MANAGEMENT INFORMATION SYSTEM

OF

Bismah Army Public School

BY

Mr. Asad Mahmood

COMPUTER CENTRE

QUAID-I-AZAM UNIVERSITY

ISLAMABAD

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A Project report submitted to Quaid-i-Azam University Islamabad. In partial fulfillment of the requirement of the Post Graduate Diploma in Computer Science.

COMPUTER CENTRE

QUAID-I-AZAM UNIVERSITY

ISLAMABAD

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PROJECT OVERVIEW

Project Title	Management Information System
Organization	Bismah Army Public School
Undertaken by	Asad Mahmood.
Supervised by	Mr.Javeed Hussain Computer Centre Quaid-i-Azam University Islamabad.
Starting Date	June 15, 2001.
Ending Date	December 2001.
Software Used	Oracle 7.3 (developer 2000).
Operating System	Windows 98.
System Used	Pentium III (600MHz).

FINAL APPROVAL

Certified that we have read the project report submitted by Mr. Asad Mahmood and it's our judgment that this work is of sufficient standard to warrant its acceptance by Quaid-i-Azam University Islamabad for the Post Graduate diploma In Computer Science.

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DEDICATED TO

AL RAHMAN

MUHAMMAD

AND

MY FAMILY

ABSTRACT

The system is developed for maintenance of Accounting System, Student records and Admission System of Bismah Army Public School, Rawalpindi.

It provides the facility to prepare the documents required by Bismah Army Public School. The information is retrieved from the database in the form of queries and reports.

The information is stored in database and is manipulated with the help of various layouts designed for this system. The system has been developed for Pentium computers in Oracle/Developer 2000.

Asad Mahmood

KEYWORDS

Student Information.
Databases.
Information.
Oracle.
Form Application.
DBMS Applications.
IT Application.
Queries And Reports.
System.
Accounts.

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I'm also very thankful to the Director, The Principal and all the staff of B.A.P.School for their guidance and cooperation during the system analysis and design and for providing all necessary information.

ASAD MAHMOOD

PREFACE

This report is a description of the design, development and implementation of computerized Accounts, Student Record & Admission system of Bismah Academy.

CHAPTER # 1

The Introduction of Organization.

CHAPTER # 2

It describes the working of the existing system and its drawbacks.

CHAPTER # 3

It discusses the proposed system.

CHAPTER # 4

It deals with the system design.

CHAPTER # 5

The development details of the system are discussed.

CHAPTER # 6

It describes various methods of system testing

CHAPTER # 7

The user guide is presented and described the operation of the system.

APPENDICES

Sample reports and screen are given.

BIBLIOGRAPHY

It consists the series of books references during project.

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CHAPTER NO 1

INTRODUCTION

1.1 Introduction To Bismah Army Public School

THE BRIEF HISTORY

In Pakistan, the Army personnel are required to perform their duties at different posts and frontiers, covering siachen Glacier, the highest battlefield in the world, mountains, deserts and coastal areas. In this regard, they are posted from one station to another after a maximum of two to three years' tenure. These postings of an individual starts from the 1st day of his commission to the day of his retirement. In one standard job period, it is believed that one Army personnel perform his duties at not less than 8 to 10 stations. However, this is not the case with the other two vital arms of Pak Armed Forces i.e. Pak Navy and Pak Air Force.

It is believed hypothetically and psychologically, that the changing of learning environments such as teachers, books, areas, friends etc. frequently, do not leave a good impact over children of young age. Moreover, the starting and the ending times of courses in different parts of the country are different. Private schools emphasize their net profit as they see their school as shops and not as sacred place for teaching and learning. So they employ people at relatively low salaries from the available lot compromising over many qualities of a teacher. Private schools, which are really providing quality education, their fees are out of range for a common man, and are unreachable for Army personnel as well.

In this regard, GHQ realized the personals' problems concerning their children's education. When the personnel are posted from one station to another station, it takes at least 1 month to settle at new place. Moreover, to get admission in a local school had always been a great problem, for the individual. Even after getting admission, they remain worried about the course covered, either here it has been covered or not. Moreover, the local dialect of the teachers can also disturb the children's learning process.

The aim of establishment of Army Public Schools and Colleges is to ensure uniform quality education for Army children and civilians residing in cantts/garrison.

The need was felt due to overcrowding of Federal Government Educational Institutions (FGEIs) and lack of quality education for the wards of serving and retired Army personnel. These institutions were serving the cause of providing quality education satisfactorily but being independent and stray units, there was lack of uniformity in such essential matters as syllabus, medium of instruction, system of exams, fee structure, and admission policy etcetra. With this background, VCOAS directed IGT&E to make comprehensive plan for these institutions in 1987.The plan was presented to VCOAS and approved in principle and consequently policy letter was issued accordingly in January 1988.

To implement the plan properly, Manual of **Army Public Schools and Colleges** was prepared and issued by AE Dte. in 1990. The Manual covers all the vital matters pertaining to uniformity of **Army Public Schools and Colleges.** The system of **Army Public Schools and Colleges** has come of age, which is evident from the expansion and upgrading of existing institutions and establishment of new ones. Presently, 109 institutions are functioning in various cantts/garrisons under the control of concerned formation Commanders. Detail is as under: -

a.	Primary Level	--	12
b.	Middle Level	--	20
c.	SSC Level	--	48
d.	HSSC Level	--	21
e.	Degree Level	--	06
f.	'O' Level	--	02
	TOTAL	--	**109**

1.2 Efforts of AE Dte.

For the sake of uniformity following efforts have so far been made: -

a. **Registration of Army Public Schools/Colleges.**

Army Public Schools/Colleges are required to be registered with Army Education Directorate.

b. **Affiliation of Army Public Schools/Colleges.**

Army Public Schools/Colleges, with SSc and HSSC classes are required to be affiliated with Federal Board of Intermediate and Secondary Education Islamabad to enable the students to appear in SSC and HSSC exams.

c. **Financial Assistance to Army Public Schools/Colleges.**

Army Public Schools/Colleges are self-financing institutions. However, Adjutant General's Branch (W & R Directorate) occasionally places some amount on the disposal of IGT&E, for the improvement of schooling facilities as a welfare measure. A handsome amount has so far been issued to needy Army Public Schools/Colleges in the past.

d. **Inspection of Army Public Schools/Colleges.**

Chief of Army Staff Inspection Team while carrying out bi-annual inspection of formations also inspects these institutions.

e. **Quarterly Progress Report.**

Army Public Schools/Colleges are supposed to submit quarterly progress reports to the AE Directorate.

f. Study on Army Public Schools/Colleges

In order to address the problems and to further streamline the functioning of Army Public Schools/Colleges, a no. of studies have so far, been undertaken by this Directorate. These studies have been routed through IGT&E to the COAS.

g. Revision of Syllabi.

In the year 2000, Army Public Schools, syllabus from class 1 to 8th was revised / standardized under the supervision of this Directorate.

h. Army Public School/College.

Army Public School and College (APSAC) Rawalpindi, was established in 1981, as a primary school by AE Directorate. Its original name was Army Education School. It remained under management / control of AE Dte till April 1990,when its control was handed over to D&E Dte by the IGT&E. In 1995,a separate boys wing of the institution was created as APSAC (Boys) at ordinance road. Since September 1999, civilian Principals are being employed in both the Boys and Girls Wings of the College and appointment of AEC Brigadier / Colonel as Principals has been discontinued.

When a trooper is posted from one station to another, then he definitely suffers for a number of reasons, but at least he does not worry about the admission of his child in the nearest APS. Only he has to apply for the admission, he has not to be worried about course and its coverage etc. He does know that school will provide the quality education. In this sense, this chain is serving at its best to the Pak Armed Forces in particular and the people of Pakistan in general.

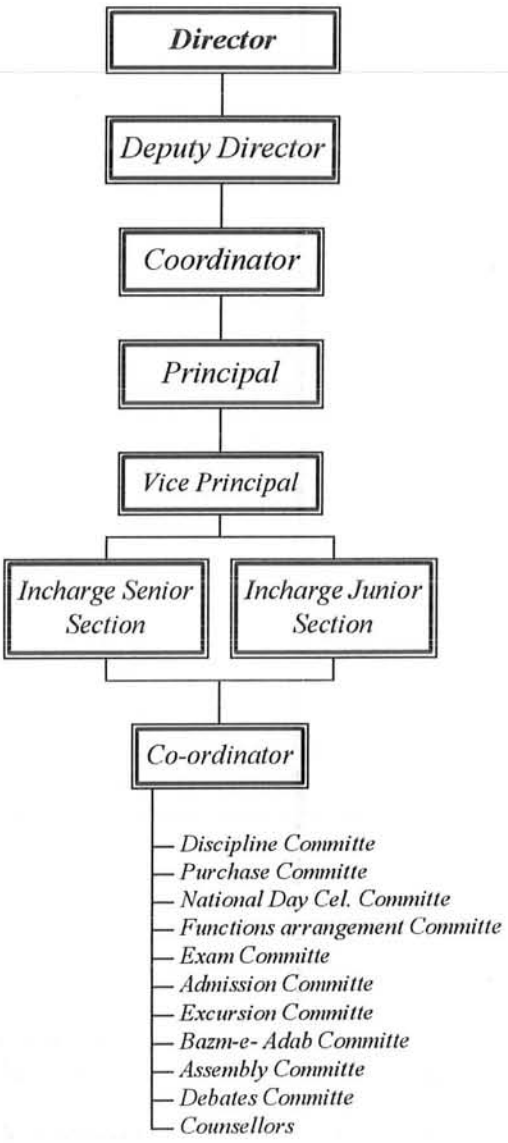
1.3 Bismah Army Public School (BAPS)

Bismah Army Public School (BAPS) is a part of the APS chain. This is the unique APS in the sense that it is exclusively for the non-commissioned staff of Pak Amy. This is being run as a great welfare project giving almost free education. It also provides scholarships to the talented students. It also provides medical and transport facilities to the students free of cost. The school is providing education in different study groups i.e. Science, arts and Humanities group.

Computer science as a subject has also been introduced this year. Arrangement is also in progress to provide technical education as a subject shortly. The school is observing strict measures to provide quality education e.g. the strength of the students in a class cannot exceed by 30 in any case. In each class, facility of fans and heaters is also available against hot and cold weathers. Cleanliness and hygienic measurements are observed very strictly. The school is providing good sports facilities to all the students. School's teams takes part in different locally organized tournaments. Bi_annually excursion trips are arranged for the senior section and once a year for junior section. National day celebrations are celebrated zealously. In BAPS corporal punishment is strictly prohibited.

1.4 Organizational chart

Bismah Army Public School



CHAPTER NO 2

EXISTING SYSTEM

2.1 THE EXISTING SYSTEM

A student seeking admission in the school has to apply for the admission in the school. He is then, presented with an admission form and is referenced by a unique AD-No in the future for any possible reference. In the admission form, he is asked for his complete bio-data, and is given a date for the test and interview. On the specified date, he is given a test and interviewed by Principle or V.Principle. He is then, given a date for the announcements of his result in the admission test and interview whether he is being admitted or not. His score in the test, his performance in the interview and his last character certificate play a vital role in his admission in the school.

2.2 THE WORKING OF EXISTING SYSTEM

So the School Administration has to keep large amount of data and information files to have a complete record of each and every student who ever has applied for the admission in the school.

If the candidate is not admitted, then automatically his name goes to the waiting list according to the merit and he is offered admission in the school on priority basis, subject to the availability of seats in the near future.

School Administration do keeps a very well updated record of all the available vacancies in the school with complete details covering classless and category wise vacancies. The school admission offers are categorized in three different ways A, B and C.The children of Federal Government Servants of Grade 16 and below, are placed in the category A and are, offered admission on top priority basis, followed by the second category B, in which the children of Federal Government Servants of Grade 17 and above, are placed. The children of Civilian Personnel are

placed in category C who is offered admission in case there is no candidate on the waiting list in the first two categories.

The detail of these categories is as under:

As mentioned earlier in the previous chapter, that the school is running as a welfare project to provide quality education to the students of relatively lower class. Hence these students are placed in category A and are offered admission on the 1st priority. The second priority, the category B, goes to the children of Federal Government Officers. As a sign of good will, some seats are reserved for the children of Civilians who are placed in the category C, so that the gap between the Federal Government and the civilians could be minimized.

2.3 REQUIREMENT OF EXISTING SYSTEM

The School Administration has to keep fully updated record of vacancies, class wise and category wise, which is a quite laborious and tedious job.

If the candidate is admitted then first of all, he is asked to provide some additional information about himself, which should be necessarily known about him.

The School Administration keeps fully updated records of student history, character, Interests, previous results, subjects, concerned teachers, health conditions, diseases, blood groups, hobbies, personal interests and phone numbers of each and every student separately. The maintenance of all this record demands fully concentrated hard work. For example, if a student gets admitted, then the admission of a single student needs to update the records of, total students, total vacancies, class wise and category wise vacancies, waiting list and many other concerning records.

On the other hand, if a student leaves the school, then the issuance of a single School Leaving Certificate needs to update all the concerning records mentioned above.

The students who take part in the co-curricular and extra-curricular activities are focused and pains are taken especially to build up their confidence, skills and to keep them efficient in the studies as well which is obviously their prime objective. The students are provided with every possible facility concerning to their field of interest. If a student takes part in debates, he is provided with the recorded speeches and declamation contests of reputed persons and esteemed institutions, which not only nourish their skills but also improve their visions. The Administration has to keep a complete record of all the purchased items and available facilities in that particular field. If a student is a sportsman then he is provided with, in addition to other facilities, the recordings of coaching lectures and previous famous matches or sports events. So purchasing of each concerning item and a list of all the available facilities in this regard, need to be recorded accordingly.

When a teacher is to be appointed, then the vacancy is to be advertised in the newspapers as a rule and the whole of the appointment procedure involves different personnel at many stages including administration staff and the governing body representatives and one private specialist person in the relevant field just to avoid any kind of favourism at any stage and all the proceedings are kept so clear and open at all stages so that there could be left no opportunity for any one to even suspect about any favourism.

2.4 PROBLEM FACED BY EXISTING SYSTEM

To keep continuing all the above procedure in a very smooth and calm way, more or less all the same steps are gone through which are involved in the admission procedure. For this, different types of records are prepared and, according to the score in the test of the relevant teachers in their respective fields, a preliminary list is prepared according to which short listed candidates are called for the interview. In the interview, they are tested for their confidence, the way of responding, general knowledge, personality, general appearance, the way of response over the matters which are not known to him, the way he satisfies others, his temper, his point of views about different areas of life and the overall impact of their personality is calculated.

A second list is prepared, and short-listed candidates are called for lecture delivery in the classrooms with children and a relevant subject teacher. The choice of the topic for the lecture goes to the teacher or students and not to the candidate. Here, he is checked for instructional capabilities

And, his confidence and behaviour among different sort and nature of students is checked.Now a final list is prepared according to which, top of the list candidate is appointed as teacher and some others are informed to be placed in the RESERVE category so that they'll be asked to join the school in case the newly appointed teacher fails to join the school for any reason.

This long procedure ensures to a high extent, the appointment of highly qualified and dedicated teaching staff, which in turn, ensures to even improve the higher standards of education. Teachers' qualification, past experience, interview performance, test score and the instructional capabilities play a vital role in their selection.

Teachers, appointed through this long procedure, have faith on merit and their skills which in turn, is used for keeping the faith of the students on struggle and hardwork which is, believed to be the only key to success and to their bright future.

A complete record of teachers' subjects, their subjects of interest, personal interests, hobbies, past performance and achievements and other biodata is kept separately which helps in many fields for ready reference. For example, for making the timetable and, assigning each class a best teacher in the corresponding subject, context and scenario. Moreover, in the recess or in the leisure time, the teachers, according to their hobbies, skills and interests, educate students in the co-curricular and extra-curricular activities. Hence each student joins different activities according to their own interests, which helps to boost their confidence and skills.

2.5 EXAMINATION SYSTEM

Examination is the only way to measure and assess a student in different aspects. So exams are focused very much in the school. Many days before the starting of the exams, two copies of full-fledged examination papers are submitted by each teacher to the examination committee, which ensures to leave no stone unturned to conduct the exams in a smooth way and its true spirit. A complete record in this regard is maintained. To ensure the secrecy, the Principal or V.Principal alters any of the two papers submitted by the teachers by a maximum of fifty percent and the new paper formed thence, is printed just one day before the scheduled date of the paper in their personal supervision.

Papers are checked by the teachers in the school within 48 or 72 hours after the paper as specified by the Principal.Top ten of these marked papers are then counter-checked by one senior teacher to ensure

the avoidance of any possible favourism or mistakes. These checked papers are then discussed with the students in detail with respect to a model solved paper so that the mistakes made by the students individually could be avoided next time by them as it is believed and experienced that the repetition of mistakes unchangeable habits which are extremely difficult to be avoided in the future. In the last, on the result day, full result of a student with his report card, marks in the failed subjects, weak area in any subject, suggestions to overcome these weaknesses and the answer sheets is presented and discussed with the parents of the students. A complete record is maintained in this respect. After the exams, post-result records are maintained. For example, percentagewise results are calculated against each subject, class and teacher, which needs, concentrated hardwork. Subjectwise, classwise and teachrewise GPA's are calculated which are used for the calculations to assess the best teacher at the end of the academic year. All these calculations are then discussed in the teaching staff meetings to evaluate themselves in each aspect and to suggest measures to be taken to further improve the results.

2.6 ACCOUNT SECTION

Accounts section has paramount importance in any organization. As mentioned earlier, the school is a welfare project and the students in the school are offered almost free education, yet they are provided a variety of high standard sophisticated facilities at a high cost. So the accounts are audited biannually to have a close look and a tight control over the income and expenditures so that the money provided by the trust could be utilized at its best.

Authorities expect accurate accounts whenever inquired by them. Hence, a complete updated record of total fee collection from the

students and running expenditures is maintained so that the records could be maintained on monthly and daily basis and accounts reports could be generated, required by the authorities at any time. All these requirements of maintaining the records and producing the prompt reports needs again highly concentrated hard work which can not afford any mistake because a single mistake in accounts statement can result in unbelievable faulty reports which will be rectified facing even greater problems.

2.7 EXTRA-CURRICULAR ACTIVITIES

School arranges different co-curricular and extra-curricular activities at times to develop students' visions and skills in different fields and areas. Accounts, arrangements and results records relating to all these activities are fully maintained separately. After the activities, these records are compared by the previous ones to further improve and evaluate the standards in the relevant staff meetings. All the relevant problems and suggestions are recorded for future references.

Authorities or their representatives' visits the school off and on without any prior intimated time table. The time for the visit is decided by the visitor and not by the visitees. So the School Administration has to keep themselves fully prepared always so that they can brief the authorities about the school matters and produce the required reports asked for by the authorities in a blink of eye.

CHAPTER NO 3

PROPOSED SYSTEM

3.1 INTRODUCTION TO PROPOSED SYSTEM

At the start of previous chapter, the importance and uniqueness of the school is discussed to some extent and at the end of that chapter, the drawbacks and problems of the existing system are also discussed. Keeping in mind the role of the school towards imparting quality education to the lower class students, and its importance, one can easily visualize the problems which are faced by the authorities for appropriate and timely decision- making. So after a detailed study of current system and its drawbacks, the next most important and the main task of the task starts i.e. designing of new system that can meet all the requirements of the system to process at a much faster speed.

3.2 PROBLEM FACED BY EXISTING SYSTEM

The existing manual system of the BISMAH ACADEMY is inefficient, laborious and may cause a lot of overheads. Many kind of different approaches are also in use for the same purpose by many other schools depending upon the environment of the school which are not only very simple but also are very slow working systems to meet the requirements of report making which are helpful to prompt decision-making. The new proposed system meets all the requirements of the management related to development of different type of monthly reports.

In the existing system, the Administration has to keep all the record manually depending upon only one clerk. So it is decided to provide a multi-user environment to facilitate the insertion and maintenance of the data in the database. Moreover it provides a variety of different reports very efficiently to help the Administration in decisions and to run the school system very smoothly in a faster and scientific way.

3.3 THE PROPOSED SYSTEM

3.3.1 OBJECTIVES OF PROPOSED SYSTEM

Among the objectives of the proposed system, there are essential elements and steps involved so that the right information should go to the right person at the right time in the right format at the lowest cost in the least time. Here are some of the objectives, which the proposed system will meet.

1. It should meet all the requirements of the management of the school and should be least time consuming.
2. It should provide timely and accurate reports to the management.
3. It should be more efficient than the existing system with respect to time consumption and efforts.
4. With the passage of time, some of the records in the file become obsolete and have to be deleted or changed. There may be some records, which have to be inserted so that the database files could be made up-to-date. All these facilities are provided which can be availed easily.
5. The flow of information could be smooth and there should be no possibility for the insertion of irrelevant or duplication of data.
6. The proposed system should be flexible so that it could cope with the future needs of the organization.
7. It should provide monthly, quarterly and annual reports.

3.4 SELECTION OF SOFTWARE

The software tool selected for the proposed system is ORACLE 7/DEVELOPER 2000.This software has been selected for the following reasons:

- ORACLE 7 AND DEVELOPER 2000 is a tool that is designed for the commercial purpose applications.

- It is the best available relational database having all the facilities to facilitate the database handling.
- It has the ability to handle large amount of input/output and can produce reports of various formats depending upon the requirements of the problem.

Here is a description of some major parts of the selected software tool:

1. **ORACLE SQL AND PL/SQL :**

   SQL stands for Structured Query Language.PL stands for Procedural Language.SQL is more efficient and flexible language to design and examine data. SQL is too much powerful language to handle database. PL/SQL is used with variables and its types, data type, procedures and functions, control structures and loops.

2. **FORMS**

   Form designing is major product in developer 2000.ORACLE FORMS enables one to quickly develop form based applications for presenting and manipulate data in a variety of ways. The designing is made in different styles, which helps user as under:

- Insertion, deletion, updation and data query.
- DEVELOPER 2000 control forms across several windows and database truncations.
- Sending data directly to report format.
- Different manners are used to access the data field

3. **ORACLE REPORTS**

   Report wizard is used for designing, displaying, developing and printing reports. Report is designed for application developers, which are related with SQL and PL/SQL. Report designing is used for creating reports. Its different properties are as under:

   It supports for color, fonts and graphics.

- It supports printing capabilities.

- It supports context-sensitive online help system.
- It supports data model and layout editors in which one can create structure and various formats of the reports.
- It supports integrated preview for viewing report design.

3.5 HARDWARE SELECTION

For the development of the system, the hardware and the operating system used, is as under:

1.	Processor	600 MHz.
2.	Mother Board	Intel (Original)
3.	RAM	128 MB
4.	Hard Disk	30 GB
5.	Monitor	14" Color VGA
6.	Operating System	Windows 98/NT

CHAPTER NO 4

SYSTEM DESIGN

4.1 BASIC TERM USED IN DATABASE DESIGN

Basic knowledge of Computer's terminology is very essential for understanding the concepts of computerized database. Description about some important computer terminology used in the project while designing Sales Services database for SDL Department is as below:

4.2 Difference Between Data and Information:

- **Data:**

Element or unit of knowledge that may be regarded as raw facts, not necessarily meaningful. Most often data consists of numbers, such as the given values of input for the problem to be solved. Data must be discrete, consists of numeric, character, alphanumeric and some special symbols.

- **Information:**

Information is meaningful data that is relevant, accurate and update and can be used to take actions or making decisions. Raw data are transformed into information by data processing. Data processing not only includes numerical calculations but also other general operations.

- **Data Processing**

Data processing consists of gathering the raw data as input, evaluating and placing it some order (Ascending or Descending), sorting of data in logical sequence i.e. placing it in some proper perspective so that useful information is produced. All data processing whether done by hand or computer system consists of three basic activities.

- Capturing the Input Data.
- Manipulating the Data.
- Managing Output Results.

➢ File Structure

To learn about computer files, we need to understand basic terms used to describe file hierarchy. The terms we shall cover are by Byte, Data Item, Record, file and Database.

➢ Byte:

A Byte is an arbitrary set of eight bits that represent a character. It is the smallest addressable unit of information in computers.

➢ Data Item (Element):

It also called data field value. The smallest unit of data that cannot be decomposed further. For example"Date"consists of day, month and year. They hang together for all practical purposes. In other words one or more bytes are combined into a data item to describe the attribute of an object. A data item is some times referred as a field. Field is actually a physical space on disk whereas a data item is the data stored in the field.

➢ Record:

Data items related to some object are combined into a record. An exchange (object) has record with its exchange code, item name, order date, file no, location, type, city, customer, status etc.

➢ File:

A collection of related records make up a file. The size of a file is limited to the size of memory or the storage medium. For example one

data file is a collection of all records related to Ado' personal history and other is a collection of all records related to the performance evaluation of Ado's.

- **Database:**

The highest level in the hierarchy of file structure we have discussed so far is of Database. It is a set of interrelated files for real time processing. It contains necessary data for problem solving and can be used by several users accessing data concurrently.

4.3 WHAT IS A DATABASE?

Database is a computer term for a collection of information concerning certain topic or any organizational application. Database let you organize this related information into a logical fashion for easy access and retrieval.

4.3.1 Manual Filing system and Computer Based DBMS:

Most of us are familiar with the manual filing systems. These filing system consist of paper files and file cabinets used to store these files. This view of manual database makes the point that paper is key to manual database system. In a real manual database system you probably have in out baskets and some type of formal filing method.

You access a file manually by opening a file cabinet, taking out a file folder and finding correct piece of paper. Paper forms are used for input, perhaps with a typewriter. You access information by manually sorting the papers or copying desired information from many papers into another piece of paper or even a computer spreadsheet. A calculator or a

computer-spread sheet may be used for further analyzing and reporting the data.

A computer database is nothing more then an automated version of the filing and retrieval of a manual paper filing system. Computer database can store data in a variety of forms that range from simple lines of text such as name & address to be stored in a precise and known format that enables database management (DBMS) to turn the data into useful information through many types of output, such as queries and reports.

4.4 MANAGEMENT INFORMATION SYSTEM

MIS is personal machine system and highly integrated grouping of information processing function designed to provide management with a comprehensive picture of specific operation. It is actually a combination of information system.To do the job, should operate in real time handling inquiries as quickly as received.

Management Information must also be available early enough to affect a decision. Operationally, MIS should provide for file definition, file maintenance and updating, transaction and inquiry processing and one or more database. Within MIS, a single transaction can simultaneously update all related data files in the system. In so doing data redundancy (duplication) and time it takes to duplicate data as in case of traditionally filing system are kept to a minimum, thus ensuring the data are kept current at times.

A key element of MIS is the database, a non_redundant collection of integrated/interrelated data items that can be proposed through application programs and available to many users. All records must be related in some way.

Sharing common data means that many programs can use the same file or records. It is a part of software that can handle virtually every activity involving the physical database.

4.5 ADVANTAGES OF A DATABASE SYSTEM:

There are several advantages of a database system:

- Processing time and the number of programs written as substantially reduced.
- All application shared centralized files.
- Storage space duplication is eliminated.
- Dates are stored once in the database and are easily accessible when needed.

4.6 Database Management System (RDBMS):

The software that determines how data must be structured to produce the user's view, manage, stores, and retrieved data and enforces procedures.

It is application software that controls the database, including overall organization, storage, retrieval, security and data integrity. A DBMS can also format reports for

Printed output, and import export data from other software application programs using standard file formats. We can say Oracle, FoxPro, dBase, and Microsoft Access etc are all Database Management.

4.7 DATABASE DESIGN:

Before the database concepts became operational, users had programs that handled their own data independent of other users. It was

a conventional file environment with no data integration or sharing of common data across application. In a database environment common data are available and used by several users. Instead of each program or user managing its own data, authorized users share data across application with the data software managing the data as an entity program now request data through the database management system (DBMS), which determines data sharing.

4.8OBJECTIVE OF DATABASE:

The general theme behind a database is to handle information as an integrated whole. As discussed above, a database is a collection of interrelated data stored with minimum redundancy to serve many users quickly and efficiently. The general objective is to make information access easy, quick, inexpensive, and flexible for the users, several specific objectives are considered.

1. Controlled redundancy:

Redundant data occupies memory and therefore is wasteful if different versions of the same data, in different phases of updating the system often gives conflicting information. A unique aspect of database design is storing data only once, which controls redundancy and improve system performance.

2 . Easy of learning and use

A major feature of user-friendly database package is how easy is to learn and use.

3. Data independence

An important database objective is changing hardware & storage procedures or adding new data without having to rewrite application

programs. The database should be, unable, to improve performance without rewriting programs.

4. More information at low cost

Using, storing and modifying data at low cost is important. Although hardware prices are falling, software's and programming cost are on a rise. This means that programming and software enhancement should be kept simple and to update.

5. Accuracy and Integrity

The accuracy of database ensures that quality and contents remain constant. Integrity controls data inaccuracies where they occur.

6. Recovery from Failure

With multi-user access to a database, the system must recover quickly after it is down with no loss of transaction. This objective also helps maintain data accuracy and integrity.

7. Privacy and Security

For keeping data private, security measures must be taken to prevent unauthorized access. Database security means that data is protected from various forms of destruction, users must be positively identified and their actions monitored.

8. Performance

This objective emphasizes response time to inquiries suitable to the use of the data. How satisfactory is the response time is, depends on the user database dialogue.

For example, inquiries regarding airlines seat availability should be handled in few seconds.

1) **Table Name:** **ADMISSION**

Primary Key: **FORM_NO**

Foreign Keys: **Blood-Group,Occp-code,Prov-code, Pre-Qualification-Id,Category-code, City-Id.**

STRUCTURE :

FIELD NAME	TYPE	WIDTH	STATUS	DESCRIPTION
FORM_NO	NUMBER	5	Primary Key	Form no
BLOOD_GROUP	VARCHAR	6	FK	Blood Group
STUDENT_NAME	CHAR	30	---	Student name
FATHER_NAME	CHAR	30	---	Father name
OCCP_CODE	NUMBER	5	FK	Occupation code
DOB	DATE	15	---	Date of birth
YEAR	NUMBER	4	---	Year
MONTH	NUMBER	2	---	Month
CLASS	VARCHAR	8	---	Class
ADM_APPLY_DT	DATE	15	---	Admission apply date
CATEGORY_CODE	CHAR	5	FK	Category code
PROV_CODE	CHAR	1	FK	Province code
CITY_ID	VARCHAR 2	4	FK	City identity
PRE_QUALIFICATION _ID	VARCHAR 2	6	FK	Pre qualification identity
GENDER	CHAR	6	---	Gender
ADDRESS	VARCHAR	50	---	Address
PHOTO	LONG RAW		---	Picture

2) **Table Name:** **STUDENT**

Primary Key: **REG_NO**

Foreign Keys: **SECTION, OCCP-CODE,**

: **PROV_CODE,CLS_ID,**

: **CATEGORY_CODE,**

: **CITY_ID,BLOOD_GROUP.**

FIELD NAME	TYPE	WIDTH	STATUS	DESCRIPTION
SECTION	CHAR	1	FK	Section
REG_NO	NUMBER	6	Primary Key	Unique Key
CLS_ID	VARCHAR2	4	FK	Class Identity
ROLL_NO	NUMBER	4	---	Roll No
STUDENT_NAME	CHAR	30	---	Student Name
FATHER_NAME	CHAR	30	---	Father Name
OCCP_CODE	NUMBER	5	FK	Occupation Code
PROV_CODE	CHAR	1	FK	Province Code
CITY_ID	VARCHAR2	4	FK	City Identity
CATEGORY_CODE	CHAR	5	FK	Category Code
BLOOD_GROUP	VARCHAR2	6	FK	Blood Group
ADDRESS	VARCHAR2	50	---	Address
GENDER	CHAR	6	---	Gender
PHOTO	LONG RAW		---	Picture

3) **Table Name:** **STUDENT_FEE.**

Primary Keys: **RECEIPT_NO,YEAR, MONTH.**

Foreign Key: **REG_NO.**

FIELD NAME	TYPE	WIDTH	STATUS	DESCRIPTION
RECIEPT_NO	NUMBER	6	Primary Key	Receipt no
YEAR	NUMBER	4	FK	Year
MONTH	NUMBER	2	FK	Month
REG_NO	NUMBER	6	---	Registration No
DEPOSIT_DT	DATE	15	---	Deposit date
TUTION_FEE	NUMBER	4	---	Tution Fee
ID_CARD	NUMBER	4	---	Identity Card
SPORTS_CHRG	NUMBER	4	---	Sports Charges
LIBRARY_CHRG	NUMBER	4	---	Library charges
TRP_CHRG	NUMBER	4	---	Transport charges
EXAMS_FEE	NUMBER	4	---	Exam fee
AREARS	NUMBER	4	---	Arears
REG_FEE	NUMBER	4	---	Registration Fee
TOTAL	NUMBER	5	---	Total

4) Table Name: STUDENT_HISTORY.

