF DEPOSIT              8          DATE

ROLL_NO           STUDENT'S ROLL NO            3          NUMERIC

NAME              STUDENT'S NAME               25         CHARACTER

FATHER            FATHER'S NAME                25         CHARACTER

AMT_DUE           AMOUNT DUE                   4          NUMERIC

AMT_DET           AMOUNT DEPOSITED             4          NUMERIC

BAL10             BALANCE FOR MONTH 10         5          NUMERIC

FINE10            FINE FOR MONTH 10            3          NUMERIC

TB10              TOTAL CURRENT BALANCE        5          NUMERIC
```

PURPOSE :-   THIS FILE REPRESENTS THE FEES ENTRY FOR THE TENTH

MONTH.

==

20.   FILE NAME :-   F11.DBF

==

FIELD NAME	DESCRIPTION	WIDTH	TYPE
CHALLAN_NO	BANK CHALLAN NO	10	CHARACTER
DATE	DATE OF DEPOSIT	8	DATE
ROLL_NO	STUDENT'S ROLL NO	3	NUMERIC
NAME	STUDENT'S NAME	25	CHARACTER
FATHER	FATHER'S NAME	25	CHARACTER
AMT_DUE	AMOUNT DUE	4	NUMERIC
AMT_DET	AMOUNT DEPOSITED	4	NUMERIC
BAL11	BALANCE FOR MONTH 11	5	NUMERIC
FINE11	FINE FOR MONTH 11	3	NUMERIC
TB11	TOTAL CURRENT BALANCE	5	NUMERIC

PURPOSE :-   THIS FILE REPRESENTS THE FEES ENTRY FOR THE ELEVENTH MONTH.

===

21.   FILE NAME :-   F12.DBF

===

FIELD NAME	DESCRIPTION	WIDTH	TYPE
CHALLAN_NO	BANK CHALLAN NO	10	CHARACTER
DATE	DATE OF DEPOSIT	8	DATE
ROLL_NO	STUDENT'S ROLL NO	3	NUMERIC
NAME	STUDENT'S NAME	25	CHARACTER
FATHER	FATHER'S NAME	25	CHARACTER
AMT_DUE	AMOUNT DUE	4	NUMERIC
AMT_DET	AMOUNT DEPOSITED	4	NUMERIC
BAL12	BALANCE FOR MONTH 12	5	NUMERIC
FINE12	FINE FOR MONTH 12	3	NUMERIC
TB12	TOTAL CURRENT BALANCE	5	NUMERIC

PURPOSE :-   THIS   FILE   REPRESENTS   THE   FEES   ENTRY   FOR   THE
TWELVETH MONTH.

```
===========================================================
22.            FILE NAME :-   SMFPC.DBF
===========================================================
```

FIELD NAME	DESCRIPTION	WIDTH	TYPE
CROLL_NO	CLASS ROLL NO	8	CHARACTER
REGDNO	REGISTERATION NO	13	CHARACTER
NAME	STUDENT'S NAME	25	CHARACTER
FATHER	FATHER'S NAME	25	CHARACTER
ADDRESS	STUDENT'S ADDRESS	45	CHARACTER
PADDRESS	PERMANENT ADDRESS	45	CHARACTER
INTER	MARKS IN INTER	3	NUMERIC
GRADUATION	MARKS IN GRADUATION	3	NUMERIC
P_CODE	PROVINCE CODE	1	CHARACTER
BIRTH_DATE	DATE OF BIRTH	8	CHARACTER
TNO	TELEPHONE NO	8	CHARACTER
ID_CARD	IDENTITY CARD NO	13	CHARACTER
NCC	NATIONAL CADET CORP	1	CHARACTER
HAFIZ	HAFIZ-E-QURAN	1	CHARACTER
MM	IF MASTER HOLDER	1	CHARACTER
F_NO	FORM NO	3	NUMERIC

PURPOSE :-   THIS FILE REPRESENTS THE   PERSONAL DATA ENTRY FILE
OF ALL THE PC STUDENTS.

```
==================================================================

23.              FILE NAME :-   PCM1.DBF

==================================================================

FIELD NAME      DESCRIPTION                   WIDTH     TYPE

ROLL_NO         CLASS ROLL NO                 3         NUMERIC

APS_1           E.D.P.                        3         CHARACTER

APS_2           SYSTEM ANALYSIS & DESIGN      3         CHARACTER

APS_3           C-LANGUAGE                    3         CHARACTER

APS_4           COBOL PROGRAMMING             3         CHARACTER

APS_5           DATA BASE                     3         CHARACTER

APS_6           APPLICATION PACKAGES          3         CHARACTER
```

PURPOSE :-   THE FILE REPRESENTS THE MARKS DATA ENTRY FILE FOR
FIRST TIME EXAM OF PC.

```
================================================================
```

24.   FILE NAME :-   PCM2.DBF

```
================================================================
```

FIELD NAME	DESCRIPTION	WIDTH	TYPE
ROLL_NO	CLASS ROLL NO	3	NUMERIC
APS_1	E.D.P.	3	CHARACTER
APS_2	SYSTEM ANALYSIS & DESIGN	3	CHARACTER
APS_3	C-LANGUAGE	3	CHARACTER
APS_4	COBOL PROGRAMMING	3	CHARACTER
APS_5	DATA BASE	3	CHARACTER
APS_6	APPLICATION PACKAGES	3	CHARACTER

PURPOSE :-   THE FILE REPRESENTS THE MARKS DATA ENTRY FILE FOR SECOND TIME EXAM (SUPPLEMENTRY) OF PC.

```
================================================================

25.            FILE NAME :-   PCM.DBF

================================================================

FIELD NAME      DESCRIPTION                   WIDTH      TYPE

CROLL_NO        CLASS ROLL NO                   8        CHARACTER

REGDNO          REGISTERATION NO               13        CHARACTER

NAME            STUDENT'S NAME                 25        CHARACTER

FATHER          FATHER'S NAME                  25        CHARACTER

ADDRESS         STUDENT'S ADDRESS              45        CHARACTER

PADDRESS        PERMANENT ADDRESS              45        CHARACTER

INTER           MARKS IN INTER                  3        NUMERIC

GRADUATION      MARKS IN GRADUATION             3        NUMERIC

P_CODE          PROVINCE CODE                   1        CHARACTER

BIRTH_DATE      DATE OF BIRTH                   8        CHARACTER

TNO             TELEPHONE NO                    8        CHARACTER

ID_CARD         IDENTITY CARD NO               13        CHARACTER

NCC             NATIONAL CADET CORP             1        CHARACTER

HAFIZ           HAFIZ-E-QURAN                   1        CHARACTER

MM              IF MASTER HOLDER                1        CHARACTER

F_NO            FORM NO                         3        NUMERIC

APS_1           E.D.P.                          3        CHARACTER

APS_2           SYSTEM ANALYSIS & DESIGN        3        CHARACTER

APS_3           C-LANGUAGE                      3        CHARACTER

APS_4           COBOL PROGRAMMING               3        CHARACTER
```

APS_5	DATA BASE	3	CHARACTER
APS_6	APPLICATION PACKAGES	3	CHARACTER

PURPOSE :-   THIS FILE REPRESENTS THE JOINED FILE OF SMFPC AND
PCM1.

===

26.   FILE NAME :-   SMFOC.DBF

===

FIELD NAME	DESCRIPTION	WIDTH	TYPE
CROLL_NO	CLASS ROLL NO	8	CHARACTER
REGDNO	REGISTERATION NO	13	CHARACTER
NAME	STUDENT'S NAME	25	CHARACTER
FATHER	FATHER'S NAME	25	CHARACTER
ADDRESS	STUDENT'S ADDRESS	45	CHARACTER
PADDRESS	PERMANENT ADDRESS	45	CHARACTER
INTER	MARKS IN INTER	3	NUMERIC
GRADUATION	MARKS IN GRADUATION	3	NUMERIC
P_CODE	PROVINCE CODE	1	CHARACTER
BIRTH_DATE	DATE OF BIRTH	8	CHARACTER
TNO	TELEPHONE NO	8	CHARACTER
ID_CARD	IDENTITY CARD NO	13	CHARACTER
NCC	NATIONAL CADET CORP	1	CHARACTER
HAFIZ	HAFIZ-E-QURAN	1	CHARACTER

MM	IF MASTER HOLDER	1	CHARACTER
F_NO	FORM NO	3	NUMERIC

PERPOSE :-   THIS FILE REPRESENTS THE PERSONAL DATA ENTRY FILE

OF ALL THE SHORT COURSES STUDENTS.

===

27.   FILE NAME :-   OCM1.DBF

===

FIELD NAME	DESCRIPTION	WIDTH	TYPE
ROLL_NO	CLASS ROLL NO	3	NUMERIC
APS_11	LOTUS 123	3	CHARACTER
APS_21	WORDSTAR	3	CHARACTER
APS_31	DBASE III	3	CHARACTER

PERPOSE :-   THIS FILE REPRESENTS THE MARKS DATA ENTRY FILE OF

SHORT COURSES STUDENTS.

