INTEGRATED SYSTEM OF POST GRADUATE DIPLOMA

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Final Approval

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Computer Center

This is certified that we have read the project report submitted by Farid Ahmed Khan and Jahangir Ahmed Butt and it is our judgment that the report is of sufficient standard to warrant its acceptance by the Quaid-i-Azam University, Islamabad, for the Post Graduate Diploma in Computer Science.

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And at the last but not least, I would like to admit that we owe all our achievements to our truly, sincerely and most loving parents, who mean most to us, and whose prayers are a source of determination for us.

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Quaid-i-Azam University

Islamabad

Jahangir Ahmed Butt

Farid Ahmed Khan

To

Our families and those

Who care us.

Abstract

The Computerized Student Information System of Computer Centre of Quaid-i-Azam University Islamabad been developed by using ORACLE 7 under window 98 environment. The designed system keeps the record of Admission of the new students and the record of the old students it also store the fee records and the record of the examination. The system provides correct, reliable and efficient nformation to Computer Centre for monitoring and decision making. The system also provides efficient means of data storage and retrieval of information in the form of printed reports and queries, which are required by the Computer Centre management. The system exhibits a user friendly environment for insertion, deletion and updating of data. With the implementation of this system most of the problem faced by the organization regarding this aspect would be solved.

Project Brief

Project Title	Student Information System
Organization	Quaid-i-Azam University Islamabad (Computer centre)
Undertaken By	Jahangir Ahmed Butt Farid Ahmed Khan
Supervised By	Mr. Nazim-ud-din Deputy Director Computer Centre Quaid-i-Azam University Islamabad
Starting Month	July, 2002
Completion Month	October, 2002
Software Used	ORACLE RDBMS Version 7
Operating System	Window 98

Preface

This report presents a detailed account of the system study, design and implementation phase of the project carried out for the Computer Center of Quaid-i-Azam University Islamabad. An attempt was made to organize this report according to procedures recommended for the design and development of computer base information system.

Chapter 1 It gives an introduction to the organization

Chapter 2 It gives us the introduction of the database.

Chapter 3 This chapter discusses discuss the working and the draw backs of the existing system

Chapter 4 This chapter discuss the need for change in the existing system.

Chapter 5 This chapter discusses proposed system & objectives of proposed system.

Chapter 6 This chapter through light upon the design specifications of the System. Various aspects of system design like input design, output Design and table design are treated individually.

Chapter 7 It explains how the system design was realized as a working system. Various forms of the system are explained & it discusses how the system was developed.

Chapter 8 It relates with system implementation. It prescribes methods of testing the Application.

Chapter 9 It evaluates the merits of the system, and also gives precautions and recommendations for future improvements.

Appendices Includes different diagrams relating to the software design, and layouts of forms and reports.

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CHAPTER 1

Introduction to the organization

INTRTOUDUCTION TO THE ORGANIZATION:

Early Sixties:

Government of Pakistan decided to establish a Post-Graduate University in Islamabad. Prof. Raizuddin sidduqi, who had been associated with the planning and development of several Universities and professional institution in the country, was entrusted with the job of implementing the decision. Under his gaudiness a five year plan (1965-1970) and a detail scheme of teaching and research was prepared .The Ford Foundation the Asia foundation and other organization were approved the financial assistance. The site of the university was selected near the margalla hills.

According to the plan of Prof Riaz the institute is consisted of establishing the institutes of Biology, Chemistry, Earth Science, Mathematics, Physics and Social Science. Each institute was planned to have planned character containing major branches of the subject.

Due to the war of 1965 with India delayed the start of the university by one year. Teaching in mathematical science and theoretical physics started in September 1966 in rented building in satellite town, Rawalpindi. Simultaneously construction is started in Islamabad. The foundation stone of the university was laid by president of Pakistan, field marshal, Mohammad Ayub khan in June 1967.

In October 1971 the university was shifted to the permanent campus in Islamabad. Here the work of setting up teaching and research laboratories for experimental science started.

AUTHORTIES OF THE UNIVERSITY:

The following are the authorities of the university.

- ⇒ The Syndicate
- ⇒ The Academic Council
- ⇒ The Faculties
- ⇒ The Selection Board
- ⇒ The Advance Study and Research Board
- ⇒ The Finance and Planning Committee

⇒ The Affiliation Committee

⇒ The Discipline Committee

⇒ The Sports Committee.

COMPUTER CENTRE:

INTRODUCTION:

In view of the importance of computing discipline in education, a Computer Centre was established in early 1972. It was equipped with a general purpose mainframe computing system IBM-360 Model G-44. This Computer was jointly financed by the University and Ford Foundation.

In 1973, Computer Centre, started its teaching activities with several short term specialized courses and a Postgraduate Diploma in Computer Sciences. The experience gained in starting a totally new subject at an introductory level in the country, developed a base for the establishment of a regular Computer Science Department and the commencement of the M. Sc. degree programme in September, 1976.

With the evolution of computer technology, IBM-360 Computer Hardware and Software both became inadequate and obsolete. A major departure was needed from the paper based batched system to an online computing environment which should not only reflect the state-of-technology, both in hardware and software, but also cope with the educational, research and administrative requirements of the University. In 1987, with the assistance of Japanese Government, a general purpose NEC-610 Computer was acquired for the Computer Centre of the University. The online terminal facilities of this computer were provided to different departments of the University.

NEC mainframe computer was installed in September, 1987 and with the passage of time, it also became obsolete and its spares were not available, so it became out of order. There was a great need of developing alternate arrangements to provide computer facilities to the users. In this respect, university purchased a minicomputer, IBM AS/400, along-with twenty Pentium intelligent terminals from its development budget. This computer was made operational in June 1998. During financial year 1999-2000, seven Pentium III computers were purchased, which provided an ideal opportunity to the students to exercise their computing work on the most modern computers.

Computer Centre is engaged in a variety of activities. It has always endeavored to promote computer literacy and has enhanced technical and professional skills of those who wish to become computer professionals. For this purpose, it offers a Post Graduate Diploma in Computer Sciences, Professional Certificate Course in Computer Applications, provides practical support to MSc. and M.Phil students of various departments.

In addition to the training of Computer Professionals, Computer Centre provides many other services to its users. It has computerized a variety of procedures of the University and has also assisted the Government and Semi-Government organizations in their computerization plans. Computer Centre staff also provides advisory and maintenance services to different departments of the University. Some details of major activities of the Computer Centre are as follows:

1. **MSc. Level Activities:**

Computer Centre provided Computer facilities to the students of M. Sc. in Mathematics, Statistics, MBA/MPA and Economics departments. Computer Centre staff has also imparted education in the departments of Administrative Sciences and National Institute of Psychology and also provided advisory services for MSc. Projects in Computer Sciences.

2. **M. Phil/PhD. Level Activities:**

Computer Centre provided advisory services to M.Phil/PhD students in their research work. Whenever they faced problems in the software development, Computer Centre Staff assisted them in their computerizations plans.

3. **GENERAL COURSES:**

Computer Centre offered a Post Graduate Diploma in Computer Sciences and two professional certificate courses in Computer Applications whose details are as follows:

a) **POST GRADUATE DIPLOMA IN COMPUTER SCIENCE**

It is a comprehensive one year program started in 1992 in which the students are exposed to the specialized skills in different disciplines of Computer Science. This course is highly useful for those who wish to become computer programmers and Systems Analysts.

The students are given extensive 'Hands on' training on the most modern computers which provide experience of working in an online environment.

b) **PROFESSIONAL CERTIFICATE COURSES**

In the evening programs, Computer Centre offers Professional Certificate Courses in Computer Applications twice a year. Each course is of 5 months duration. It includes important and latest application packages, a programming language and course on Systems Analysis and Design. This course is useful for those people who are employed in different organizations and wish to acquire knowledge about the principles of computerized data processing.

4. SUMMARY OF COMPUTER FACILITIES:

i) MINI COMPUTER:

a) HARDWARE

- AS/400 Model 600
- Main Memory 96MB
- Hard Disk 4.19GB
- Tape Cartridge Unit 2.5 GB
- Hub for 24 nodes
- UPS
- Twenty Pentium Terminals PC 300 GL

b) SOFTWARE

- Operating System V4R1
- Application Development Tool Set
- Client Access Windows family
- Querry Manager and SQL
- Query/400
- ILE RPG/400
- ILE Cobol
- ILE C/400

ii). MICRO COMPUTERS:

Computer Centre is equipped with a wide variety of IBM and IBM compatible microcomputers using 486 and Pentium microprocessors. These computers are used for providing practical support to the students.

5. RESEARCH

Computer Centre has computerized a variety of procedures of the University and has also assisted the Government and Semi- Government Organizations in their computerization plans. Some of these are as follows:

1) UNIVERSITY:

Accounting System:

Most of the activities of the Accounts department have been computerized. These include computation of pay, production of pay slips, Bank statements, CP fund, GP fund reports, Income Tax statements, Budget statements, Bus Pass statements, ASA/ESA statements etc.

Library System:

Twice the Computer Centre computerized university's Library. Firstly, complete record of over one-lakh books was stored on NEC Mainframe Computer and information relating to books was made accessible through its terminals. Later on, Central Library acquired a network of microcomputers and complete record of the books was then transferred on the new network. Presently, it is possible to access information title wise, author wise etc. and it has also facility of issue and return of books and journals and other printing features.

Centralized Admission System:

Computer Centre staff has developed programs which are used for data entry, data validation and computing merit lists. These programs are provided to most of the departments of the University and are in use for admission purpose. Wherever, computing equipment is not available, Computer Centre provides its services for this purpose.

Examination System:

Computer Centre had also developed programs for the student's information system. These programs can maintain complete record of the students registration and examination and produce variety of reports such as result notification, grade cards, query system for computing examination merit, degree transcript etc.

Administrative Systems:

The Computer Centre has prepared a large variety of reports. These include, University Calendar, Housing Scheme, House Building and other loan reports, and Annual Reports etc.

7. MAINTENANCE SERVICES:

Computer Centre staff helps the University departments in the maintenance of their computers. In the software domain, these services include virus handling and installation of different kinds of soft wares and Application Packages.

Moreover, a limited hardware maintenance support is also provided and in case, malfunctioning could not be removed, then services of the maintenance companies are arranged.

8. NETWORK SERVICES:

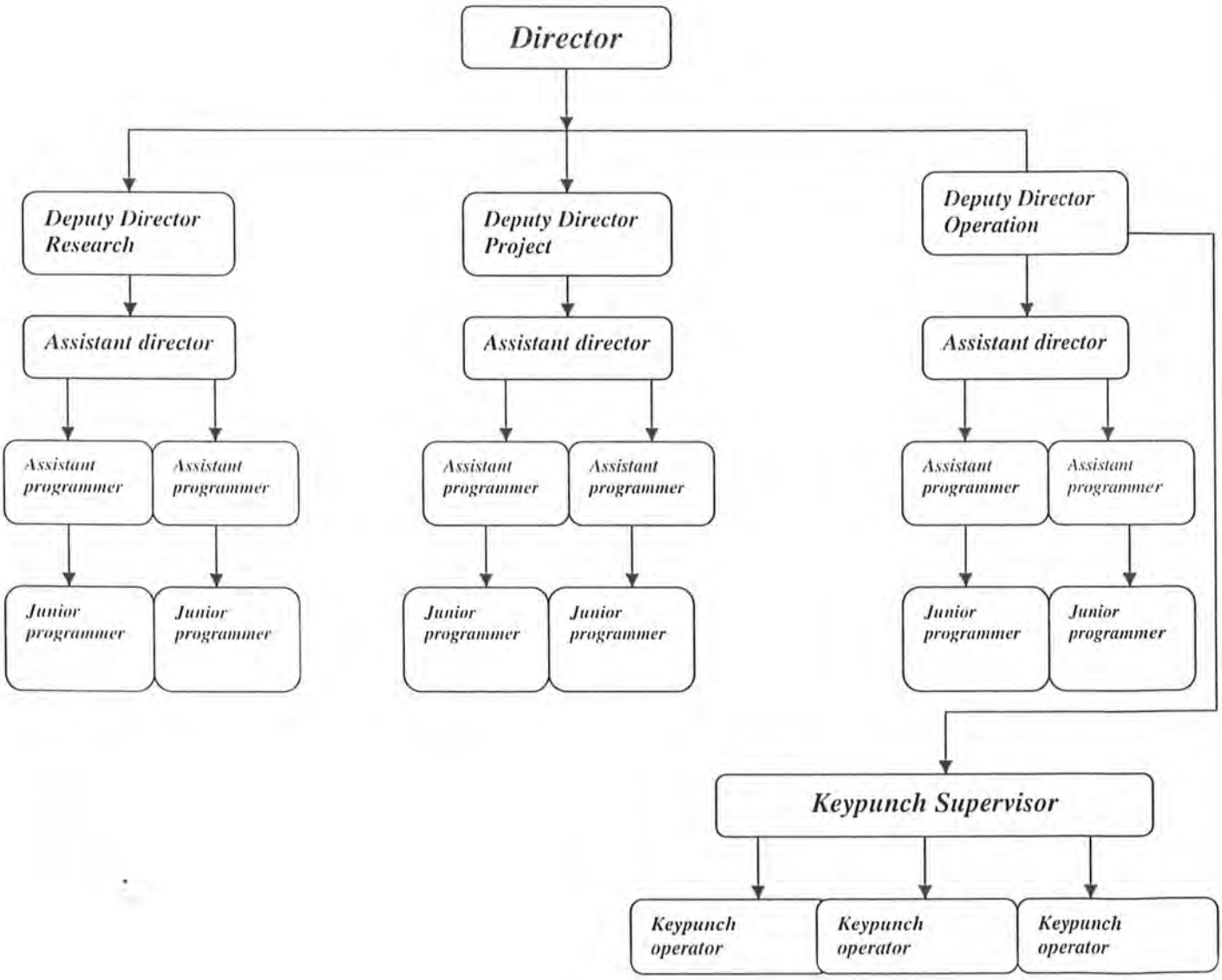
Recently, a network of microcomputers along with the server stations has been established and laid down in the University. Through this network, Internet facility has been made available to the staff and the students of the Computer Centre.