Primary Key: HST_NO.

Foreign Key: REG_NO.

FIELD NAME	TYPE	WIDTH	STATUS	DESCRIPTION
HST_NO	NUMBER	6	Primary key	History Number
REG_NO	NUMBER	6	Fk	Registration No
PRV_ SCHOOL	VARCHAR2	30	---	Previous school
SCH_JOI N_ DT	DATE	15	---	School Join Date
SCH_LE AVE DT	DATE	15	---	School Leave Date
CHR_ COMME NTS	CHAR	12	---	Character Comments
PRV_ CLASS	VARCHAR2	10	---	Previous School
RESULT	CHAR	8	---	Result
GRADE	CHAR	1	---	Grade
DISTINC TION	CHAR	16	---	Distinction
LEAVE_ REASON	CHAR	20	---	Leaving reason

5) Table Name: TEACHER.

Primary Key: TEACHER_ID.

Foreign Key: BLOOD_GROUP.

FIELD NAME	TYPE	WIDTH	STATUS	DESCRIPTION
TEACHER_ID	NUMBER	6	Primary Key	Teacher Identity
NAME	CHAR	30	---	Name
DOB	DATE	15	---	Date of Birth
JOIN_DT	DATE	15	---	Join Date
LEAVE_DT	DATE	15	---	Leave Date
GRNDER	CHAR	6	---	Gender
MRT_STATUS	CHAR	10	---	Marital status
BLOOD_GROUP	VARCHAR2	6	FK	Blood Group
ADDRESS	VARCHAR2	50	---	Address
SPECIALITY	CHAR	20	---	Speciality
PHOTO	LONG RAW		---	Picture

6) **Table Name:** **CLASS_VACANCY.**

Primary Key: **CLV_NO.**

Foreign Keys: **YEAR, MONTH, and VCN_DATE.**

FIELD NAME	TYPE	WIDTH	STATUS	DESCRIPTION
CLV_NO	NUMBER	6	Primary Key	Class vacancy no
YEAR	NUMBER	4	FK	Year
MONTH	NUMBER	2	FK	Month
VCN_ DATE	DATE	15	FK	Vacancy Date
CLASS	CHAR	10	---	Class
SECTION	CHAR	6	---	Section
VACANCI ES	NUMBER	3	---	Number
FILLED	NUMBER	3	---	Filled
REMAININ G	NUMBER	3	---	remaining

7) **Table Name:** **RESULT.**

Primary Keys: **REG_NO, SBJ_CODE.**

Foreign Keys: **REG_NO, SBJ_CODE.**

FIELD NAME	**TYPE**	**WIDTH**	**STATUS**	**DESCRIPTION**
REG_NO	NUMBER	6	Primary Key	Registration No
SBJ_ CODE		6	Primary Key	Subject code
TOT_ MARKS	NUMBER	4	---	Total marks
MARKS_OB T	NUMBER	4	---	Marks obtained
PERCENTA GE	NUMBER	4	---	Percentage
RESULT	CHAR	8	---	Result
GRADE	CHAR	1	---	Grade
POSITION	VARCHAR	5	---	position

8) **Table Name:** **ADMISSION_TEST.**

Primary Keys: **SR_NO, FORM_NO.**

Foreign Key: **FORM_NO.**

FIELD NAME	TYPE	STATUS	WIDTH	DESCRIPTION
SR_NO	NUMBER	Primary Key	5	Serial No
FORM_ NO	NUMBER	Primary Key	5	Form No
TEST_ DATE	DATE	---	15	Test Date
TEST_ SCORE	NUMBER	---	3	Test Score
INTVU_ DATE	DATE	---	15	Interview Date
COM MENTS	CHAR	---	15	Comments
ADMITTE D	CHAR	---	1	admitted

9) Table Name: TOTAL_VACANCY.

Primary Keys: YEAR, MONTH, and VCN_DATE.

Foreign Key: CATEGORY CODE.

FIELD NAME	TYPE	STATUS	WIDTH	DESCRIPTION
YEAR	NUMBER	Primary Key	4	Year
MONTH	NUMBER	Primary Key	2	Month
VCN_ DATE	DATE	---	15	Vacancy Date
CATE GORY_ CODE	CHAR	FK	5	Category Code
VACANC IES	NUMBER	---	2	Vacancies
FILLED	NUMBER	---	2	Filled
REMAINI NG	NUMBER	---	2	Remaining

10) Table Name: PHONES.

Primary Key: SEQ_NO.

Foreign Keys: TEACHER_ID,

CITY_CODE,FORM_NO,REG_NO.

FIELD NAME	TYPE	STATUS	WIDTH	DESCRIPTION
SEQ_NO	NUMBER	Primary Key	6	Sequence No
TEACHER_ID	NUMBER	FK	6	Teacher Identity
REG_NO	NUMBER	FK	6	Registration no
FORM_NO	NUMBER	FK	5	Form no
CITY_CODE	NUMBER	FK	10	City code
PHONE_NO	NUMBER	---	10	Phone no

11) Table Name: TEACHER_QUALIFICATION.

Primary Keys: TEACHER_ID,DEGREE_ID.

Foreign Keys : TEACHER_ID,DEGREE_ID.

FIELD NAME	TYPE	WIDTH	STATUS	DESCRIPTION
DEGREE_ID	CHAR	6	Primary Key	Degree Identity
TEACHER_ID	NUMBER	6	Primary Key	Teacher Identity
COMP_YEAR	NUMBER	4	---	Completion Year
INSTITUTE	CHAR	40	---	Institute
DISTINCTION	CHAR	20	---	Distinction

12) Table Name : DATE_SHEET_DETAILS.

Primary Keys: SBJ_CODE,REG_NO.

Foreign Keys : SBJ_CODE,REG_NO.

FIELD NAME	TYPE	WIDTH	STATUS	DESCRIPTION
SBJ_ CODE	VARCHAR2	6	Primary Key	SUBJECT CODE
REG_NO	NUMBER	6	Primary Key	REGISTRATION NO
TERM	VARCHAR2	5	---	TERM
PAPER_ DT	DATE	15	---	PAPER DATE
DAY	CHAR	12	---	DAY

13) Table Name: SUBJECTS.

Primary Key: SBJ_CODE.

Foreign Key: TEACHER_ID.

FIELD NAME	TYPE	WIDTH	STATUS	DESCRIPTION
SBJ_ CODE	VARCHAR	6	Primary Key	Subject Code
TEACHER _ID		6	FK	Teacher Identity
DESCRIP TION		20	---	Description
CREDIT_ HRS	VARCHAR	2	---	Credit Hours

14) Table Name : DATE_SHEET.

Primary Keys : CLS_ID,SECTION.

Foreign Keys : CLS_ID,SECTION.

FIELD NAME	TYPE	WIDTH	STATUS	DESCRIPTION
CLS_ID	VARCHAR	4	Primary Key	Class Identity
SECTION	CHAR	1	Primary Key	Section
START_DT	DATE	15	---	Starting Date
END_DT	DATE	15	---	Ending Date

15) Table Name: STD_HEALTH.

Primary Key: HL_SEQ.

Foreign Keys: REG_NO, DISEASE_ID.

FIELD NAME	TYPE	WIDTH	STATUS	DESCRIPTION
HL_SEQ	NUMBER	6	Primary Key	Health Sequence
REG_NO	NUMBER	6	FK	Registration No
STATUS	CHAR	16	---	Status
DISEASE_ ID	NUMBER	6	FK	Disease Identity

16) Table Name: QUALIFICATION.

Primary Key: DEGREE_ID.

FIELD NAME	TYPE	WIDTH	STATUS	DESCRIPTION
DEGREE_ ID	CHAR	6	Primary Key	Degree Identity
DESCRIP TION	CHAR	30	---	Description
DURATION	VARCHAR2	8	---	Duration

17) Table Name: TEACHER_HOBBY.

Primary Key: THB_NO.

Foreign Keys: TEACHER_ID,HOBBY_ID.

FIELD NAME	TYPE	WIDTH	STATUS	DESCRIPTION
THB_NO	NUMBER	6	Primary Key	Teacher Hobby Number
TEACHER_ID	NUMBER	6	FK	Teacher Identity
HOBBY_ ID	CHAR	1	FK	Hobby Identity

18) Table Name: STUDENT_HOBBY.

Primary Key: SHB_NO.

Foreign Keys: REG_NO, HOBBY_ID.

FIELD NAME	TYPE	WIDTH	STATUS	DESCRIPTION
SHB_NO	NUMBER	6	Primary Key	Student Hobby Number
HOBBY_ID	CHAR	1	FK	Hobby Identity
REG_NO	NUMBER	6	FK	Registration Number

19) Table Name: CLASS.

Primary Keys: CLS_ID, SECTION.

Foreign Key: SECTION.

FIELD NAME	TYPE	WIDTH	STATUS	DESCRIPTION
CLS_ID	VARCHAR	4	Primary Key	Class Identity
SECTION	CHAR	1	Primary Key	Section
DESCRIPTION	CHAR	10	---	Description

20) Table Name: WAITING_LIST.

Primary Keys: SR_NO,LIST_DATE.

Foreign Key: FORM_NO.

FIELD NAME	TYPE	WIDTH	STATUS	DESCRIPTION
SR_NO	NUMBER	5	Primary Key	Serial Number
LIST_ DATE	DATE	15	Primary Key	List Date
FORM_ NO	NUMBER	5	FK	Form Number

21) Table Name: CITY.

Primary Key: CITY_ID.

FIELD NAME	TYPE	WIDTH	STATUS	DESCRIPTION
CITY_ID	VARCHAR	4	Primary Key	City Identity
CITY_ NAME	CHAR	20	---	City Name

22) Table Name: CITY_CODES.

Primary Key: CITY_CODE.

FIELD NAME	TYPE	WIDTH	STATUS	DESCRIPTION
CITY_ CODE	NUMBER	10	Primary Key	City Codes
CITY	CHAR	25	---	City Name

23) Table Name: STD_SUBJECT.

Primary Keys: REG_NO, SBJ_CODE.

Foreign Keys: REG_NO, SBJ_CODE.

FIELD NAME	TYPE	WIDTH	STATUS	DESCRIPTION
REG_NO	NUMBER	6	Primary Key	Registration Number
SBJ_ CODE	VARCHAR	6	Primary Key	Subject Code

24) Table Name: HOBBY.

Primary Key: HOBBY_ID.

FIELD NAME	TYPE	WIDTH	STATUS	DESCRIPTION
HOBBY_ID	CHAR	1	Primary Key	Hobby Identity
DESCRIPTION	CHAR	18	---	Description

25) Table Name: DISEASE.

Primary Key: DISEASE_ID.

FIELD NAME	TYPE	WIDTH	STATUS	DESCRIPTION
DISEASE_ID	NUMBER	6	Primary Key	Disease Identity
DESCRIPTION	CHAR	30	---	Description

26) Table Name: SECTION.

Primary Key: SECTION.

FIELD NAME	TYPE	WIDTH	STATUS	DESCRIPTION
SECTION	CHAR	1	Primary Key	Section
DESCRIPTION	CHAR	8	---	Description

27) Table Name: CATAGORY.

Primary Key: CATEGORY_CODE.

FIELD NAME	TYPE	WIDTH	STATUS	DESCRIPTION
CATEGORY_CODE	CHAR	5	Primary Key	Category Code
DESCRIPTION	CHAR	18	---	Description

28) Table Name: PRE_QUALIFICATION.

Primary Key: PRE_QUALIFICATION_ID.

FIELD NAME	TYPE	WIDTH	STATUS	DESCRIPTION
PRE_ QUALIFICATION_ID	VARCHAR2	6	Primary Key	Pre Qualification Identity
DESCRIPTION	CHAR	30	---	Description

29) Table Name: OCCUPATION.

Primary Key: OCCP_CODE.

FIELD NAME	TYPE	WIDTH	STATUS	DESCRIPTION
OCCP_ CODE	NUMBER	5	Primary Key	Occupation Code
DESCRIPTION	CHAR	30	---	Description

30) Table Name: PROVINCE.

Primary Key: PROV_CODE.

FIELD NAME	TYPE	WIDTH	STATUS	DESCRIPTION
PROV_ CODE	CHAR	1	Primary Key	Province Code
PROV_ NAME	CHAR	18	---	Province Name

31) Table Name: BLOOD_GROUP.

Primary Key: BLOOD_GROUP.

FIELD NAME	TYPE	WIDTH	STATUS	DESCRIPTION
BLOOD_GROUP	VARCHAR	Primary key	Primary Key	Blood Groups

CHAPTER NO 5

SYSTEM DEVELOPMENT

5.1 INTRODUCTION

The system development phase comes after the system design. The software is developed to meet the proposed and designed specification of the system. The purpose of development phase is to transform design into executable computer software, which may then be tested and implement's as a new system. In order to ensure the successful implementation of the system, the system analyst must perform certain tests and look on to the different possibilities during this phase; the developed system is put into the actual operation.

5.1.2 PROGRAMMING TOOLS USED

The system is developed using Oracle database as back-end and developer 2000 as front-end tool. The selection of these is due to following:

- Oracle is an "open" system and adheres to the industry-accepted standards for data access language SQL.
- Oracle is also an industry standard tool for RDBMS.
- Oracle supports databases of all sizes.
- Oracle supports client-server architecture.
- Oracle supports a large number of concurrent users. It minimizes data contentions and guarantees data concurrence.
- Oracle is platform independent. This is because more than 80% of the internal code of the Oracle is the same across all the operating systems.
- Oracle itself implements data integrity constraints.
- Developer 2000 is designed specifically for oracle and has built-in features to implement Oracle-based functionality and constraints.

5.2 SYSTEM DEVELOPMENT

The entire database has been developed by using SQL*PLUS, SQL*FORMS, SQL*REPORTS and SQL *MENU. By integrating these all aspects, complete software as developed. However it is necessary that we discuss some termnologies, which are used, on development.

5.2.1 SQL*FORMS

SQL*PLUS and SQL*FORMS are used to insert, update, delete the different records. SQL*FORMS allows quick development of application for entering, querying updating the data. ORACLE SQL*FORMS engine provide many facilities i.e. making good screen by painter. A field can be replaced anywhere on the screen painter as programmer wish. SQL*PLUS is used mainly for the creation of tables and views. SQL*PLUS is an interface through which SQL commands may be entered and executed.

There are a number of SQL commands and provide facilities for saving and editing SQL commands. ORACLE forms provide facility to design forms. These forms provide easy and fast data entry, deletion updating and queries to in ORACLE database.

5.2.2 Blocks

A form may contain one or more blocks. The blocks are the basic building of SQL*FORMS. A block contains a base table in which data is input, delete, query and update to perform a specific task.

5.2.3 Base Table

A base table is that database in which a block is based. A block which is associated which a base table, contains the fields of the base

table. The table which created in SQL*PLUS contains some on it which restricts the input that is done SQL*PLUS or in SQL*FORMS.

5.2.4 Screen Painter

It provides facility to design the screen. By using this facility, source fields are put according to user's wish. Actually it is full screen editor, in which one can quickly moves fields around, add boxes, her text and changes the text displayed for a field.

5.2.5 Triggers

All triggers (form level triggers, item level triggers and block level triggers) are written in PL/SQL, which is language integrated which ORACLE database. Actually triggers are set of processing commands. Triggers are associated within SQL*FORMS.

It can be fire anywhere. An event is an action that occurs when a form is executed. An example of an event is the operator pressing the key [EXIT]. When this event occurs, it's associated trigger e.g. D_KEY('EXIT') fires executing the commands it contains.

5.2.6 MASTER DETAIL RELATIONSHIP

Master Detail Relationship is established between two blocks at form level. A record of the master block can have more than one records in detail. Join condition fields are automatically input to the detail block fields. When queries the master block its detail entries are also queried. Master Detail Relationship provides good interface in ORACLE. There is a primary to foreign key relation ship between two fields.

5.2.7 ORACLE REPORTS

Oracle reports is feature rich reporting tool that produces production quality out put using data sources such as the oracle database. Developers are able to embed graphics sound video and a wide

assortment of visual aids in screen and hard copy output (printed. In ORACLE REPORTS the designer interface is mouse-driven.

5.3 INPUT FORM DESIGNING

SQL*FORMS developed form based applications for entering, querying, updating and deleting data. To develop the application quickly SQL* FORMS combine the instructions with information in the ORACLE data dictionary.

The description of the data entry forms for the proposed system is discussed below. There are three types of forms which I developed in my system.

CHAPTER NO 6

TESTING AND IMPLEMENTATION

6.1 INTRODUCTION TO SYSTEM TESTING:

System testing is an essential step for the development of a reliable and error-free system. Testing is the process of executing a program with the explicit intention of finding errors i.e., making the program fail and test cases are devised with this purpose in mind. A test case is a set of data items that the system processes as normal input. A successful test is the one does find an error.

6.2 TESTING STRATEGIES

Testing strategies are general approaches to the testing process rather than a method of developing particular system or component tests.

- Top-down testing
- Bottom-up testing
- Thread testing

6.2.1 TOP-DOWN TESTING

Tests the high levels of a system before testing detailed components. Programs are represented as single abstract components; stubs, which have the same interface as the component but little, or not functionality, represent sub-components. The top-level component is tested; its sub-components are implemented and tested again using the stub/abstract approach. Finally the lowest level components are tested (those with no stubs). Then the entire system is tested as a unit.

6.2.2 BOTTOM-UP TESTING

Involves testing lower level modules and working up the structure chart or hierarchy until the final module (highest level) is testing. The advantages of bottom-up testing are the disadvantages of top-down testing and vice-versa.

Test drivers must be written for lower-level components; these simulate the components' environment. For reusable components the test drivers and test data should be distributed with the component, so potential users can run the tests themselves.

6.2.3 THREAD TESTING

Originally devised for testing real-time systems; event-based approach in which tests are based on the events which trigger system actions. Also called transaction-flow testing; appropriate for testing object-oriented and object-based systems.

6.3 INTRODUCTION TO SYSTEM IMPLEMENTATION

Implementation is the final phase in the system development life cycle. It starts when the coding and testing of the software system has been completed. It usually starts with a plan, known as an implementation plan. During this phase, the system is put into actual use in the organization. The Implementation details and different implementation strategies in use will be discussed here.

During implementation of the system, problems that had not been anticipated during the study and design effort often appear. Solutions to these problems usually require modification to the original design. The analyst should be willing to accept changes where necessary, but should prevent extreme distortions of original design.

6.4 SYSTEM CONVERSION

Conversion is the process of replacing the old system with the new one. There are three different approaches for performing system conversion and ensuring proper working of the system. The three approaches are:

- Pilot approach
- Parallel changeover approach
- One-for-One changeover approach

Each of the above is explained as follows:

6.4.1 PILOT APPROACH

In this approach the system is implemented in one particular area of the organization or the department. Thus the system is implemented in parts. The remaining departments or areas continue to work with the old system. The only advantage of this approach is that it provides sound basis for the whole system to be installed.

6.4.2 PARALLEL CHANGEOVER APPROACH

In this approach, both the new and the old systems, run side by side. It means that the user continues to use the old system, while he is learning and getting familiar with the new system. This is the safest approach, since in case of failure of the new system, he has the option to immediately turn back to the old system, without any loss of time and data. The failure might include the inability to handle certain transactions or overlooking certain types of processing errors.

6.4.3 ONE-FOR-ONE CHANGEOVER APPROACH

In this approach, the old system is immediately replaced with the new one. It requires carefully designed implementation plan. As soon as this plan is enforced, the old system is abandoned. There are no parallel activities going on side by side.

6.5 THE ADOPTED APPROACH

Since the user needs to get familiar with the new designed system which might take some time. So direct cutover and parallel conversion were considered suitable because both the system can not run parallel. Therefore pilot approach has recommended for the implementation of this project. The arguments against parallel conversion are cost and extra workload factors

CHAPTER NO 7

System Evaluation

7.1 INTRODUCTION

The system is evaluated after determining the merits and demerits of the proposed system. In this chapter there is a detailed study of developed system from the implementation point of view. Here are some precautions, merits and demerits are discussed.

7.2 PRECAUTIONS

There should be ORACLE backup so that u can avoid problems causing from system breakdown. Developing this you can use Oracle's export utilities for this purpose.

7.3 MERITS

The proposed software system is evaluated by user interface, which gives interfacing platform, which controls the application for the measurable objectives.

Here are some important merits discussed.

i. **Efficiency**

The software system, which is developed, is more efficient and fulfills the requirement of the management sales information system of TIP.

ii. **Accuracy**

The software system is evaluated and found more accurate. Data validation checks are imposed for the insertion of correct data. In case user enters the incorrect data, then he will be given an error message.

iii. Less time consumption

The proposed system reduces the time for the generation of query, reports and on-line information. The time is reduced by indexing the fields on which search is performed to find particular data.

iv. User Friendly Environment:

The developed system provides friendly environment for user. There is a menu driven by user can retrieve any information according to his choice. Appropriate help is provided at every possible stage. There is menu for data entry insertion, deletion, updating and querying oprerations. These operations are provided on single screen. When data is entered into a table, user can move between the fields. User does not feel tired.

v. Consistency:

More efforts are made to keep the data homogeneous. This has been accomplished by reducing data redundancy.

vi. Modularity:

The proposed system is divided into many modules. These modules are independent to each other. It is possible that different users can use different modules at the same time. These modules are integrated

together to fulfill the user requirements. With the help of module, future extension of the developed system is accessed.

vii. Physical Independence Of Software:

System is physically independent of software which means data is physically stored from the management of the data as presented to the user. If there is physical storage of data changes then there is no need to modify the changes.

viii. Device Independence:

This system can be run on the other machines with different operating

System. You've to make only minor changes in parameter settings those would be required for this task.

IX. Security:

This system provides great security for data, which is stored. Only prescribed user is permitted to work on it to perform different operations. Permitted user can only log on to the system.

7.4 DEMERITS:

There are also demerits, which are mentioned below:

The operating system may be crash if proper system maintenance and management is not followed. Due to this reason it may be destruction for the files. The data may be loss by this result.

CHAPTER NO 8

8.1 INTRODUCTION

The user guide is provided to become familiar with the new system more easily and quickly. This chapter will provide a comprehensive understanding of how to operate the ***"Computerized Management Information System"*** developed for Bismah Academy Rawalpindi.

Since the system operates in a multi user environment so it requires the services of D.B.A to perform certain tasks such as creating new users, giving them privileges, keeping back up of data etc.

8.2 GETTING STARTED:

Before starting working with the front end, the user should start Oracle 8I database engine. The database engine is mounted by selecting:

Start --> Programs --> Personal Oracle 7 for Windows 98 --> Start Database

On clicking this option, following messages will appear one by one:

Starting up database....

8.3 IMPORTANT CONSIDERATION

The user must know following terminology and their function

8.3.1 CONSOLE:

Console is the general name for the standard features that provide essential user information at run time. It appears at the bottom of the screen. The console includes the *Status Line* and the *Message Line.*

8.3.2 STATUS LINE

The status is a console component that displays a variety of indicators to reflect the current state of the form module.

8.3.3 DEFAULT MENU

The default menu is the menu that is automatically used by all Oracle Forms applications. It provides an alternative method of use to

that keystroke operation. The default menu can be customized to introduce your own functionality. In the developed system, the main menu has been customized.

8.3.4 LIST OF VALUES

Also called LOV. A scrollable popup window that provides the user with a single or multi-column selection list.

8.3.5 ALERT

A modal window that notifies you of a condition that occurred because of your last action. You must respond to an alert. There are three styles of alerts: Stop, Caution, and Note. Each style denotes a different level of message severity. A unique icon that displays in the alert window represents message severity visually.

Form Builder has many built-in alerts that display pre-defined messages. You can also create your own custom alerts that display in response to application-specific events.

When an event occurs that causes an alert to display, the operator must respond to the alert's message by selecting one of the predefined alert buttons. Selecting any button immediately dismisses the alert.

8.4. RECORD MANIPULATION

Four general operations can be performed on a record, namely, insertion, Retrieval, Modification and Deletion. The basic condition for these operations to perform is that the form on which the operation is to be performed must be displayed on the screen.

8.4.1 INSERTION

A record can be inserted into the database tables by the following procedure:

- From <Record> menu, click on <Insert>. The form will appear blank. This can also be done by clicking the <Clear> button on the form.

- Enter the data in the form.
- Press <Save> button to save it in the workspace.
- To insert more records, repeat the above steps.
- Click on <Exit> button to return to main menu.

8.4.2 RETRIEVAL

To retrieve a record:

- Click on <Query> button.
- If the key value for that record is entered then the particular record will be displayed, otherwise the first record will be displayed. Keep on pressing <Next> key to scroll the records until the desired record is retrieved.
- Click on <Exit> button to go back to main menu.

8.4.3 MODIFICATION

- Repeat first two steps of retrieval operation.
- Enter new data in the displayed editing fields, were values are needed to be modified.
- Press <Save> button to save the changes in the database.
- Press <Exit> to go to main menu.

8.4.4 DELETION/REMOVAL

- Repeat 1st & 2nd steps of retrieval operation.
- Click on <Remove> in the <Record> menu. The desired record will be deleted.
- Click on <Save> button to save the deleted record.
- Repeat the same process to delete more records.
- Click on <Exit> button to return to main menu.

8.5 IMPLEMENTING THE SECURITY

Any computerized database system should be sure enough to be accessed by unauthorized persons. Database Administrator (DBA) implements such securities. One of the duties of DBA is to provide access of the computer system to the users to use an Oracle database. For that, one must have an access to the computer and the operating system through an identification name and password to ensure valid access to the Oracle database that are valid for the underlying database.

Oracle DBA can create new users with different privileges assigned to them according to their status. Each user has its own domain of privileges and operations that he/she can perform. All this is handled by DBA. Hence the security is promptly implemented by DBA.

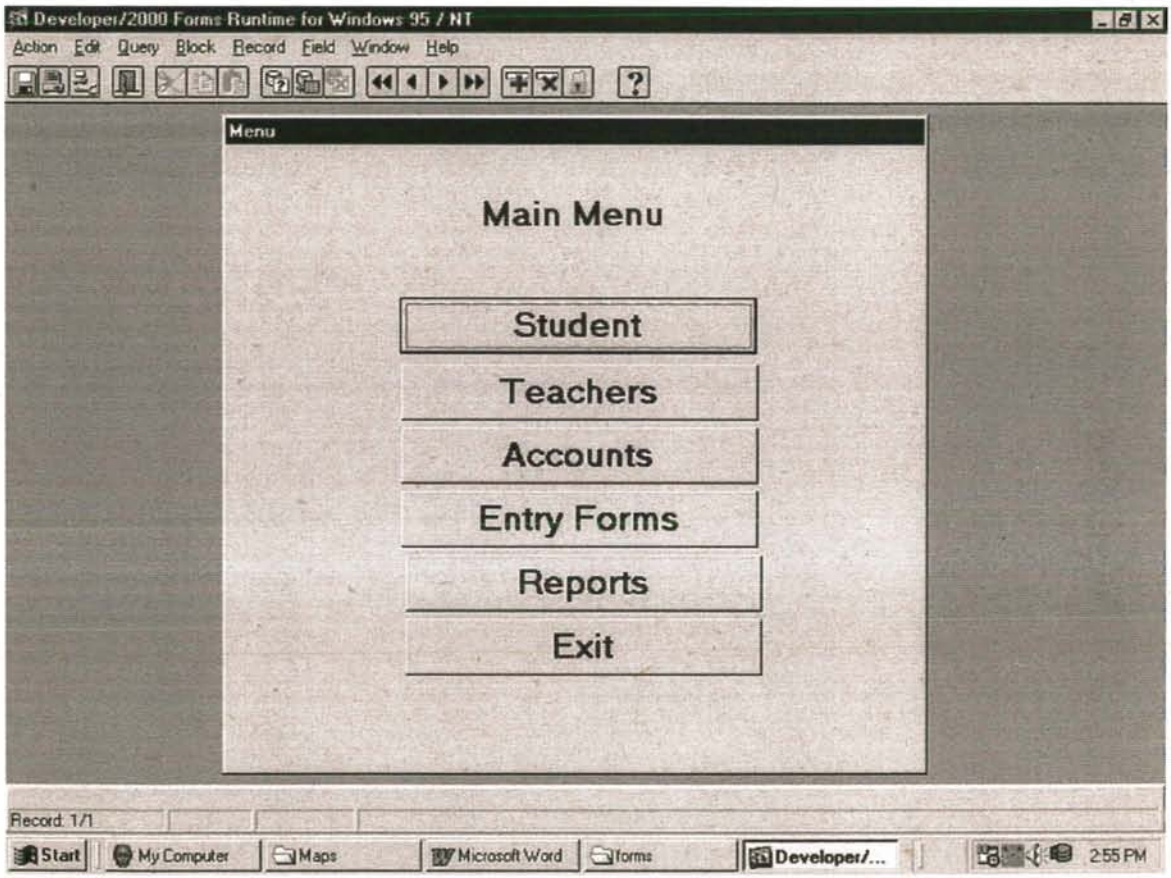
8.6 Precaution:

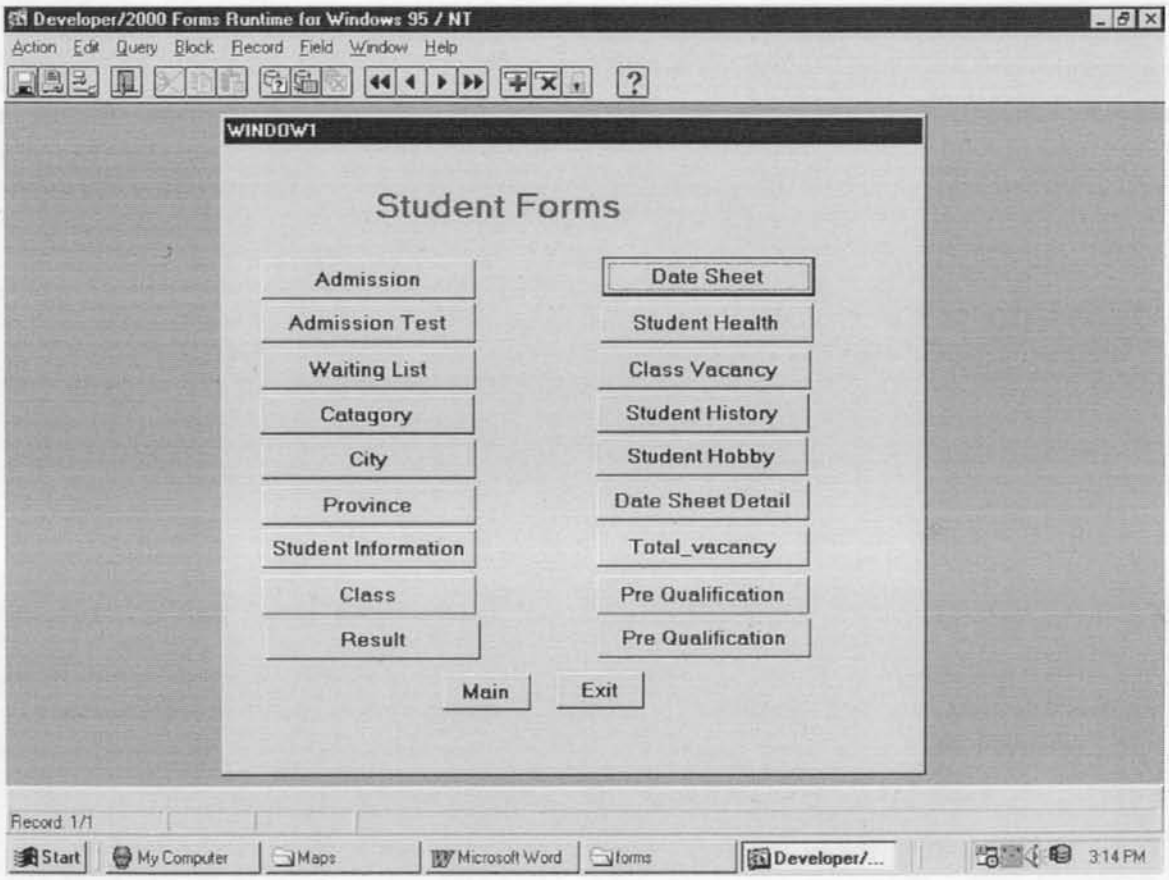
Before switching off the computer, the Oracle database engine, working at the back end, should be properly shutdown i.e, the Oracle database should be dismounted first by selecting