```
========================================================================
```

28.   FILE NAME :-   MOC1.DBF

```
========================================================================
```

FIELD NAME	DESCRIPTION	WIDTH	TYPE
CROLL_NO	CLASS ROLL NO	8	CHARACTER
REGDNO	REGISTERATION NO	13	CHARACTER
NAME	STUDENT'S NAME	25	CHARACTER
FATHER	FATHER'S NAME	25	CHARACTER
ADDRESS	STUDENT'S ADDRESS	45	CHARACTER
PADDRESS	PERMANENT ADDRESS	45	CHARACTER
INTER	MARKS IN INTER	3	NUMERIC
GRADUATION	MARKS IN GRADUATION	3	NUMERIC
P_CODE	PROVINCE CODE	1	CHARACTER
BIRTH_DATE	DATE OF BIRTH	8	CHARACTER
TNO	TELEPHONE NO	8	CHARACTER
ID_CARD	IDENTITY CARD NO	13	CHARACTER
NCC	NATIONAL CADET CORP	1	CHARACTER
HAFIZ	HAFIZ-E-QURAN	1	CHARACTER
MM	IF MASTER HOLDER	1	CHARACTER
F_NO	FORM NO	3	NUMERIC
APS_11	LOTUS 123	3	CHARACTER
APS_21	WORDSTAR	3	CHARACTER
APS_31	DBASE III	3	CHARACTER

PURPOSE :-   THIS FILE REPRESENTS THE JOINED FILE OF SMFOC AND
OCM1.

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CHAPTER 5

SYSTEM DEVELOPEMENT

5.1   INTRODUCTION

As the name shows, this chapter is actually about the software development application for the physical realization of the proposed objectives.

Software development is actually an art of improving the handy system to machine system. There are a number of identifiable steps that are almost always involved in the programming phase and that provide a convenient framework. In general terms, these steps are:-

*   Define the problem
*   Plan a solution
*   Maintain the program

Keeping in view these steps, the programs developed are carefully planned before being implemented on the computer. Thus the purpose of programming task is to code, test and debug each program with the system. Different programs are organized for different purposes. For example, some programs are created for file creation and some others are for amendments etc.

5.2   FILE PROGRAMS

The functions which will be performed by file
programs are mentioned below:-

    a)   CREATION

    b)   APPENDING

Some programs developed for file creation will be described
later.

5.3   FILE AMENDMENT PROGRAM

There are two main reasons why amendment programs are
prepared. Firstly, by using these programs, the data residing on
the magnetic disk can be made up-to-date and
secondly, if the data is entered in an unacceptable form, it can
be made acceptable.

In short, the record is updated, corrected and rewritten
using these programs. Programs developed for this purpose
and their details of the relevant files, will be discussed later.

5.4   REPORT PRINTING PROGRAM

These programs are developed for the purpose of
printing records entered so far in the data files. Same data
files are referred for retrieving the data and that data may also
be sent to the printer.

5.5   SYSTEM IMPLEMENTATION

The implementation phase is firmly aimed at ensuring a
smooth and efficient takeover from existing manual system to
a computerized system. The steps involved in the conversion from
the manual system to the implementation of the computerized
system are as under:-

*   System testing
*   System conversion

5.5.1   SYSTEM TESTING

The basic concept of system testing is to know that
the system designed for implementation leads to the destination
which is entirely in accordance with the requirements and
objectives framed whose accomplishment is the real spirit of
system designing.

The following steps have been taken for testing the system.

*   Checked each phase of the system, entered the test
    data to ensure that the range of values which can
    be   expected   are   acceptable.   Comparisons   between
    the outputs of the new system and manual system
    have been made.

*   All parts of the system have been interlinked.
*   All the processing and tabulations are upto the
    required standards.

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5.5.2 SYSTEM CONVERSION

The system conversion is mainly referred to as the relationship between the new system and the old one. There are three basic conversion methods which are normally used to implement a new system and these are; Direct, Parallel and the Pilot conversion methods. Their detail is given below:-

5.5.3 DIRECT CONVERSION

This approach is usually adopted at a place where the system designed is completely different from the old one and has its own way of operation.

5.5.4 PARALLEL CONVERSION

In this approach, both the old and the new system are checked simultaneously for comparisons of the results and after complete satisfaction of the organization, the new system is finally implemented.

5.5.5 PILOT SYSTEM

In pilot conversion, a subsystem of the proposed system is replaced with a part of new system.

5.6   PROPOSED METHOD OF CONVERSION

The parallel system of conversion is proposed after having a detailed study of the types of converting systems. It will provide an opportunity to compare results with those obtained by the previous methods and will allow realistic appraisals to be made of time requirements, frequency of errors and operational efficiency. It will also eliminate the feelings of panic because the old method would still be operational.

5.7   SYSTEM EVALUATION

An evaluation of a newly developed computer system is necessary to judge whether the objectives set out for the system have been achieved or not. Some advantages of the new system over the old one are as under:-

* The new system is efficient and suitable for easy information retrieval. It has been designed in such a w way that the user does not face any difficulty during data insertion, modification and deletion.

* In the developed system, consistency is achieved to every possible extent.

* The outputs produced are accurate and reliable.

* The new system is designed in such a way that it could provide the user the facility of updating the data whenever required.

C H A P T E R   6

U S E R ' S   G U I D E

The Computerized Students' Personal Information System for the Computer Centre is designed in such a manner so as to make it user friendly and easy to understand even for a layman. It is, however, necessary to explain how the system operates so that any problem, if arises, during the operation of the package is overcome properly.

To activate the Package you are supposed to type simply "PIS" at the DOS prompt. After the command is given, the following screen emerges on the computer screen showing the name of the Package alongwith the names of the Programmers:-