9. FACULTY:

S.No.	NAME & DESIGNATION	QUALIFICATION	FIELD OF SPECIALIZATION
1.	Dr. Ghulam Muhammad Director	B.Sc.Engg. Lahore M.Sc. Queen's Univ. Belfast, U. K.	Computer Engineering (Hardware/Software)

		Ph. D. U. K.	
2.	Mr. Nazim-ud-din Deputy Director (Operations)	M.Sc. (Punjab) P.G.D. (Q.A. Univ.) P.G.D. (CTC, UGC.)	Scientific, Systems Software Development and Operations.
3.	Dr. A. A. Naqvi Deputy Director (Research)	PhD	Data Communication & Networking.
4.	Mr. Khalid Bashir Assistant Director	(M.Sc. Punjab) P.G.D. (Q.A. Univ.)	Systems Analysis Design & Implementation of Commercial Projects.
5.	Mr. Abdul Subhan Asstt. Programmer/ Operator	B.Sc. (Punjab) P.G.D. (Q.A. Univ.)	Assembly Language, Database Design and System Programming.
6.	Mr. Zahoor Elahi Asstt. Programmer/ Operator	M.Sc. (Punjab) P.G.D. (Q.A. Univ.)	Computer Operations /Scientific Programming.
7.	Mr. Javed Hussain Asstt. Programmer/ Operator	M.A. (Punjab) B.Sc. Industrial P.G.D. (Q.A. Univ.)	Systems Analysis, Design and Implementation of Commercial Projects.
8.	Mr. Munawar Tiwana Technical Assiatant	B.Sc. (Punjab) Short Term Course in Computer Language	Operations/Commercial Programming.

Organizational Structure Computer Centre



CHAPTER 2

Introduction to the database

WHAT IS A DATABASE?

- A **database** is an organized collection of information. *General Reference Center*, ERIC, and the LAMP Online Catalog are examples of databases.

- Each **record** in a database is composed of the important elements of information for a particular item.

Example

- In the database of PGD, the information about a single periodic article is a record.

- Each record is composed of a set of **fields** which contain the individual elements of information.

Example

- For example, records in the PGD database includes the fields: reg_no, name, nic, etc.

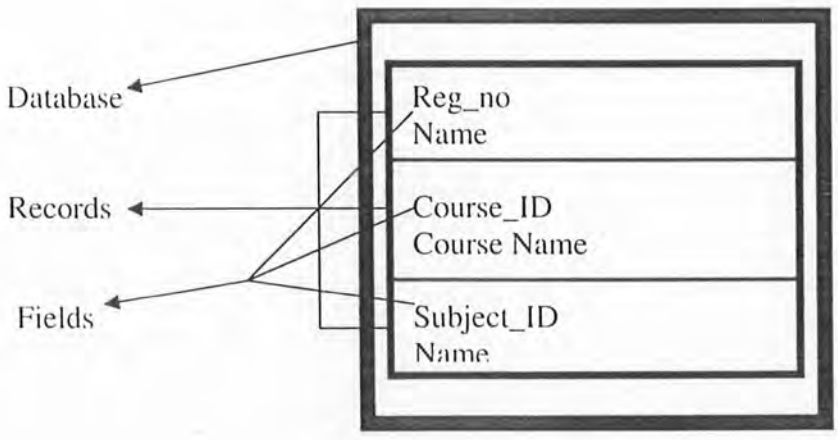


Diagram of the database conceptual structure

EXAMPLES OF DATABASES:

Telephone directory is a familiar database this common printed database contains the name, address, and address, and phone numbers of individuals, businesses, and government agencies. The address and telephone numbers have little value by themselves. They are useful only when they are related with the name.

The number of database in common. Some common database is a dictionary, an encyclopedia, a library card catalog.

In the telephone directory, the telephone directory, the numbers and address are related to the name. The names are presented in the alphabetical order so you can find them easily.

PROBLEMS WITH MANUAL DATABASE:

Every organization has to pay wages to its employees every month. The wages generally include the basic salary and various kinds of allowances. Every month the accounts department several; days in preparing the pay slips of these employees. If the numbers of employees are in hundreds or in thousands then the job is tougher and time consuming.

USING COMPUTERS FOR DATABASE:

A computer is more suited for database application because of two reasons. The first reason is it can hold the large data in its storage devices and second. It operates at a very high speed. These two factors make it very ideal for the database applications for you and can put the entire information into the computer which by virtue of its speed, can perform various function for example searching for various information(from the information stored in it).

DATABASE MANAGEMENT SYSTEM (DBMS):

A database management system is a collection of programs that enable users to create and maintain a database. The DBMS is a general purpose software system that facilities the processes of defining, constructing and manipulating databases for various application. Defining a database involves specifying the types of data to be stored in the database, along with the detailed description of each type of data. Constructing the database is the process of storing the data itself on some storage medium that is controlled by the DBMS.

EXAMPLE OF DATABASE MANAGEMENT SYSTEM:

Suppose you need to replace a part of your car. You go to an auto parts store and tell

The clerk which part you need. The clerk looks up the part in a set of parts catalog.

⇒ The first book gives the clerk an identifying number for (his part

⇒ The clerk then looks up miss part number in another book. This book shows

Where the part is located within the store.

⇒ After locating the part, me clerk again uses the number to find the cost of the

Part from a price list.

In this example, the actual automotive parts correspond to the data items in the Database. The clerk, catalogs, lists, and storage bins, corresponds to the database management .System. To use this automotive parts management system, you tell the clerk what you want in .A language that you both understand (English/Urdu) and with terminology related to cars. The Clerk takes care of all the business of getting the parts, keeping the books current, knowing. How to use the books, and so forth. All you need to have is reasonable idea of what you, Want. The clerk, the

books, and catalogs take care of the rest. The same is true for (his computer database management system. As soon as a DBMS Is installed on a computer, the computer becomes an expert at all the details involved in

Storing, cataloging, and retrieving data.

DATABASE TERMINOLOGY:

There are three basic terms which are used in all databases.

FIELD:

A subdivision of a record containing a unit of infonnation.For example; a payroll

Record might have died following fields: Employee identification number. Name, Job title. Social Security number, etc.

RECORD:

A unit of data representing a particular transaction or a basic element of a file consisting in turn of a number of interrelated data elements.

OR

A record is made up of a set of related fields.

FILE:

A collection of related records is called a file Example of a database file.

Thus we can say that, when the data is arranged as a table (rows and column) each

Column represents a field, each line represents a record, and the table as a whole represents the file.

PRIMARY AND FOREIGN KEYS:

Each time you have data inside a relational table, you need a way to identify each row stored into that table. For example, say Fernando Lozano has changed his e-mail address. How do I know the right row to update? Given the table ADDR_BOOK we've already been presented.

```
UPDATE ADDR_BOOK SET E_MAIL = lozano@blnet.com
WHERE NAME = 'Fernando Lozano'
```

TYPES OF DATABASES:

1. Hierarchical Databases
2. Networking Databases
3. Relational Databases

Hierarchical Databases:

In Hierarchical Database, data elements are related to one another as "Parent';" and

"Children". A PARENT 'data element is higher in the hierarchy. Than Child and, and connected to it. A' CHILD is a data element subservient to Parent, and Connected to it. In a hierarchical database a parent can have more than one child, but each child can have only one parent. Hierarchical database is The Item data element is the parent of the Cost, Quantity, Substitute, and Purchase Order data elements. For Example. The Substitute data element consists of the item number and the item name.

Networking Databases:

In a NETWORK. DATABASE, data elements are related to one other as parents and Children as in a hierarchical database, with only one difference; a child can have more than One parent. data contained in hierarchical database, the difference. Is that we have added some new data elements on the right of the The Supplier data Element is Order, Address, and Contact data elements. In other words, Purchase Order.

Relational databases:

A relational database stores all its data inside tables, and nothing more. All operations on data are done on the tables themselves or produces another tables as the result. You never see anything except for tables.

A table is a set of rows and columns. This is very important, because a set does not have any predefined sort order for its elements. Each row is a set of columns with only one value for each. All rows from the same table have the same set of columns, although some columns may have NULL values, i.e. the values for that rows was not initialized. Note that a NULL value for a string column is different from an empty string. You should think about a NULL value as an "unknown" value.

The rows from a relational table are analogous to a record, and the columns to a field. Here's an example of a table and the SQL statement that creates the table:

```
CREATE TABLE city (
        City_code char,
        name char (50),
        )
```

City Code	Name
P	Punjab
F	FATA

ADVANTAGES OF DATABASES:

Advantages to databases are described as follows:

ACCESSIBLE:

Databases are accessible to any program with 'a legitimate need for them, Regardless of where the data are physically located. Data are accessible to any program regardless of the language in which the Program is written (assuming the database system supports the language, used)

DUPLICATION IS NOT ALLOWED:

Data are not duplicated in different locations.

NO NEED TO WRITE THE FILE:

Programmers need not write and debug extensive file descriptions in order to Work with data.

Because of these characteristics of databases, organizations are willing to pay the Considerable costs of creating and maintaining a database-A business that uses a database rather Than files can save time and money and can exploit its data more efficiently since they are Easier to get at.

DISADVANTAGES OF DATABASES:

There are some disadvantages to databases:

EASILY ABUSED:

With data more readily accessible, they can be more easily abused.

EXPENSIVE HARDWARE AND SOFTWARE:

Databases require expensive hardware and software.

NEED OF SPECIALIZED PERSON AND TRAINING:

Specialized personnel may have to be hired to set up and administer the database, and existing personnel will have to be trained to use it properly.
In addition people may resist a new system merely because it is new, or because they Dislike the idea of giving up control of their "Personal" files. Finally, creating a database Is a complicated and lengthy process.

CONCLUSION:

On balance most organizations seem to find that the advantages outweigh the Disadvantages. The trend is toward ever greater use of databases rather than conventional File processing.

CHAPTER 3

EXISTING SYSTEM

INTRODUCTION:

The process of studying the existing system to see as to how it operates and where improvements can be made for the design and development of an efficient and well designed system. It is possible to present a solution of the problems faced by a particular system only after a thorough knowledge of the working of the existing system is required. Incorrect or incomplete understanding of the existing system can lead to design errors in the new system, as a result of which the newly developed system may not be able to present a solution of the shortcomings already present in the system and cope with future requirements of the system. Thus only after the existing system is understood, it is possible to analyze it and assemble recommendations for system design.

A detailed description of the system study conducted at computer centre including the problems posed by the present system is given in the following sections.

INFORMATION:

Information can be regarded both as a process and as an output of that process. Information is to be handled by the staff manually

SYSTEM:

A system is defined as some on-going process of a set of two or more elements, such as people, machines and concepts which are united together to attain a common objective. A system may consist of a number of smaller systems which are called as 'Sub-Systems.