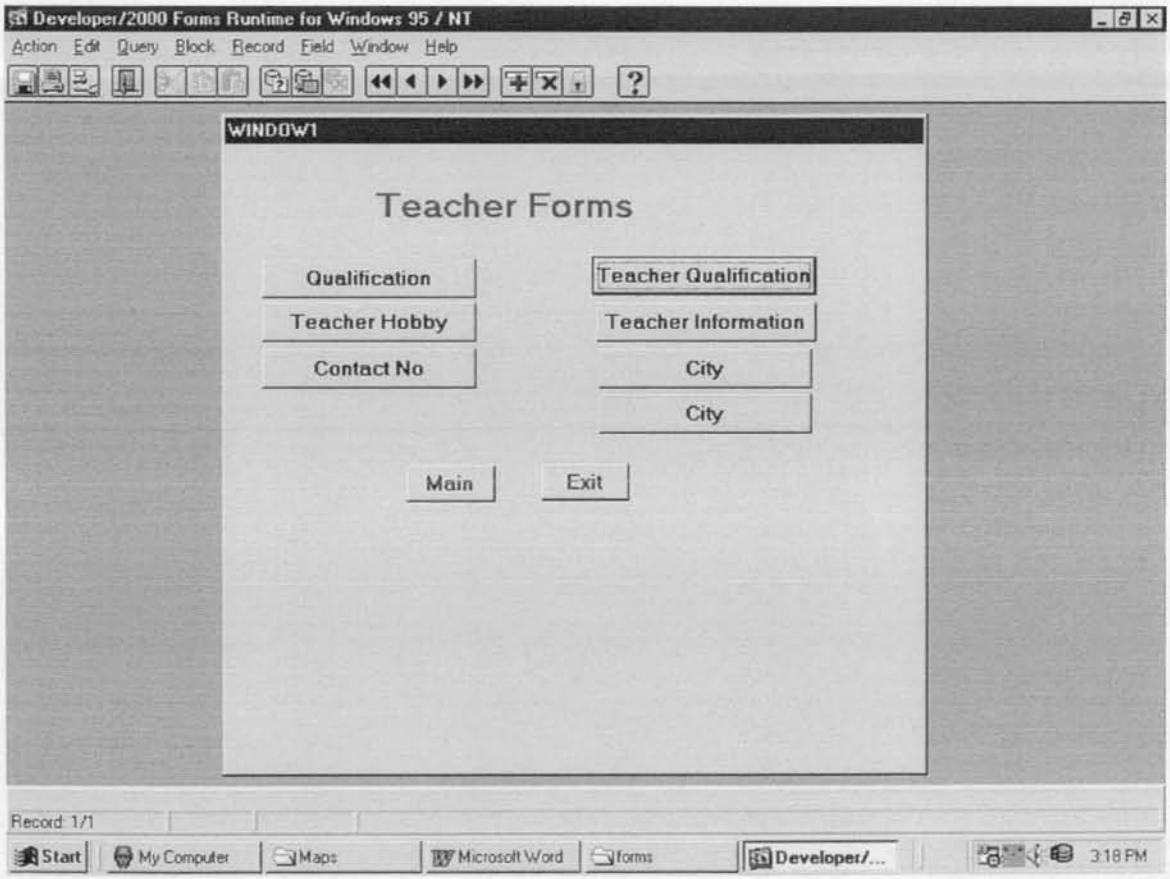
APPENDICES

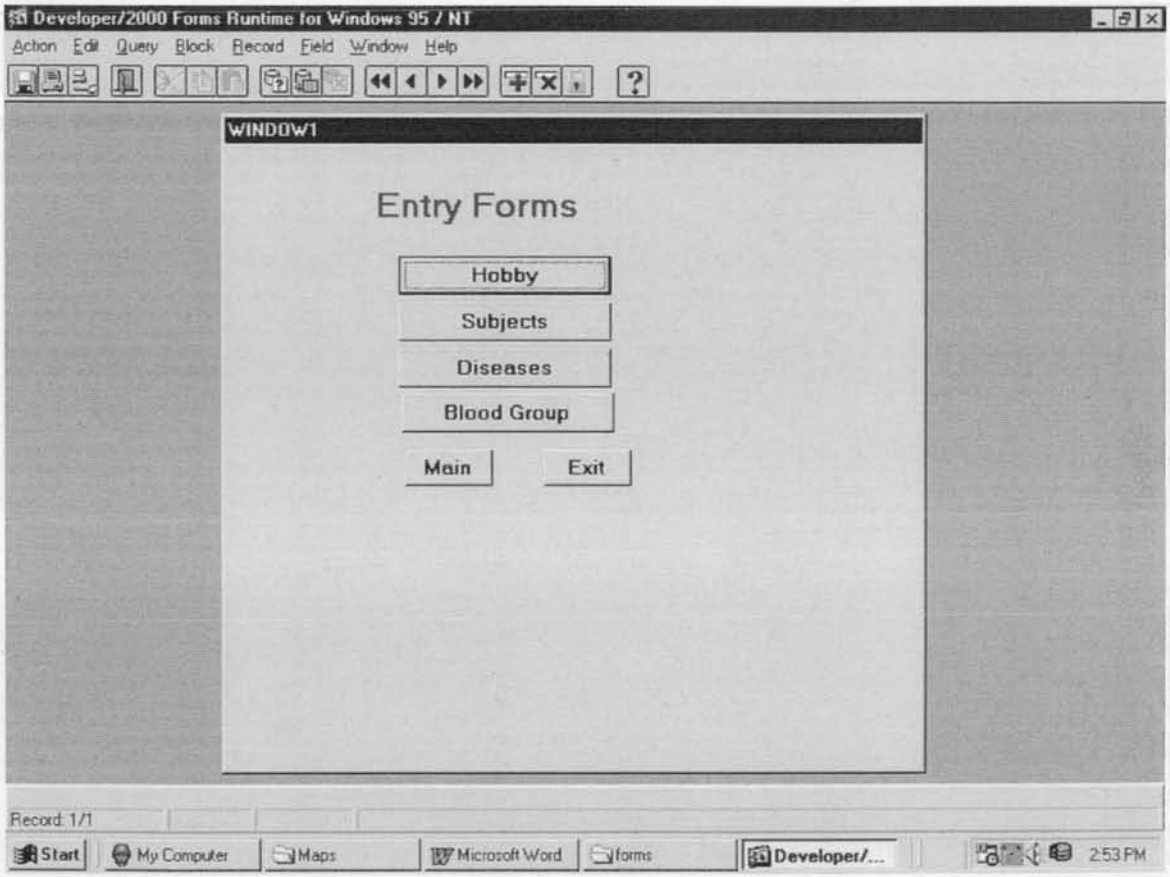
FORMS

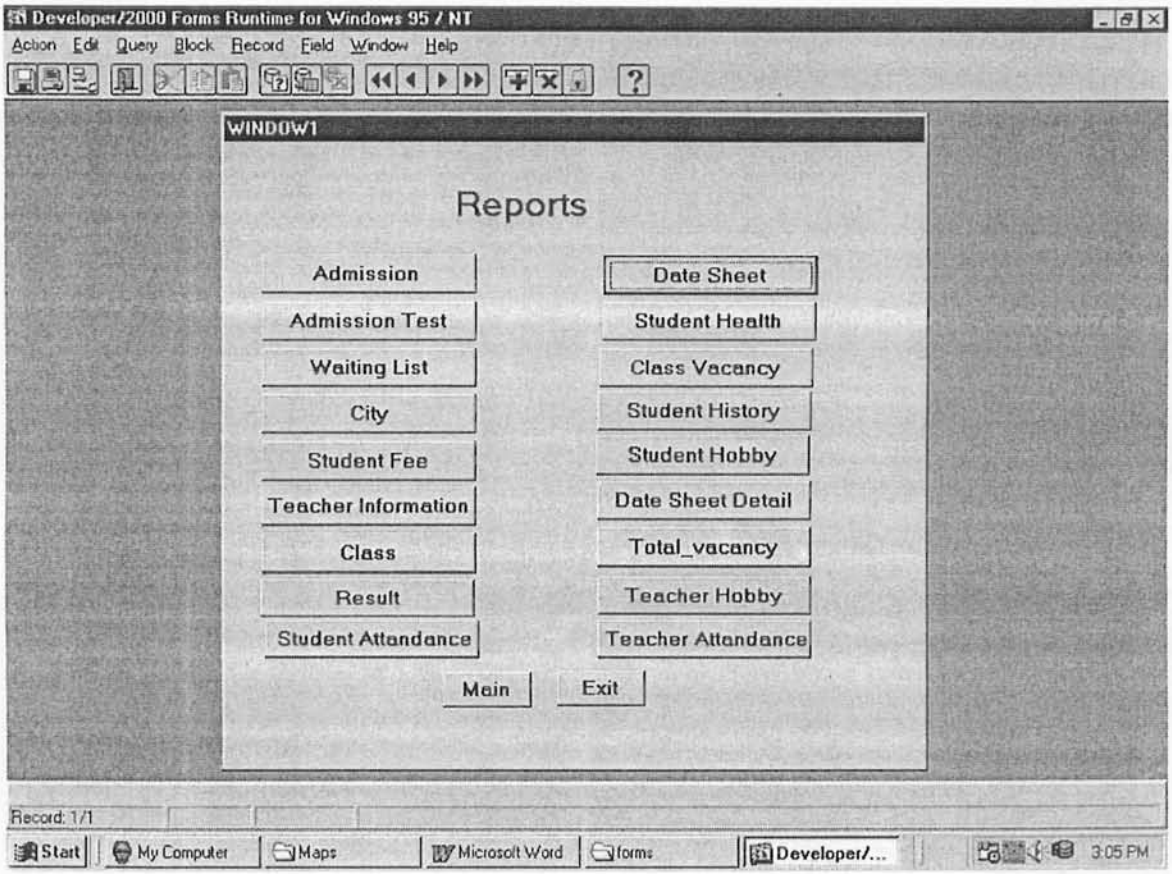

Developer/2000 Forms Runtime for Windows 95 / NT
Data Entry Reports Action Query Block Records Window
QUAID-I-AZAM UNIVERSITY
قائداعظم یونیورسٹی
QUAID I AZAM UNIVERSITY
WELCOME
Save
Record 1/1
Start
My Computer
Maps
Microsoft Word
forms
Developer/...
2:56 PM

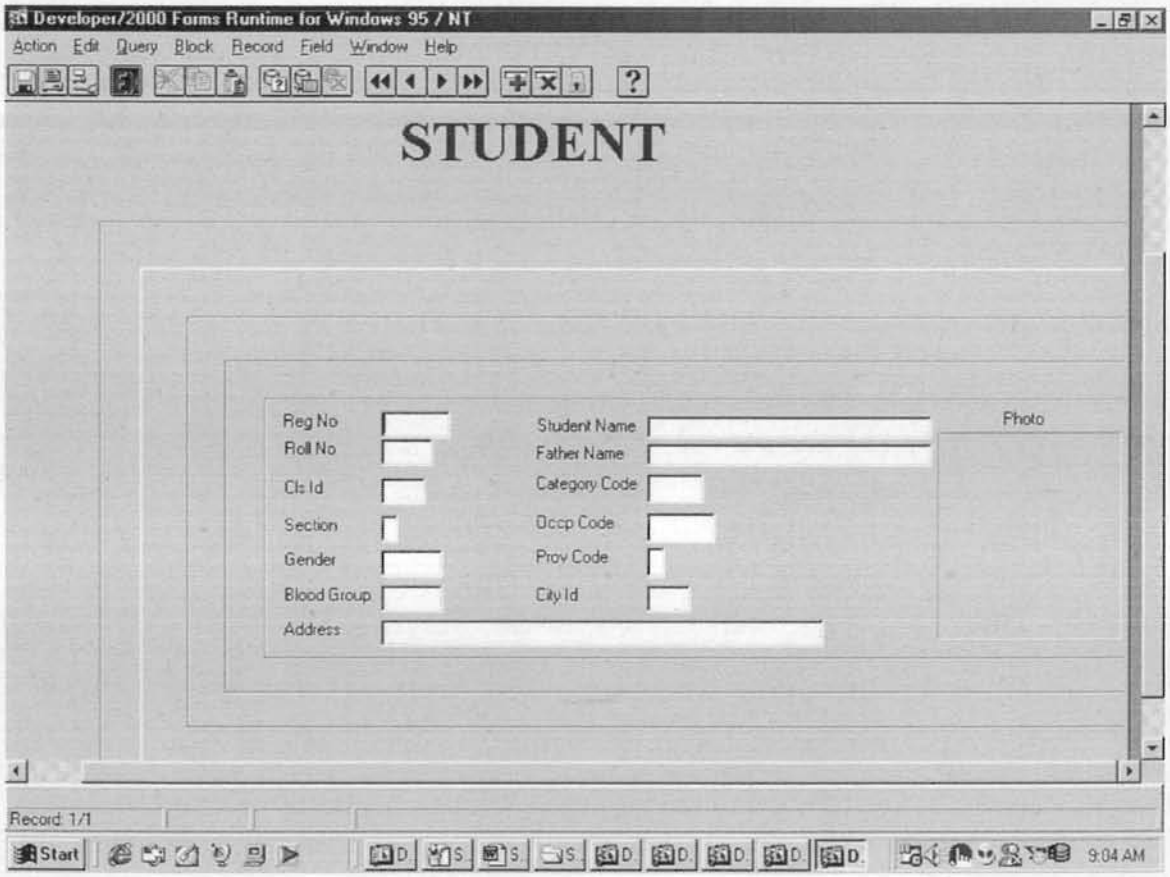

Developer/2000 Forms Runtime for Windows 95 / NT
Action Edit Query Block Record Field Window Help
Menu
Main Menu
Student
Teachers
Accounts
Entry Forms
Reports
Exit
Record: 1/1
Start
My Computer
Maps
Microsoft Word
forms
Developer/...
2:55 PM

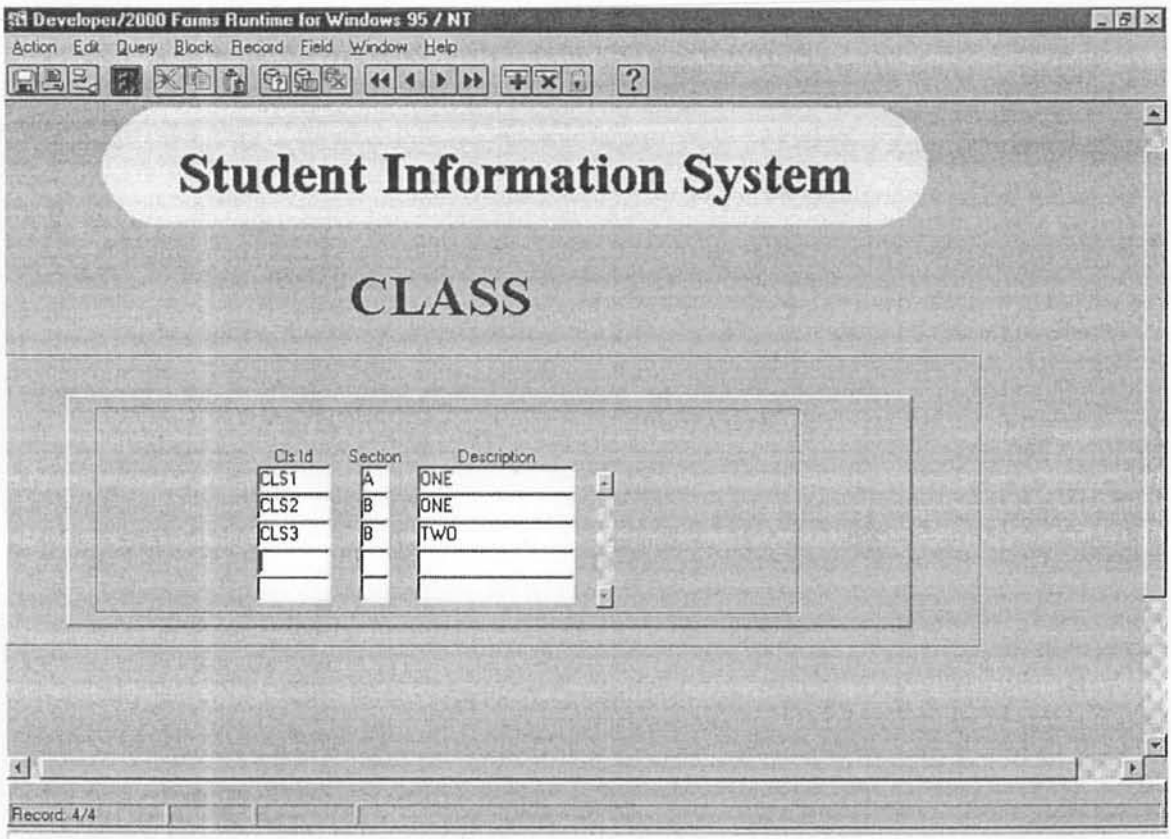

Developer/2000 Forms Runtime for Windows 95 / NT
Action Edit Query Block Record Field Window Help
WINDOW1
Student Forms
Admission
Admission Test
Waiting List
Catagory
City
Province
Student Information
Class
Result
Date Sheet
Student Health
Class Vacancy
Student History
Student Hobby
Date Sheet Detail
Total_vacancy
Pre Qualification
Pre Qualification
Main
Exit
Record 1/1
Start
My Computer
Maps
Microsoft Word
forms
Developer/...
3:14 PM

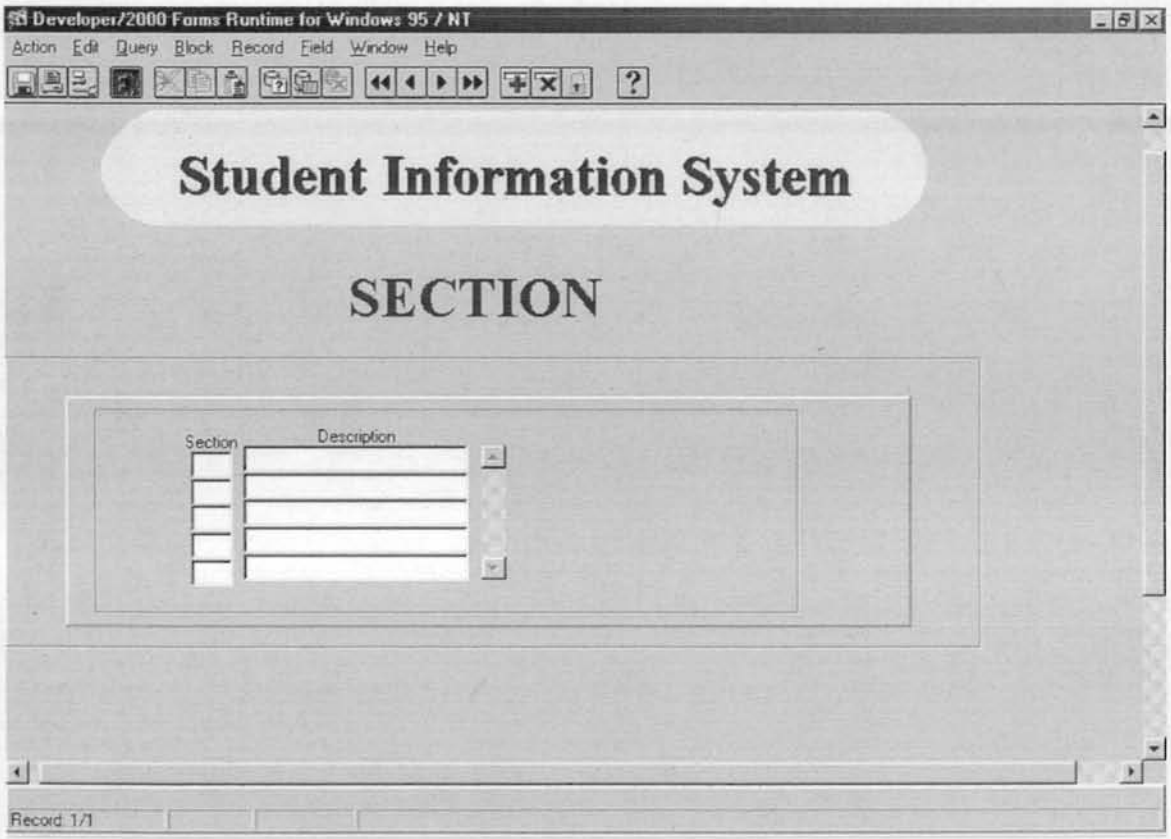

Developer/2000 Forms Runtime for Windows 95 / NT
Action Edit Query Block Record Field Window Help
WINDOW1
Teacher Forms
Qualification
Teacher Hobby
Contact No
Teacher Qualification
Teacher Information
City
City
Main
Exit
Record: 1/1
Start
My Computer
Maps
Microsoft Word
forms
Developer/...
3:18 PM

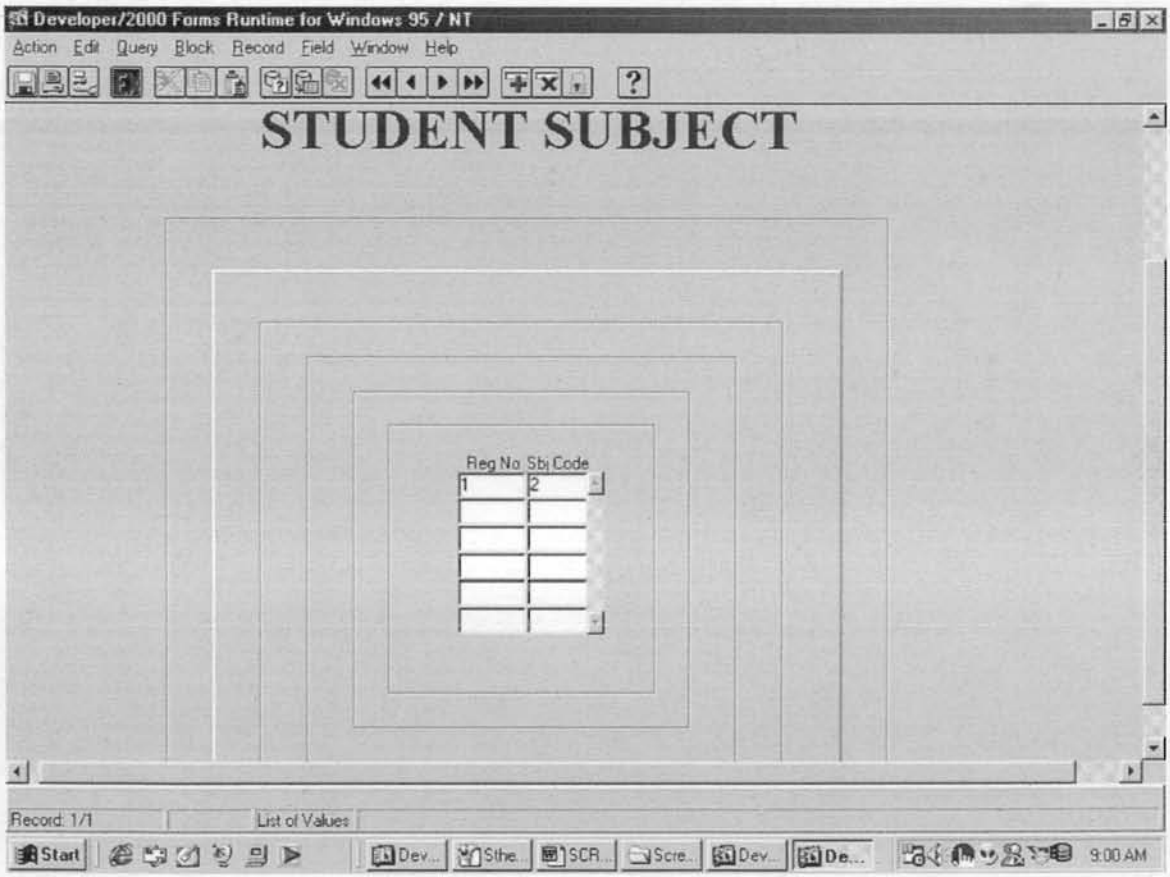

Developer/2000 Forms Runtime for Windows 95 / NT
Action Edit Query Block Record Field Window Help
WINDOW1
Entry Forms
Hobby
Subjects
Diseases
Blood Group
Main
Exit
Record: 1/1
Start
My Computer
Maps
Microsoft Word
forms
Developer/...
2:53 PM

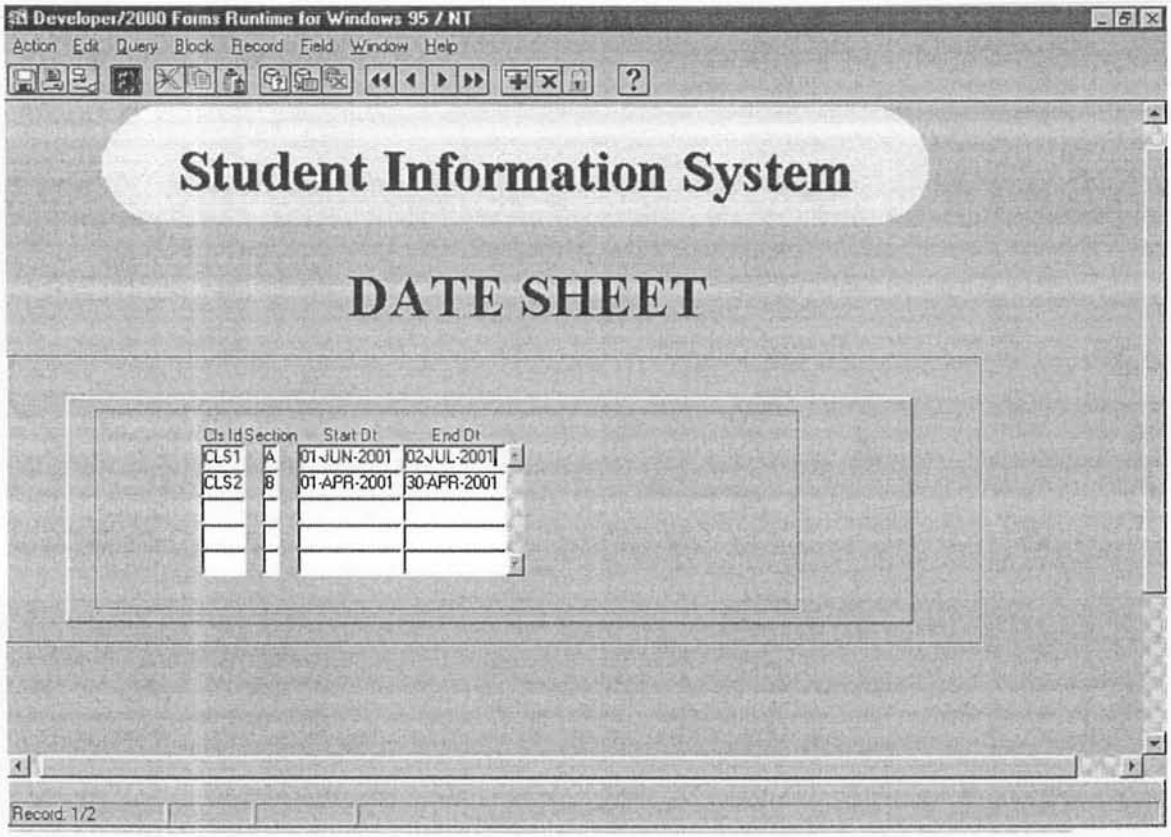

Developer/2000 Forms Runtime for Windows 95 / NT
Action Edit Query Block Record Field Window Help
WINDOW1
Reports
Admission
Admission Test
Waiting List
City
Student Fee
Teacher Information
Class
Result
Student Attandance
Date Sheet
Student Health
Class Vacancy
Student History
Student Hobby
Date Sheet Detail
Total_vacancy
Teacher Hobby
Teacher Attandance
Main
Exit
Record: 1/1
Start
My Computer
Maps
Microsoft Word
forms
Developer/...
3:05 PM

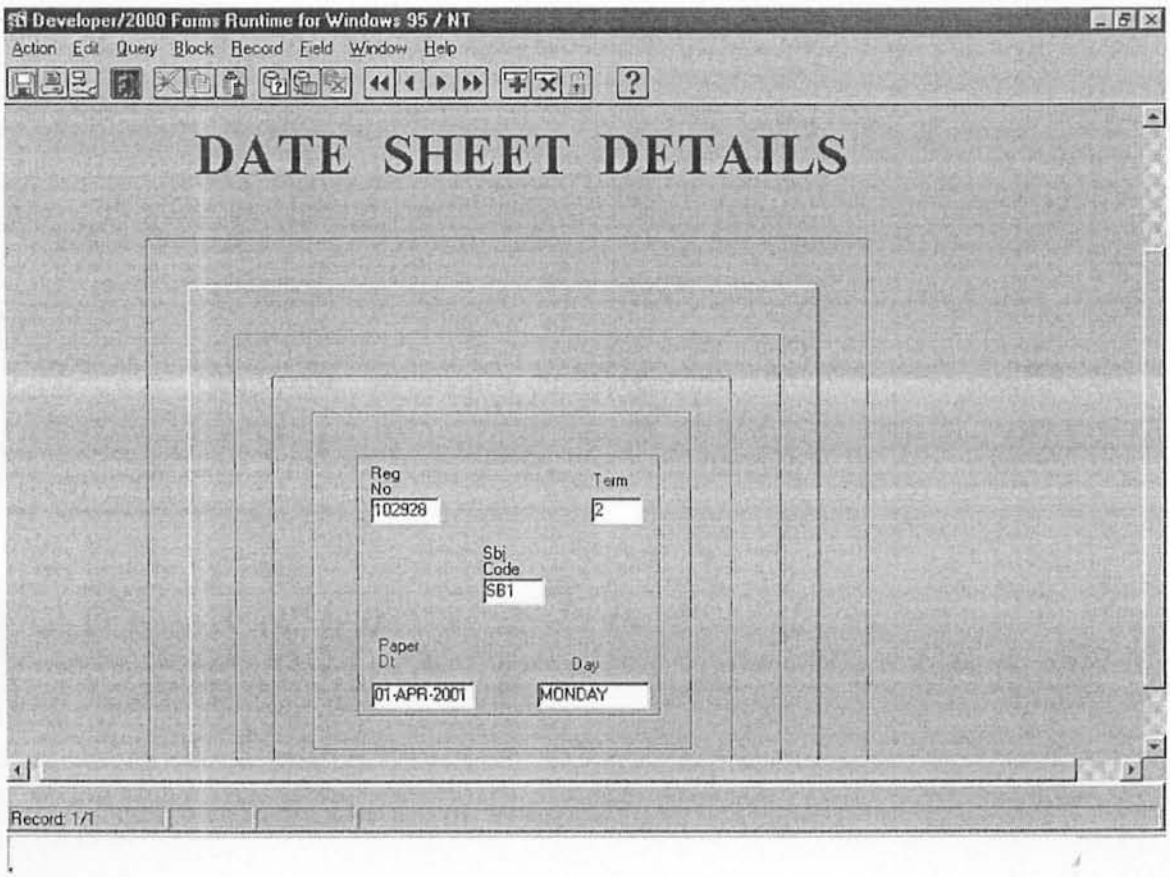

Developer/2000 Forms Runtime for Windows 95 / NT
Action Edit Query Block Record Field Window Help
STUDENT
Reg No
Roll No
Cls Id
Section
Gender
Blood Group
Address
Student Name
Father Name
Category Code
Occp Code
Prov Code
City Id
Photo
Record: 1/1
Start
9:04 AM