```
┌─────────────────────────────────────────────────┐
│   STUDENTS' PERSONAL INFORMATION SYSTEM          │
│                    FOR                           │
│   COMPUTER CENTRE Q.A.U.  ISLAMABAD              │
│                    BY                            │
│              IQBAL AHMED                         │
│                   &                              │
│           MOHAMMAD FAROOQ                        │
└─────────────────────────────────────────────────┘
```

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This initial screen automatically disappears on its own
as soon as a specific fixed time (in seconds) is over. This is
the point where the user has now an access to the Main Menu of
the Package with the very first segment activated.

DATA ENTRY
PERSONAL (PGD)
EXAM INFORMATION FOR PGD
PERSONAL (PC)
EXAM INFORMATION FOR PC
PERSONAL (OTHER COURSES)
EXAM INFORMATION FOR OTHER COURSES
ERROR HANDLING

THE FIRST MENU

The first Menu is for the data entry purpose that
allows the computer operator or the user to input data for the
P.G.D , P.C. or the Morning course students as the case may be.
Brief explanations of the options is mentioned below:-

(1)   The Personal (PGD) option allows you to input all
the personal data relevant to all the P.G.D students. In fact a
well designed form appears on the screen that helps you to enter
the data consecutively nearly in the same format as it is present
in the form. Pressing ESC at any stage, returns you back to the
active menu. Moreover you can use the up or down arrow keys to
scroll through this menu in any direction according to the
requirement.
This menu is unique and is not further splitted.

(2)   The "<u>DATA FOR PGD</u>" option provides you the
facility to enter the marks obtained by the students of P.G.D. at
any stage. You can enter the data either for the first semester
of the P.G.D. , Second semester or the third semester according
to the immediate requirement. Hence this menu is in fact broken
down into another one, whose appearance is somewhat like this:-

<u>FIRST SEMESTER</u>
<u>SECOND SEMESTER</u>
<u>PROJECT</u>
<u>FIRST SEMESTER (SUPP)</u>
<u>SECOND SEMESTER (SUPP)</u>
<u>QUIT</u>

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Hence you can use the "FIRST SEMESTER" option to enter the marks for the first semester of P.G.D. in a well designed format.

The second option is the "SECOND SEMESTER" that allows to enter the marks for the second semester of P.G.D. according to the designed format.

The third option is the "PROJECT" that may be used to enter the marks obtained by the respective students in the third and the final semester.

The fourth option is the "FIRST SEMESTER (SUPP) " which means that you can also enter the marks for the supplementary examination in case of those students who fail in the first semester examination and there re-test was held in which they passed and the result was officially declared.

The fifth option is the "SECOND SEMESTER (SUPP)" that exactly means the same as just mentioned but this time the provision is only for the second semester.

The sixth and last option in this menu offers you the choice to quit to DOS if you desire so.

(3)   The next option in the first menu is the "PERSONAL
(PC)" that   lets you   enter the   personal data   for all   the PC
students   in the   same manner   as you   do in   case of   the P.G.D.
students. The option is unique and is not splitted.

(4)   The fourth   option in the   main menu is   the "EXAM
INFORMATION   FOR PC"   which means   that you can   enter the marks
obtained   by all the   PC students if   you so desire as   is in the
case of the "DATA   FOR PGD" option already mentioned.   The option
is further splitted into a new menu that looks like this:-

| FIRST TIME |
| SECOND TIME |
| QUIT |

The options are only meant   to enter the marks for   the
regular first   time appearing students and those appearing in the
supplementary examination. The third option lets   you quit to the
DOS prompt.

(5)   The fifth option in the main menu is the "PERSONAL
(OTHER COURSES)" that lets you to enter the personal data for all
the   students who   normally   study in   the   morning classes.   The
option is unique and is not splitted further.

(6)   The sixth option is the "EXAM INFORMATION FOR OTHER COURSES" that works exactly on the same pattern as does the "EXAM INFORMATION FOR PGD" option and this time you can enter the marks obtained by all the morning course students only. The option is unique and is not further splitted.

(7)   The seventh and the last option is the "DATA ENTRY DEBUGGING" that allows you to rectify the data that is entered incorrectly or needs any change according to the requirement. The option is further splitted into a sub menu that has the following appearance:-

| FOR PGD |
| FOR PC |
| FOR OTHER COURSES |
| QUIT |

THE SECOND MENU

If you press the right arrow key the second menu is automatically activated that has the following shape:-

UPDATE PGD
UPDATE PC
UPDATE OTHER COURSES
DUES ENTRY AND SEARCHING
RESULT UPDATION FOR PGD(IST SEM)
RESULT UPDATION FOR PGD(2ND SEM)
RESULT UPDATION FOR PC

Once the second menu is activated you are again provided with many options each of which is explained below for the convenience of the user:-

(1)   The first option is the " UPDATE PGD" and this option lets you to join some files pertaining to the PGD and create a master file that would help you later in the searching process.

As you have entered all the relevant personal data alongwith the information, now the time has come to join the files containing the personal data, marks in the first semester, marks in the second semester and the marks in the third semester into one master file and when the "UPDATE PGD" option is used, the job is automatically done. Hence it is worthnoting that after entering all the important data pertaining to the PGD, you need to move on to this option and use it for the creation of a master file. The menu is unique and is not further splitted.

(2)   The second option is the "UPDATE PC" that works exactly on the same pattern as does the "UPDATE PGD" option. In other words it also joins some of the relevant PC files to create a master PC file that would help the user in the searching process in the future. The menu is unique and is not splitted.

(3)   The third option is the "UPDATE OTHER COURSES" that means more or less the same as the above mentioned two options except the fact that this option is meant only for the morning course students. The option is unique and is not further splitted.

(4)   The fourth option is the   "<u>DUES ENTRY AND</u>
<u>SEARCHING</u>" that further splits into a sub menu with the following
appearance:-

<u>MONTH 1</u>
<u>MONTH 2</u>
<u>MONTH 3</u>
<u>MONTH 4</u>
<u>MONTH 5</u>
<u>MONTH 6</u>
<u>MONTH 7</u>
<u>MONTH 8</u>
<u>MONTH 9</u>
<u>MONTH 10</u>
<u>MONTH 11</u>
<u>MONTH 12</u>

Using up and down arrow keys provides you the facility to
use any one of these options. All these options work on the same
pattern so all of them need not to be explained individually.
Therefore let us discuss the very first or the "<u>MONTH 1</u>" option

only. Pressing return on this option allows you to enter the amount deposited by any PGD student. The screen contains the same format and prompts the user to enter or input the information in the same style as it appears in the genuine Bank Challan Form. So you normally have to enter the challan form no, the name and the Roll no of the student alongwith his father's name and above all the amount deposited on a specific date. Similar procedure should be followed to make use of the remaining eleven options.

As mentioned above, the option "Dues Entry and Searching" splits into two sub-menus. One has been explained above while the other meant for the 'Searching for PGD process' is being explained below. Let us have a look at its appearance:-

ROLL NO
NAME
FATHER'S NAME
CLEARANCE
QUIT

The first option is "ROLL NO" and it helps you to search for all the fees deposited by any particular candidate by now. Pressing Return on this option activates it and the computer

prompts you to input the relevant Roll No. When you provide the desired Roll No and press Return, all the amounts deposited by the student alongwith the dates appear on the computer screen.

The second option is "NAME" that allows you to perform the same searching process as mentioned above if you know the name of the candidate.

The third option is "FATHER'S NAME" and has the same use as of the above mentioned two options, but this time you intend to search by giving the father's name of the student.

The fourth option is the "CLEARANCE" and is very important in the sense that it lets you know the Balance pertaining to any student as he comes to collect his Diploma after the expiry of full one year and proper completion of all the educational requirements. The option shows a "CHIT " on the computer screen with the Balance that the student is supposed to pay prior to the collection of the Diploma. If the Balance is ZERO, it is an indication of the fact that all the fees were deposited in time and according to the proposed rules of the University and hence the clearance Chit may now be printed on a paper as well. However, if the Balance is other than ZERO it implies that the student has not paid the required dues in accordance with the rules and he will have to deposit the amount appearing as Balance in the Chit. This option will normally be used after the course

has come to an end.

The fifth option is "QUIT" and it lets you Quit to the DOS prompt if you so desire.

Let us now get back to the second menu by pressing ESC to see the use of the rest of the options.

The fifth option of the Second Menu is "RESULT UPDATION FOR PGD(IST SEM). It should be used in conjunction with the option "FIRST SEMESTER (SUPP)" so that the current result takes the place of the previous one in which the student had failed in either one or more subjects. So whenever the result for the Ist Semester Supplementary Exam is re-entered it is significant to move on to the "RESULT UPDATION FOR PGD(IST SEM)" option and use it for proper result updation.

The sixth option of the Second Menu is "RESULT UPDATION FOR PGD(2ND SEM)" and is used in conjunction with the option "SECOND SEMESTER (SUPP)" so that the previous result is replaced by the new one. Neither of these last three options is further splitted.

THIRD MENU

If you press the right arrow key while you are in the
second menu you will have an access to the third menu of the
package that is designed to carry out the searching process in an
effective manner. The general appearance of the menu is somewhat
like this:-