INFORMATION SYSTEM:

It is that combination of human and computer based capital resources which results in the collection, storage, retrieval, communication and use of data for the purpose of efficient management of operations in organization(with reference to the computer centre).

DATABASE SYSTEM:

A database system is concerned with the flow of information about students studying in the computer centre. In this system personal record, previous record and current academic record of the students is kept in files, and also the record of there fees and examination record is saved in the files.

The database system has many uses to management or administration of the computer centre. It provides a systematic way for accumulating data that can be used to make decisions at every level of management.

EXISTING SYSETM:

At present, the computer centre keeps the information about the students in the loosely bound files. The system is manual and more prone to error. All the information about a student is manually entered in his personal file. This information includes admission process, biodata of the student, courses registered. Marks obtained in the sessionals, assignments, surprise tests. However, record of all the above mentioned

aspects is not kept centrally. Some of the information remains in the custody of teachers while other in the administration section of the center. At the given particular date results of sessionals, surprise test, quizzes, is submitted to the examination section of the university. Also at the end of every semester the result of terminal examination is also submitted to the examination section **of** the university.

The main problem of the existing system remains the efficient access of information. The existing system takes lime to access data of a particular student. Whenever some information of a particular student is required by the administrator of the centre administration, he has to wait for that information, because of the scattered record of the students. So he has to face difficulties in retrieving required information.

Such queries cannot be easily satisfied in the existing system. Tills querry demands clerical expertise and lot of hard labor and it is also a time consuming querry, which is not efficient method. The centre has an ever-growing number of students and the existing system gets more and more complex with this increase. Destruction or misplacement of files is experienced more often than not. Special racks/Elmira are required to safely store these records which cause prone to damage by pests and dimak.This manual system not only takes more paper space but the access time also increases. Due to more access time the administrator cannot take any quick decision.

The security of valuable information about the university students cannot be guaranteed in the existing system. The student's information is kept in files, so, any mishap to **it** may result in die loss of valuable data. The above mentioned problems are only due to the manual system.

DRAWBACKS OF THE EXISTING SYSTEM:

The major drawbacks and limitations in me existing system are as follows:

EFFICIENCY:

Efficiency of the system is minimum .Information is not available to the administrator of computer centre. Retrieval of information is also very slow.

TIME CONSUMING:

In view of the fact that the number of students in the centre are increasing with the passage of time, so their information keeping becomes difficult .So retrieval of information is not efficient due to manual system.

DATA REDUNDANCY:

The existing system has a high level of redundancy of information .The only source of input for students record keeping is the admission form which includes a number of columns which are not required by the computer centre administration. However, such redundancy of information can be minimized by designing better form designing.

DECISION MAKING:

It has been observed that slow processing of information creates problems for the Administration. However, a computerized approach to the system may produce. Quick access to any information may be made in seconds. It will be a great assistance To the administrator in making timely decision for switching over the modem age method of Using computers.

ANALYSING THE EXISTING SYSTEM:

The proposed system is analyzed on the following bases:

1) What is the existing system?

2) What type of problems and difficulties are faced by the administrator of the computer centre administration and teachers?

3) How can these difficulties be removed?

PROPOSING THE NEW SYSTEM:

The new system is proposed on the following steps:

DESIGNING OF SYSTEM:

Design of a feasible system to meet the demands of administrator of computer centre.

REMOVAL OF FAULTS:

Steps to be taken for the removal of faults.

DEVELOPING SOFTWARE:

Software developments.

REDUCE THE MANUAL OPERATION:

Steps to reduce the manual operation.

FAST RETRIEVAL OF INFORMATION:

Steps to achieve fast retrieval of information.

It is the DATABASE System for the retrieval of information of any student of any year of the computer centre. This system concentrates on the following objectives to be achieved.

1) To provide-different types of information like personal information. Previous academic information and current academic information.

2) **To get a printed administrative letter.**

3) To give the record about the fee paid and the fee not to be paid.

4) To get a printed Grade Card of any semester and the printed result of the quizzes and sessionals.

CHAPTER 4

Need for change

THE NEED FOR CHANGE:

In almost all the advanced countries "COMPUTER" is playing a significant role in almost every sphere of life. It is not only used in the field of science but also in the commercial fields. Computer has also emerged in certain fields where its existence seemed rather impossible. In developing countries including Pakistan, there is a great urge for modernization and authorities are fully aware of the need to introduce the computer in as many fields as possible.

The increasing number of candidates, in the Computer Centre in the Quaid-i-Azam University possesses many problems like accuracy of record handling, efficiency, storage etc. At present all the procedures are manual and time consuming. Due to manual reporting and record keeping system, it takes a long time to access and retrieve information.

Due to manual system, the concerned computer centre staff facing hardship to provide Students Information or records when it is required by the administrator of the Computer Centre. Due to manual reporting and compilation system the administrator of the computer centre waste his precious time. Computerization of whole system can give administrator the information which he needs to make correct decisions.

Keeping in mind the above aspects, the Administration of Computer Centre considered essential the computerization of the whole system. The implementation of this system will reduce the manual operation; give cent percent results in the form of queries and reports. The information system will become easier and efficient Thus the project is defined as under:

"Computerization of the whole system of ADMISSION, FEE AND EXAMINATION for Quaid-i-Azam University Islamabad

the administrative purpose

Thus we can say that the need for change is necessary for that system.

PROBLEM:

The scope of the problem is to design a system of Computer Centre, for administrative purpose. It would deal with every kind of information, regarding the student of computer centre .that is basically related with the admission, fee and examination of the computer centre and basically facilitate the students of the Post Graduate Diploma student. It would provide efficient means of storage and retrieval. It will also support queries and reports required by the administrator, for the efficient working of-the computer centre.

OBJECTIVES OF THE PROJECT:

Presently, the system is functioning manually, which is time consuming, inaccurate and uneconomical. In order to remove these difficulties and hurdles, the objectives of the new system are formed.

The main aim is to develop and implement a computerized system for the computer centre staff

MAIN OBJECTIVES:

QUICK AND EASY RETRIEVAL

To computerize the Students Information System for quick and easy retrieval and for proper maintenance of records.

PRODUCE NUMBER OF REPORTS

To produce number of reports in time and easy to prepare.

QUERIES

Entertain queries.

TIME SAVING

To reduce time involved in the existing system.

VARIETY OF INFORMATION

User may see clearly what information is available to him and be able to use it easily in a variety of ways.

DATA ENTRY

To make data entry as few as possible.

ACCURACY

Accuracy is an important aspect of the new system.

UP-TO-DATE INFORMATION ON DEMAND

Up-to-date information should be available on demand.

USER FRIENDLY INTERFACE

Provide a user friendly interface, so that the user will quickly become with me software

CHAPTER 5

Proposed System

INTRODUCTION:

Every new system, whether manual or computerized, that replaces the previous system, brings out some changes. These changes may be in procedures or in documents. The system introduces new terms, designs new documents and at times redesigns the existing ones. The existing procedures are, therefore, modified and new procedures are introduced. In this case the manual system of student's record keeping of the Computer Centre is proposed to be changed into a computerized system.

The Computer Centre does not have computer based system, due to some administrative reasons; it is not practical to design a short term project to computerize the University's overall existing manual system as one major project. The University cannot accept an over all change in its procedures all at once. It needs time to define its problems. The administration should, therefore. Divide the total system into sub-systems.

The proposed system has been designed after thorough evaluating the manual procedure. It is a computerized system in which electronic data processing methods are used for making the system more efficient, economical and error free. New techniques and procedures have been adopted in the proposed system. These will meet all the requirements of the administration. It is so designed as to achieve the objectives within the resources of the user.

The proposed system is mainly related to the record keeping and retrieval of student's data. And maintenance of the records. As the existing manual system is cumbersome, inaccurate and inefficient, the requisite information has to be dug out with labor consuming a lot of precious time. The computerized system is, therefore, developed which is quite comprehensive and covers every aspect of the objectives in detail.

STUDY REPORT:

The proposed system is the outcome of the study which was carried out by frequently visiting and interviewing the concerned staff for understanding their routine work. The objectives of the system were defined and the purpose of this study was to convert the present manual system to a computerized one which is more robust and flexible. During this stage, procedures currently used for students record keeping system and their problems particularly in procuring / retrieval of information by the computer centre were studied. Attempt has been made to take into account all aspects of me old system. The present as well as future requirements are also taken into consideration. It is expected that the proposed system solution will be acceptable to the University authorities.

OBJECTIVES OF THE PROPOSED SYSTEM:

Before designing any computer based system, it is very important and helpful to establish the objectives that the computer based system cloud satisfy. In addition, the relative importance of each objective should also be established. Following are the objectives of the proposed system.

EFFICIENCY:

Efficiency is the degree to which we minimize utilization of resources for achieving an objective. One could not be termed efficient if one achieves unwanted results at low costs. The proposed computer system is more efficient than the existing manual system.

DATA SECURITY:

Security refers to protection from deliberate or accidental loss or destruction of important data. The data required for decision making is highly sensitive and valuable, therefore, reliability of the proposed computer system is secured by giving a regular and

guaranteed service to the user.

TIME FACTOR:

Time is a very important factor in .the working of an organization. The higher authorities require quick response to their queries which should be met urgently because decisions are based on up-to-date intonation. The proposed system is designed to cater for this requirement.

ACCURACY:

The system will provide accurate and error-free information needed for decision making. It will ensure efficient and accurate record keeping.

MAINTAINABILITY:

Once the proposed computerized system is adopted by the director office it would be maintain within the available resources.

FLEXIBILITY:

Information processing system is liable to change in terms of objectives, information or process. The proposed computer system would be sufficiently flexible to cope with such changes.

ACCEPTABILITY:

The system would be acceptable to the design of the University standard. Such standards are set to ensure that the previous objectives are likely to be met

SIMPLICITY:

It is simple enough and emphasizes on capability of the proposed system to provide a smooth flow of information from one step to the other, there by avoiding needless back tracking and duplication.

SOFTWARE SELECTION:

Each database is concerned with input, storage, processing and output input to the database is provided from the real world. Programs are used to process, store and retrieve information. In fact, the programs are the most important part of the database as they control input and output activities, storage and processing inside a database.

Selection of the suitable language/package to design the software was the most crucial stage of the proposed system. After the study of the different databases, **Oracle 7.0 and Developer 2000** was considered to be the most appropriate package for the proposed system.

Following are the major features of the Package.

a) It has the ability to handle large amount of input and output data.

b) It has a complete set of diagnostic features that help to locate and identify errors.

c) It has a special feature of the retrieval of the data

d) It has one more feature that you can generate the reports and get the overall result

HARDWARE REQUIREMENT:

The minimum hardware and Operating system requirements for this database are as follows.

⇒ Secondary storage devices, one floppy disk and hard disk drivers.

⇒ One color/monochrome monitor.

⇒ One 20 MB hard disk.

SUMMARY:

The proposed system is summarized below.

OBJECTIVE REALIZED:

The administrator's objectives precisely realized.

WELL DEFINED COMPUTER SYSTEM:

A well defined computer system is adopted,

EFFICIENT AND TIMELY OPERATION:

The efficient and timely operation is achieved.

CAREFULLY PLANED:

The system is carefully planned and its implementation is tested.

USER CAN EASILY TRAIN:

The user can easily be trained on (new system).

CHAPTER 6

System Design

INTRODUCTION TO SYSTEM DESIGN

Design is a decision-making activity. Design works as a base for the proceeding activities in the development cycle. The robustness and efficiency of software depends on its design. And a good design leads to efficient software. System design is the phase where quality is fostered in software development. Hence good development work depends upon good quality of design. Design changes customer's requirement into representation of software. Software or system is unable without a good design and fails when changes are made into it. This chapter deals with the input/output design and physical database design phase. Inputs/Outputs are key parts of any system design. They are the interface between the user and database. User-interface should be well enough to be understandable by the user
Viewed from a purely functional point of view, most of the computer systems will perform the following three main tasks.

- Presentation logic
- Business logic
- Data Service

Presentation Logic

The presentation phase comprises the entire user interface. Not only does this phase allow the users to interact with the application, input data, and view the results of requests, it manages the manipulation and formatting of data once it arrives at the client.

Business Logic

Business logic, which is the rule that govern application processing, connects the user at one end with the data at the other. The functions that these rules govern closely mimic everyday business tasks, and can be a single task, or a series of tasks.