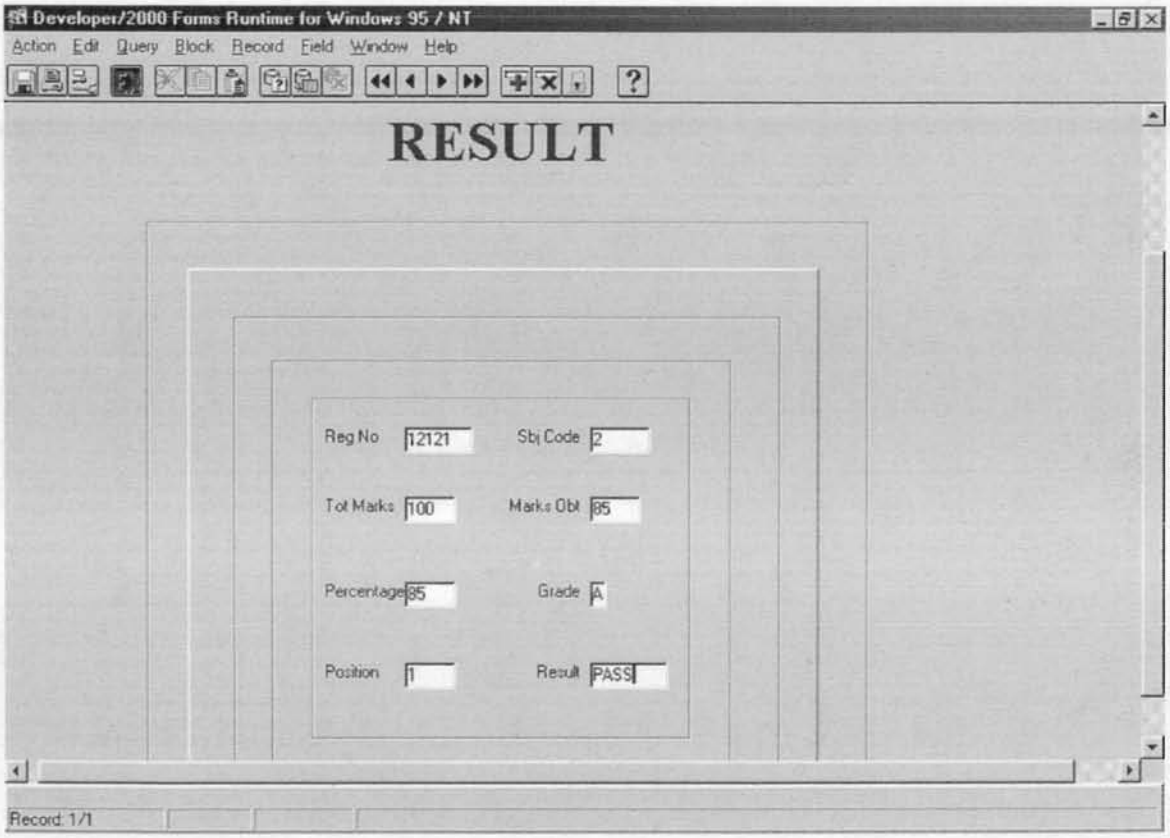

Developer/2000 Forms Runtime for Windows 95 / NT
Action Edit Query Block Record Field Window Help
Student Information System
CLASS
Cls Id
Section
Description
CLS1
A
ONE
CLS2
B
ONE
CLS3
B
TWO
Record 4/4

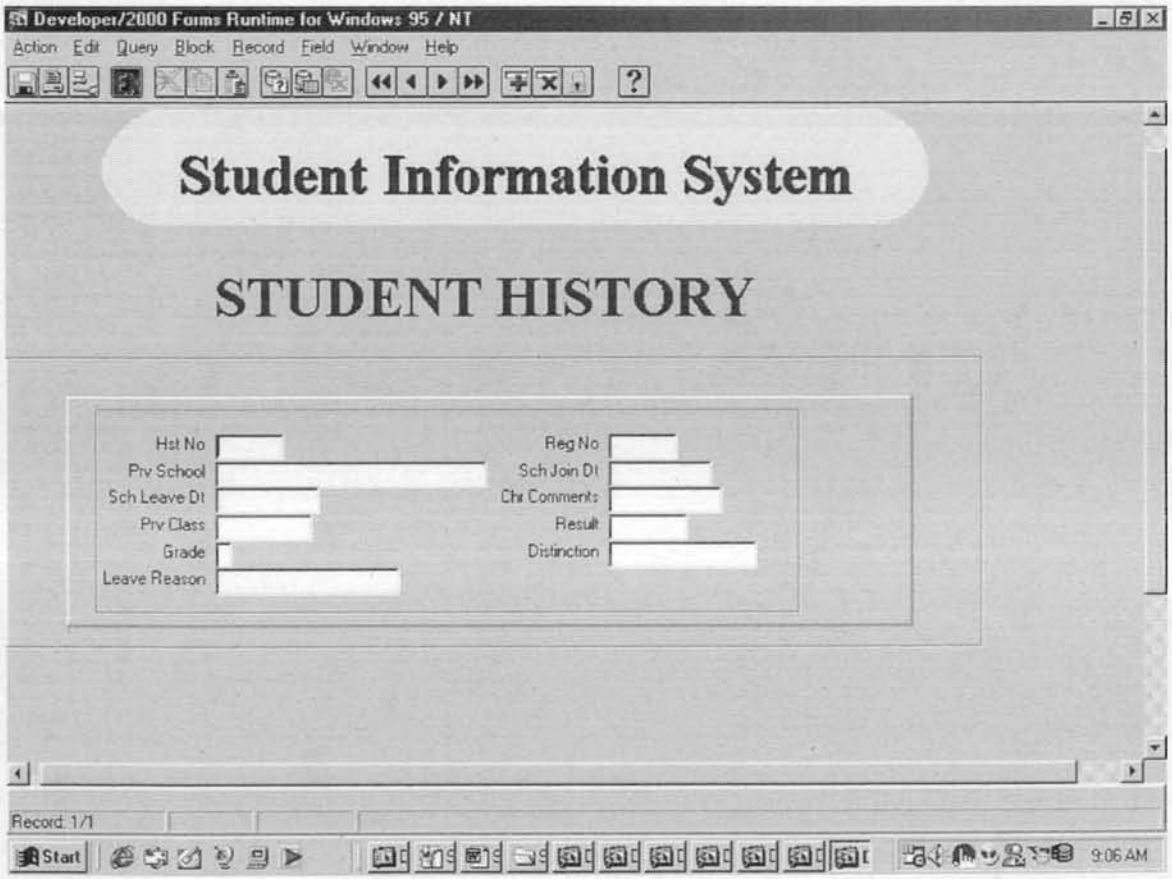

Developer/2000 Forms Runtime for Windows 95 / NT
Action Edit Query Block Record Field Window Help
Student Information System
SECTION
Section
Description
Record 1/1

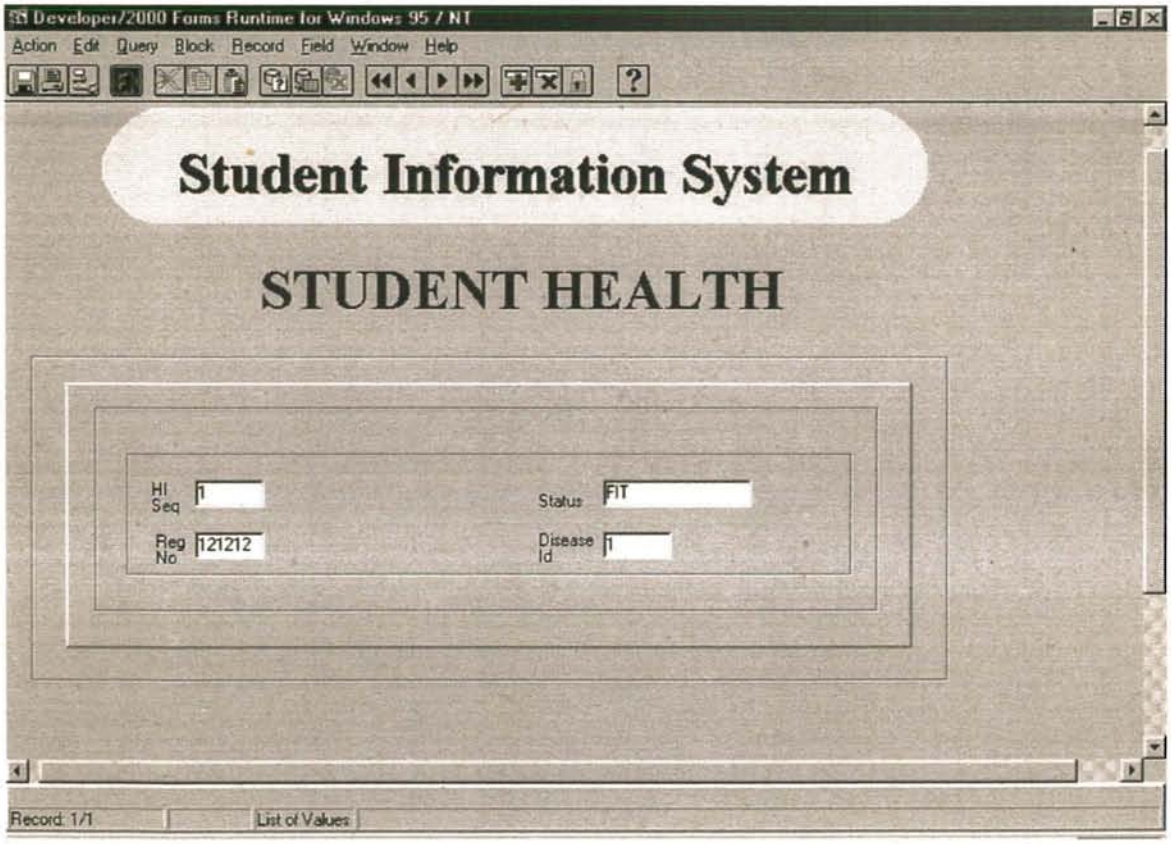

Developer/2000 Forms Runtime for Windows 95 / NT
Action Edit Query Block Record Field Window Help
STUDENT SUBJECT
Reg No Sbj Code
1
2
Record: 1/1
List of Values
Start
9:00 AM

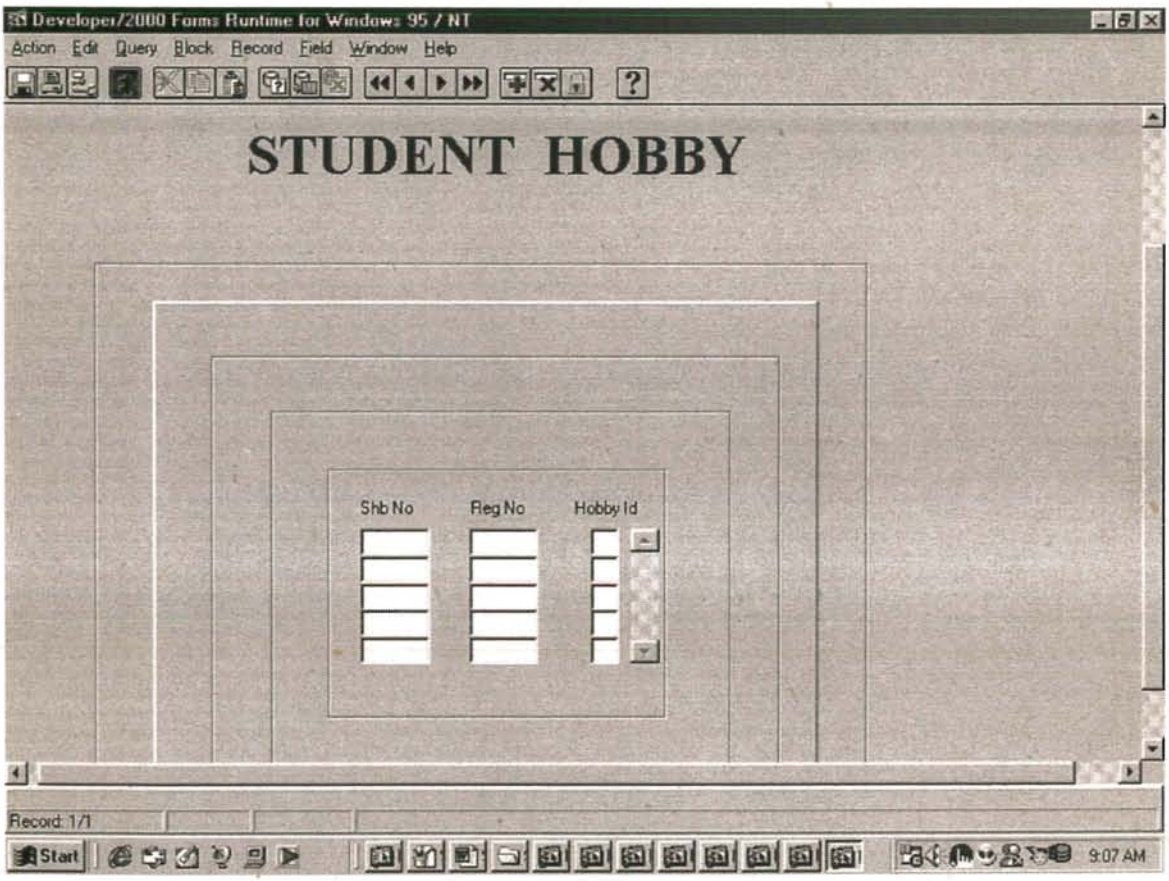

Developer/2000 Forms Runtime for Windows 95 / NT
Action Edit Query Block Record Field Window Help
Student Information System
DATE SHEET
Cls Id Section Start Dt End Dt
CLS1 A 01-JUN-2001 02-JUL-2001
CLS2 B 01-APR-2001 30-APR-2001
Record: 1/2

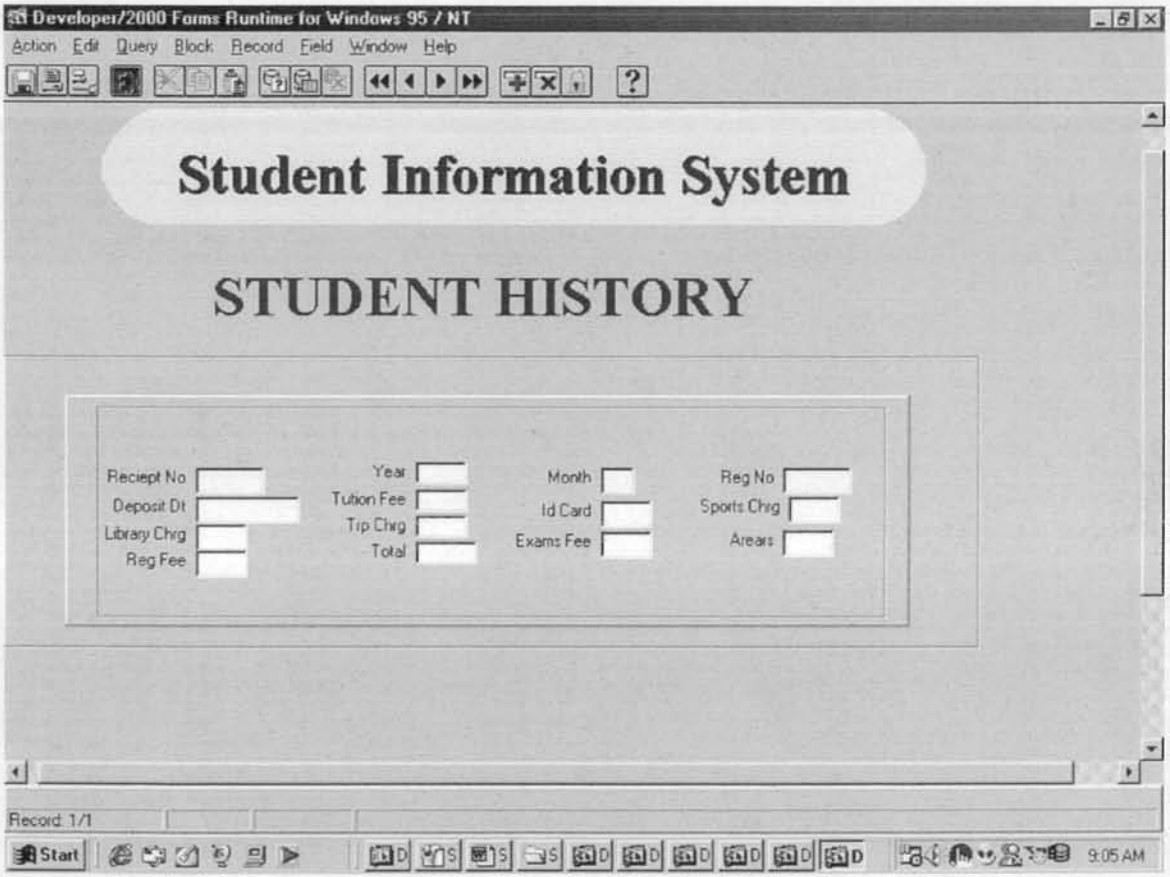

Developer/2000 Forms Runtime for Windows 95 / NT
Action Edit Query Block Record Field Window Help
DATE SHEET DETAILS
Reg No
102928
Term
2
Sbj Code
SB1
Paper Dt
01-APR-2001
Day
MONDAY
Record: 1/1

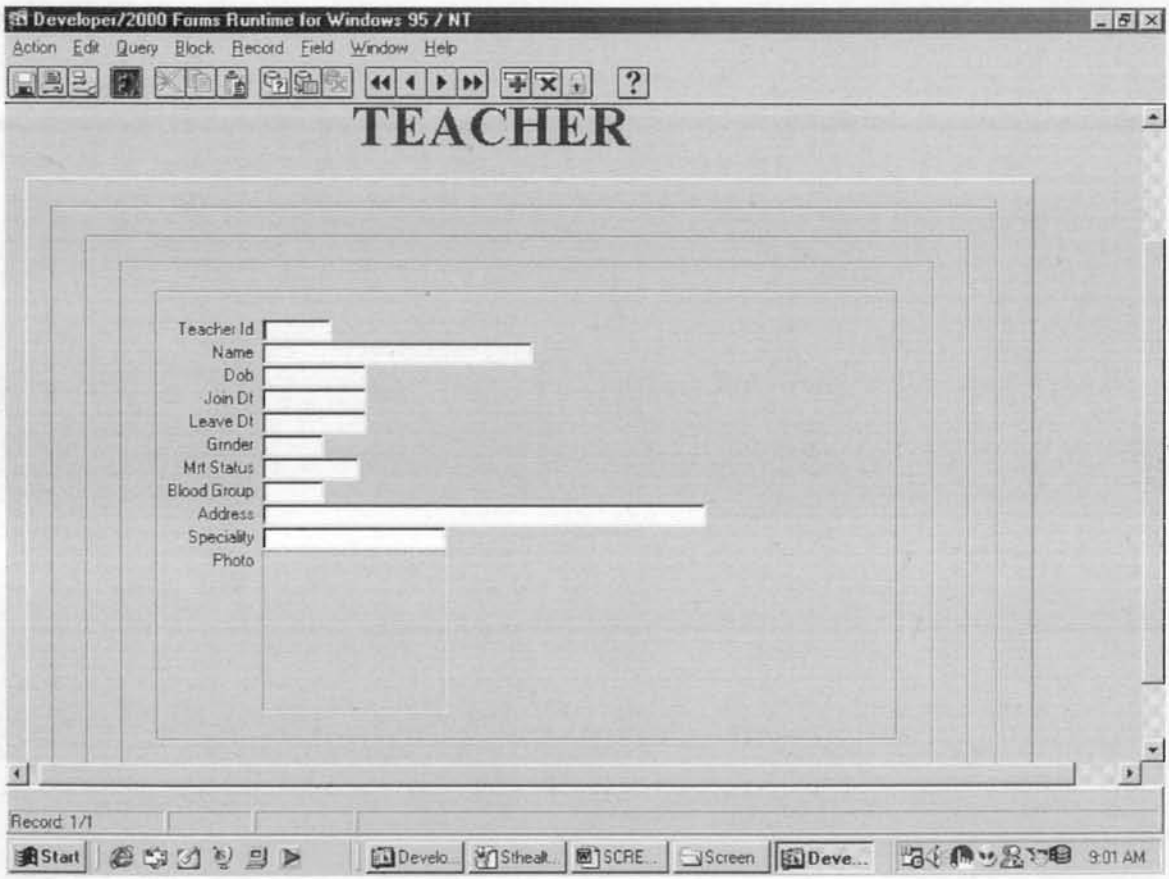

Developer/2000 Forms Runtime for Windows 95 / NT
Action Edit Query Block Record Field Window Help
RESULT
Reg No 12121
Sbj Code 2
Tot Marks 100
Marks Obt 85
Percentage 85
Grade A
Position 1
Result PASS
Record: 1/1

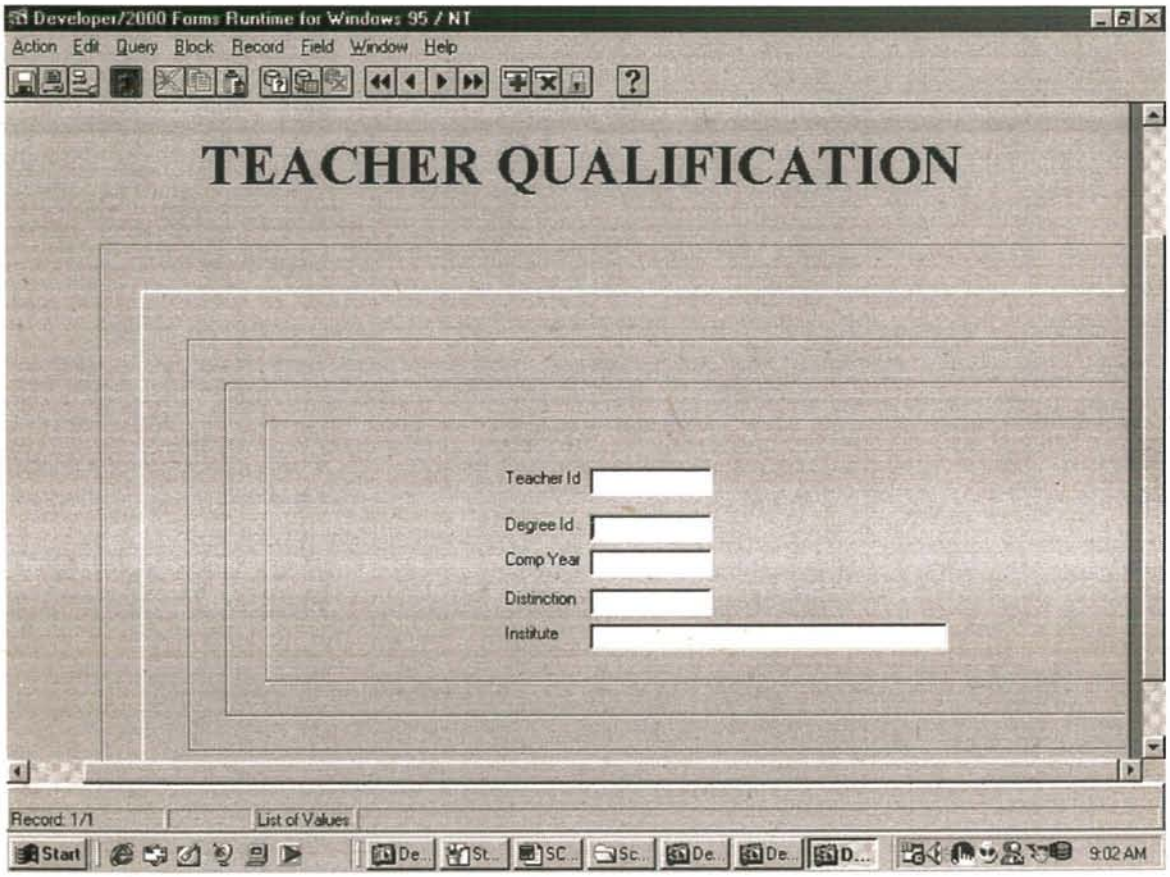

Developer/2000 Forms Runtime for Windows 95 / NT
Action Edit Query Block Record Field Window Help
Student Information System
STUDENT HISTORY
Hst No
Prv School
Sch Leave Dt
Prv Class
Grade
Leave Reason
Reg No
Sch Join Dt
Chr Comments
Result
Distinction
Record: 1/1
Start
9:06 AM

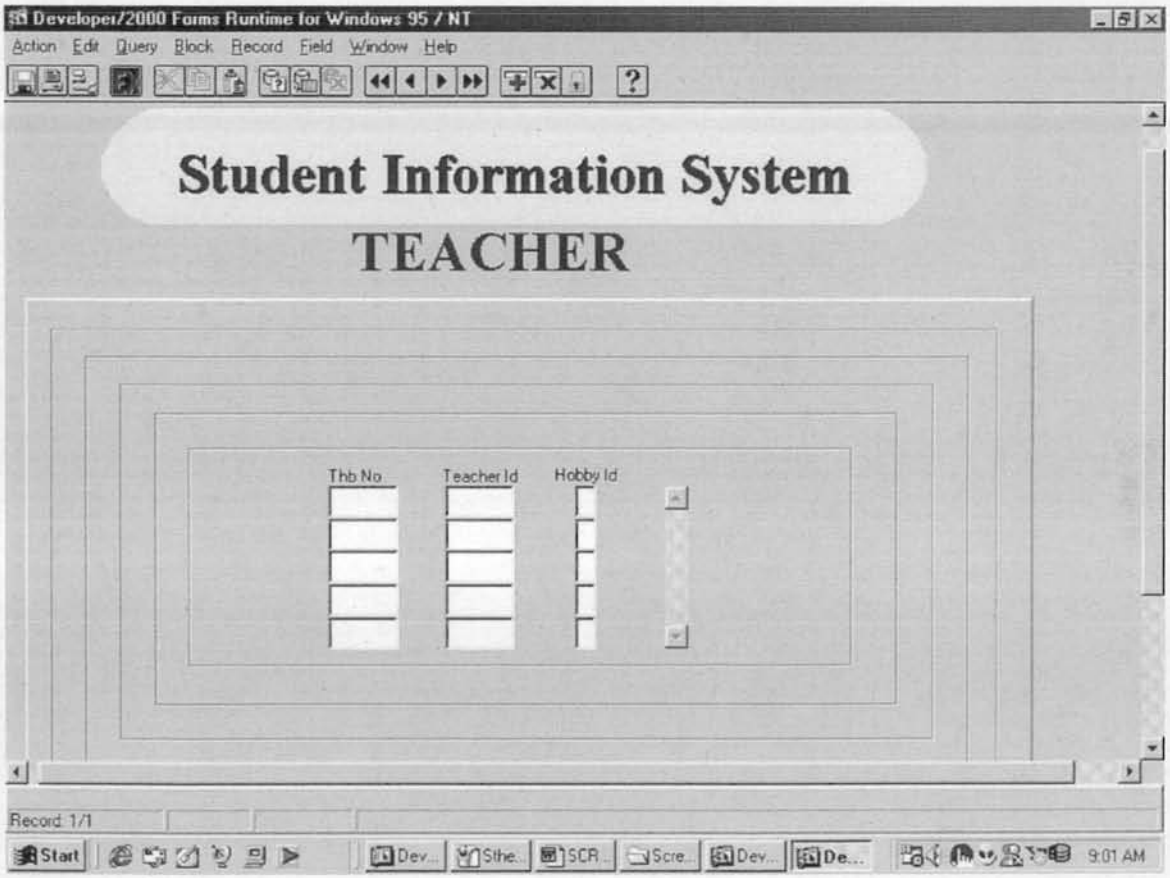

Developer/2000 Forms Runtime for Windows 95 / NT
Action Edit Query Block Record Field Window Help
Student Information System
STUDENT HEALTH
HI Seq
1
Status
FIT
Reg No
121212
Disease Id
1
Record: 1/1
List of Values

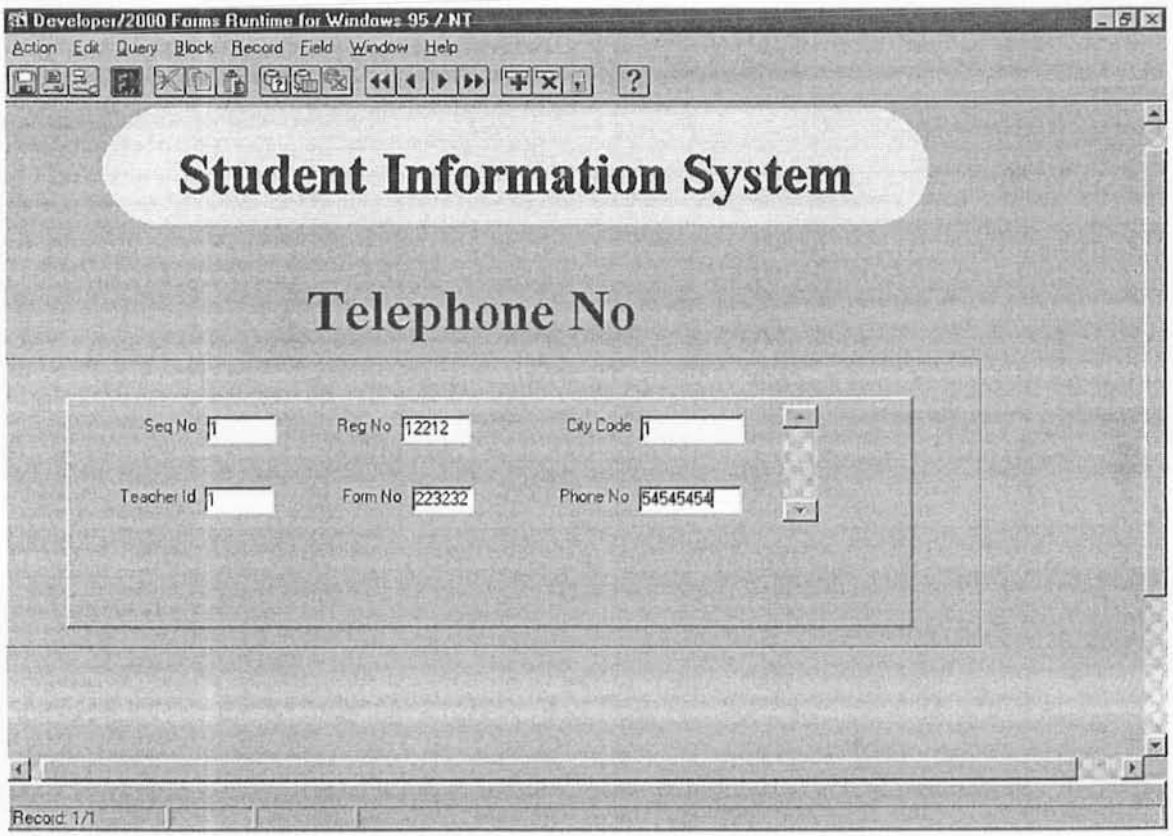

Developer/2000 Forms Runtime for Windows 95 / NT
Action Edit Query Block Record Field Window Help
STUDENT HOBBY
Shb No
Reg No
Hobby Id
Record: 1/1
Start
9:07 AM