```
┌──────────────────────────────────┐
│ SEARCHING FOR PGD                 │
├──────────────────────────────────┤
│ SEARCHING FOR PC                  │
├──────────────────────────────────┤
│ SEARCHING FOR OTHER COURSES       │
└──────────────────────────────────┘
```

The first option of the third menu is "SEARCHING FOR PGD"
and allows the user to jump on to a variety of keys on which the
searching may be carried out as the option further splits into a

sub-menu that is shown below:-

| CLASS ROLL NO |
| NAME |
| FATHER |
| INTER |
| GRADUATION |
| ADDRESS |
| ID CARD NO |
| DATE OF BIRTH |
| REGISTRATION NO |

There are nine keys available for searching in the form of nine options as shown in the above menu diagram. Their explanation appears below:-

(1)   CLASS ROLL NO :

The computer asks you the class roll no of the student and you are supposed to enter the full roll no in the following format (here we have assumed that it is the 3rd PGD with 55 as the student's class roll no) :-

PGD3/55

(2)   NAME :

        The computer asks you the name of the   student and
you are supposed to provide the name with the correct spellings;

(3)   FATHER'S NAME :

        The   computer asks   you the   father's name   of the
student   and you are supposed   to provide the   required name with
the correct spellings;

(4)   INTERMEDIATE MARKS :

        The computer   asks you   the marks obtained   by the
student in the intermediate   examination and you are supposed   to
provide correct marks;

(5)   GRADUATION :

        The computer   asks you   the marks obtained   by the
student in   the Graduation examination   and you   are supposed   to
provide correct marks;

(6) ADDRESS :

The computer asks you to enter the correct address of the student and if you provide it correctly, the searching process will proceed successfully otherwise not;

(7) ID CARD NO :

You are supposed to provide the ID CARD NO of the student in this format :- 999-99-999999 with each 9 representing a numeric digit;

(8) DATE OF BIRTH :

The computer will ask you to enter the date of birth of the student and correct entry will lead to successful searching process;

(9) REGISTRATION NO :

The computer asks the user to enter the University Registration No of the student and if you enter the required no correctly, the searching process will meet your desired objectives.

For all the above mentioned nine options, the sample output is being shown on the next page.

The Second Option of the third menu is "SEARCHING FOR PC" and it works more or less in the same manner as does the "SEARCHING FOR PGD" option except the fact that here the searching cannot be carried out on the "REGISTRATION NO" option as the PC students are not regular students of the university and hence they are not properly given any Registration No.

The third option of the third menu is "SEARCHING FOR OTHER COURSES" that works exactly the same way as does the "SEARCHING FOR PC" option. This option can, however, only be used for the morning short course students.

FOURTH MENU

Pressing the right arrow key when you are still in the third menu allows you to make use of the fourth menu. The apparent use of this fourth menu is to have a quick view at the performance of the students in the graphical form.

The first option of the fourth menu is "NO OF APPLICANTS" that makes a graph to show the trend of the applicants towards the courses of the Computer Centre. In other words it is a graph of the yearwise number of students who applied for admission to different courses conducted by the Computer Centre.

The Second Option of the fourth menu is "YEARWISE RESULT"
that makes a graph to show the percentage of the result on yearly
basis.

The third option of the fourth menu is "OPTIONS" and pressing
Return on this option erases the present screen with all the four

SAMPLE OUTPUT WITH REAL DATA

ROLL NO	PGD2/4
NAME	M. SHAKEEL AZHAR
FATHER'S NAME	M SIDDIQ BHATTI
MARKS IN INTER	584
MARKS IN GRADUATION	498
HOUSE ADDRESS	N. T. SERVICE JHELUM
ID CARD NO	220-90-003696
MARKS IN COBOL	98
MARKS IN C LANGUAGE	120
MARKS IN DATA STRUCTURE	116
MARKS IN COMPUTING SYSTEMS	101
MARKS IN S.A.D.	103
MARKS IN OPERATING SYSTEMS	105
MARKS IN OPERATIONS RESEARCH	124
MARKS IN DATA COMM. AND NETWORK	101
MARKS IN ACCOUNTING	N
MARKS IN GRAPHICS	126

```
MARKS IN FOXPRO              109

MARKS IN PROJECT            240

PRESENTATION DATE           19/03/95

PRESS ANY KEY TO CONTINUE ...

3:14:56 pm
```

active menus and takes you to another screen where you will have

an access to some new menus with the first automatically

activated. Its appearance is like this :-