Data Service Logic

It handles the storage and retrieval of data while maintaining integrity of data.

ARCHITECTURAL DESIGN

The Primary objective of architectural design is to develop a modular program structure and represent the control relationship between them.

CONCEPTUAL DATABASE DESIGN

- Tells the user exactly what the system will do.
- Describe the functions of the systems
- The system will work in the following areas.
- Examination system
- Fee system
- Admission system

The System is defined by its boundaries, entities, attributes, and relationships. Conceptual design describes each of these system aspects by answering the following

Where Will Data Come From?

INPUTS:

The inputs to the system come from the data entry tables of all the 3 systems.

OUTPUTS:

The outputs to the system come in the form of Query forms & Reports.

DATABASE DESIGN

Database Design is a creative process of transforming:

- ⇨ Problems into Solutions
- ⇨ The description of a solution

Intelligent database design is perhaps the most critical element of an optimal solution with respect to performance. In fact, poor design is usually the culprit for poorly performing solutions. Designer of the database should satisfy the user

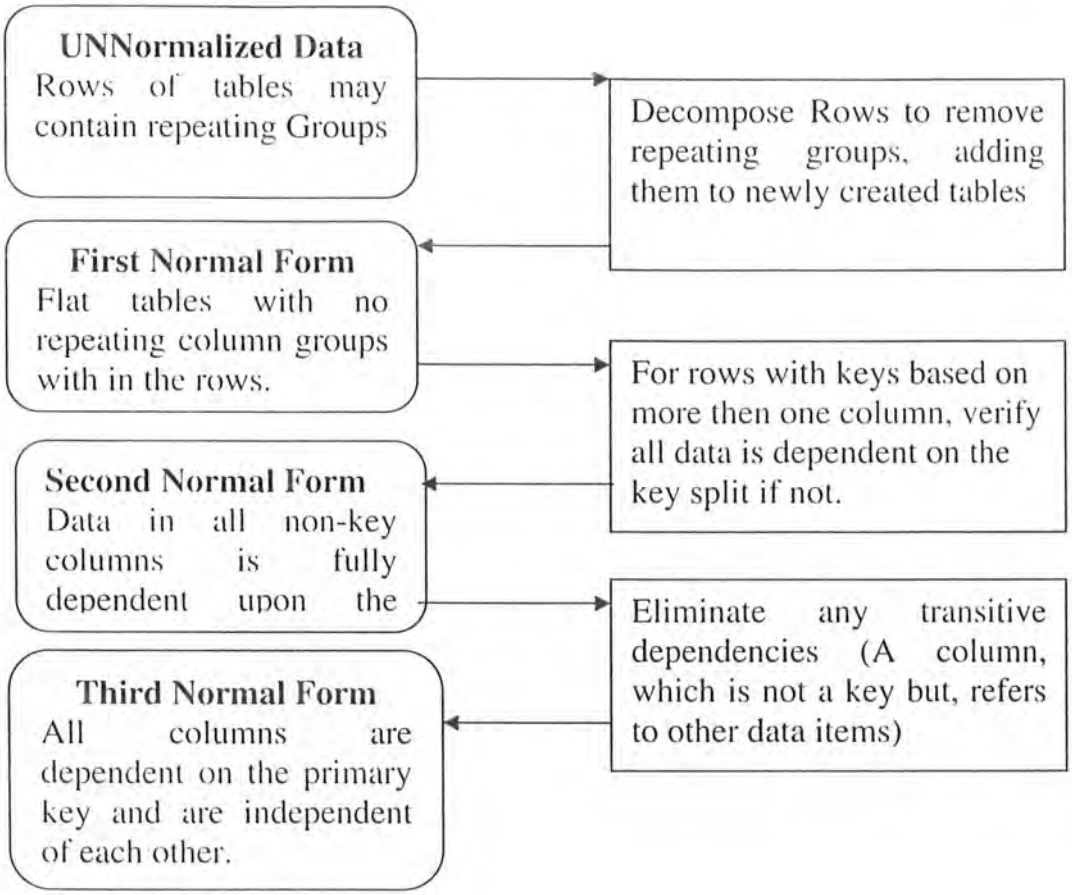
PHYSICAL DATABASE DESIGN

Normalization

Normalization is a formalized procedure by which data attributes are grouped into tables and tables are grouped into databases. The purpose normalization includes the following:

- ❖ Eliminating Duplicated information in tables
- ❖ Accommodating future changes in the structure of tables
- ❖ Minimizing the impact of change on user applications that access the data

Normalization is done in setups, the first three and most common steps Dr.E.F. Code described in his 1972 papers, "Future Normalization Data Base Relational Model". These steps are depicted following Figures.



First Normal Form

First Normal Form requires that tables be flat and contain no repeating groups. A flat table has only two dimensions-length (No of record or rows) a width (no of fields or columns)-and cannot data cells more then one value. For a single cell to contain more then one data value, the representation of the cells contents requires a third dimensions, depth, to display the multiple data values.

Second Normal Form

Second normal form requires that data in all non-keys columns be fully dependent on the primary key and on each element (column) of the PK. Fully dependent means that the data values in each non-key column of a record is a determine uniquely by the value of the PK. If a composite PK is required to establish the uniqueness of a record the sane rule apply to each value of the fields that comprise the composite key of the record. The tables must be in first normal form before examining it for conformant to the second normal form.

The SNF removes much of the data redundancy that is likely to occur in a FNT.

Third Normal Form

TNF requires an all non-key columns of a table be dependent on the tables PK and independent of one and other. Tables must confirm to the first and second normal form to qualify for third normal form status.

Further normalization

After the database is normalized at third level some time it is further normalized as fourth and fifth levels and BCNF, according to requirements. The next step is to prepare a preliminary written description of the database called data dictionary.

The data in the Oracle database is stored in tables that contain field, data type and value. The tables used in this database are following.

1. Biodata table
2. City table
3. Degree table
4. Detail table

5. Subject table
6. Course table
7. Course Registration table
8. Teacher table
9. Department table
10. Marks table
11. Fee table
12. Fee Detail table
13. Expense table
14. Attendance table

Table Name: city
Primary Key: city_code
It contains two fields one is city_code & other name of city.

Name	Description	Data Type	Size	Constraint
CITY_CODE	City code	Char	4	Primary Key
NAME	Name	Varchar2	12	

Table Name: Biodata
Primary Key: Reg_no
This table contains complete information about the students who got admission in the degree.

Name	Description	Data Type	Size	Constraint
REG_NO	Registration number	Number	4	Primary Key
NAME	Student name	Varchar2	50	
NIC	National Identity Card Number	Varchar2	13	Not Null
FNAME	Father's name	Varchar2	50	
FNIC	Father's National Identity Card Number	Varchar2	13	Not Null
SEX	Sex	Char	6	
DOB	Date of birth	Varchar2	17	
M_STAT	Marital status	Char	9	
RELIGION	Religion	Varchar2	20	
FORM_NO	Form number	Number	4	
YEAR	Year of applying	Number	4	
POST_ADDR	Postal address	Varchar2	60	
TEMP_ADDR	Temporary address	Varchar2	60	
PH_CODE	Phone code	Number	3	
PH_NUMBER	Phone number	Number	7	
FAX	Fax number	Varchar2	15	
E_MAIL	E mail	Varchar2	40	
CITY_CODE	City code	Char	4	Foreign Key
UNI_SESSION	University session	Char	6	

CITIZEN	Citizen	Varchar2	25	
B_GRUP	Blood group	Char	3	
H_REST	Hostel resident	Char	3	
POSTAL_CODE	Postal code	Number	5	
CLASS	Program in which a student has applied	Varchar2	25	
NCC	National cadet core	Char	3	
HAF_QR	Hafiz-ul-Quran	Char	3	

Table Name: Course
Primary Key: course_id
This table is used to contain the data regarding different courses offered by department, their credit hours, names and their codes.

Name	Description	Data Type	Size	Constraint
COURSE_ID		Varchar2	6	Primary Key
NAME		Varchar2	35	
CR_HRS		Number	1	

Table Name: Course_reg
Primary Key: srn
The table is used to store information about courses in which students have enrolled themselves during various semesters.

Name	Description	Data Type	Size	Constraint
SRN	Serial number	Number	4	Primary key
COURSE_ID	Course id	Varchar2	6	Foreign Key
REG_NO	Registration number	Number	4	Foreign Key
SEM_NO	Semester number	Number		

Table Name: Degree1
Primary Key: srn
The table is used from degree coding.

Name	Description	Data Type	Size	Constraint
SRN	Serial number	Number	4	Primary Key

REG_NO	Registration number	Number	4	Foreign Key
DESCP	Description	Varchar2	15	

Table Name: Dept
Primary Key: dept_id
The table contains information about different departments in university & their respective department codes.

Name	Description	Data Type	Size	Constraint
DEPT_ID	Department Id	Number	2	Primary Key
NAME	Name of department	Varchar2	50	

Table Name: Detail
Primary Key:.s_no
This table contains detail information about previous academic record of students.

Name	Description	Data Type	Size	Constraint
S_NO	Serial number	Number	10	Primary Key
SRN	Serial number	Number	4	Foreign Key
ROLL_NO	Roll number of degree	Number	10	Not Null
YEAR_PASS	Year of passing of degree	Number	4	Not Null
GRUP	Group (Science/Arts)	Char	10	Not Null
BOARD_UNI	University or Board from which degree is acquired	Varchar2	50	Not Null
CITY	City from where exams have given	Varchar2	30	
INST	Institute from where student has studied	Varchar2	60	
REG_PRVT	Either degree is passed as a regular or private candidate	Char	7	Not Null

GRADE	Grade	Char	1	
MAX_MKS	Maximum marks	Number	4	
OBT_MKS	Obtained marks	Number	4	

Table Name: Exam
Primary Key: exam_code
This table is used to store the type of exam & their respective codes

Name	Description	Data Type	Size	Constraint
EXAM_CODE	Exam code	Number	1	Primary Key
NAME	Name of exam	Varchar2	11	

Table Name: Expense
Primary Key: exp_code
This table is used to store the different expenses their amounts & their respective codes.

Name	Description	Data Type	Size	Constraint
EXP_CODE	Expense code	Number	2	Primary Key
DETAIL	Detail of expense	Varchar2	25	
AMT	Amount	Number	4	

Table Name: Fee
Primary Key: challan_no
This table is used to store information about fee record of the students.

Name	Description	Data Type	Size	Constraint
CHALLAN_NO	Challan number	Number	6	Primary Key
REG_NO	Registration number	Number	4	Foreign Key
SEM_NO	Semester er number	Number	1	Foreign Key
AMT	Amount	Number	4	
DT	Date	Date		

Table Name: Fee_Detail
Primary Key: srn
This table is used to bifurcate the fee head into its different heads.

Name	Description	Data Type	Size	Constraint
SRN	Serial number	Number	6	Primary Key
CHALLAN_NO	Challan number	Number	6	Foreign Key
EXP_CODE	Expense code	Number	2	Foreign Key
AMT	Amount	Number	4	

Table Name: Marks
Primary Key: srn
The table is used to store information about the marks of courses a student has taken, tells whether a student has passed a course or other wise & also the teacher id.

Name	Description	Data Type	Size	Constraint
SRN	Serial number	Number	10	Primary Key
MKS_CODE	Marks code	Number	1	Foreign Key
REG_NO	Registration umber	Number	4	Foreign Key
TEACH_ID	Teacher ID	Varchar2	10	Foreign Key
COURSE_ID	Course ID	Varchar2	6	Foreign Key
EXAM_CODE	Exam code	Number	1	Foreign Key
DT	Date	Date		
STATUS	Status (pass/fail)	Char	6	
MAX_MKS	Maximum marks	Number	3	
OBT_MKS	Obtained marks	Number	3	

Table Name: Subject1
Primary Key: s_no
This table is used to store the maximum & obtained marks of each subject of each degree a student has gone through.

Name	Description	Data Type	Size	Constraint
S_NO	Serial number	Number	4	Primary Key
SRN	Serial number	Number	4	Foreign Key
NAME	Name of subject	Varchar2	60	

MAX_MKS	Maximum marks	Number	3	
OBT_MKS	Obtained marks	Number	3	

Table Name: Teacher
Primary Key: teach_id
This table is used to store information about teachers. There personal as well as professional information.