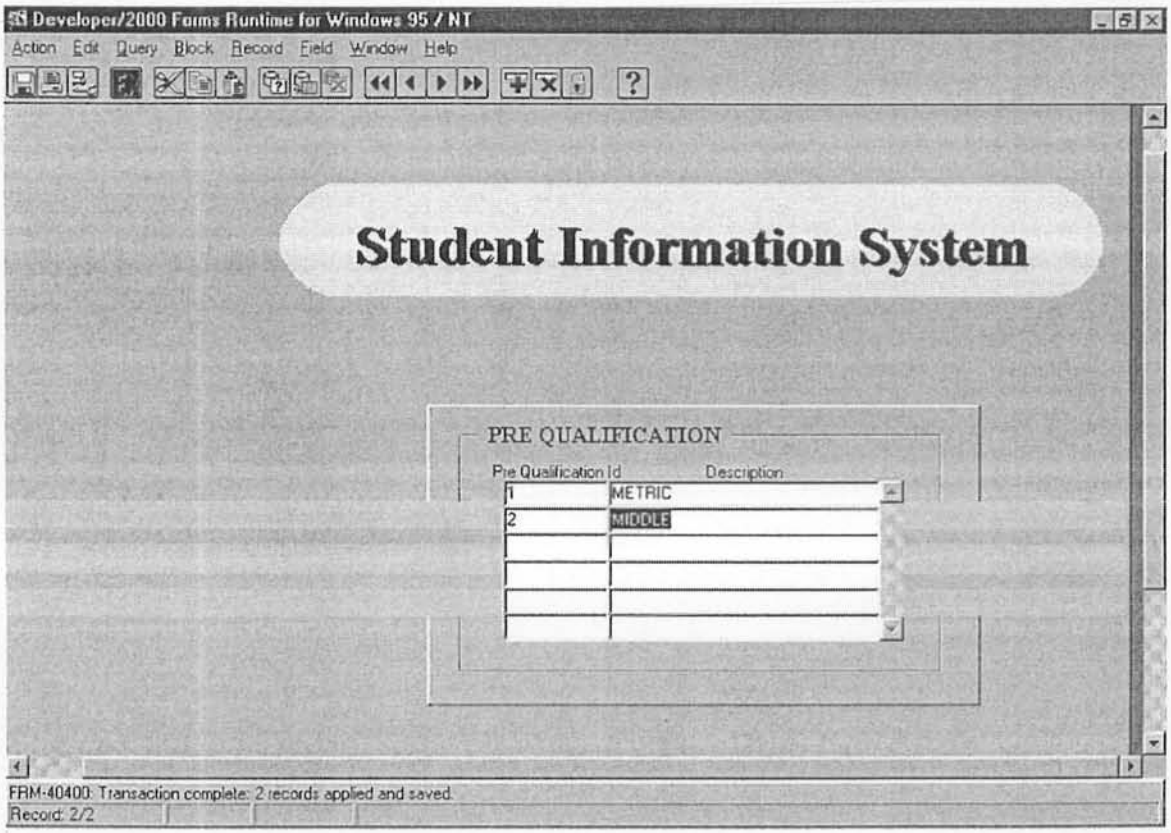

Developer/2000 Forms Runtime for Windows 95 / NT
Action Edit Query Block Record Field Window Help
Student Information System
STUDENT HISTORY
Reciept No
Deposit Dt
Library Chrg
Reg Fee
Year
Tution Fee
Trip Chrg
Total
Month
Id Card
Exams Fee
Reg No
Sports Chrg
Arears
Record: 1/1
Start
9:05 AM

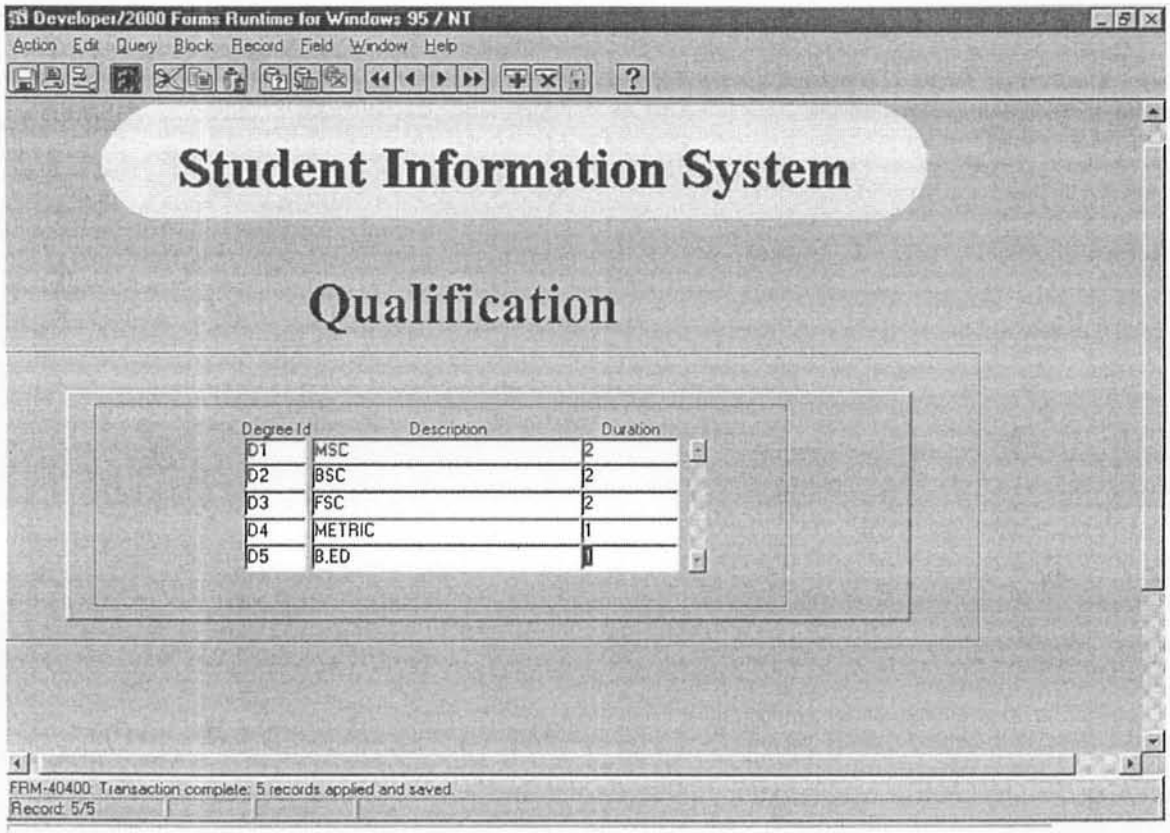

Developer/2000 Forms Runtime for Windows 95 / NT
Action Edit Query Block Record Field Window Help
TEACHER
Teacher Id
Name
Dob
Join Dt
Leave Dt
Gender
Mrt Status
Blood Group
Address
Speciality
Photo
Record: 1/1
Start
Develo
Sthealt...
SCRE...
Screen
Deve...
9:01 AM

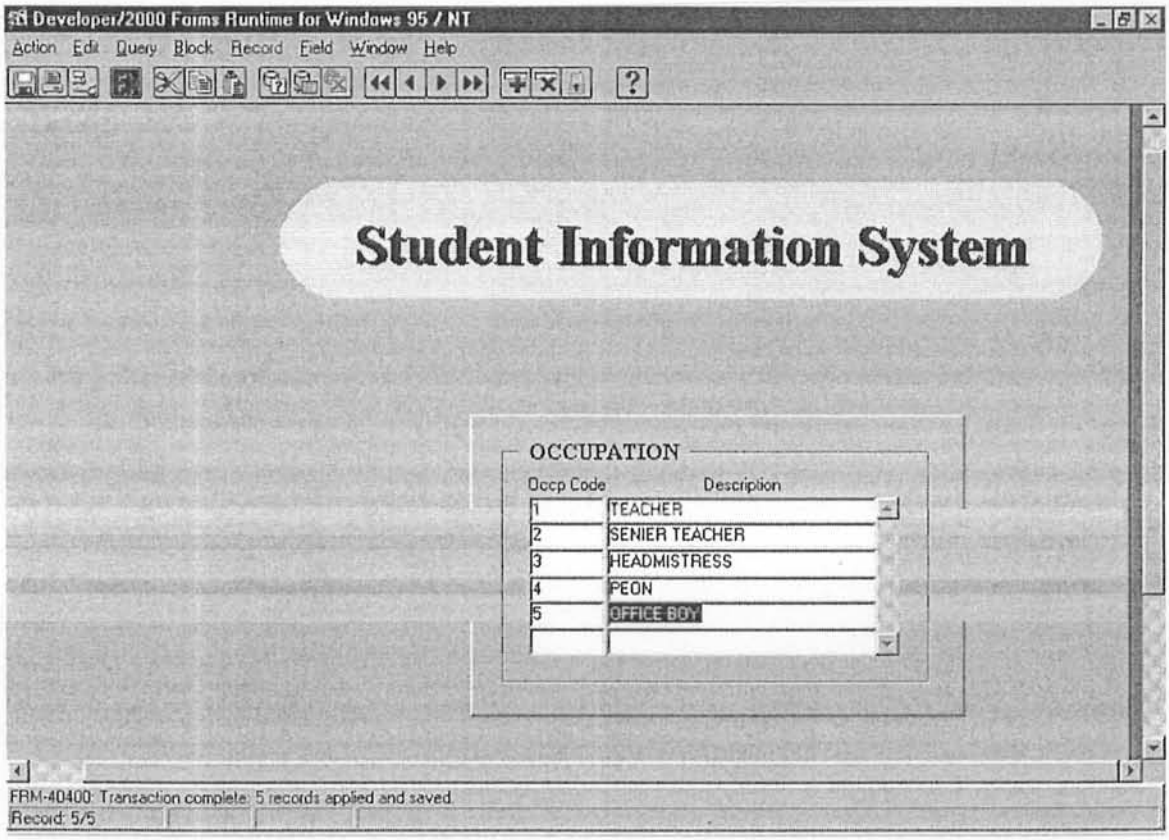

Developer/2000 Forms Runtime for Windows 95 / NT
Action Edit Query Block Record Field Window Help
TEACHER QUALIFICATION
Teacher Id
Degree Id
Comp Year
Distinction
Institute
Record: 1/1
List of Values
Start
9:02 AM

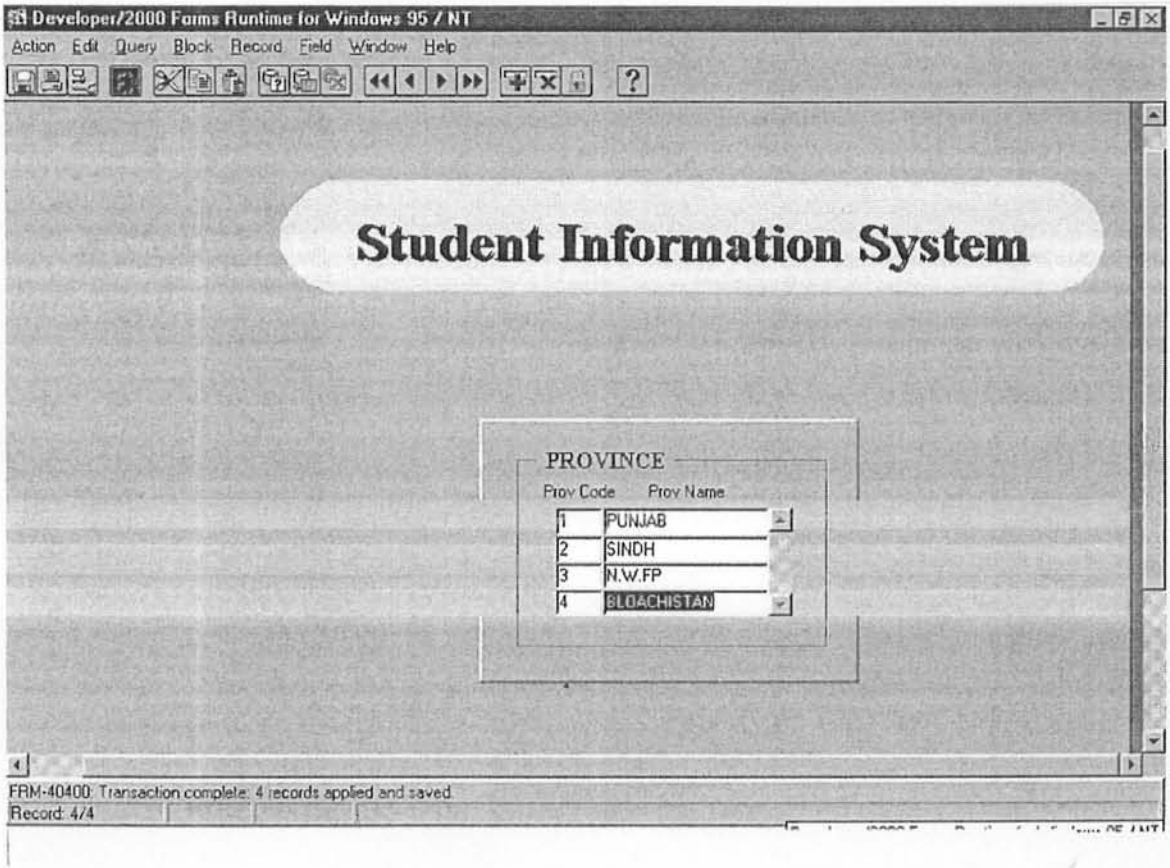

Developer/2000 Forms Runtime for Windows 95 / NT
Action Edit Query Block Record Field Window Help
Student Information System
TEACHER
Thb No
Teacher Id
Hobby Id
Record: 1/1
Start
9:01 AM

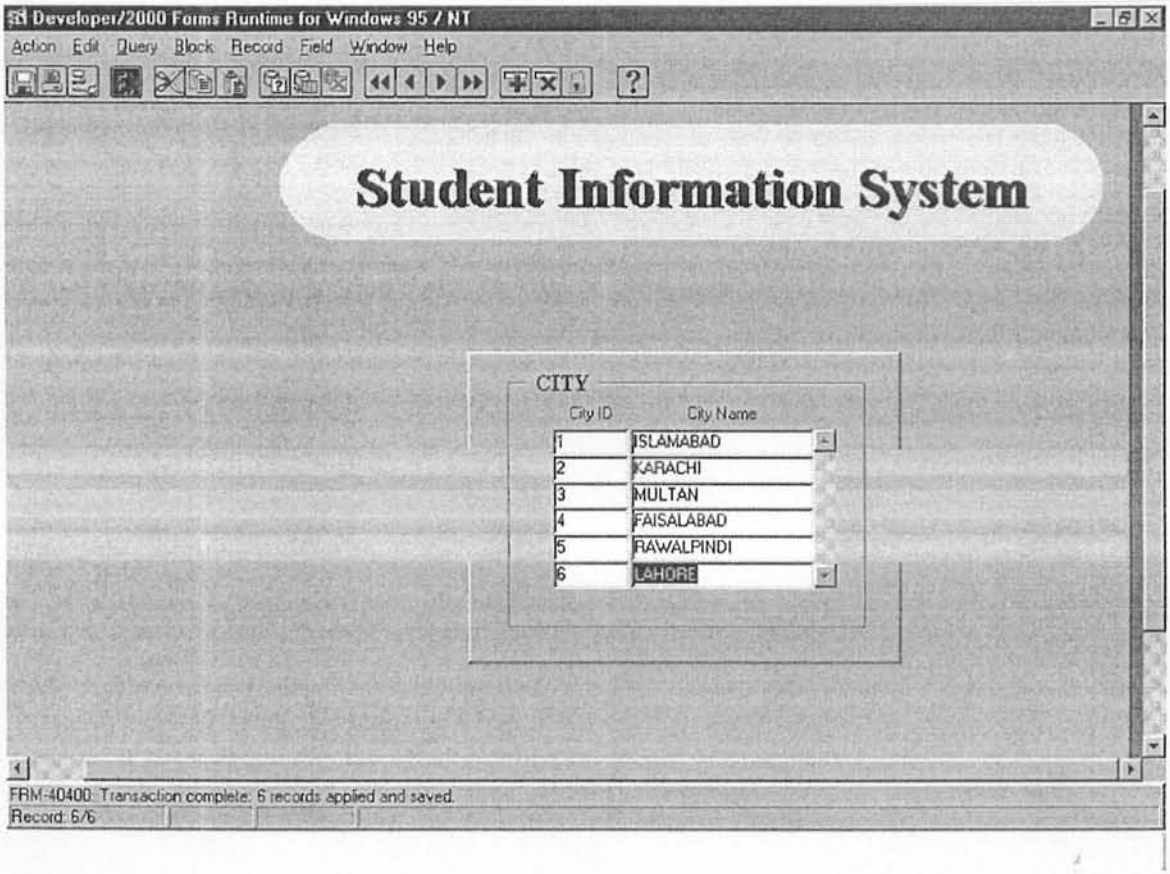

Developer/2000 Forms Runtime for Windows 95 / NT
Action Edit Query Block Record Field Window Help
Student Information System
Telephone No
Seq No 1
Reg No 12212
City Code 1
Teacher Id 1
Form No 223232
Phone No 54545454
Record: 1/1

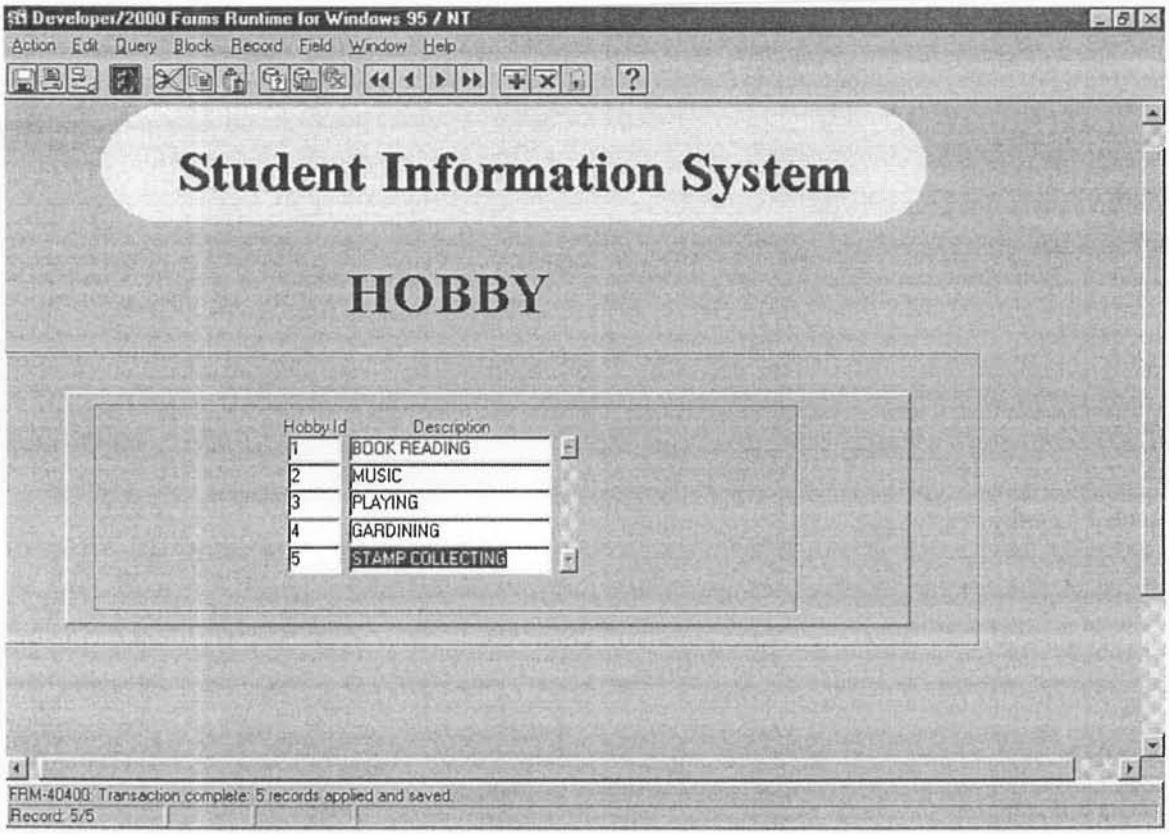

Developer/2000 Forms Runtime for Windows 95 / NT
Action Edit Query Block Record Field Window Help
Student Information System
PRE QUALIFICATION
Pre Qualification Id
Description
1
METRIC
2
MIDDLE
FRM-40400: Transaction complete: 2 records applied and saved.
Record: 2/2

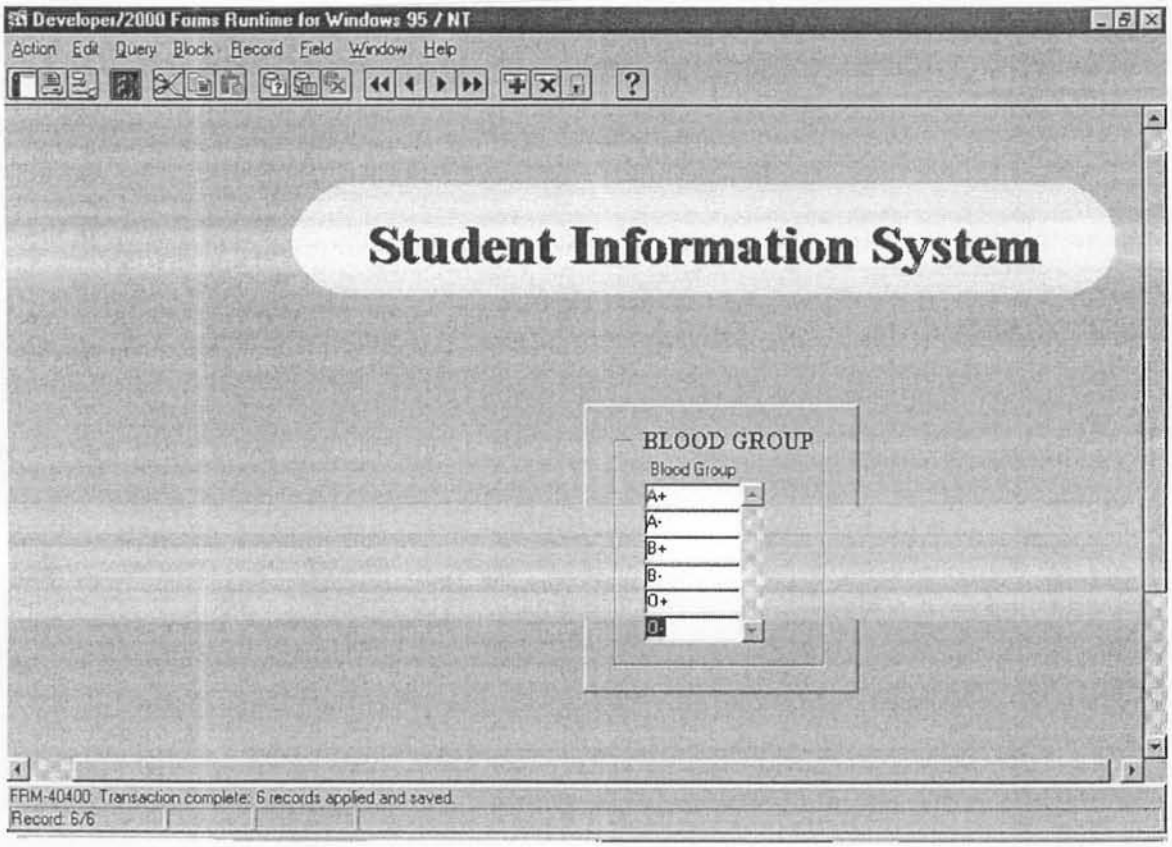

Developer/2000 Forms Runtime for Windows 95 / NT
Action Edit Query Block Record Field Window Help
Student Information System
Qualification
Degree Id
Description
Duration
D1 MSC 2
D2 BSC 2
D3 FSC 2
D4 METRIC 1
D5 B.ED 1
FRM-40400: Transaction complete: 5 records applied and saved.
Record: 5/5

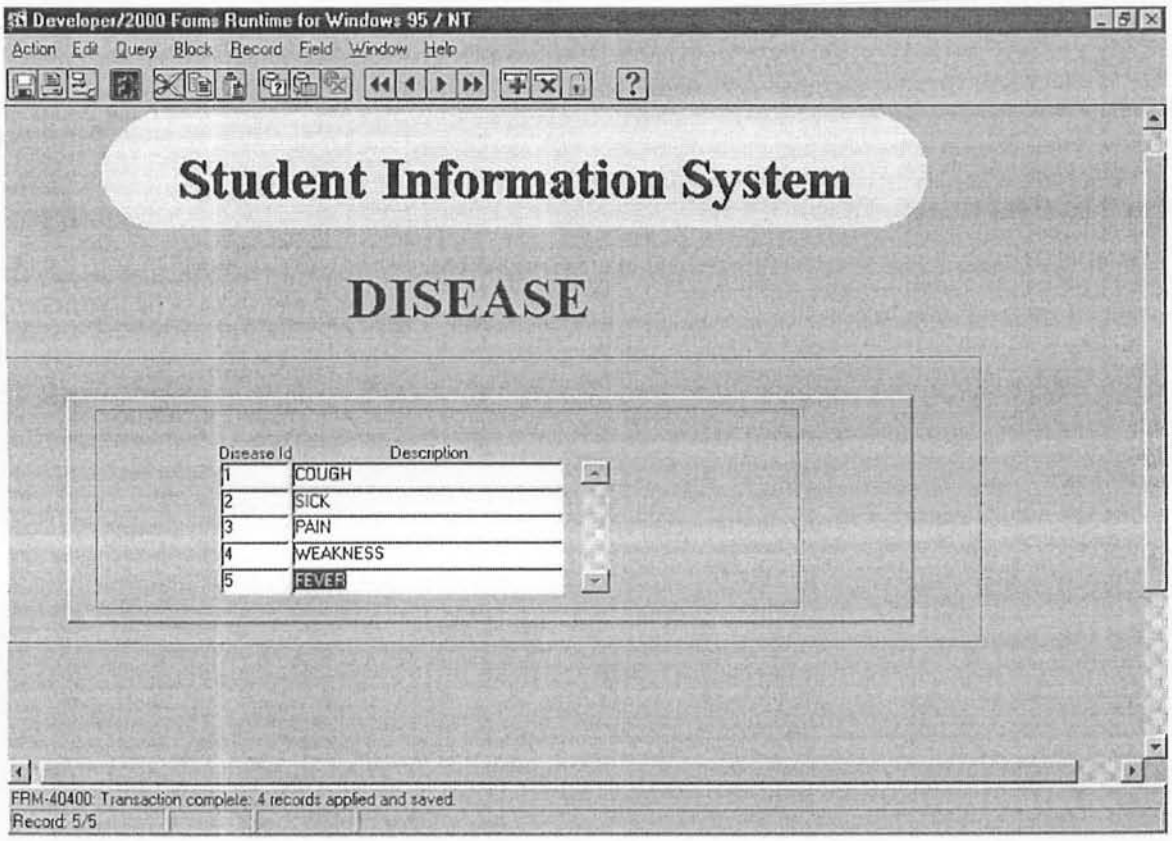

Developer/2000 Forms Runtime for Windows 95 / NT
Action Edit Query Block Record Field Window Help
Student Information System
OCCUPATION
Occp Code
Description
1
TEACHER
2
SENIER TEACHER
3
HEADMISTRESS
4
PEON
5
OFFICE BOY
FRM-40400: Transaction complete: 5 records applied and saved.
Record: 5/5

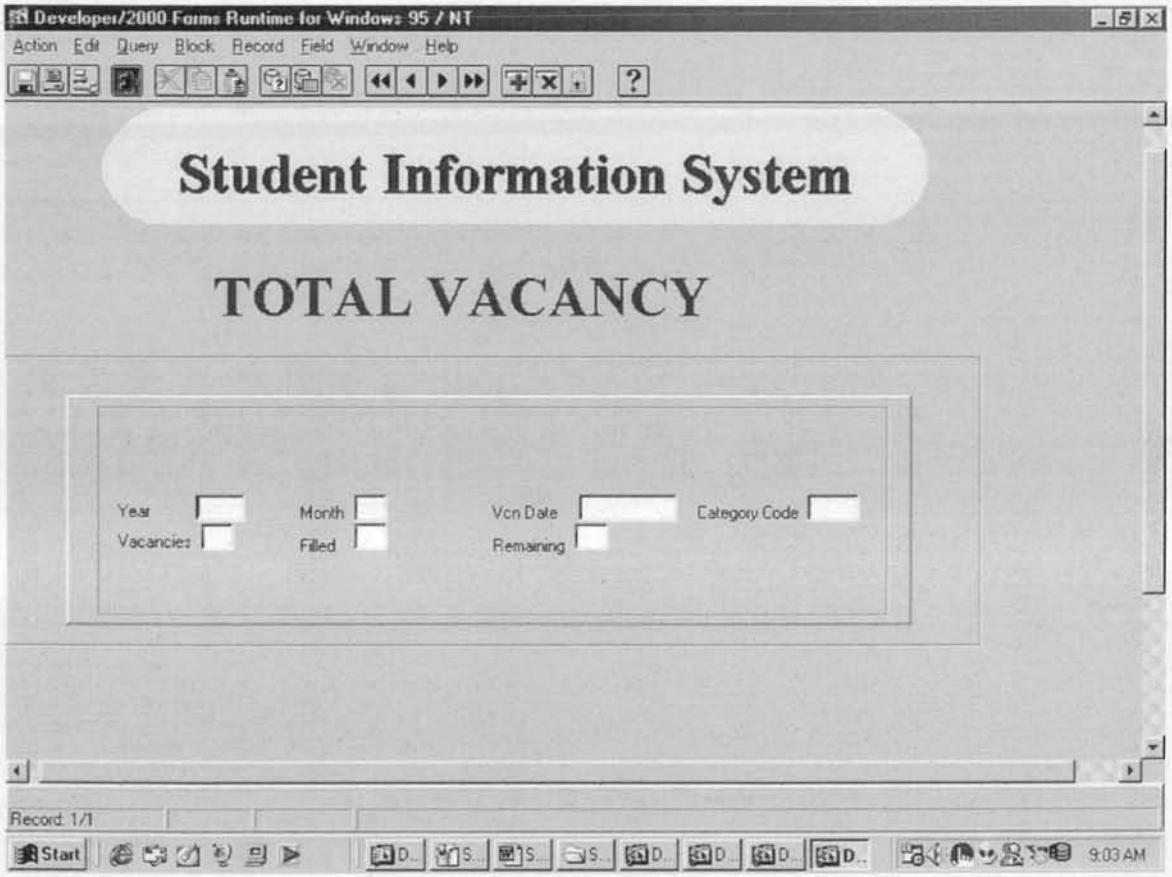

Developer/2000 Forms Runtime for Windows 95 / NT
Action Edit Query Block Record Field Window Help
Student Information System
PROVINCE
Prov Code
Prov Name
1
PUNJAB
2
SINDH
3
N.W.FP
4
BLOACHISTAN
FRM-40400: Transaction complete: 4 records applied and saved.
Record: 4/4

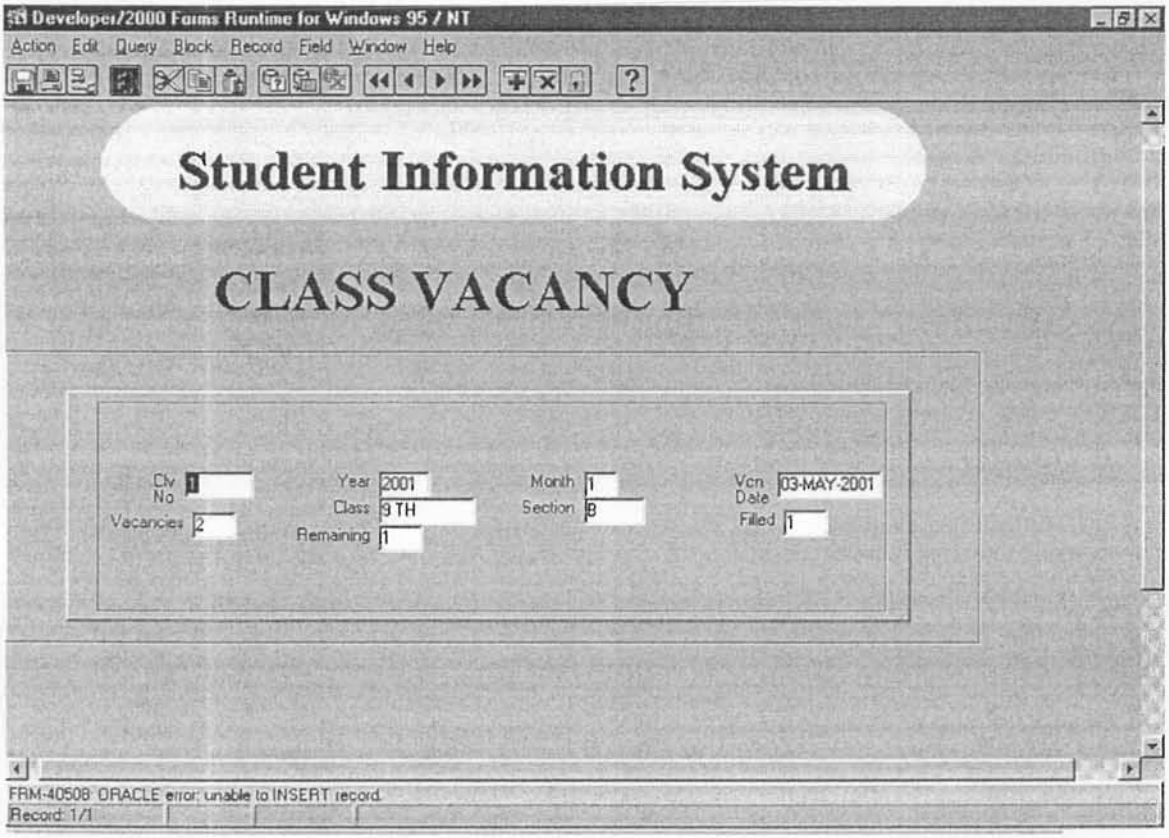

Developer/2000 Forms Runtime for Windows 95 / NT
Action Edit Query Block Record Field Window Help
Student Information System
CITY
City ID
City Name
1
ISLAMABAD
2
KARACHI
3
MULTAN
4
FAISALABAD
5
RAWALPINDI
6
LAHORE
FRM-40400: Transaction complete: 6 records applied and saved.
Record: 6/6