```
+-----------------------------+
| RUN WORDPERFECT 5.1         |
|-----------------------------|
| RUN LOTUS 123               |
|-----------------------------|
| RUN INSTANT ARTIST          |
+-----------------------------+
```

FIRST   MENU ON SECOND SCREEN

        The   main   objective of this menu is to provide the
facility to run some useful application packages while remaining
in the same "PIS" Package.

        The first option in this connection is the "RUN WORDPERFECT
5.1" and pressing return on this option takes you to the
Wordperfect environment where you can make use of the package

according to the requirement. When the job is done and you want to return back to the last menu of the "PIS" Package, you should give the "Exit from WP5.1" usual command like this:-

F7 N Y

As soon as this command is given you will return back to the last menu.

The second option is the "RUN LOUTS 123". Pressing Return on this option takes you to the LOTUS environment where you can do the specific work by pressing slash. If you Quit from LOUTS in the usual manner, you automatically will get back to the last application packages menu. You can Quit from LOTUS by the following command:-

/ Q Y

The third option is the "RUN INSTANT ARTIST". If you press Return on this option you will have an access to the environment of desktop publishing very easily. After you have used the package, you can Quit of the environment by going to the File option and using the QUIT command present over there. Hence you will get back to the application package menu.

SECOND MENU ON SECOND SCREEN

If you press the Right Arrow Key while you are in the 'First Menu on the Second Screen', you will reach the Second Menu on the Second Screen that appears like this.

DATE AND DAY
ENTER WEEKLY APPOINTMENTS
CHECK WEEKLY APPOINTMENTS

It provides some new facilities at your disposal. The first option is "DATE AND DAY" that shows the current Date and Day if you press return on this option.

The Second Option is "ENTER WEEKLY APPOINTMENTS" that lets the administrative authority to have an access to a well designed screen where he can enter the weekly appointments for the next seven days. These appointments are automatically stored in a file that may be used for the instant retrieval at any stage.

The third option is "CHECK WEEKLY APPOINTMENTS" that, as mentioned above, provides you timely access to the pre-stored appointments for a week. Hence the administration may take efficient and quick decisions making use of this option.

APPENDIX A

MENU NO 1

NAMES AT PRESENT	MENU NO
DATA ENTRY	HEADING
PERSONAL (PGD)	1.1
DATA FOR PGD	1.2
PERSONAL (PC)	1.3
DATA FOR PC	1.4
PERSONAL (OTHER COURSES)	1.5
DATA FOR OTHER COURSES	1.6
ERROR HANDLING	1.7

SUB MENU OF 1.2

NAMES AT PRESENT	MENU NO
DATA ENTRY FOR PGD	HEADING
FIRST SEMESTER	1.2.1
SECOND SEMESTER	1.2.2
PROJECT	1.2.3
FIRST SEMESTER (SUPP)	1.2.4
SECOND SEMESTER (SUPP)	1.2.5
QUIT	1.2.6

SUB MENU OF 1.4

NAMES AT PRESENT	MENU NO
DATA ENTRY FOR PC	HEADING
FIRST TIME	1.4.1
SECOND TIME	1.4.2
QUIT	1.4.3

SUB MENU OF 1.7

NAMES AT PRESENT	MENU NO
ERROR HANDLING ROUTINE	HEADING
FOR PGD	1.7.1
FOR PC	1.7.2
FOR OTHER COURSES	1.7.3
QUIT	1.7.4

MENU NO 2

NAMES AT PRESENT	MENU NO