Name	Description	Data Type	Size	Constraint
TEACH_ID	Teacher ID	VARCHAR2	10	Primary Key
NAME	Teacher name	VARCHAR2	50	
DEPT_ID	Department ID	NUMBER	2	Foreign Key
ADDRESS	Address of teacher	VARCHAR2	60	
PH_NO_RES	Phone number of home	NUMBER	7	
PH_NO_OFF	Phone number of office	NUMBER	7	
E_MAIL	E mail address	VARCHAR2	60	
FAX	Fax	VARCHAR2	14	
MOBILE_NO	Teacher mobile number	NUMBER	11	

CHAPTER 7

System Development

INTRODUCTION TO SYSTEM DEVELOPMENT

The development phase of the project starts after the design. During this phase a design in the form of shapes and texts is converted into working software. The software is developed in such a way so that it can meet the requirements and specification of the users. The implementation phase of any system is concerned with the tools used in the development work and the components used to implement the system. This chapter explains all the steps taken for the development of the software.

APPLICATION ARCHITECTURE

This system is implemented as a Database-application. Application in the form of Data base Management system. Oracle 7.0 is used as backend database and Developer 2000 at front end.

TOOLS SELECTION

One of the complex decisions in system implementation is to determine which particular software is capable of meeting the system requirements. After considering a number of database tools available these days, Oracle 7.0 has been selected as database.

Windows 98 is used as operating system. It provides the facility to run this software is easily available to us.

DATA BASE SELECTION

Oracle 7.0

Oracle 7.0 is the very popular database, which is provided by Oracle Corporation. It is fully multi threaded using kernel threads. This means it can easily use multiple CPUs if available. It works on many different Platforms. It supports many different column types integers 1,2,3,4, and 8 bytes long, bit, date time, varchar, Text, char, currency. It is a privilege system that is very flexible and secure, and allows host-based verification.
Some main features of Oracle 7.0 are:

Oracle 7.0 features include:

SCALABILITY AND AVAILABILITY

The Oracle database engine has the scalability, availability, and security features required to operate as the data storage component for large corporations.

DATABASE.

The Oracle programming model is integrated with the Developer 2000 architecture for developing Database applications. The same database engine can be used across platforms ranging from laptop computers running Microsoft Windows® 98 through large, multiprocessor servers running Microsoft Windows 2000.

PROGRAMMING LANGUAGE SELECTION

One of the most difficult tasks in selecting a language, after the system requirements are known, is to determine whether particular software fits into the requirements. Among the criteria that are applied during an evaluation of language are:

- Algorithmic and computational complexity
- Environment in which software will execute.
- Performance consideration.
- Data structure complexity.
- Knowledge of software development.
- Availability of good computer

DEVELOPER 2000 TECHNOLOGY

Developer 2000 was selected because of the following reasons:

a) It provides a highly efficient and easy to use interface drawing capability

b)

c) Developer 2000 powerful debugging environment enables the programmer to trace through each proceeding step and examine intermediate data values produced during processing.

d) Application developed in Developer 2000 as stand-alone can be transported to a multi-user environment with very little change in code.

e) It provides extensive database handling facilities.

STEPS IN PROPOSED SYSTEM IMPLEMENTATION:

- Database setup by creating tables in Oracle 7.0
- Prototype development of the proposed system
- Database connectivity
- Finding and removing the errors in the interface and functionality of different pages.
- Input data validation checks.
- Inserting some sample data in the application.
- Finalizing the interface. Making all pages for giving consistent look and feel.

CHAPTER 8

System testing and implementation

INTRODUCTION TO SYSTEM TESTING AND IMPLEMENTATION:

After the system implementation, the next step is to execute the software system to determine whether it conforms to its specifications and executes successfully in its intended environment. This chapter explains the testing process applied to the proposed system and the outcomes of this process.

SOFTWARE TESTING

Testing is the exposure of a system to trial input to see whether it produces correct output.

Alternative definition of testing is the following:

"*The process of exercising or evaluating a system or system component by manual or automated means to verify that it satisfies specified requirements or to identify differences between expected and actual results.* "

The goal of testing is to increase confidence that the software meets its specification, that is, it is error-free. Testing is the process of neither finding errors nor correcting errors. Testing can never guarantee this for non-trivial problems; however, it can increase the chances of finding trivial problems more accurately and more efficiently.

The psychology of testing is complex, as it is tempting to assume that a successful test is one in which no errors are found. However, you can always then have successful

testing by using trivial test data. Furthermore, developers tend to test their own code according to the assumptions they used when they were writing it, whereas most errors occur because the developer's assumptions were wrong. Therefore, an independent team should probably choose test cases. Independent team will test like the user and there are more chances to find errors.

VALIDATION

This process involves showing the system to the user and checking whether it fulfills expectations.

VERIFICATION

This process involves testing the system according to the requirement specifications.

TYPES OF TESTING

Following are major types of the of the testing:

BLACK BOX TESTING

Testing that makes no assumption of the internal construction of the application (the box) and only tests the externally visible behavior. Black box testing focuses on the functional requirements of the software.

CONTROL FLOW TESTING

Testing of the flow of control through the application. The number of different paths or branches through the application determines coverage.

DATA FLOW TESTING

Tests are oriented at the flow of data. Coverage is determined by the number of different data flow paths or branches that have been performed by the application under test.

EXCEPTION TESTING

White box type testing that exercises the exception handling behavior of the application.

FUNCTIONAL TESTING

Testing of the externally visible functional behavior of the application. Coverage is determined by comparison with the specification of the application. Preferred term to black box testing, as practically speaking functional testing often assumes some knowledge of the construction of the application.

INTEGRATION TESTING

Integration testing is performed to establish whether the components interact with each other according to the specification. Comes after Unit Testing

WHITE BOX TESTING

Testing that assumes a detailed knowledge of the internal workings of the application (the box) and depends upon that knowledge. Typically used for Unit Testing

TESTING PROCESS

We can briefly describe the testing process as:

- Obtain a valid value from the functional domain (or invalid one from outside the functional domain, if testing robustness)

- Determine the expected behavior
- Execute the program
- Observe its behavior
- Compare obtained and expected behavior
- If the expected and the actual behavior agree
- Then the test case has succeeded
- Else the test case has uncovered an error

TESTING METHODOLOGY USED

I have used the black box testing methodology to test this software. As described earlier black box testing is a testing that makes no assumption of the internal construction of the application (the box) and only tests the externally visible behavior. Black box testing is based on the requirements of the application. Before we proceed further I would like to give a brief overview of the how Black Box testing works.

Black box testing attempts to derive sets of inputs that will fully exercise all the functional requirements of a system. This type of testing attempts to find errors in the following categories:

- Incorrect or missing functions
- Interface errors
- Errors in data structures or external database access
- Performance errors
- Initialization and termination errors

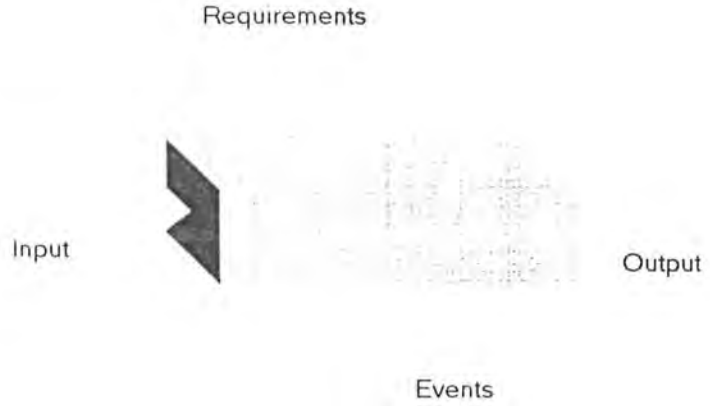


Fig: Black Box Testing

BLACK BOX TESTING DESIGN

Tests are designed to answer the following questions:

- How is the function's validity tested?
- What classes of input will make good test cases?
- Is the system particularly sensitive to certain input values?
- How are the boundaries of a data class isolated?
- What data rates and data volume can the system tolerate?
- What effect will specific combinations of data have on system operation?

TESTING PERFORMED

Following is the list and description of testing performed to the system.

- Unit Testing
- Integration Testing
- Validation testing
- Regression testing

UNIT TESTING

- Unit testing is to test each individual component of the system independently from other component. All components were tested individually. Even each function was tested individually.

INTEGRATION TESTING

- In integration testing all modules are integrated into one and check the behavior of the system.

VALIDATION TESTING

- Validation testing phase comes after all the components are integrated together. Validation testing is performed to check user visible input to get recognizable output of the system. It is performed to find if the software conforms to the system requirements.

REGRESSION TESTING

- Regression testing is performed after an error has been removed from the system to confirm that the removal of errors has not created other errors. Regression testing is performed after each testing activity. Some new errors are found and removed from the system. So that system is working well.

SYSTEM IMPLEMENTATION

1. A plan for testing the new system before it is implemented must be developed. Information Services and Technology and Internal Audit will be able to assist in this process. Testing is critical for newly developed systems. Packaged systems which are already running on numerous sites still require testing to ensure they are properly installed and to ensure system parameters are properly established. Technical testing must be conducted by Information Services and Technology staff.
2. Ensure that the test plan is comprehensive and insures that:
    a. Identified system processes including internal controls will be tested.
    b. The identified critical success factors will be tested.
    c. All data entry screen fields will be tested for edits and for the data they will accept.
    d. System tables will be tested.
    e. The database will be tested.
    f. Live data is used to test the system.
    g. The system is run in parallel with the existing system, for some period.
    h. Volume testing is conducted which simulates peak and normal work loads.
    i. The telecommunications component of the system will be tested.
    j. That system back up and recovery is tested.
    k. That the system meets the stated systems specifications (e.g. response time).
3. Determine how tests conducted are going to be documented, who is going to conduct the tests and how will problems be reported and resolved. Who is responsible for insuring testing has been satisfactorily completed.
4. How will data from the current system be converted for the new system? Will the vendor be responsible for this? If not then who will? Things to consider are:
    . Who is responsible for identifying the various types of data records in the current system that must be converted to the new system?
    a. Who is going to test the conversion plan/programs?
    b. Insure controls are in place such for editing and control totals which ensure the converted data is complete and accurate.

c. Ensure a conversion back out plan exists in case of failure.

d. Who is responsible for checking and approving the converted data.

5. Ensure plans are in place to provide user training and technical training.

. Identify who will be conducting the training. Will the trainers be qualified instructors?

a. Will users trained in the system train other users (e.g. train the trainer)?

b. Will the training be timed to correspond with the "go live" date of the new system?

c. Who will receive the technical training on the system?

6. Determine who is responsible for deciding on the system parameter settings. Who will be responsible for setting the parameter values? Internal Audit should be consulted to ensure that the parameters set provide effective controls. Other things to co nsider are:

. Does the vendor have a suggest parameter format?

a. How are the parameter settings reported to management?

b. Who has the ability to change the settings and are changes logged?

7. Ensure that everything is prepared to go live on the new system with assistance from Information Services and Technology.

. Hardware and operating software is installed and properly configured for the University computing environment.

a. Communications hardware, cabling, software is properly set up.

b. Software is properly installed.

c. System tables are populated accurately and completely.

d. System interfaces are built and function properly.

e. Special supplies such as forms are in stock.

f. Unrecoverable components of the old system are backed up in case of installation failure.

g. Users and management are satisfied with the performance of the new system.

h. Back-ups are made of the new system and the converted data.

i. Proper user and technical manuals have been received.

8. Ensure security procedures are defined for obtaining access to the system (i.e.user-ids) and access rights to data.
9. Ensure plans are in place to back up the system and data on a regular basis and disaster recovery procdures are defined.

CHAPTER 9

System Evolution

INTRODUCTION

In this chapter, the new system has been evaluated in detail. The reason why any old system is changed to the new system is that the old system has flaws and is not functioning properly The new system is supposed to overcome most of the drawbacks and provide convenience to the user.

EVALUATION OF THE NEW SYSTEM

System evolution is an integral part of any Information system .The reason for evaluating the performance of the new system is to determine whether the desired objectives have been met or not. Since no system is ever complete or perfect, it will be maintained as changes are required. Efforts have been made to make the Students Information System satisfy the requirements of administration, but there is always room for improvement

The user of die new system is in the best position to determine, on an on-going basis, the effeteness of the system. The system developed for the administration is directed to meet their problems.

Accuracy is the ratio of correct information to the total volume of information produced over a period. The accuracy level depends on the type of information produced. In the new system level of accuracy is nearly hundred percent I-e; unless there are errors in the data entry, the new system is very accurate .The new system has a number **of** advantages over the old manual system.