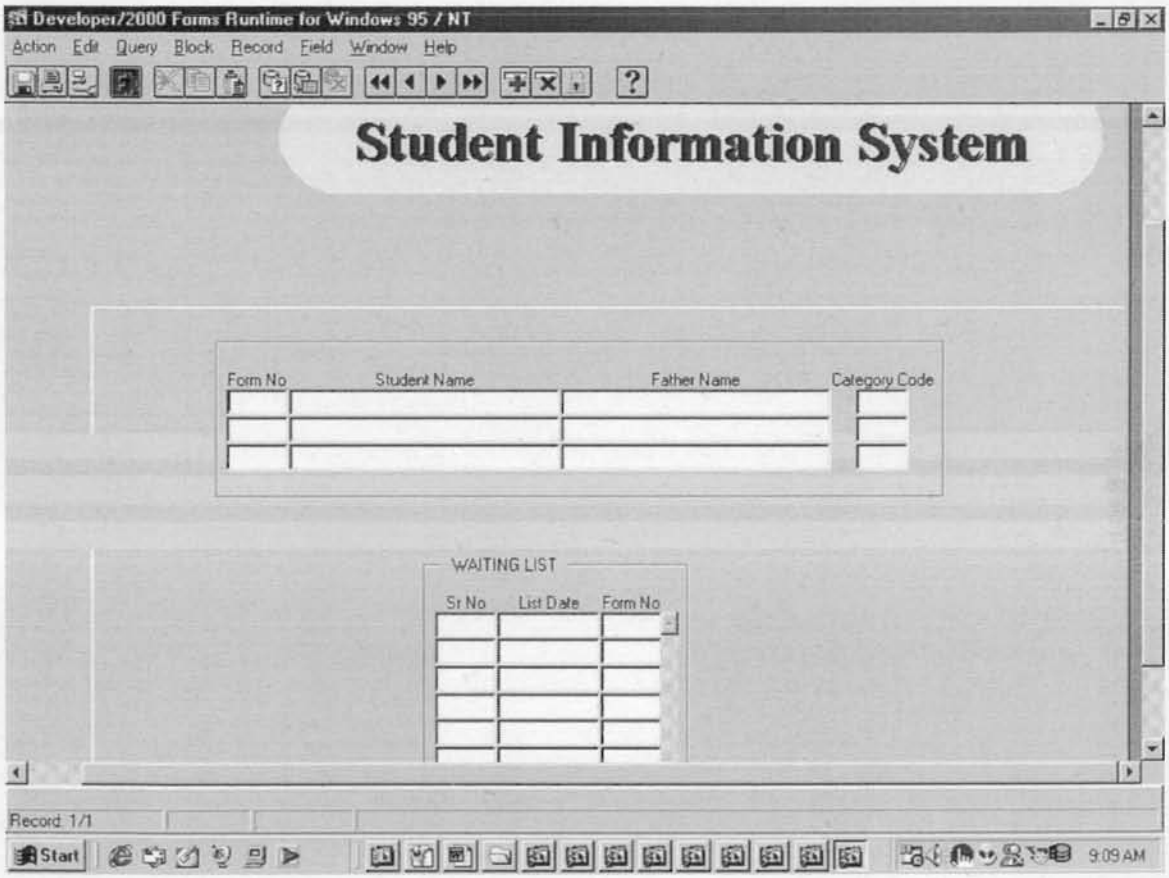

Developer/2000 Forms Runtime for Windows 95 / NT
Action Edit Query Block Record Field Window Help
Student Information System
HOBBY
Hobby Id
Description
1
BOOK READING
2
MUSIC
3
PLAYING
4
GARDINING
5
STAMP COLLECTING
FRM-40400: Transaction complete: 5 records applied and saved.
Record: 5/5


Developer/2000 Forms Runtime for Windows 95 / NT
Action Edit Query Block Record Field Window Help
Student Information System
BLOOD GROUP
Blood Group
A+
A-
B+
B-
O+
O-
FRM-40400 Transaction complete: 6 records applied and saved.
Record: 6/6

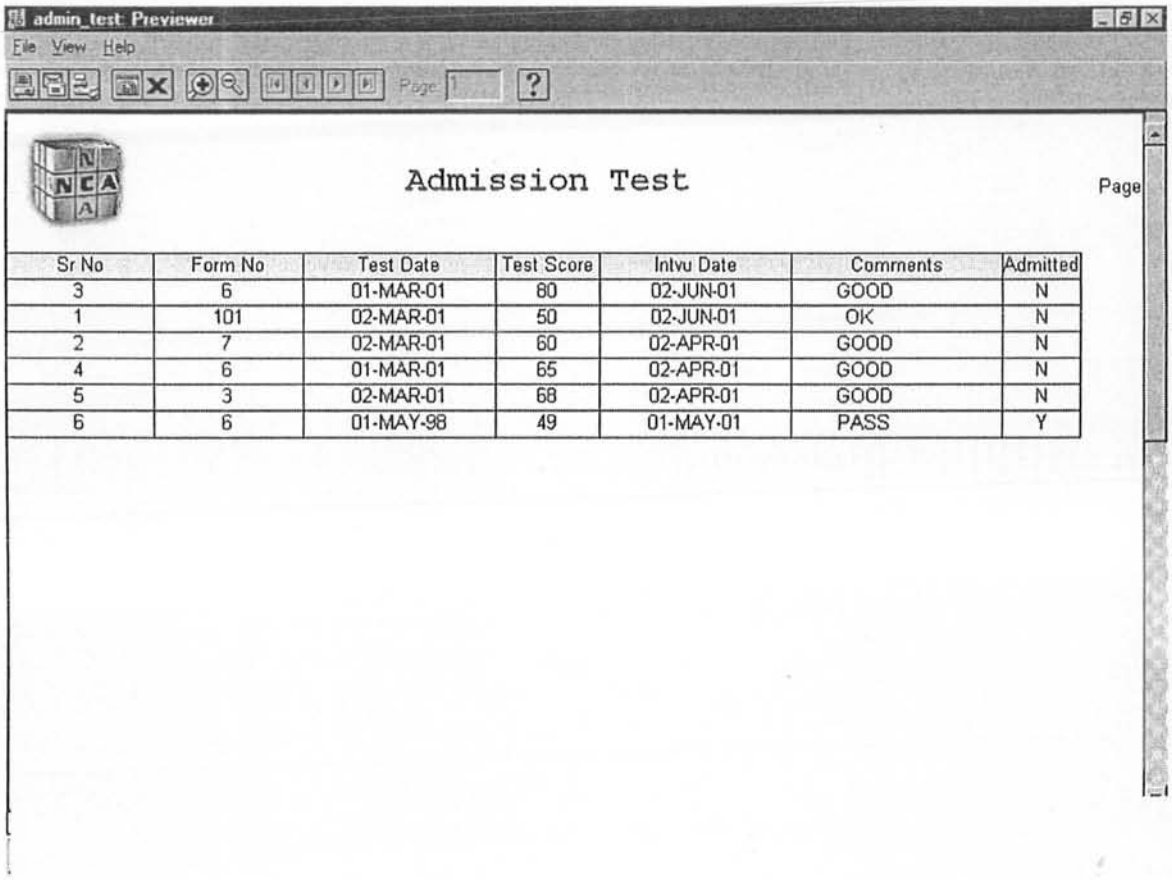

Developer/2000 Forms Runtime for Windows 95 / NT
Action Edit Query Block Record Field Window Help
Student Information System
DISEASE
Disease Id
Description
1
COUGH
2
SICK
3
PAIN
4
WEAKNESS
5
FEVER
FRM-40400: Transaction complete: 4 records applied and saved.
Record: 5/5


Developer/2000 Forms Runtime for Windows 95 / NT
Action Edit Query Block Record Field Window Help
Student Information System
TOTAL VACANCY
Year
Month
Vcn Date
Category Code
Vacancies
Filled
Remaining
Record: 1/1
Start
9:03 AM

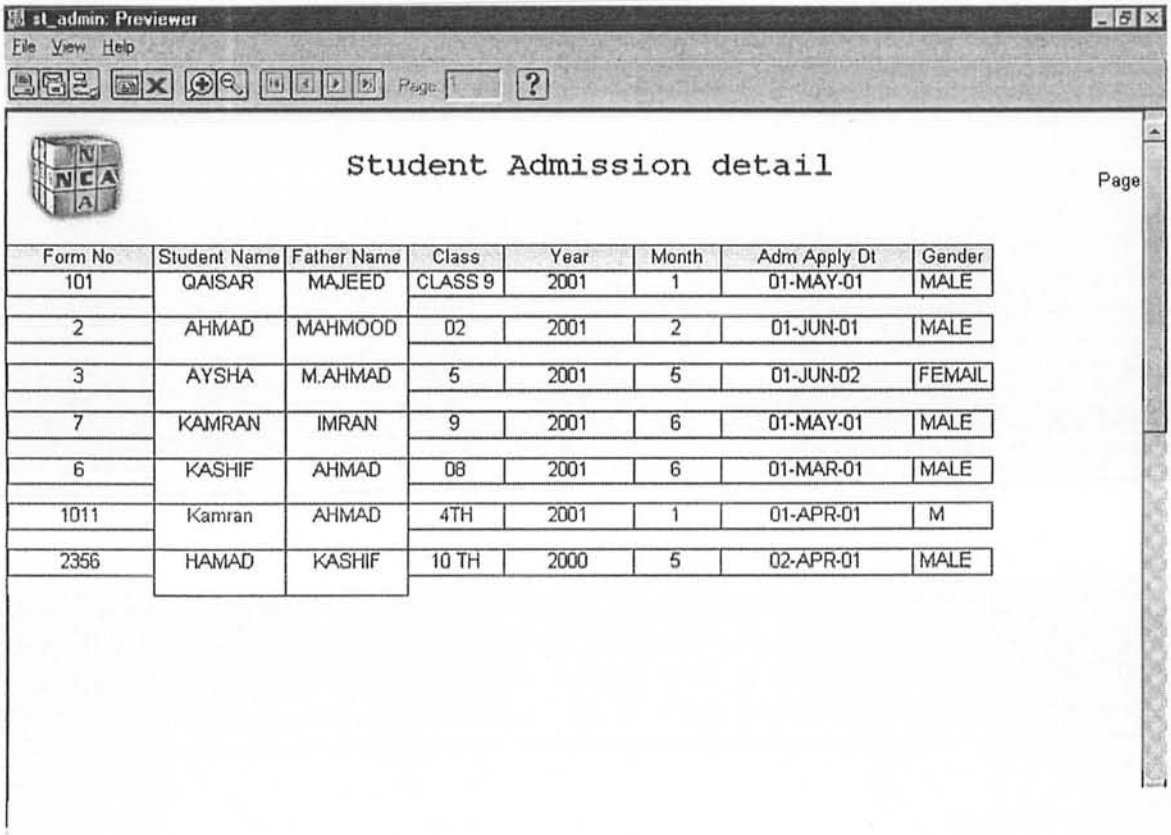

Developer/2000 Forms Runtime for Windows 95 / NT
Action Edit Query Block Record Field Window Help
Student Information System
CLASS VACANCY
Clv No 1
Vacancies 2
Year 2001
Class 9 TH
Remaining 1
Month 1
Section B
Vcn Date 03-MAY-2001
Filled 1
FRM-40508: ORACLE error: unable to INSERT record.
Record: 1/1


Developer/2000 Forms Runtime for Windows 95 / NT
Action Edit Query Block Record Field Window Help
Student Information System
Form No
Student Name
Father Name
Category Code
WAITING LIST
Sr No
List Date
Form No
Record: 1/1
Start
9:09 AM

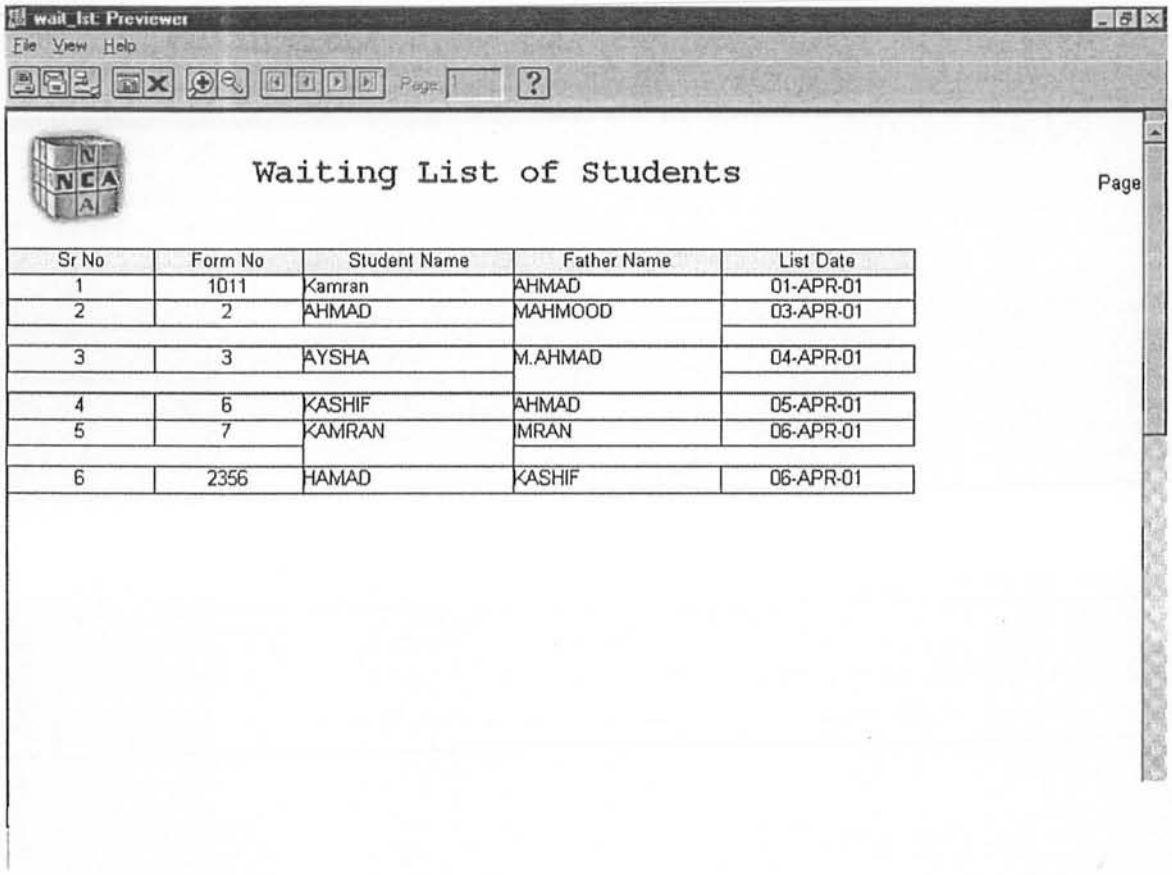
REPORTS



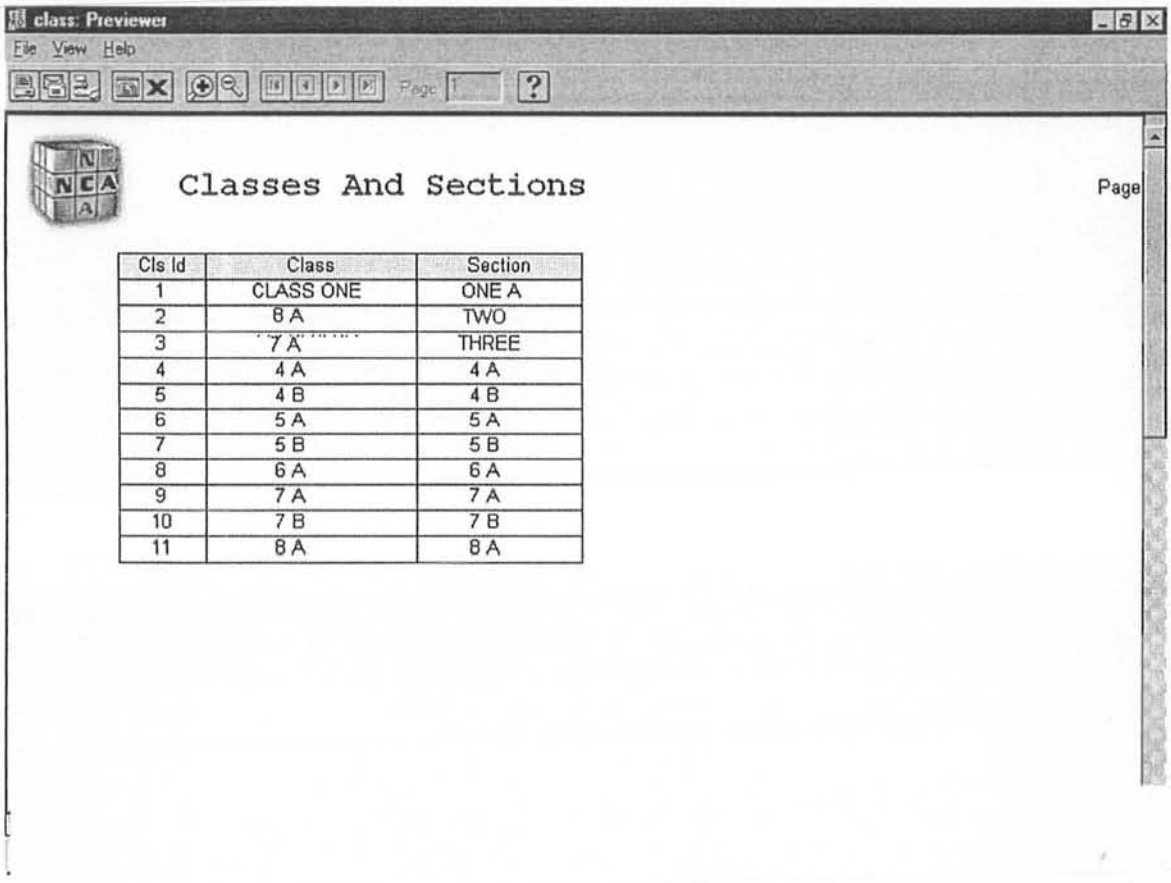
Sr No	Form No	Test Date	Test Score	Intvu Date	Comments	Admitted
3	6	01-MAR-01	80	02-JUN-01	GOOD	N
1	101	02-MAR-01	50	02-JUN-01	OK	N
2	7	02-MAR-01	60	02-APR-01	GOOD	N
4	6	01-MAR-01	65	02-APR-01	GOOD	N
5	3	02-MAR-01	68	02-APR-01	GOOD	N
6	6	01-MAY-98	49	01-MAY-01	PASS	Y



Form No	Student Name	Father Name	Class	Year	Month	Adm Apply Dt	Gender
101	QAISAR	MAJEED	CLASS 9	2001	1	01-MAY-01	MALE
2	AHMAD	MAHMOOD	02	2001	2	01-JUN-01	MALE
3	AYSHA	M.AHMAD	5	2001	5	01-JUN-02	FEMAIL
7	KAMRAN	IMRAN	9	2001	6	01-MAY-01	MALE
6	KASHIF	AHMAD	08	2001	6	01-MAR-01	MALE
1011	Kamran	AHMAD	4TH	2001	1	01-APR-01	M
2356	HAMAD	KASHIF	10 TH	2000	5	02-APR-01	MALE



Sr No	Form No	Student Name	Father Name	List Date
1	1011	Kamran	AHMAD	01-APR-01
2	2	AHMAD	MAHMOOD	03-APR-01
3	3	AYSHA	M.AHMAD	04-APR-01
4	6	KASHIF	AHMAD	05-APR-01
5	7	KAMRAN	IMRAN	06-APR-01
6	2356	HAMAD	KASHIF	06-APR-01



Cls Id	Class	Section
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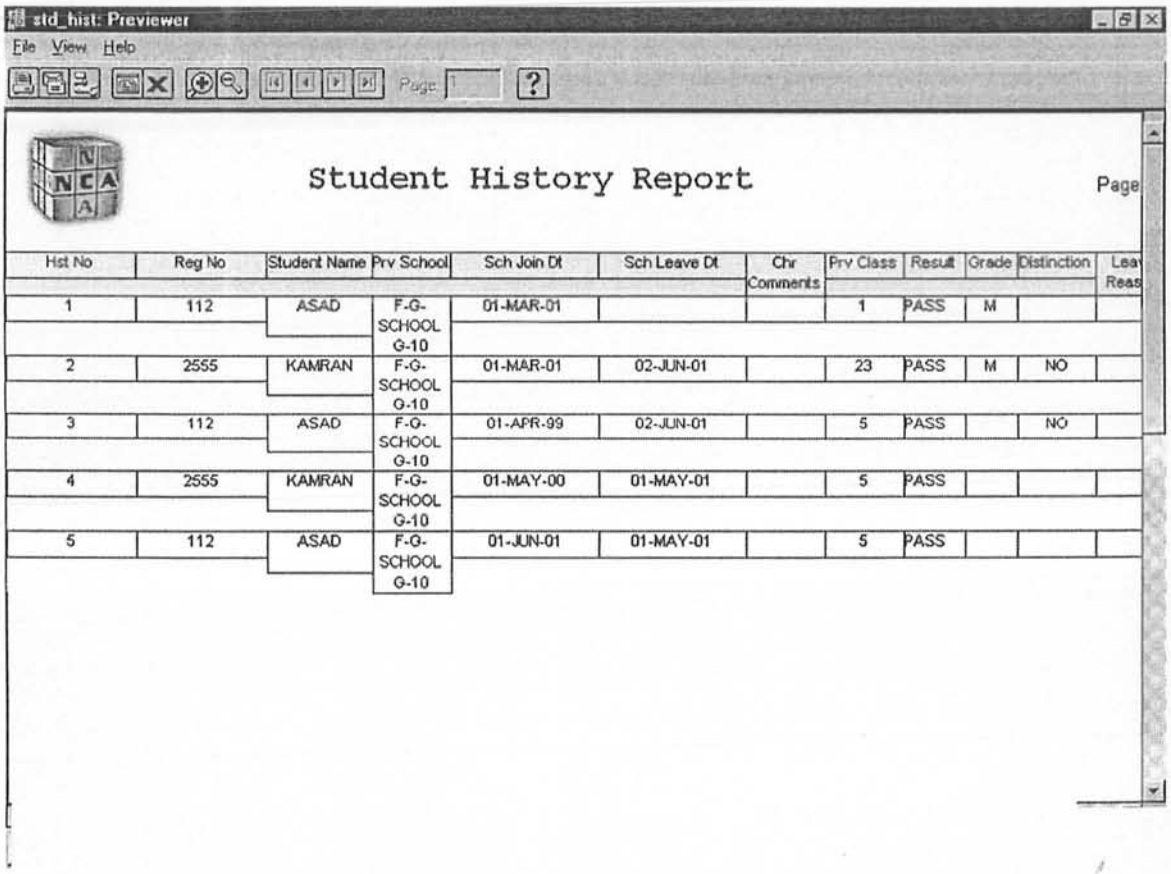
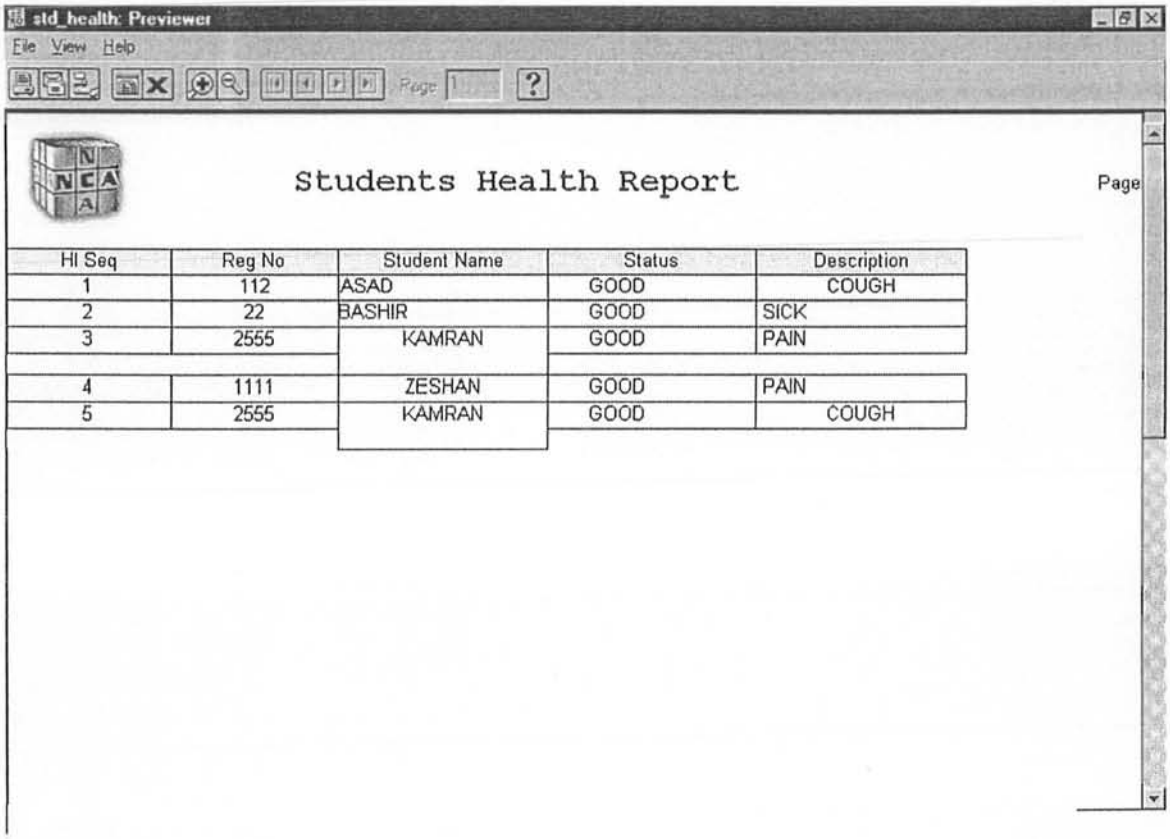
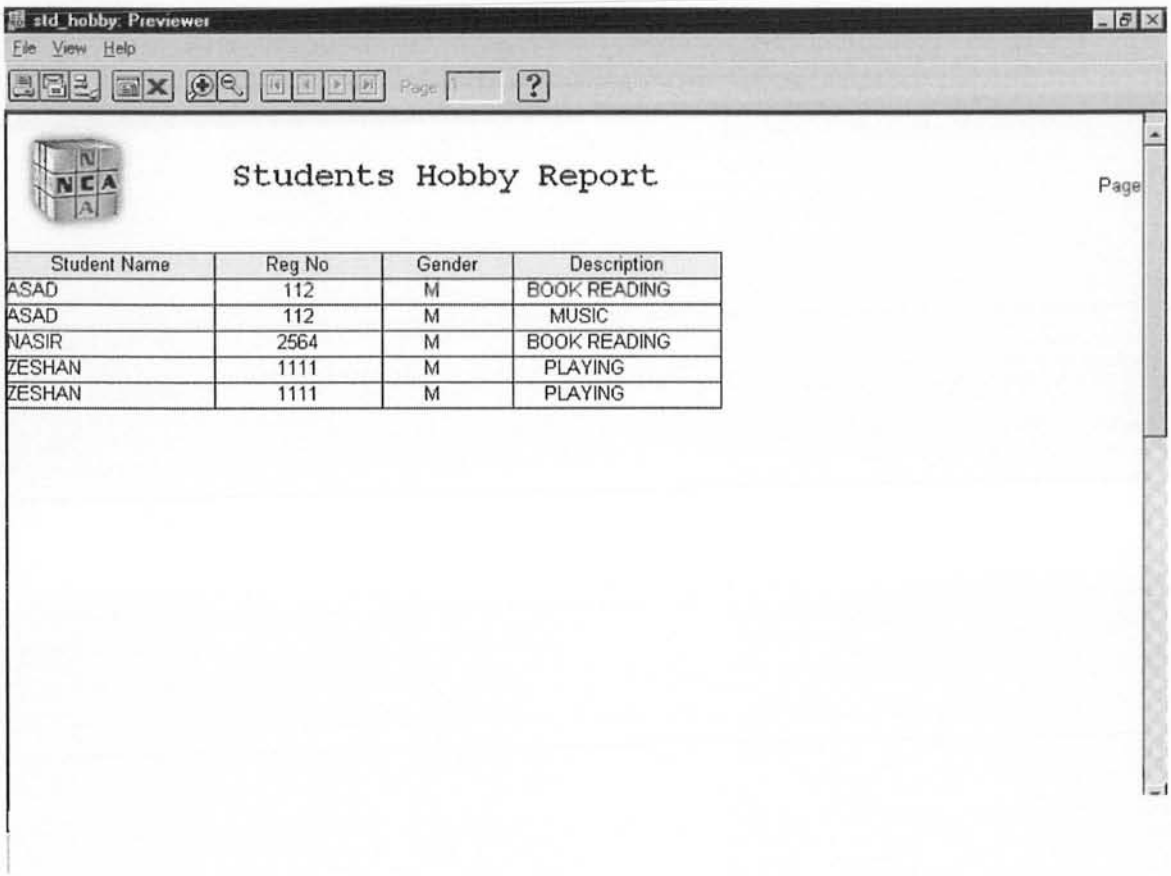
2	8 A	TWO
3	7 A	THREE
4	4 A	4 A
5	4 B	4 B
6	5 A	5 A
7	5 B	5 B
8	6 A	6 A
9	7 A	7 A
10	7 B	7 B
11	8 A	8 A



Hst No	Reg No	Student Name	Prv School	Sch Join Dt	Sch Leave Dt	Chr Comments	Prv Class	Result	Grade	Distinction	Leav Reas
1	112	ASAD	F-G-SCHOOL G-10	01-MAR-01			1	PASS	M		
2	2555	KAMRAN	F-G-SCHOOL G-10	01-MAR-01	02-JUN-01		23	PASS	M	NO	
3	112	ASAD	F-G-SCHOOL G-10	01-APR-99	02-JUN-01		5	PASS		NO	
4	2555	KAMRAN	F-G-SCHOOL G-10	01-MAY-00	01-MAY-01		5	PASS			
5	112	ASAD	F-G-SCHOOL G-10	01-JUN-01	01-MAY-01		5	PASS			



HI Seq	Reg No	Student Name	Status	Description
1	112	ASAD	GOOD	COUGH
2	22	BASHIR	GOOD	SICK
3	2555	KAMRAN	GOOD	PAIN
4	1111	ZESHAN	GOOD	PAIN
5	2555	KAMRAN	GOOD	COUGH



Student Name	Reg No	Gender	Description
ASAD	112	M	BOOK READING
ASAD	112	M	MUSIC
NASIR	2564	M	BOOK READING
ZESHAN	1111	M	PLAYING
ZESHAN	1111	M	PLAYING