UPDATION AND DUES	HEADING
UPDATE PGD	2.1
UPDATE PC	2.2
UPDATE OTHER COURSES	2.3
DUES ENTRY AND SEARCHING	2.4
RESULT UPDATION FOR PGD(IST SEM)	2.5
RESULT UPDATION FOR PGD(2ND SEM)	2.6
RESULT UPDATION FOR PC	2.7

MENU NO 2.4.1

NAMES AT PRESENT	MENU NO
FEES ENTRY FOR PGD	HEADING
MONTH 1	2.4.1.1
MONTH 2	2.4.1.2
MONTH 3	2.4.1.3
MONTH 4	2.4.1.4
MONTH 5	2.4.1.5
MONTH 6	2.4.1.6
MONTH 7	2.4.1.7
MONTH 8	2.4.1.8
MONTH 9	2.4.1.9
MONTH 10	2.4.1.10
MONTH 11	2.4.1.11
MONTH 12	2.4.1.12

MENU NO 2.4.2

NAMES AT PRESENT	MENU NO
SEARCHING FOR PGD	HEADING
ROLL NO	2.4.2.1
NAME	2.4.2.2
FATHER'S NAME	2.4.2.3
CLEARANCE	2.4.2.4
QUIT	2.4.2.5

MENU NO 3

NAMES AT PRESENT	MENU NO
SEARCHING	HEADING
SEARCHING FOR PGD	3.1
SEARCHING FOR PC	3.2
SEARCHING FOR OTHER COURSES	3.3

SUB MENU OF 3.1

NAMES AT PRESENT	MENU NO
SEARCHING FOR PGD	HEADING
CLASS ROLL NO	3.1.1
NAME	3.1.2
FATHER	3.1.3
INTER	3.1.4
GRADUATION	3.1.5
ADDRESS	3.1.6
ID CARD NO	3.1.7
DATE OF BIRTH	3.1.8
REGISTRATION NO	3.1.9

SUB MENU OF 3.2

NAMES AT PRESENT	MENU NO
SEARCHING FOR PC	HEADING
CLASS ROLL NO	3.2.1
NAME	3.2.2
FATHER	3.2.3
INTER	3.2.4
GRADUATION	3.2.5
ADDRESS	3.2.6
ID CARD NO	3.2.7
DATE OF BIRTH	3.2.8
REGISTRATION NO	3.2.9

SUB MENU OF 3.3

NAMES AT PRESENT	MENU NO
SEARCHING FOR OTHER COURSES	HEADING
CLASS ROLL NO	3.3.1
NAME	3.3.2
FATHER	3.3.3
INTER	3.3.4
GRADUATION	3.3.5
ADDRESS	3.3.6
ID CARD NO	3.3.7
DATE OF BIRTH	3.3.8
REGISTRATION NO	3.3.9

MENU NO 4

NAMES AT PRESENT	MENU NO
GRAPHICS AND OTHERS	HEADING
APPLICATIONS WISE	4.1
YEAR WISE	4.2
OPTIONS	4.3

SUB MENUS OF 4.3

SUB MENU 4.3.1

NAMES AT PRESENT	MENU NO
APPLICATION PACKAGES	HEADING
RUN WORDPERFECT 5.1	4.3.1.1
RUN LOTUS 123	4.3.1.2
RUN INSTANT ARTIST	4.3.1.3

SUB MENU 4.3.2

NAMES AT PRESENT	MENU NO
TODAY	HEADING
DATE AND DAY	4.3.2.1
ENTER WEEKLY APPOINTMENTS	4.3.2.2
CHECK WEEKLY APPOINTMENTS	4.3.2.3
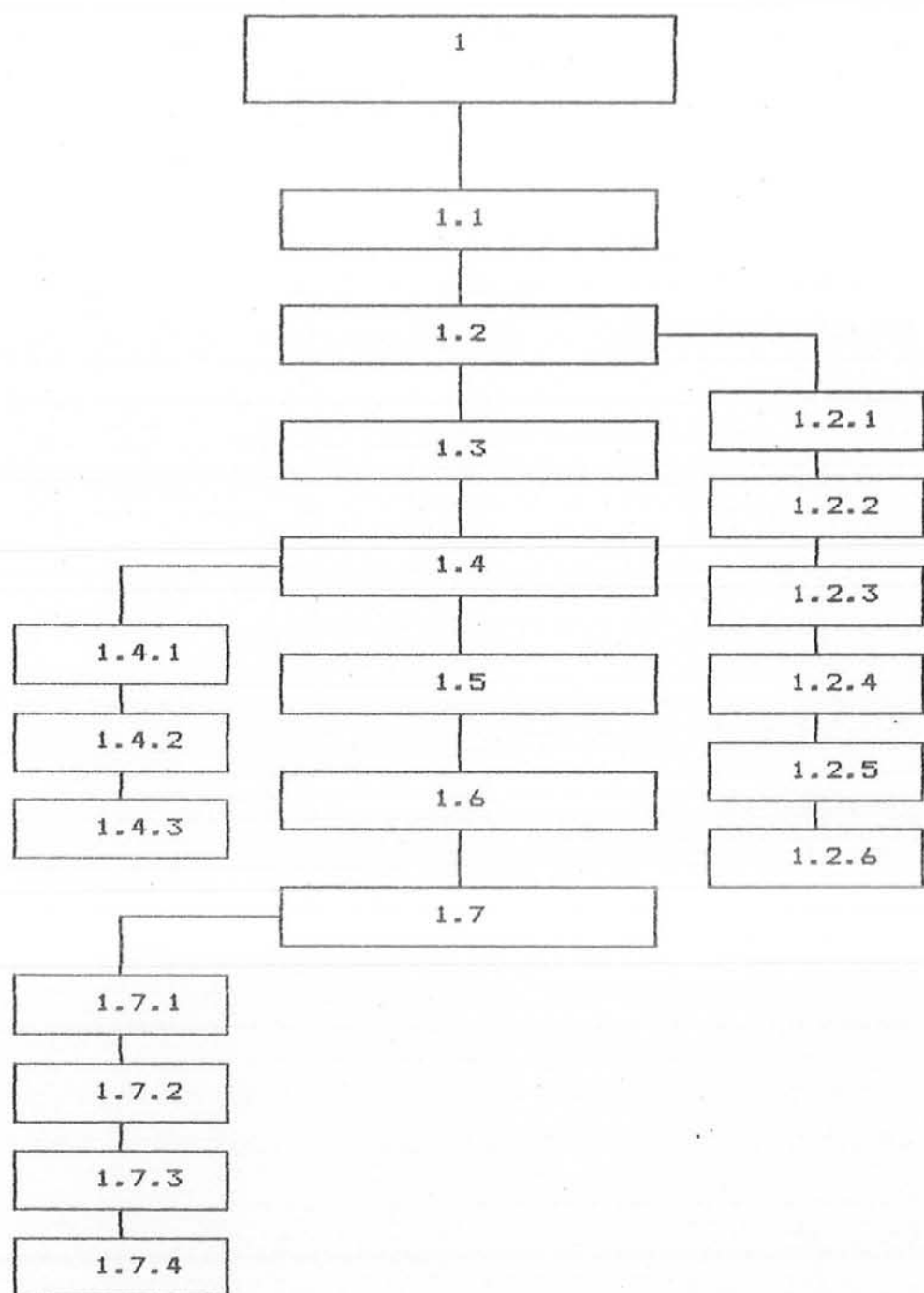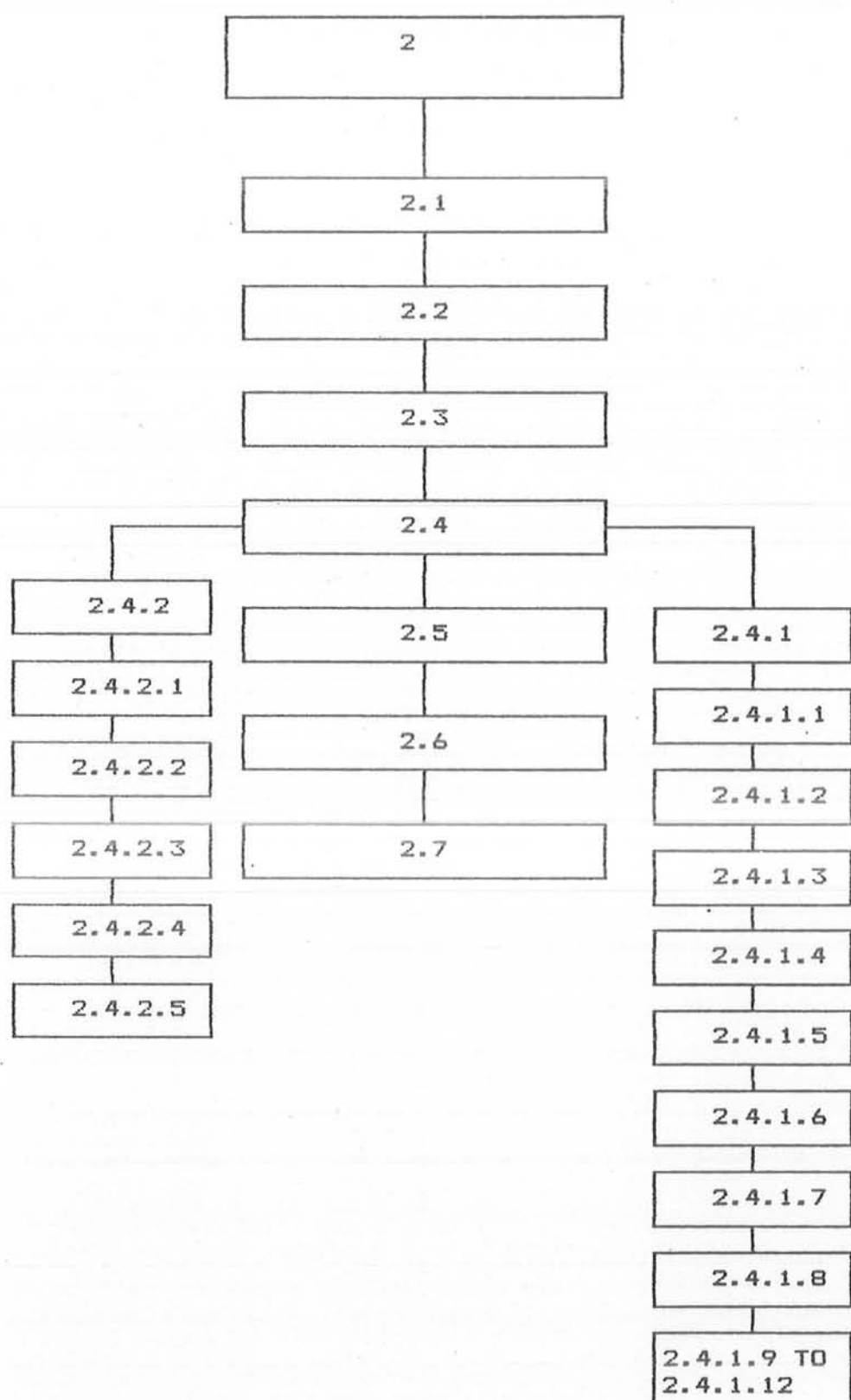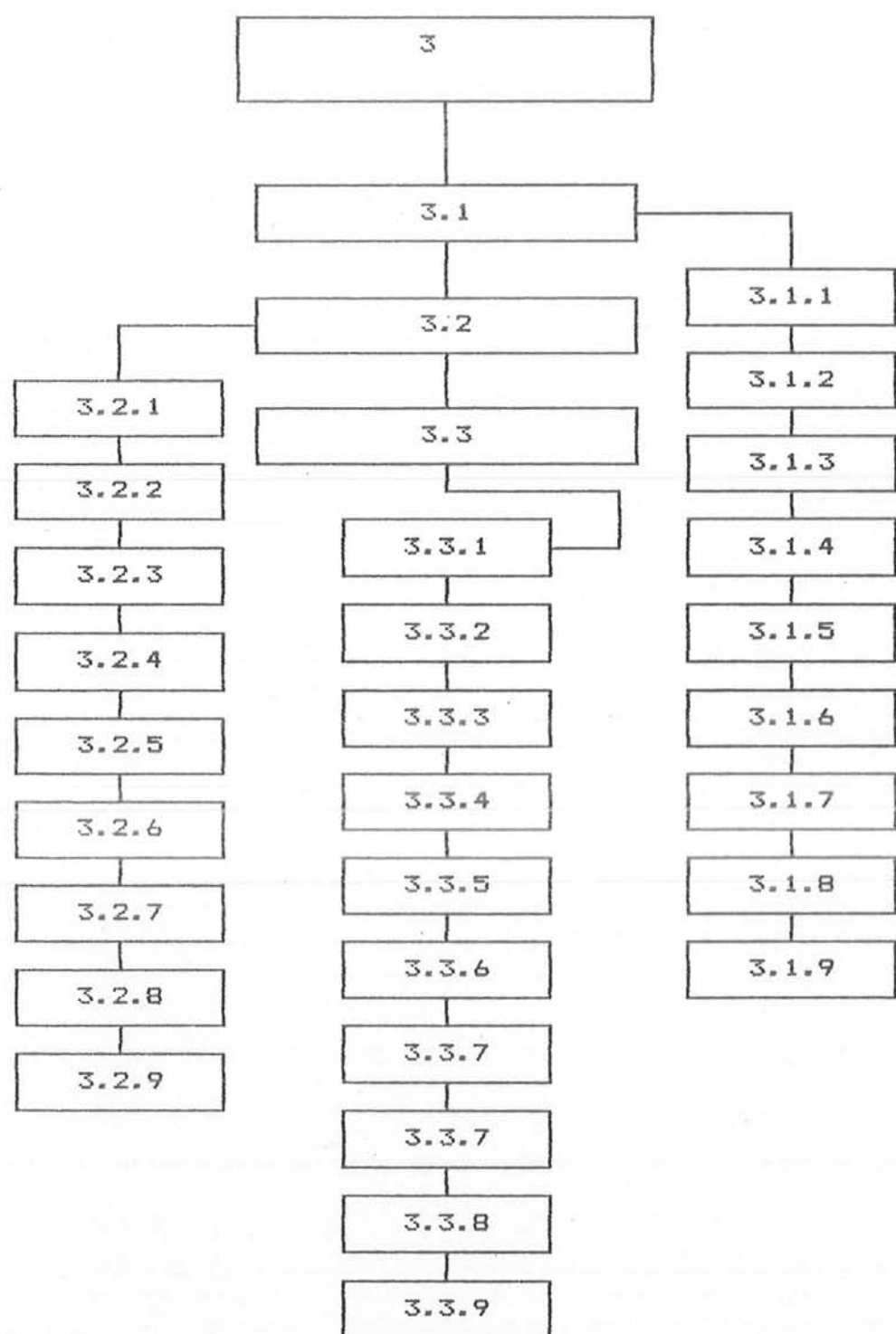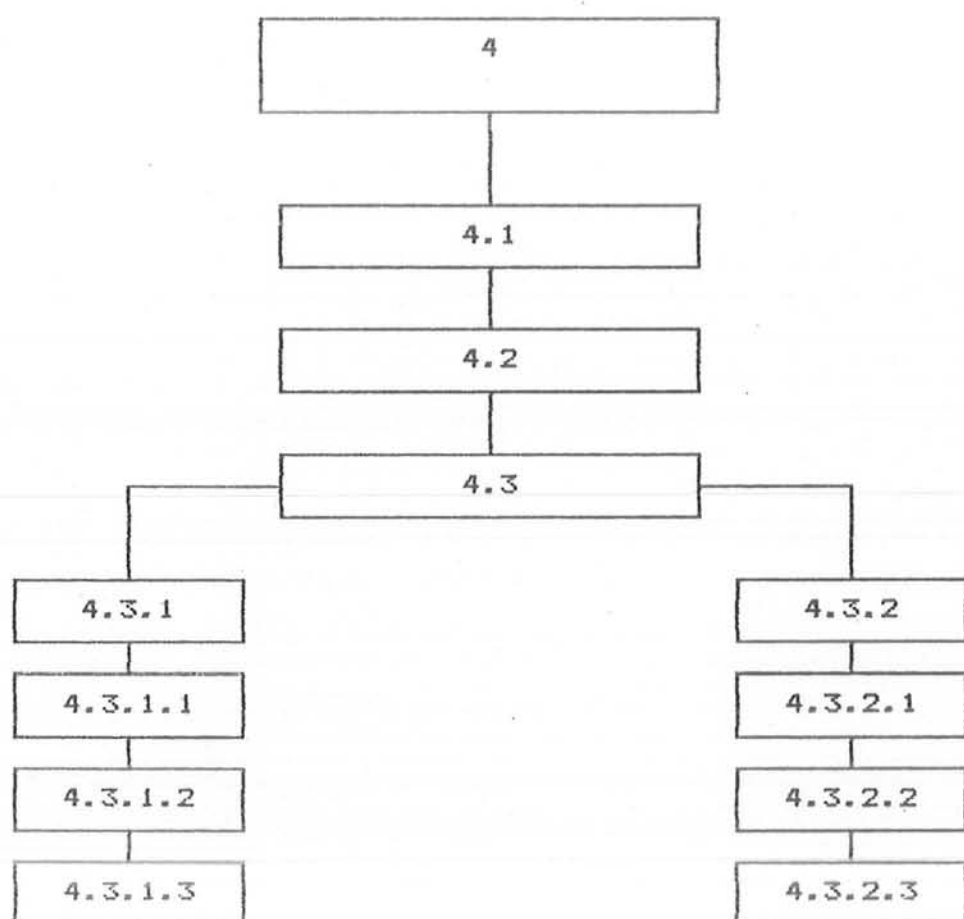
APPENDIX B

QUAID-I-AZAM UNIVERSITY
COMPUTER CENTRE

DAILY ATTENDANCE SHEET PGD

SUBJECT:———————————————— DATED:———

ROLL NO	NAME	SIGNATURE
04	SHAHID ALI	
09	SAFDAR	
10	SALEEM	
11	RAZA SHAHID	
12	FAROOQ KHAN	
16	TAHIR	
17	ZAFAR AHMED	
29	ARIF ABBAS	
30	MAJID KHAN	

QUAID-I-AZAM UNIVERSITY

(Examination Section)

IDENTIFICATION SHEETS FOR THE ANSWER BOOKLETS USED BY THE
CANDIDATE (THE SIGNATURES OF THE CANDIDATES SHOULD BE TAKEN ON
EVERY DAY OF THE EXAMINATION FOR EACH ANSWER BOOKLETS
INDIVIDUALLY)

DEPARTMENT —————— COURSE NO ————— TITLE ——————————

DATE OF EXAMINATION ———————————————

ROLL NO	SERIAL NO	SIGN	ROLL NO	SERIAL NO	SIGN

SIGNATURE OF THE   TEACHER/EXAMINER   SIGNATURE OF   THE CHAIRMAN

DATED ——————————————   DATED ——————————————

QUAID-I-AZAM UNIVERSITY
(AWARD LIST)

Department ———————— Class ——————— Semester —————————
Course no ——————— Title ——————— Credit ——————— Date of Exam.
————————
Max Marks ——————— Pass Marks ————————————————
   (Award for make-up exam. may be furnished separately)

————————————————————————————   ————————————————————————————
         PERCENTAGE OF MARKS   SESSIONAL & TERMINAL

————————————————————————————   ————————————————————————————

Roll No	Name	Pr.	S.T.	T.E.	Total	Marks in words	L.G	N.G	Cr	GP