ADVANTAGES OF THE NEW SYSTEM

The advantages of the new system are given bellow:

MODULAR

The new system has been built in a *form of* forms and small independent reports. Each forms or reports perform a different function. This approach in database makes the system run efficiently and provides the user ways of extending it, for example, more queries can be added later on.

ACCURACY

By accuracy we mean mat the outputs are sufficiently precise for their desired purpose. The outputs produced by the system are accurate which is made possible by providing validation checks at almost every data fields.

TIMELINESS

All the data can be retrieved. User has been provided the facility of retrieving all the records or a specific record. For a specific record, all the records are shown on the screen and then the user can select one of them or by giving some basic information about that specific student.

EFFICIENT

The new system is efficient and suitable for easy information retrieval within a short time. This database responds quickly and accurately.

CONSISTENCY

Care has been taken to use the data entry and other forms of the same format in all the system. This makes a user feel easy while using the system and gives him / her an idea of what to expect next .Exit points from the system have been provided at all possible places so that the user has no problem leaving the system.

SUITABILITY

The system is designed so as to be very much suitable for non-professional users, as the user of this system will not be computer scientist

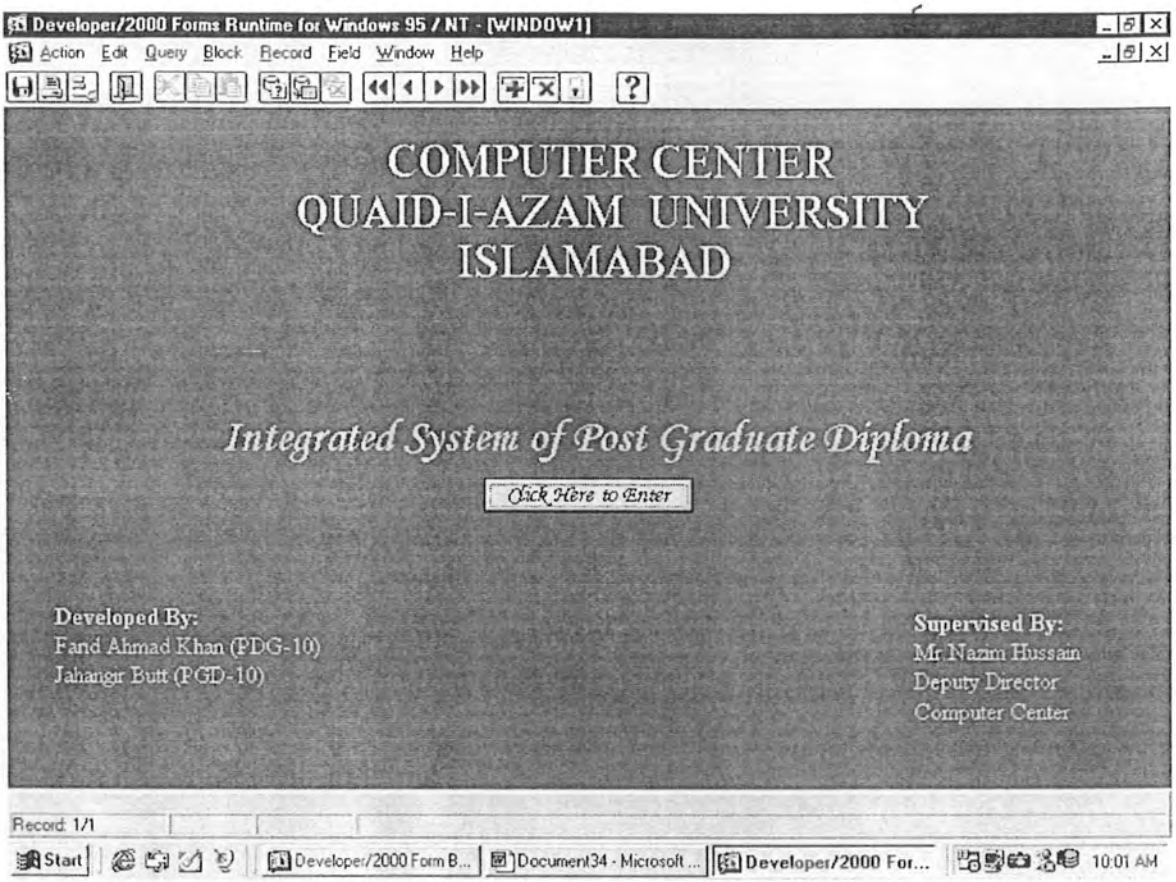
USER FRIENDLY INTERFACE

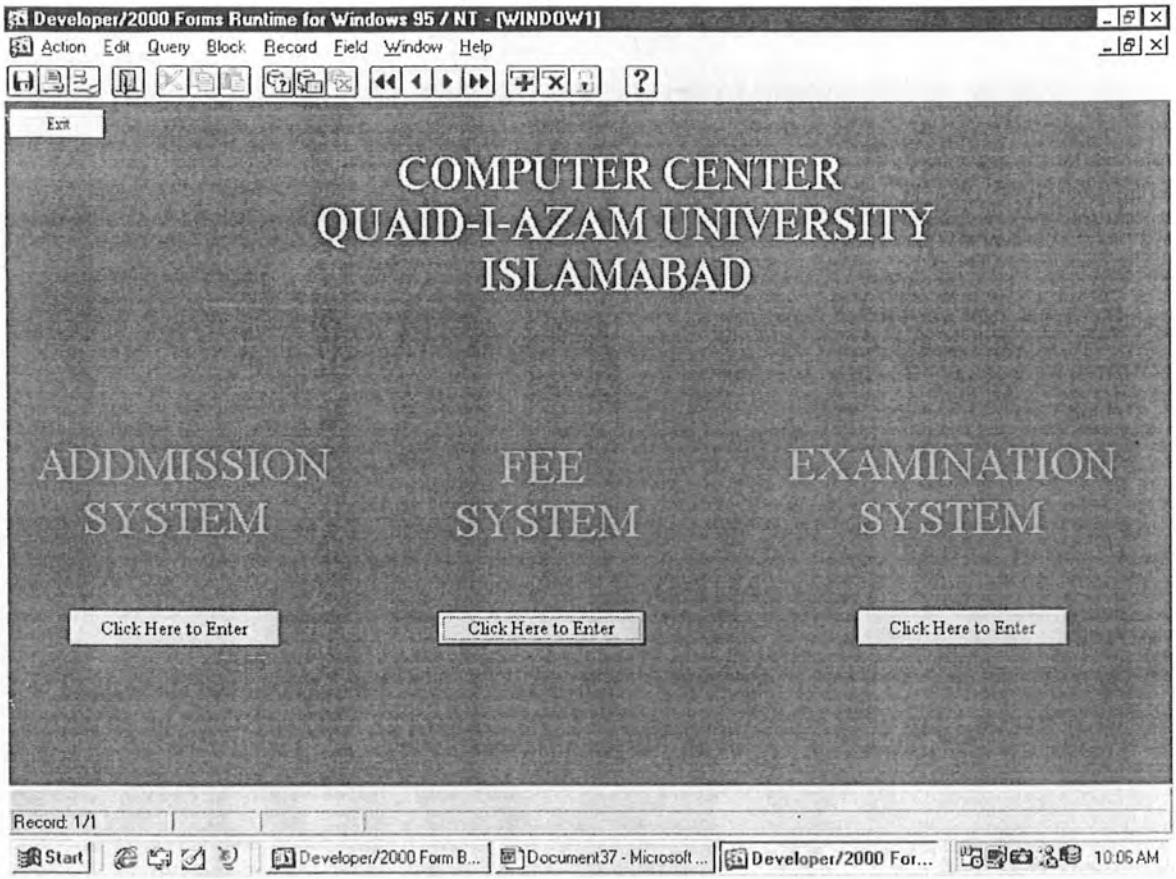
The new system has been developed keeping in mind the fact that it should user friendly. The developed system is very easy to use, for. Even a user with a little knowledge of data processing. The user does not need to know the technical complexities of the software tools used in the system. The system is flexible enough to cope with any changes in the future.

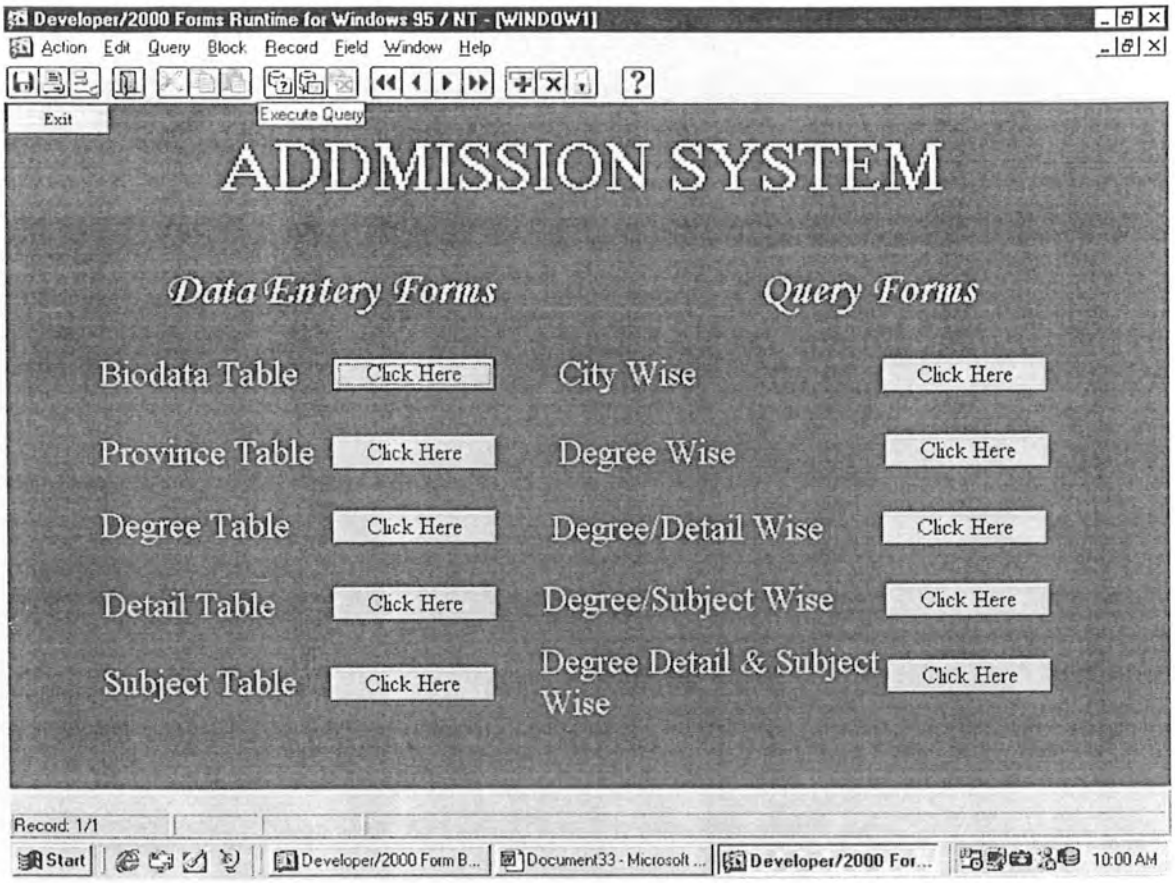
FUTURE EXTENSIONS

More queries can be added to the system latter on if required. Database can be extended to hold the personal information of the students.