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File View Help

Page 1

Date Sheet

Page

Cls Id	Section	Description	Start Dt	End Dt
1	A	CLASS ONE	01-JUN-01	01-JUL-01
4	1	4 A	02-APR-01	21-APR-01
6	3	5 A	01-MAR-01	02-APR-01
7	4	5 B	01-MAR-01	02-APR-01
9	7	7 A	01-MAR-01	02-APR-01

std_dt_sheet: Previewer

File View Help

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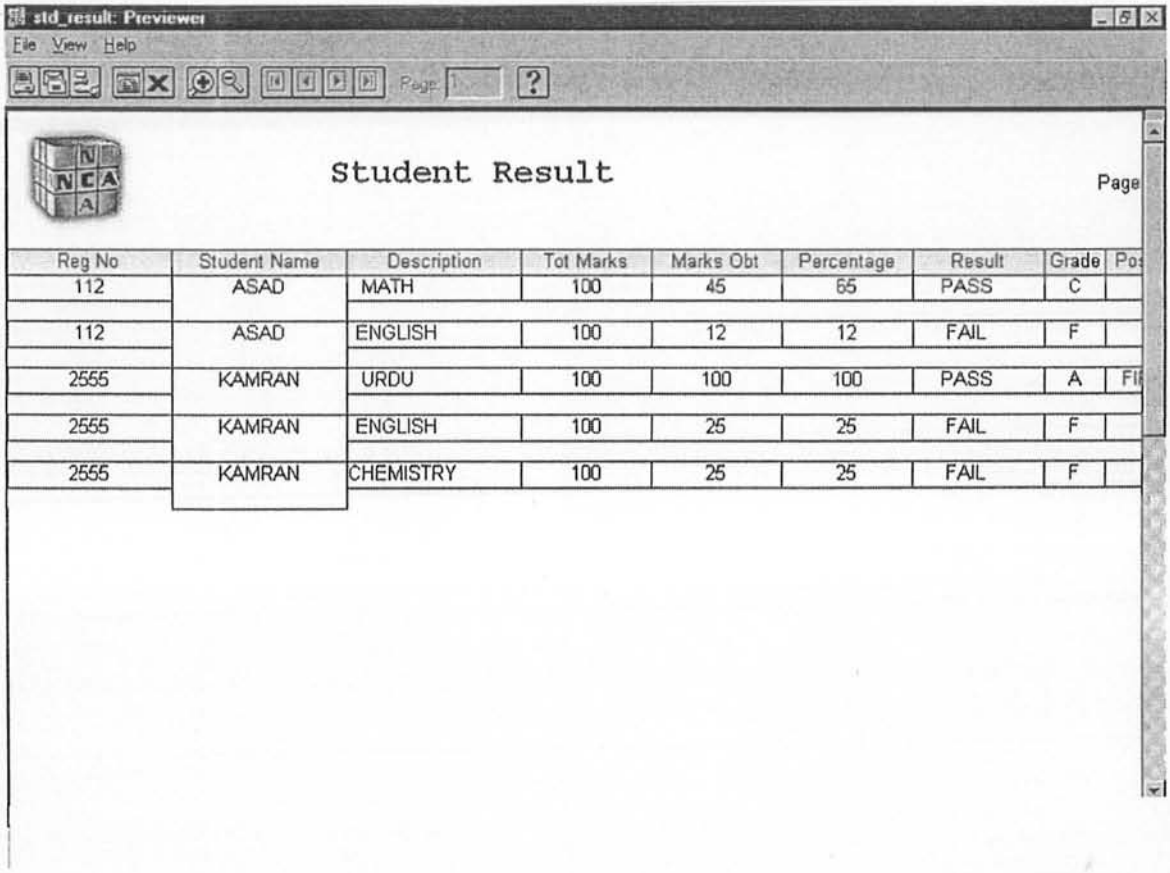
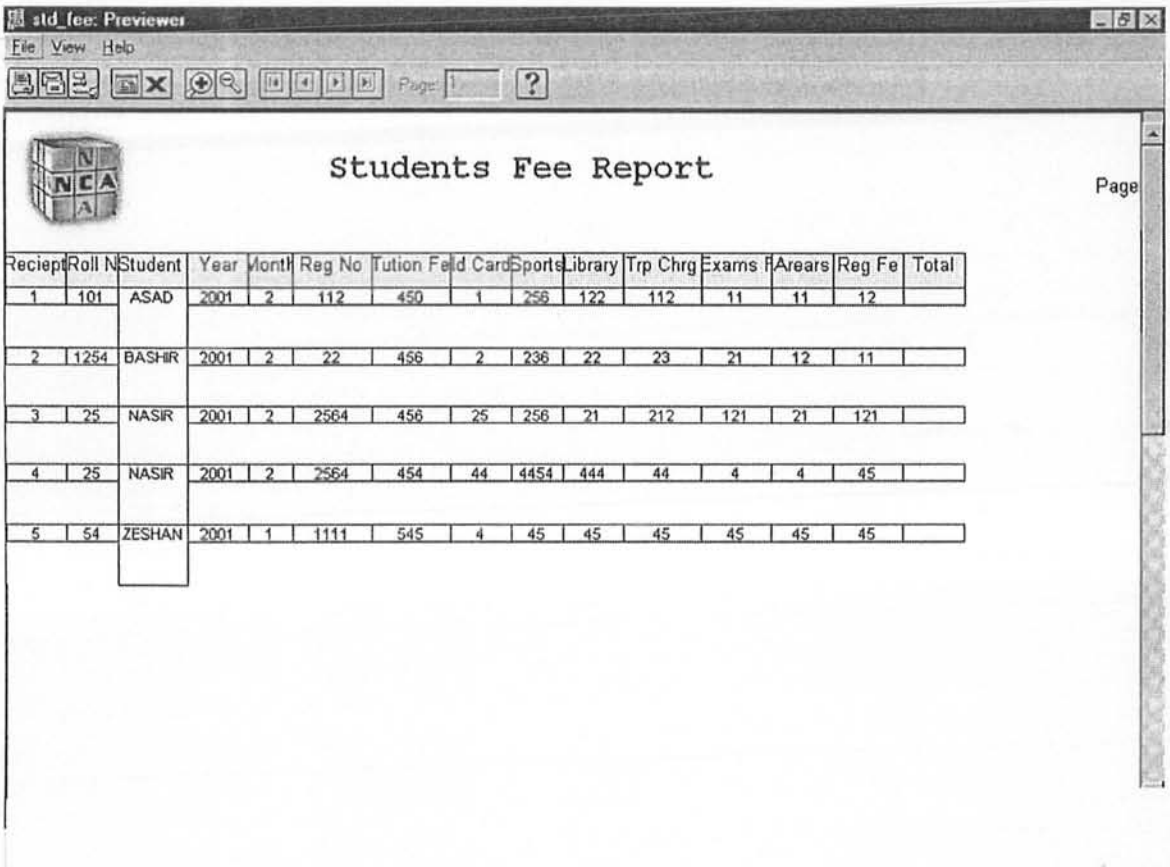
Student Date Sheet

Page

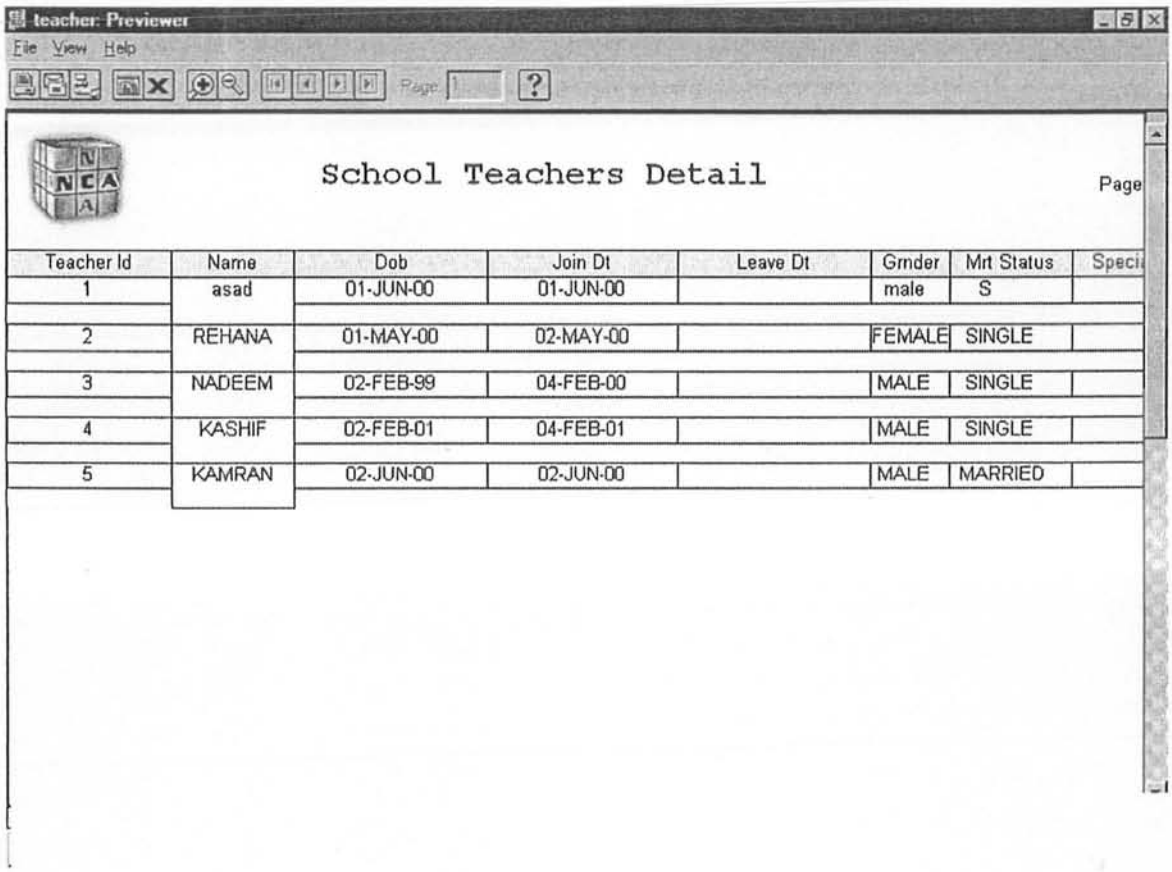
Student Name	Description	Term	Paper Dt	Day
ASAD	MATH	1	01-MAY-01	THIR
BASHIR	URDU	2	02-APR-01	FRI
KAMRAN	ENGLISH	2	01-APR-01	MON
KAMRAN	PHYSICS	2	01-APR-01	MON
ASAD	CHEMISTRY	2	01-APR-01	MON



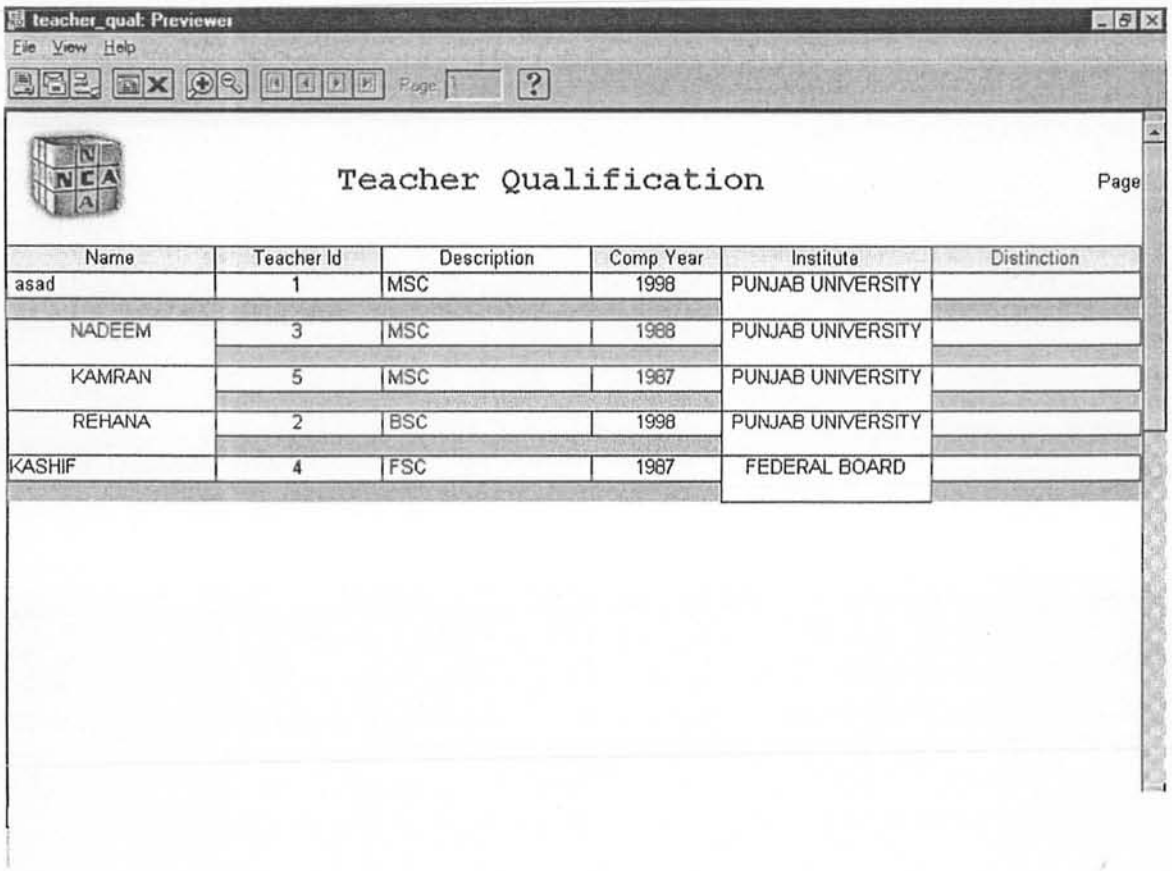
Reg No	Student Name	Description	Tot Marks	Marks Obt	Percentage	Result	Grade	Pos
112	ASAD	MATH	100	45	65	PASS	C	
112	ASAD	ENGLISH	100	12	12	FAIL	F	
2555	KAMRAN	URDU	100	100	100	PASS	A	Fi
2555	KAMRAN	ENGLISH	100	25	25	FAIL	F	
2555	KAMRAN	CHEMISTRY	100	25	25	FAIL	F	



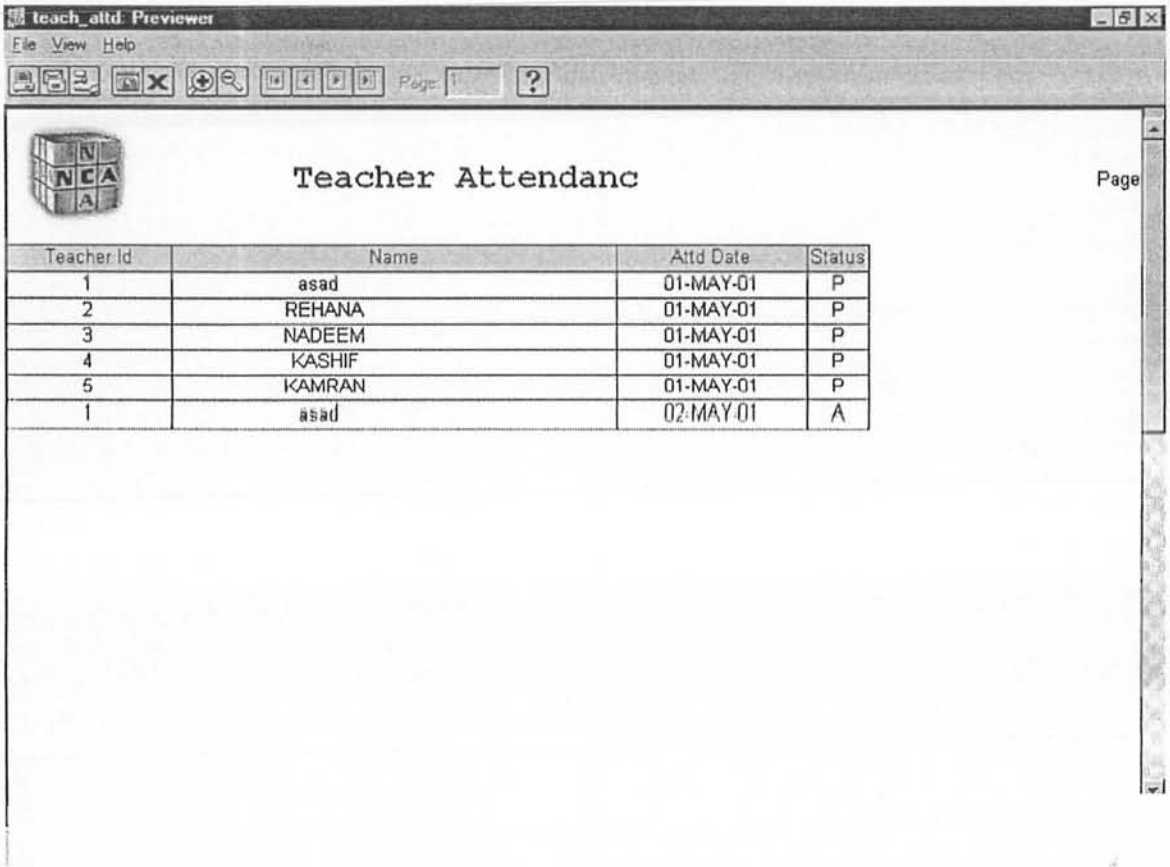
Reciept	Roll N	Student	Year	Month	Reg No	Tution Fee	Id Card	Sports	Library	Trp Chrg	Exams F	Arears	Reg Fe	Total
1	101	ASAD	2001	2	112	450	1	256	122	112	11	11	12	
2	1254	BASHIR	2001	2	22	456	2	236	22	23	21	12	11	
3	25	NASIR	2001	2	2564	456	25	256	21	212	121	21	121	
4	25	NASIR	2001	2	2564	454	44	4454	444	44	4	4	45	
5	54	ZESHAN	2001	1	1111	545	4	45	45	45	45	45	45	



Teacher Id	Name	Dob	Join Dt	Leave Dt	Grnder	Mrt Status	Speci
1	asad	01-JUN-00	01-JUN-00		male	S	
2	REHANA	01-MAY-00	02-MAY-00		FEMALE	SINGLE	
3	NADEEM	02-FEB-99	04-FEB-00		MALE	SINGLE	
4	KASHIF	02-FEB-01	04-FEB-01		MALE	SINGLE	
5	KAMRAN	02-JUN-00	02-JUN-00		MALE	MARRIED	



Name	Teacher Id	Description	Comp Year	Institute	Distinction
asad	1	MSC	1998	PUNJAB UNIVERSITY	
NADEEM	3	MSC	1988	PUNJAB UNIVERSITY	
KAMRAN	5	MSC	1987	PUNJAB UNIVERSITY	
REHANA	2	BSC	1998	PUNJAB UNIVERSITY	
KASHIF	4	FSC	1987	FEDERAL BOARD	



Teacher Id	Name	Attd Date	Status
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2	REHANA	01-MAY-01	P
3	NADEEM	01-MAY-01	P
4	KASHIF	01-MAY-01	P
5	KAMRAN	01-MAY-01	P
1	asad	02-MAY-01	A

city: Previewer

File View Help

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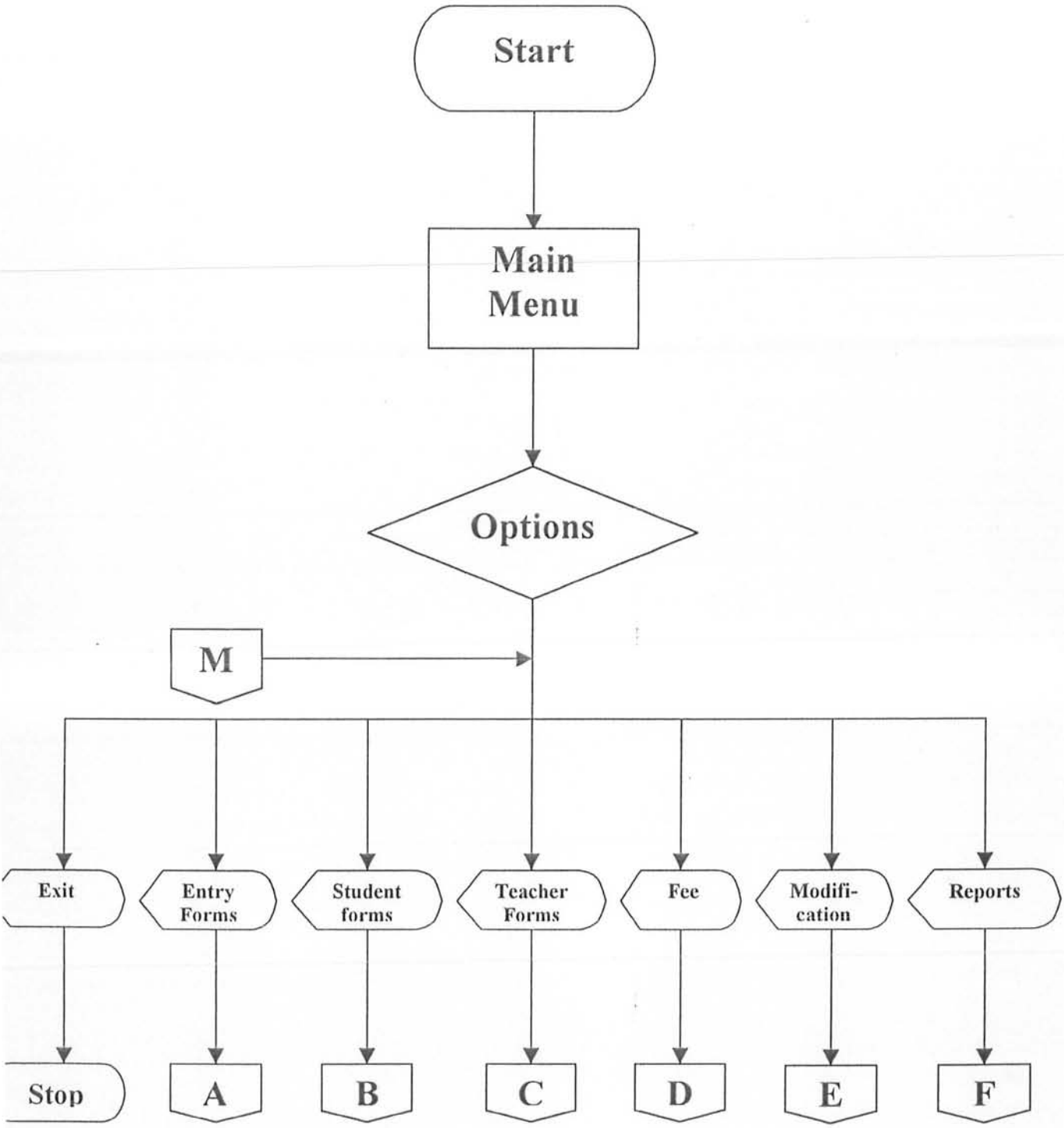
City Detail