Pr: Practical   Total No   of Students   Total
Grading
S.T: Sessional Test   Appeared   ———————————   Grade 'A'
————————
T.E: Terminal Exam.   Passed ———————————   Grade 'B'
————————
L.G: Letter Grade   Failed   ———————————   Grade 'C'
————————
N.G: Numerical Grade   Grade 'F'
————————
Cr: Credit
G.P: Grade Point

                        Chairman   (Examiner's Signature)

QUAID-I-AZAM UNIVERSITY
ADMISSION DATA ENTRY WORKSHEET

NOTE: <u>ALL THE COLUMNS GIVEN BELOW MUST BE FILLED IN:</u>

FORM NO.   SUBJECT CODE   PROVINCE CODE

[_____]   [_____]   [_____]

CANDIDATE'S NAME

[| | | | | | | | | | | | | | | | | | | | | | | | | | | | |]

AGE: YEARS   MONTHS   DAYS   NATIONAL IDENTITY CARD NO

        [| | | | | | | | | | |]   [| | | | | | | | | | | | | |]

FATHER'S NAME

[| | | | | | | | | | | | | | | | | | | | | | | | | | |]

POSTAL ADDRESS

[| | | | | | | | | | | | | | | | | | | | | | | | | | |]

[| | | | | | | | | | | | | | | | | | | | | | | | | | |]

[| | | | | | | | | | | | | | | | | | | | | | | | | | |]

ACADEMIC RECORD

FA/FSc		BA/BSc		NCC	HAFIZ
MAX MARKS	OBTAINED	MAX MARKS	OBTAINED	YES/NO	YES/NO

HAVE YOU BEEN A STUDENT FOR M.Sc. DEGREE IN THIS UNIVERSITY? (YES/NO) _____

SUBJECT CODE LIST

CODE	SUBJECTS
ANT	ANTROPOLOGY
BAS	BIOLOGY;ANIMAL SCIENCES
BMB	BIOLOGY;MOLECULAR BIOLOGY (BIO CHEMISTRY)
BPS	BIOLOGY;PLANT SCIENCES
CHM	CHEMISTRY
COM	COMPUTER SCIENCES
DSS	DEFENCE AND STRATEGIC STUDIES
ECO	ECONOMICS
ELE	ELECTRONICS
GEO	EARCH SCIENCES (GEO-PHYSICS)
HIS	HISTORY
IR	INTERNATIONAL RELATIONS
MAT	MATHEMATICS
MBA	MASTER OF BUSINESS ADMINISTRATION
MPA	MASTER OF PUBLIC ADMINISTRATION
PHY	PHYSICS
PKS	PAKISTAN STUDIES
STS	STATISTICS

PROVINCE CODES

A	A.J.K.
B	BALUCHISTAN
F	FATA
N	N.W.F.P.
P	PUNJAB
R	RURAL SIND
S	URBAN SIND

SIGN. OF STUDENT

SIGN. OF CHAIRMAN

102

COMMENTS AND CONCLUSIONS

The Students' Personal Information System that has been developed for the Computer Centre, Quaid-i-Azam University, Islamabad is a computerized system which elevates the end user/s from a level above the technicalities of the software engineering and other hardware configurations. To be more specific, this is a menu driven and a user friendly system. Information pertaining to a particular student and much more is as far as a finger touch and can be seen on the monitor. The user can also have a hard copy of this information on printer.

In order to avoid any sort of inconsistency in the data, the system is made intelligent enough to bring all necessary changes in files as soon as a slightest change is brought in the master files.

An effort has been made to make the computerized system as secure as possible. Above all the application software has been written in a structured and modular fashion. This approach provides and ensures maximum flexibility. Program segmentation and module overlays can be easily built through this modular approach. Expendability is one of the salient features of the newly developed system.

To conclude this project work, it is enough to say that the

system is intelligent enough to cater the present day needs of the Computer Centre and it is guaranteed that, by the grace of Almighty Allah, it will perform satisfactorily in the forthcoming couple of years.

SAMPLE OUTPUTS