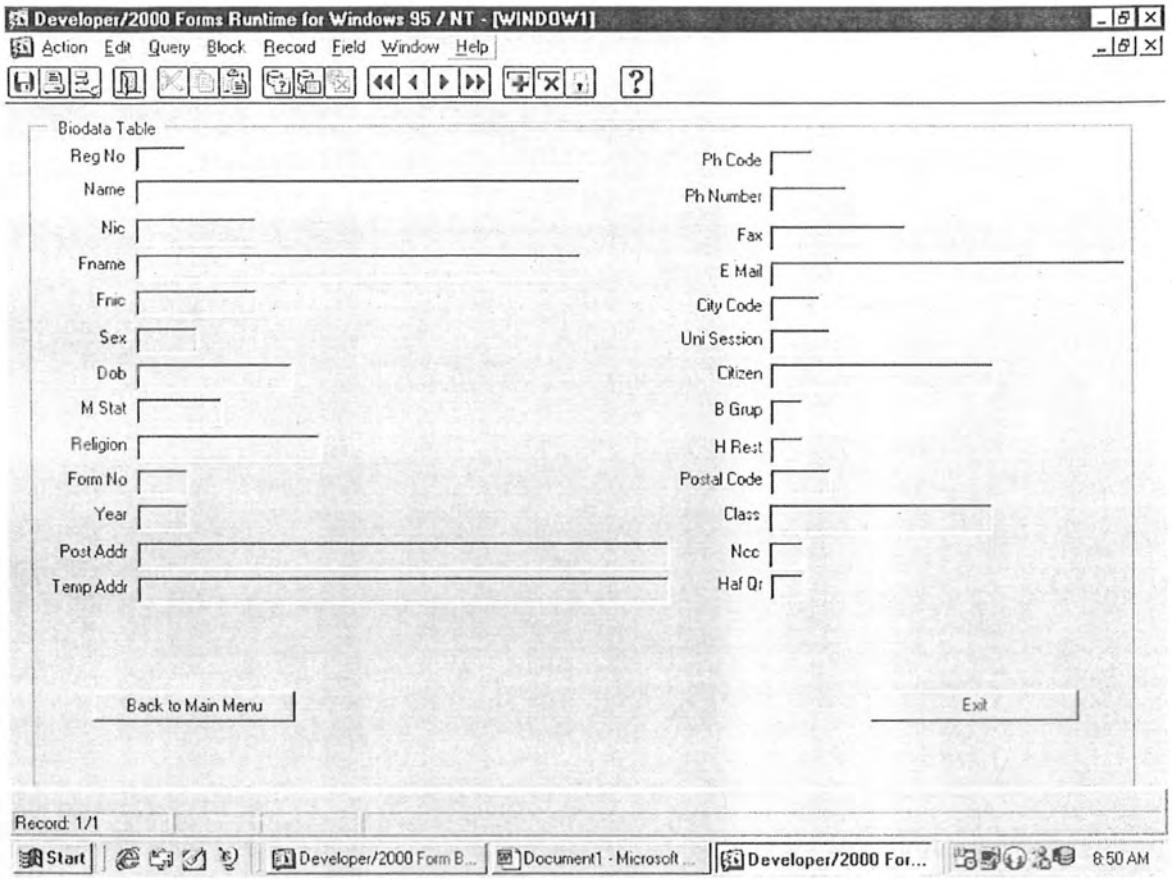
APPENDIX

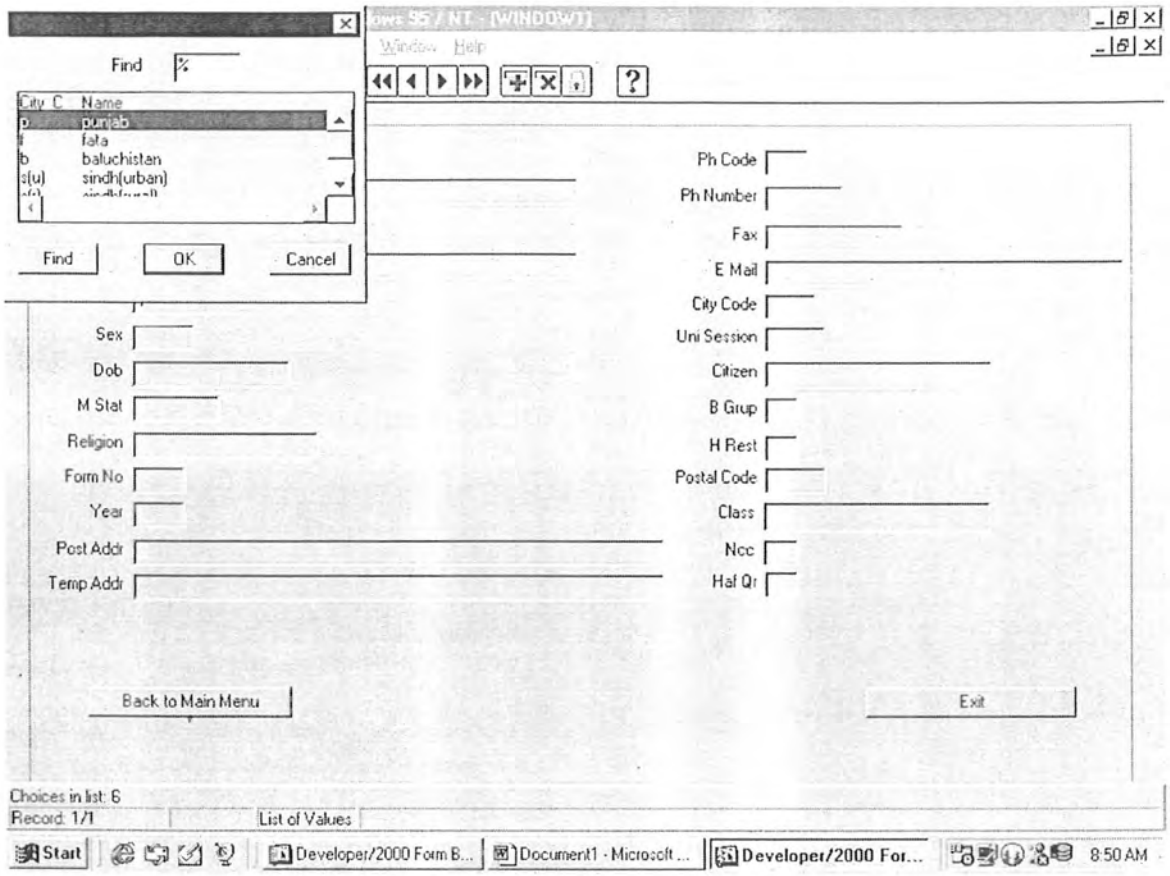

Developer/2000 Forms Runtime for Windows 95 / NT - [WINDOW1]
Action Edit Query Block Record Field Window Help
COMPUTER CENTER
QUAID-I-AZAM UNIVERSITY
ISLAMABAD
Integrated System of Post Graduate Diploma
Click Here to Enter
Developed By:
Fand Ahmad Khan (PDG-10)
Jahangir Butt (PGD-10)
Supervised By:
Mr Nazim Hussain
Deputy Director
Computer Center
Record: 1/1
Start
Developer/2000 Form B...
Document34 - Microsoft ...
Developer/2000 For...
10:01 AM

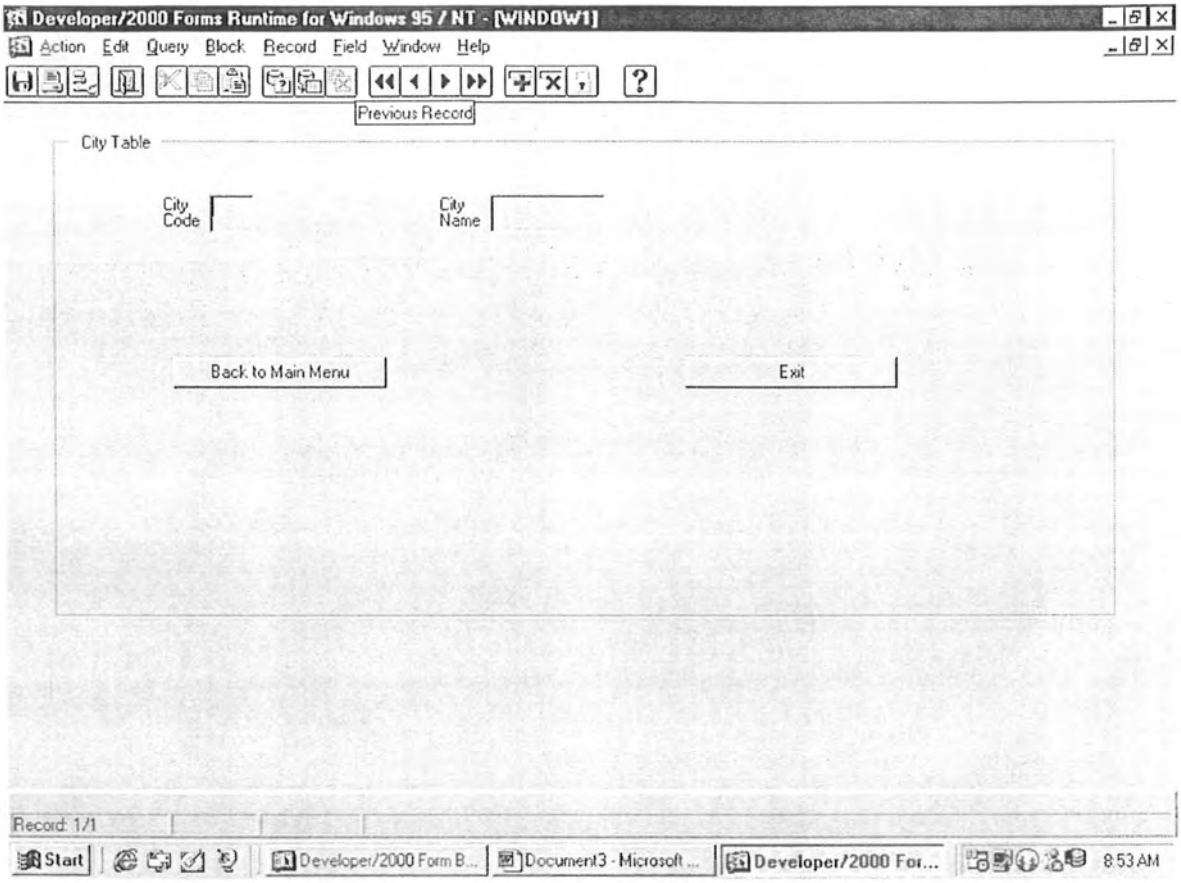

Developer/2000 Forms Runtime for Windows 95 / NT - [WINDOW1]
Action Edit Query Block Record Field Window Help
Exit
COMPUTER CENTER
QUAID-I-AZAM UNIVERSITY
ISLAMABAD
ADDMISSION SYSTEM
FEE SYSTEM
EXAMINATION SYSTEM
Click Here to Enter
Click Here to Enter
Click Here to Enter
Record: 1/1
Start
Developer/2000 Form B...
Document37 - Microsoft ...
Developer/2000 For...
10:06 AM