Page

City Code	City
1	ISLAMABAD
2	KARACHI
3	MULTAN
4	FAISALABAD
6	RAWALPINDI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Exit
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Teacher Forms
Fee
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Reports
Stop
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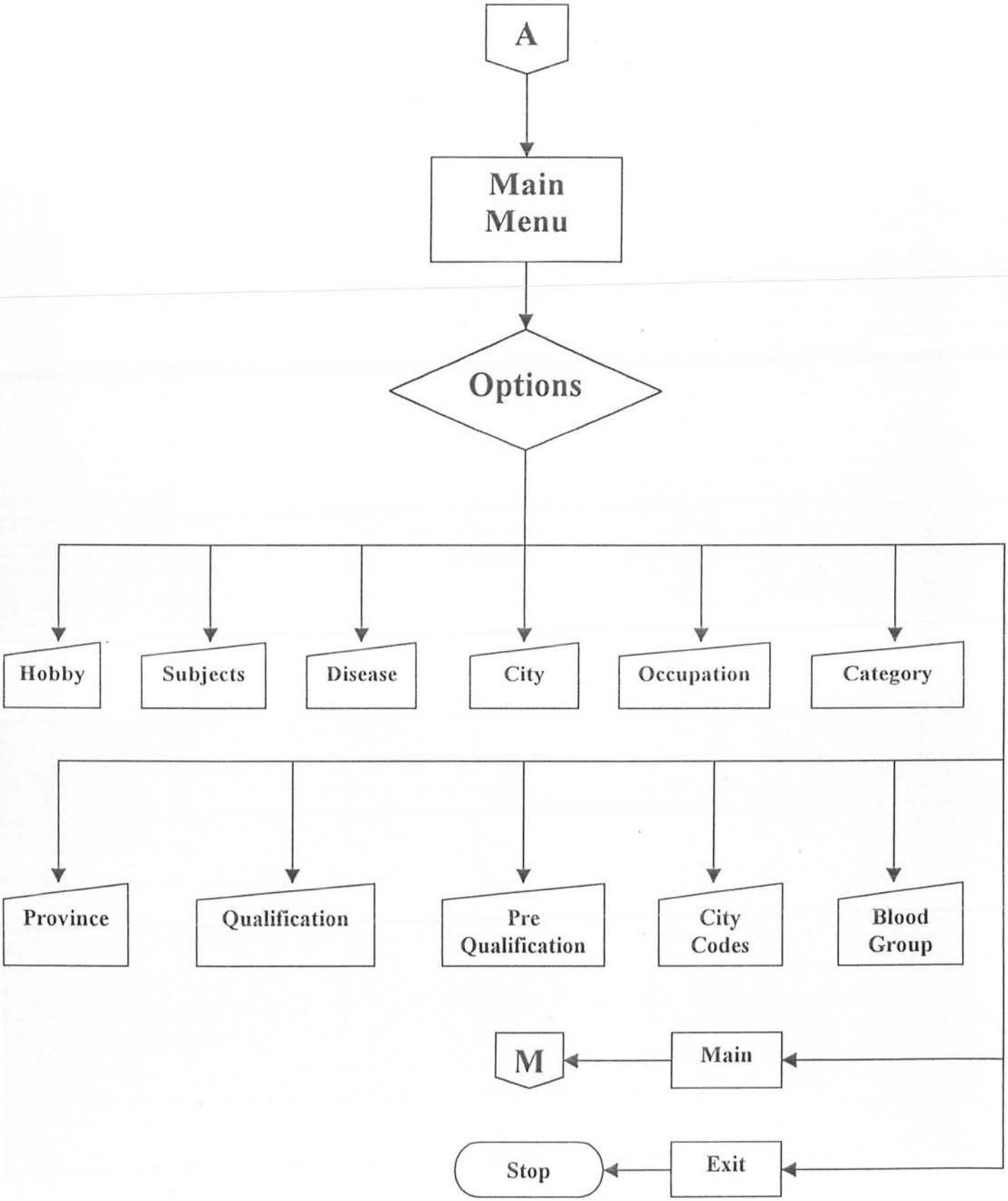
B
C
D
E
F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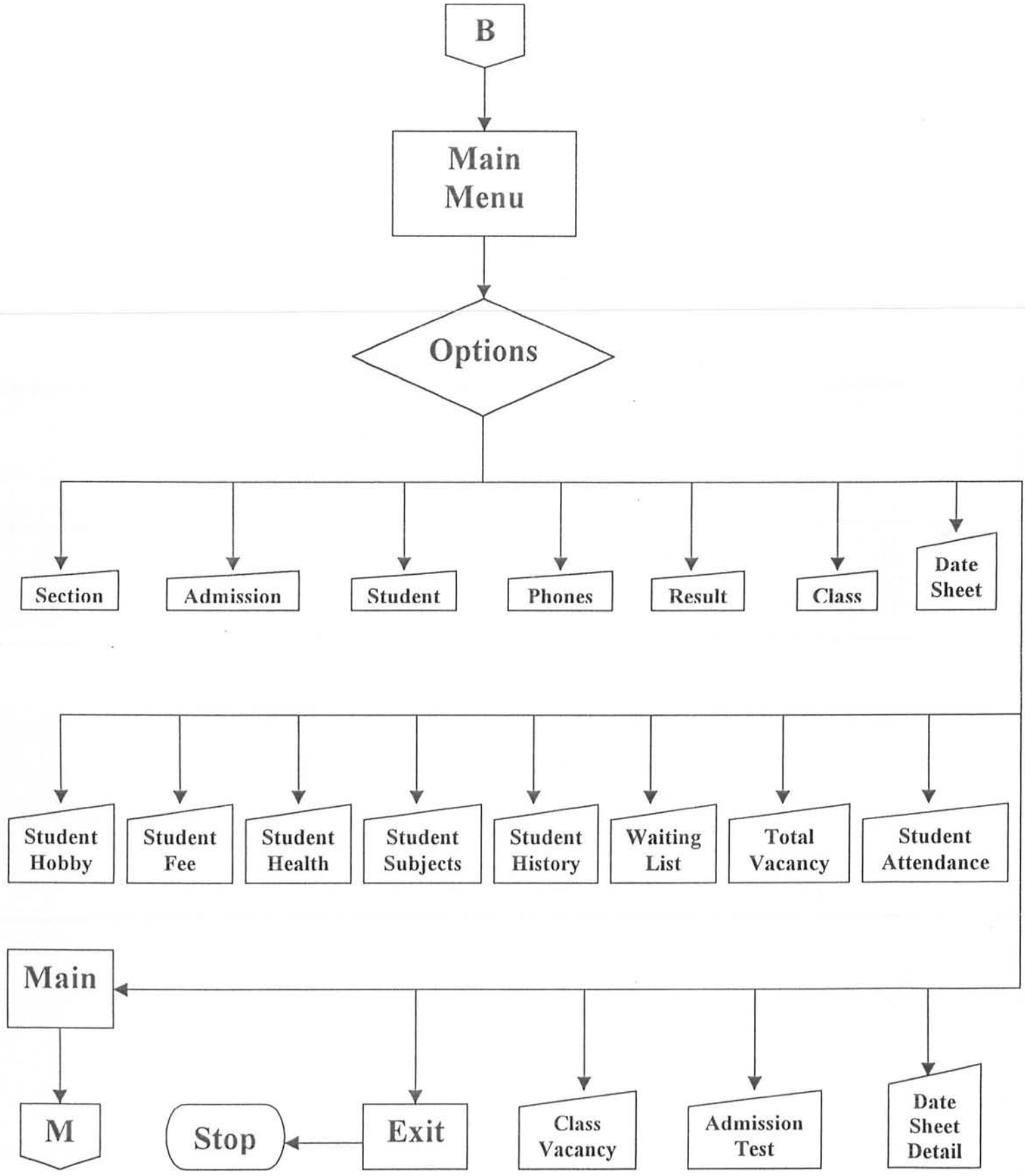
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Student Fee
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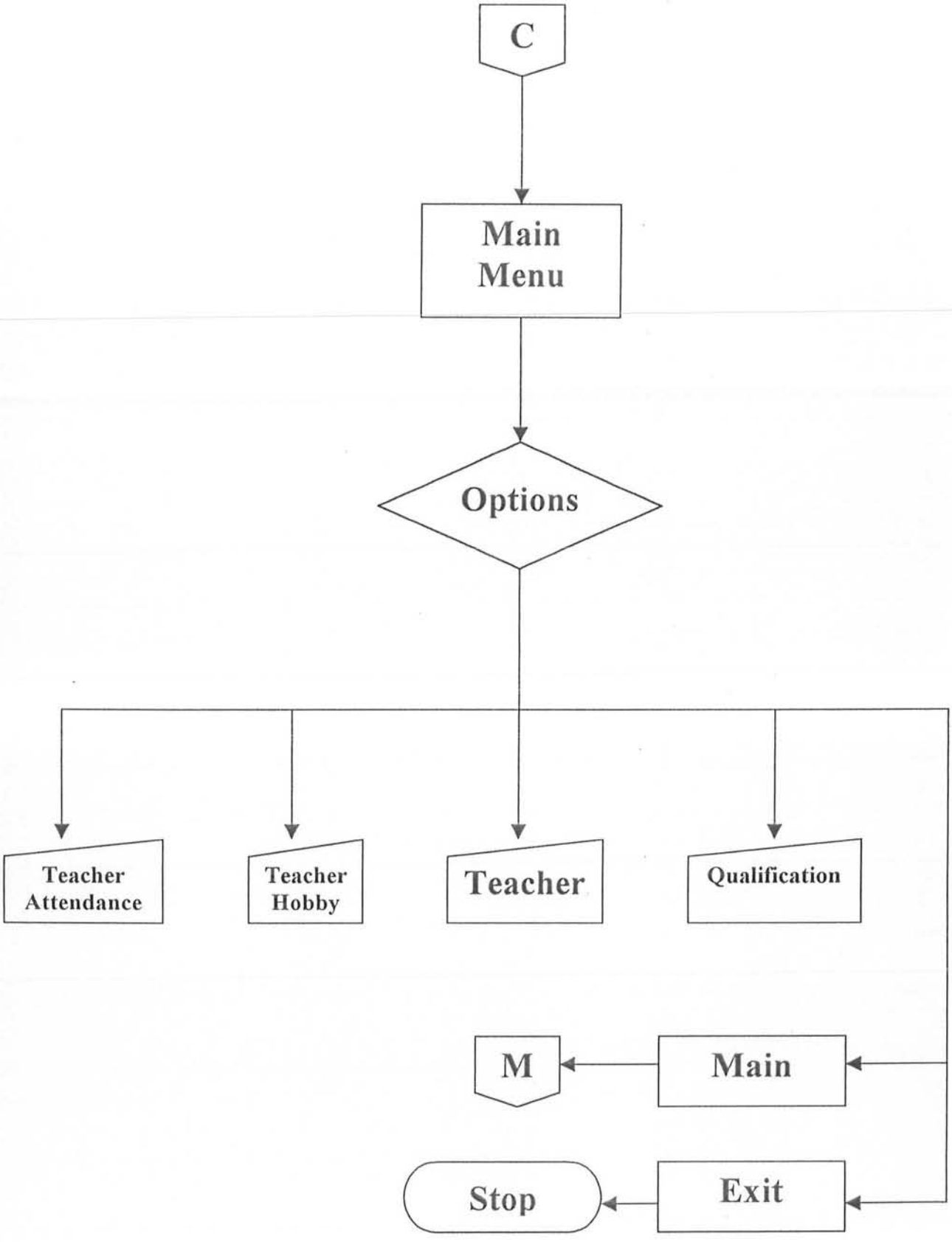
Admission Test
Date Sheet Detail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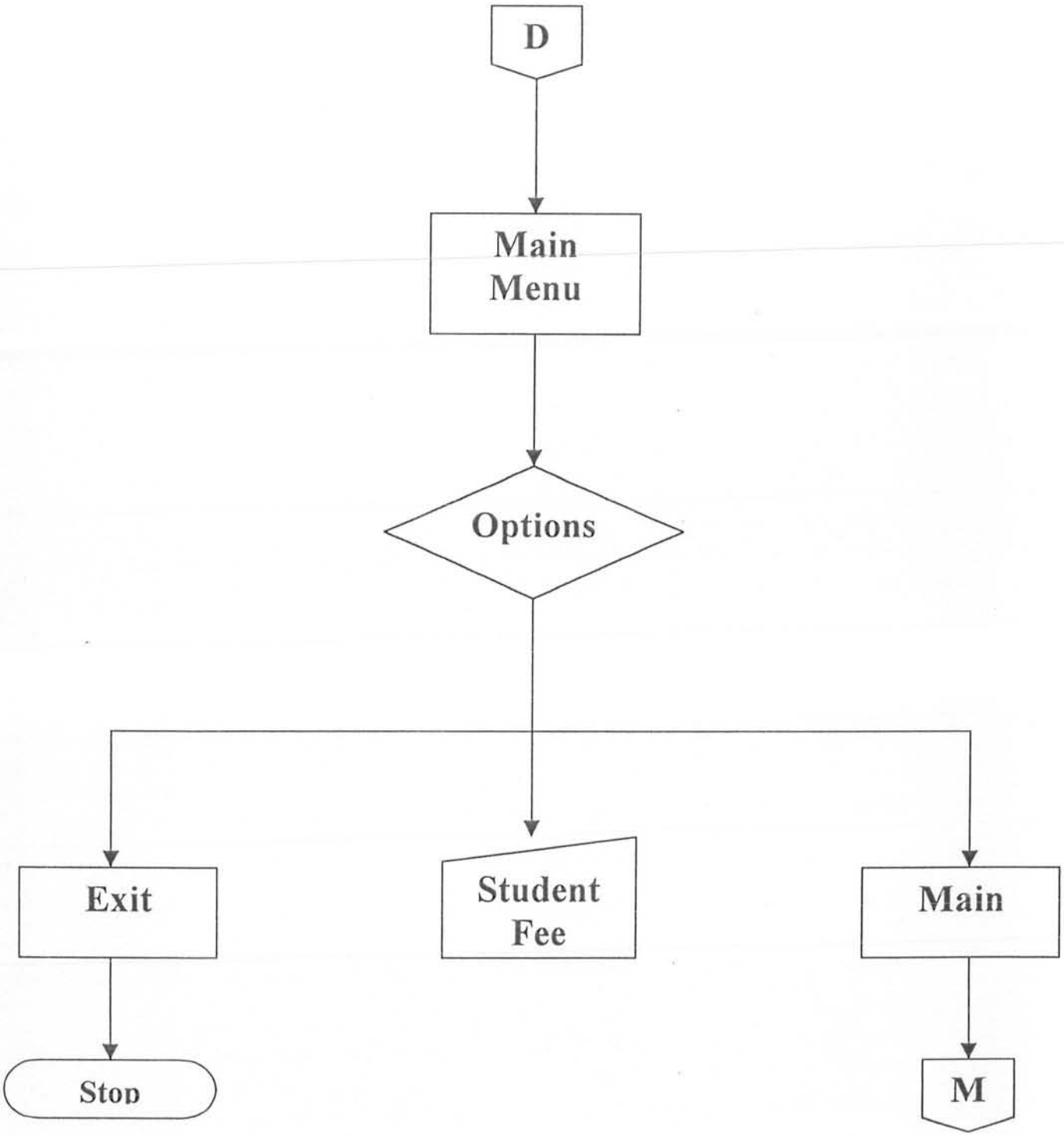
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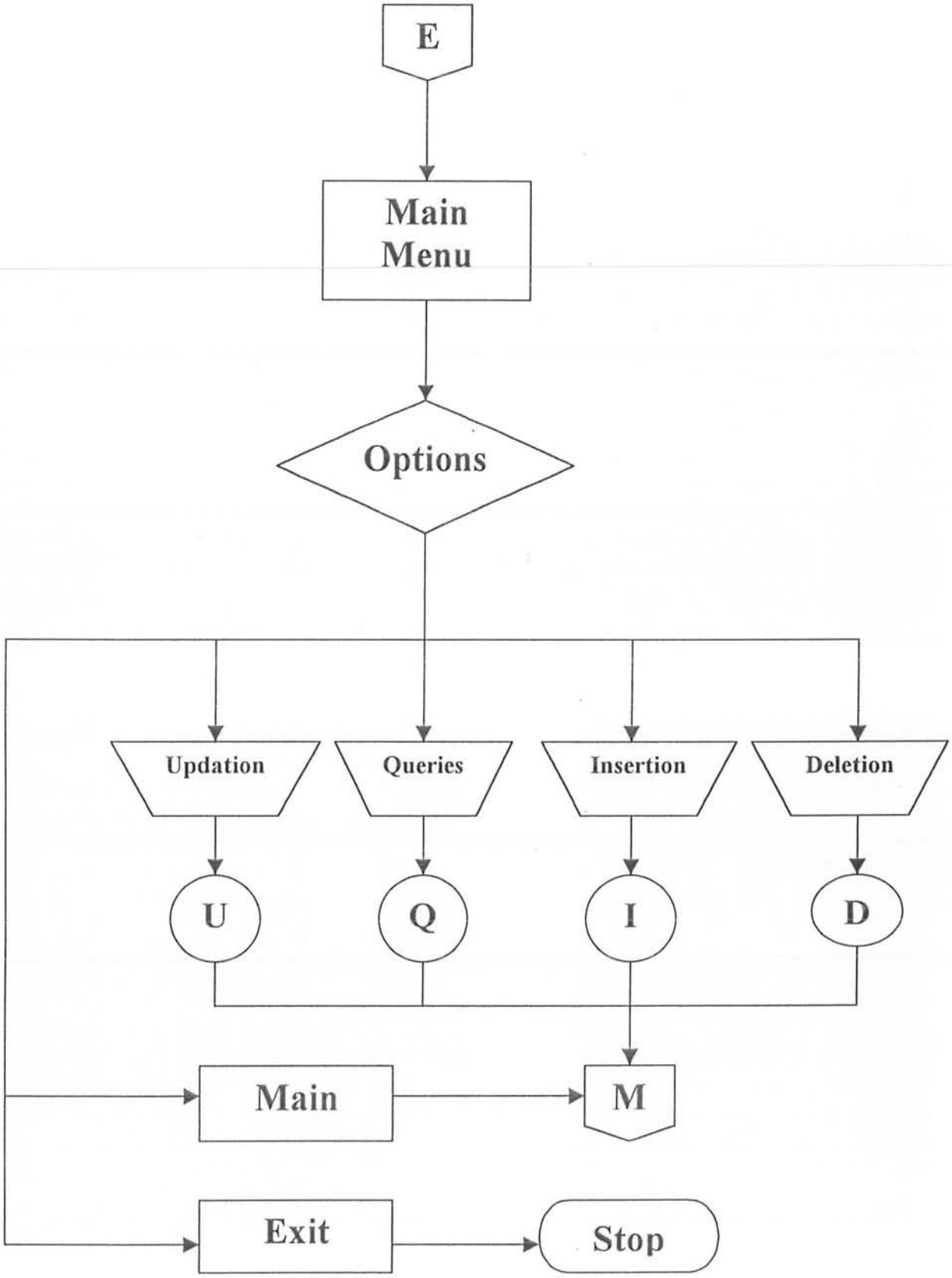
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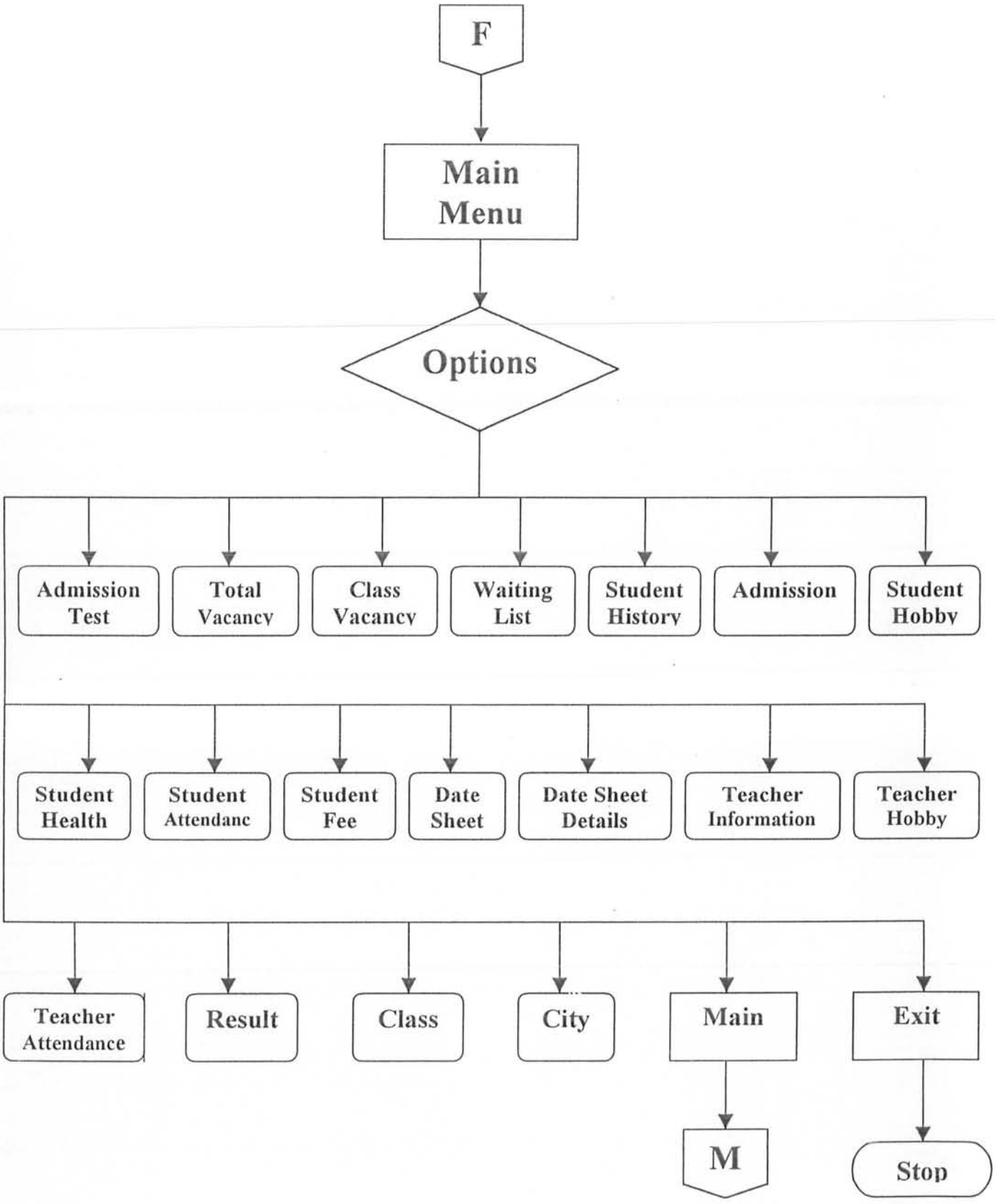
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Class Vacancy
Waiting List
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Student Hobby
Student Health
Student Attendanc
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Class
City
Main
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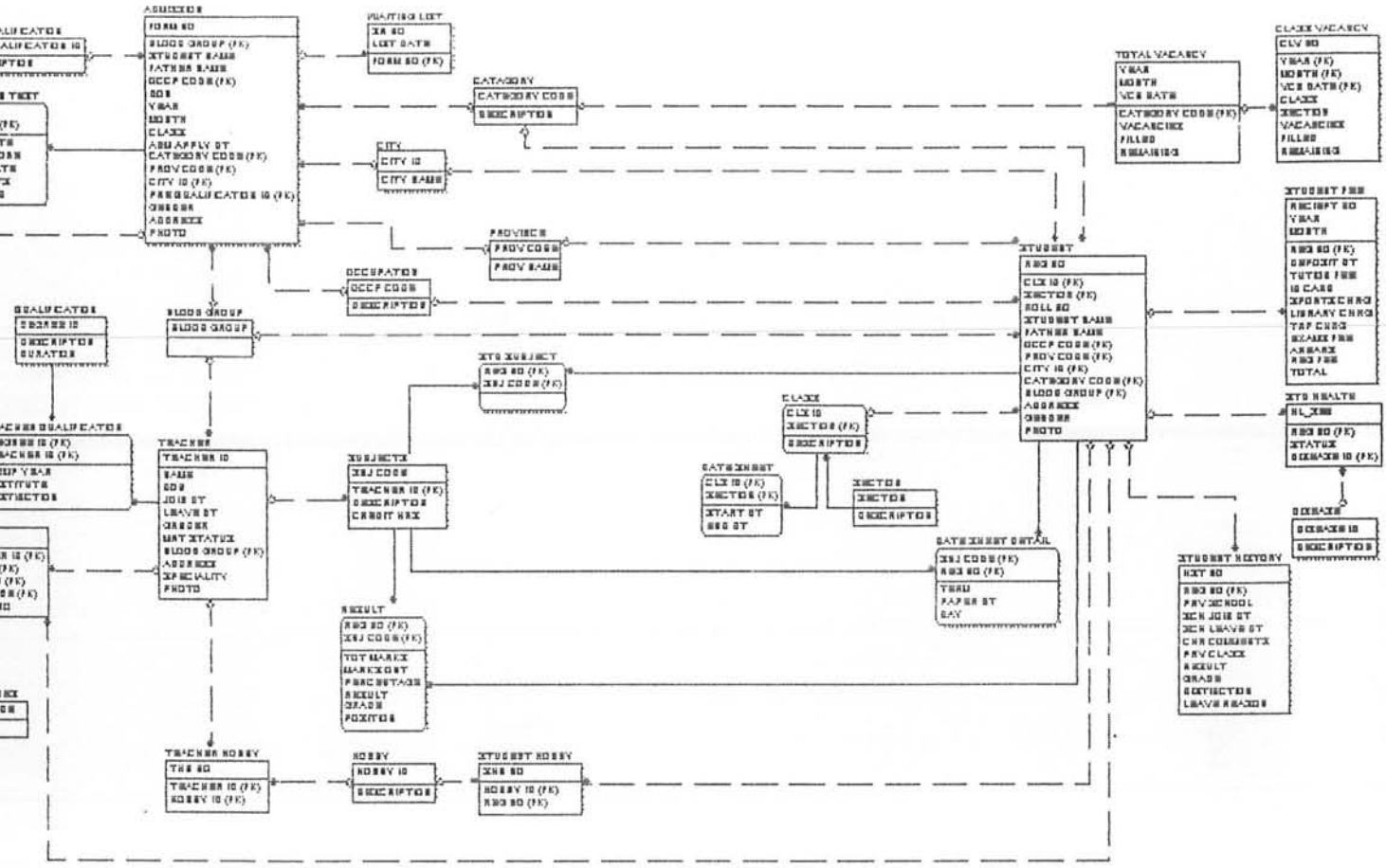
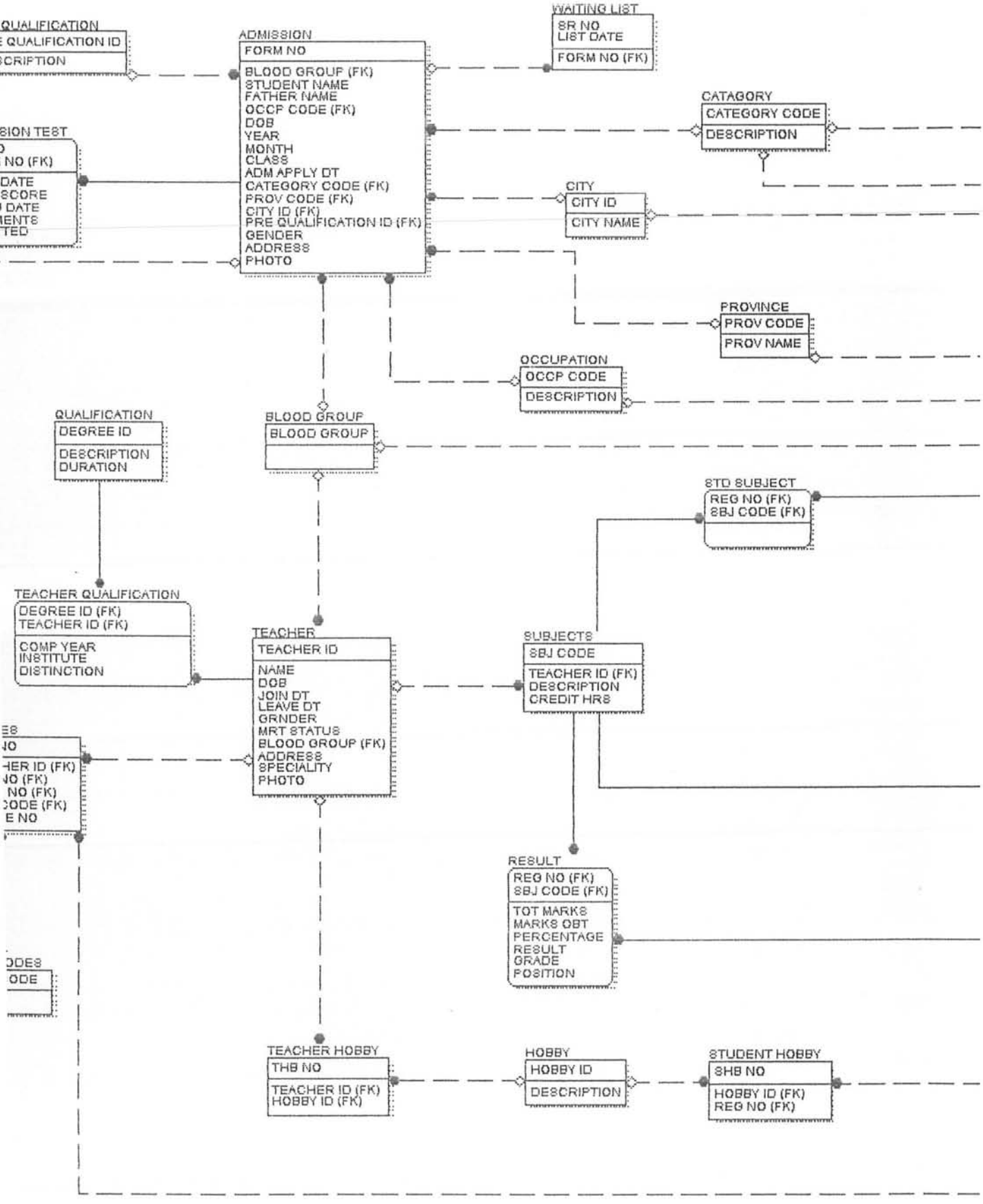
M
Stop

DATA MODEL

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MONTH
CLASS
ADM APPLY DT
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PROV CODE (FK)
CITY ID (FK)
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SR NO
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PROVINCE
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RESULT
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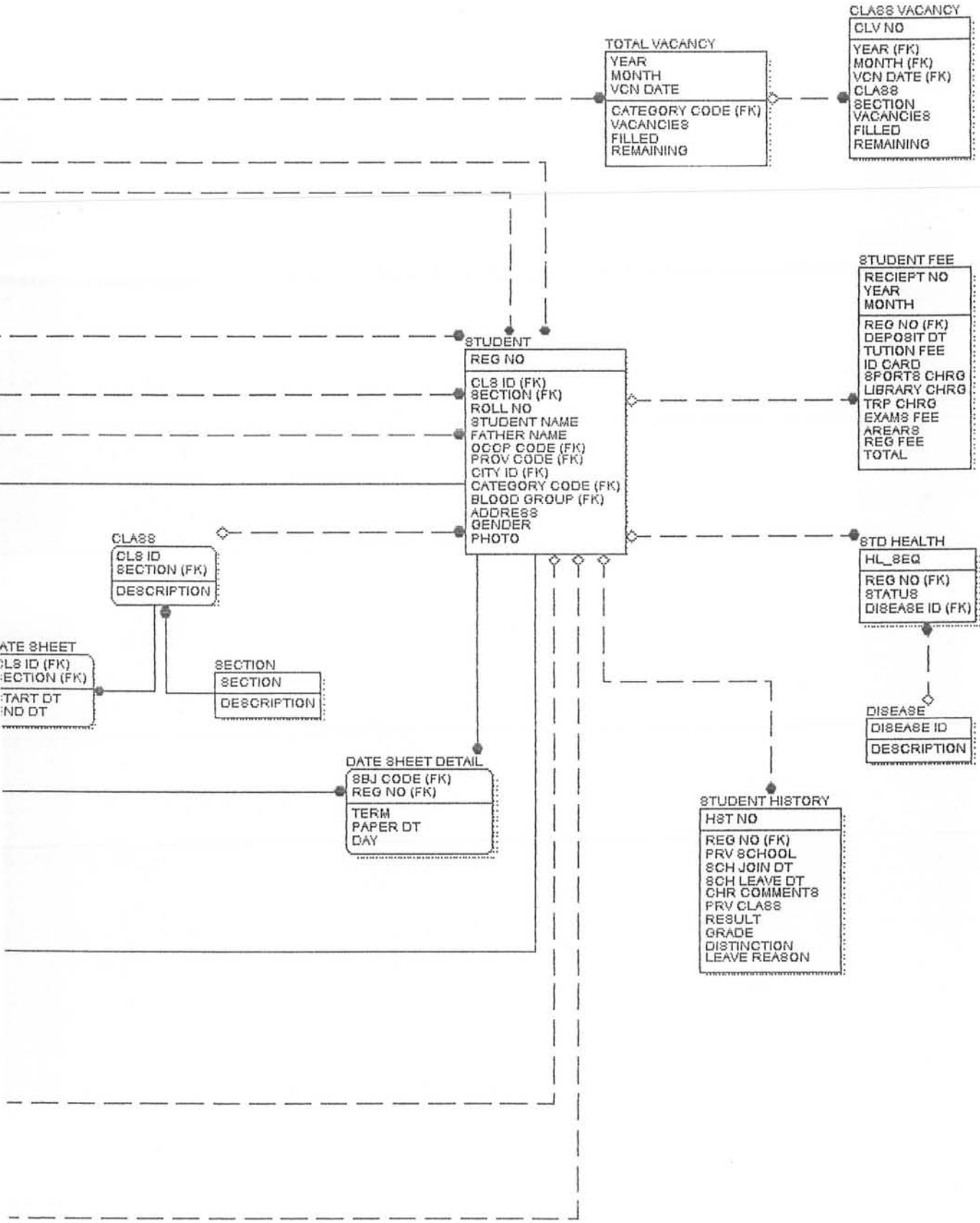
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YEAR
MONTH
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LIBRARY CHRG
TRP CHRG
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REG FEE
TOTAL
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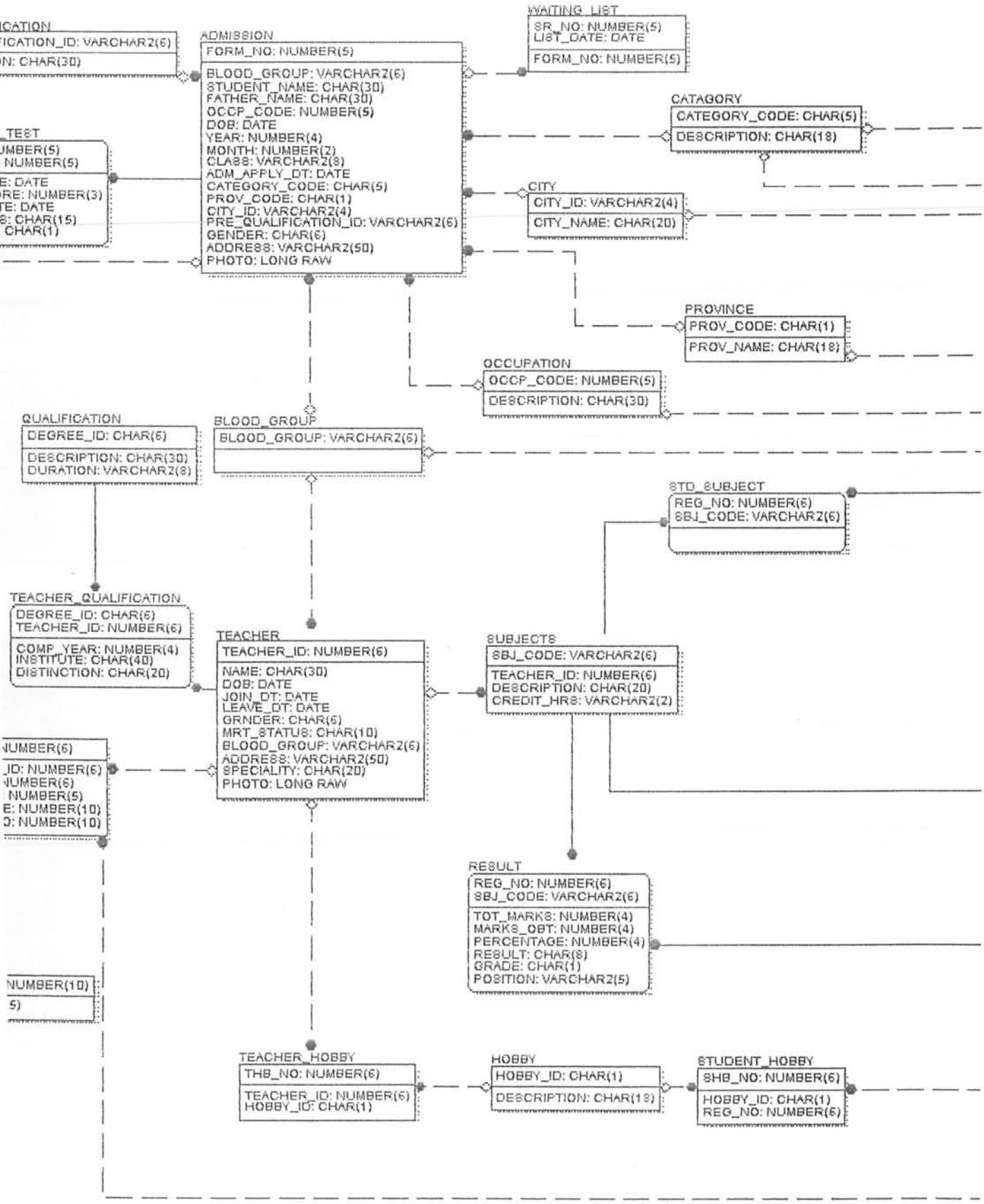
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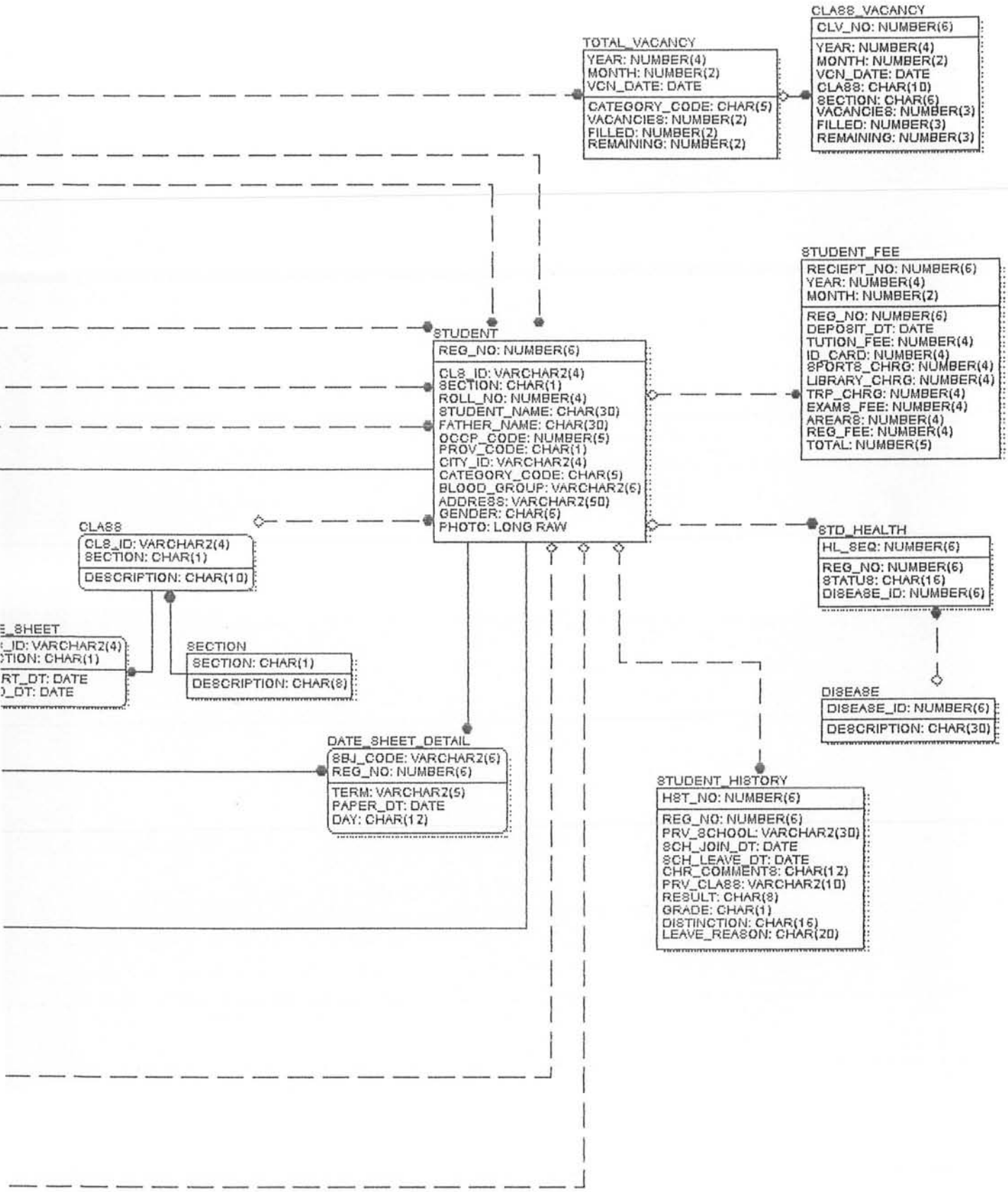
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REFERENCES

1) A Complete Reference Guide ORACLE SQL * Plus :

By IJAZ AHMAD.

2) Developing database applications :

By IJAZ AHMAD.

3) Developer/2000: Build Forms I, II, ORACLE 8:

By BULENT CINARKAYA
&
TUSHAR GADAWA.

4) Commercial Application development using ORACLE/Developer2000.

By IVAN BAYROSS.

5) Developer2000: Build Reports, Volume I, II:

By LOUIS BARNFIELD.

6) System Analysis and Design:

By GEORGE PENNY.