```
ROLL NO                                         PGD2/1
NAME                                            MOHAMMAD TUFAIL
FATHER'S NAME                                   QURBAN ALI
MARKS IN INTER                                  529
MARKS IN GRADUATION                             567
HOUSE ADDRESS                                   C/O MEDINA TENT SERVICE RAWALPINDI
ID CARD NO                                      701-92-586468
DATE OF BIRTH                                   14-08-68
MARKS IN COBOL                                  106
MARKS IN C LANGUAGE                             116
MARKS IN DATA STRUCTURE                         87
MARKS IN COMPUTING SYSTEMS                      128
MARKS IN SYSTEMS ANALYSIS AND DESIGN            79
MARKS IN OPERATING SYSTEMS                      87
MARKS IN OPERATIONS RESEARCH                    97
MARKS IN DATA COMMUNICATIONS AND NETWORK        90
MARKS IN ACCOUNTING                             N
MARKS IN GRAPHICS                               85
MARKS IN FOXPRO                                 95
MARKS IN PROJECT                                243
PRESENTATION DATE                               25/06/95
Press any key to continue ...

2:18:36 pm
```

```
LL NO                                      PGD2/9
HE                                         M SHABBIR IKRAM
THER'S NAME                                M AKRAM
RKS IN INTER                               611
RKS IN GRADUATION                          396
USE ADDRESS                                CAPITAL HOSPITAL G6/2 ISLAMABAD
CARD NO
TE OF BIRTH                                08-08-72
RKS IN COBOL                               100
RKS IN C LANGUAGE                          110
RKS IN DATA STRUCTURE                      120
RKS IN COMPUTING SYSTEMS                   130
RKS IN SYSTEMS ANALYSIS AND DESIGN         140
RKS IN OPERATING SYSTEMS                   150
RKS IN OPERATIONS RESEARCH                 145
RKS IN DATA COMMUNICATIONS AND NETWORK     146
RKS IN ACCOUNTING                          147
RKS IN GRAPHICS                            148
RKS IN FOXPRO                              149
ss any key to continue ...


:21:27 pm
```

```
ROLL NO                                       PGD3/100
NAME                                          TAHIR ALI KHAN
FATHER'S NAME                                 RASHID ALI KHAN
MARKS IN INTER                                654
MARKS IN GRADUATION                           567
HOUSE ADDRESS                                 LAHORE
ID CARD NO                                    211-56-064047
DATE OF BIRTH                                 25-06-70
MARKS IN COBOL                                500
MARKS IN C LANGUAGE                           500
MARKS IN DATA STRUCTURE                       500
MARKS IN COMPUTING SYSTEMS                    600
MARKS IN SYSTEMS ANALYSIS AND DESIGN          800
MARKS IN OPERATING SYSTEMS .                  300
MARKS IN OPERATIONS RESEARCH                  300
MARKS IN DATA COMMUNICATIONS AND NETWORK      300
MARKS IN ACCOUNTING                           300
MARKS IN GRAPHICS                             300
MARKS IN FOXPRO                               300
MARKS IN PROJECT                              654
PRESENTATION DATE                             12/12/96
Press any key to continue ...

2:22:50 pm
```
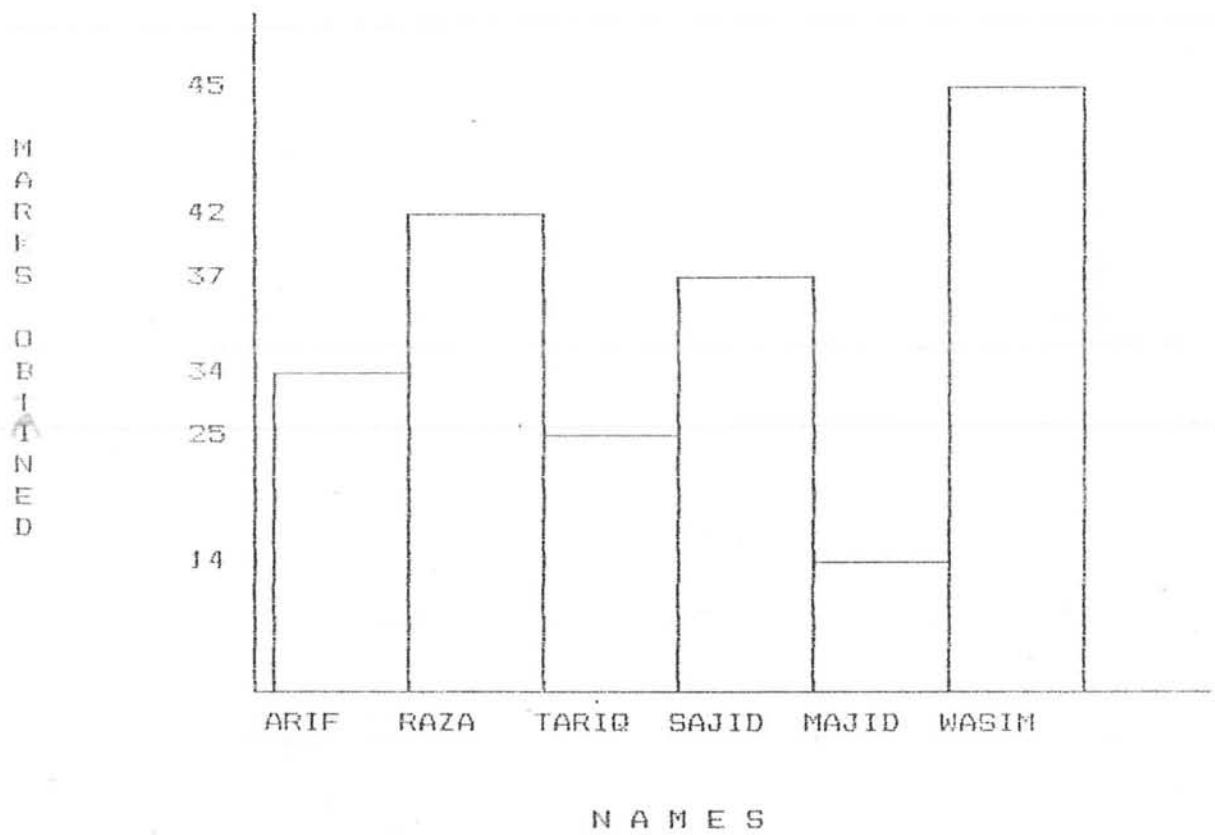
SAMPLE GRAPH FOR THE COMPUTER CENTRE

1TH	AMOUNT DEPOSITED	DATE
FOR MONTH 1	2000	12/12/90
FOR MONTH 2	1000	12/12/90
FOR MONTH 5	2000	12/12/90
FOR MONTH 6	2000	12/12/90
FOR MONTH 7	2000	12/12/90
FOR MONTH 8	2000	12/12/90
FOR MONTH 9	2000	12/12/90
FOR MONTH 10	2000	12/12/90
FOR MONTH 11	2000	12/12/90
FOR MONTH 12	2000	12/12/90

ESS ANY KEY TO RETURN TO THE MENU

2:25:30 pm

ON1H	AMOUNT DEPOSITED	DATE
EE FOR MONTH 1	2000	12/12/90
EE FOR MONTH 2	1000	12/12/90
EE FOR MONTH 3	2000	12/12/90
EE FOR MONTH 4	1500	/ /
EE FOR MONTH 5	2000	12/12/90
EE FOR MONTH 6	2000	12/12/90
EE FOR MONTH 7	2000	12/12/90
EE FOR MONTH 8	2000	12/12/90
EE FOR MONTH 9	2000	12/12/90
EE FOR MONTH 10	2000	12/12/90
EE FOR MONTH 11	2000	12/12/90
EE FOR MONTH 12	2000	12/12/90

ESS ANY KEY TO RETURN TO THE MENU

2:26:32 pm

```
CLEARANCE CHIT FOR PGD ROLL NO   100

 _____
|                                               |
| NAME OF THE STUDENT IS ------>    TAHIR|
| FATHER'S NAME IS ------>          MAJID|
| BALANCE IS ------>                6400|
|_____|
```

2:27:16 pm

```
CLEARANCE CHIT FOR PGD ROLL NO   103

 _____
|                                               |
| NAME OF THE STUDENT IS ------>    MAJID|
| FATHER'S NAME IS ------>          TAHIR|
| BALANCE IS ------>                3200|
|_____|
```

2:27:48 pm