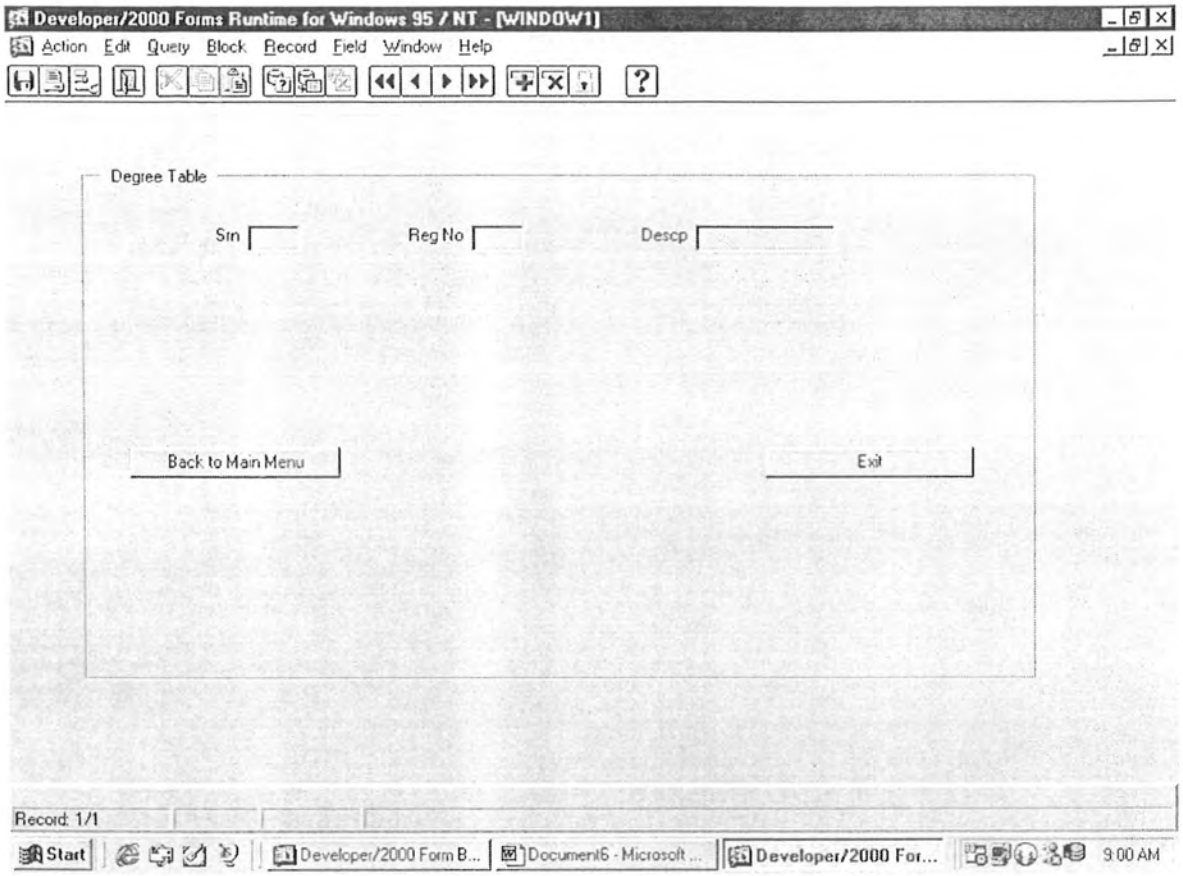


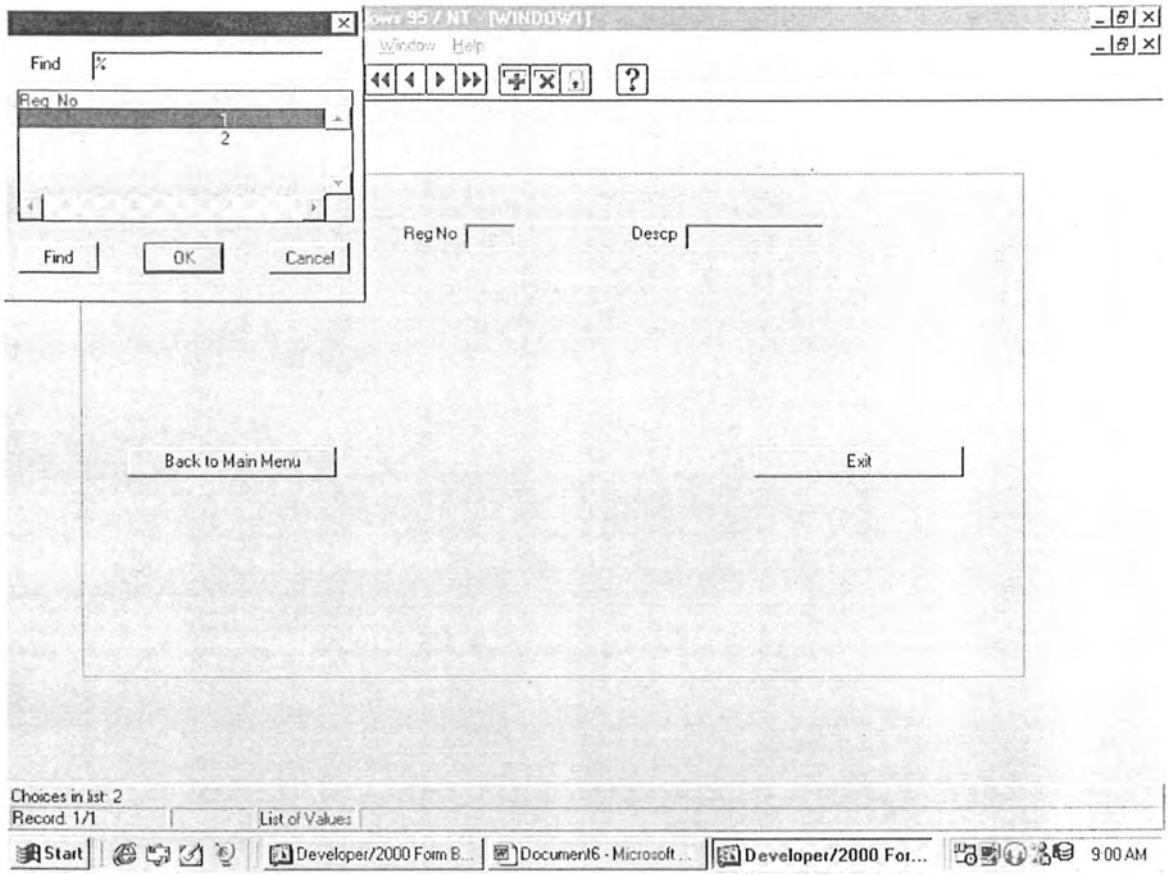
Admission System Switch Board

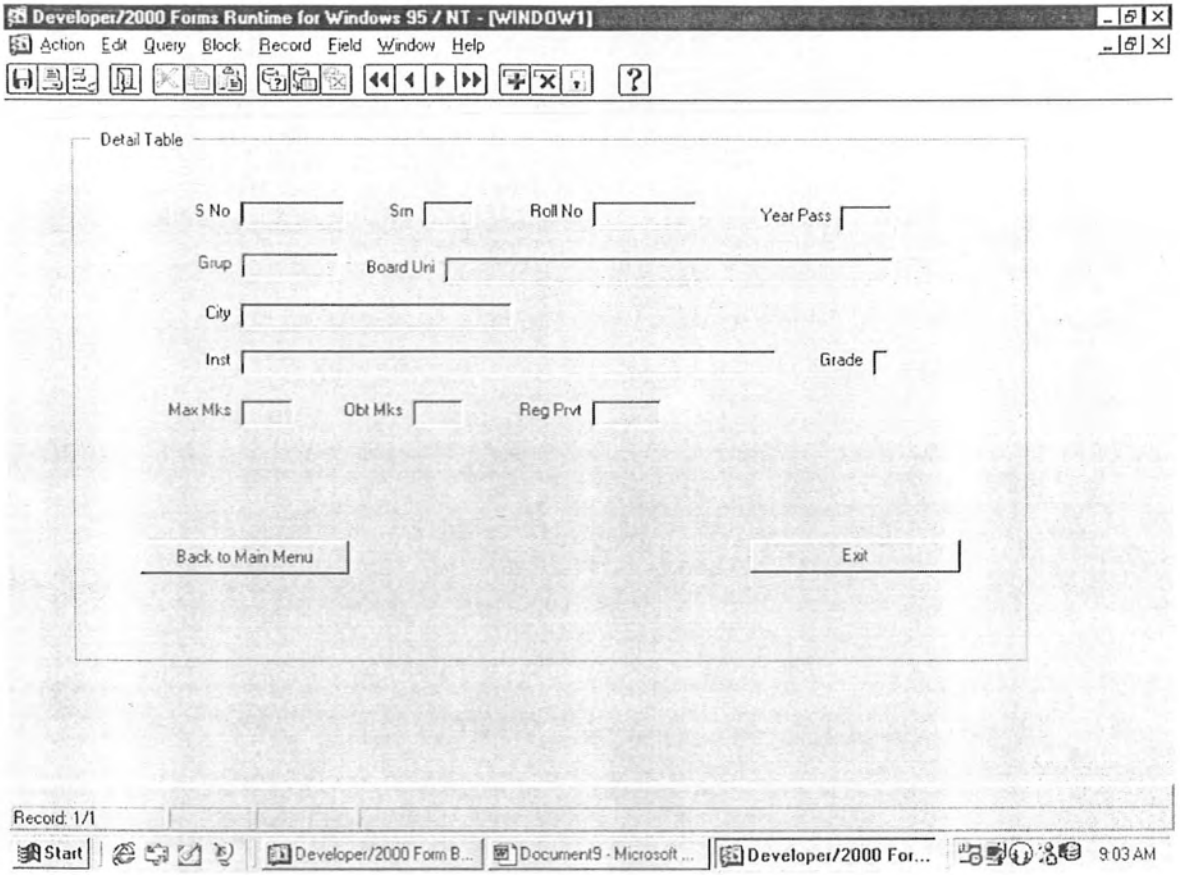

Developer/2000 Forms Runtime for Windows 95 / NT - [WINDOW1]
Action Edit Query Block Record Field Window Help
Biodata Table
Reg No
Name
Nic
Fname
Fnic
Sex
Dob
M Stat
Religion
Form No
Year
Post Addr
Temp Addr
Ph Code
Ph Number
Fax
E Mail
City Code
Uni Session
Citizen
B Grup
H Rest
Postal Code
Class
Ncc
Haf Qr
Back to Main Menu
Exit
Record: 1/1
Start
Developer/2000 Form B...
Document1 - Microsoft ...
Developer/2000 For...
8:50 AM

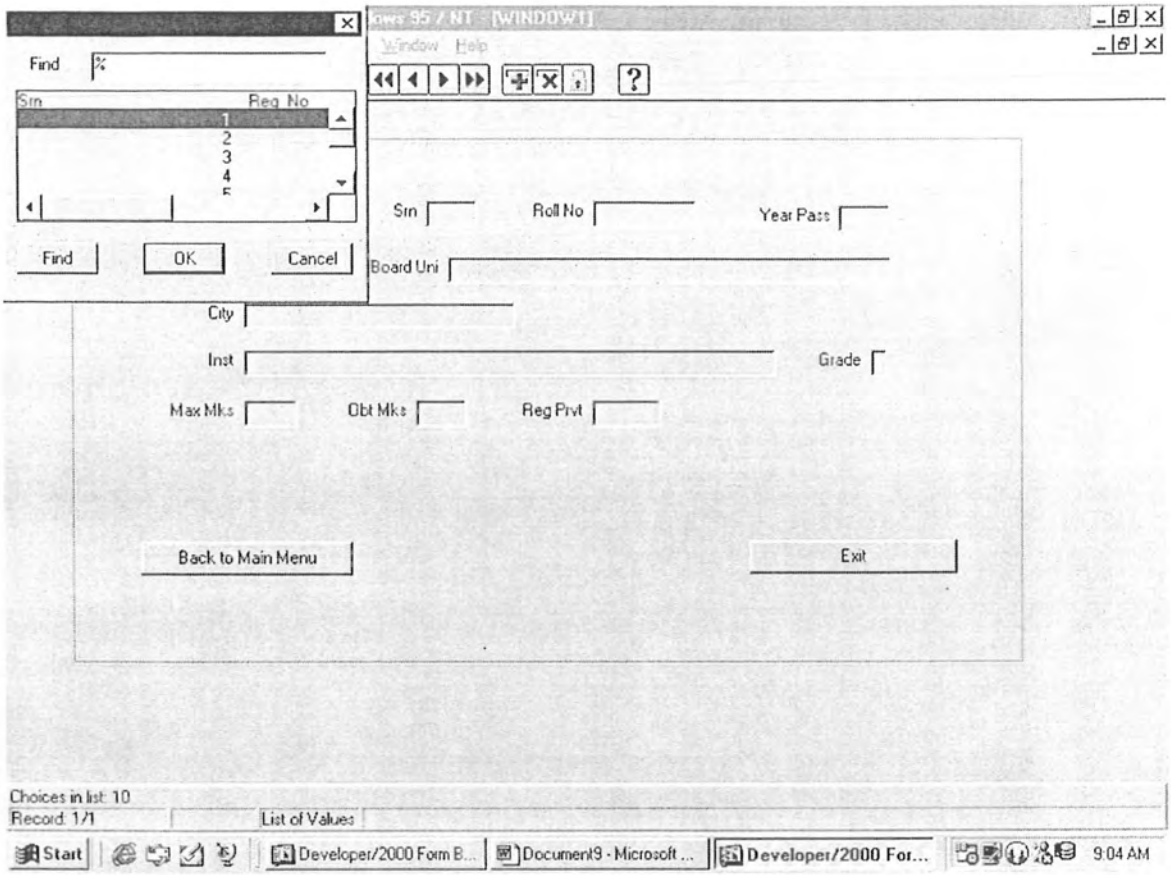

Find
%
City_C Name
p punjab
f fata
b baluchistan
s(u) sindh(urban)
Find
OK
Cancel
Window Help
Ph Code
Ph Number
Fax
E Mail
City Code
Uni Session
Citizen
B Grup
H Rest
Postal Code
Class
Ncc
Haf Qr
Sex
Dob
M Stat
Religion
Form No
Year
Post Addr
Temp Addr
Back to Main Menu
Exit
Choices in list: 6
Record: 1/1
List of Values
Start
Developer/2000 Form B...
Document1 - Microsoft ...
Developer/2000 For...
8:50 AM

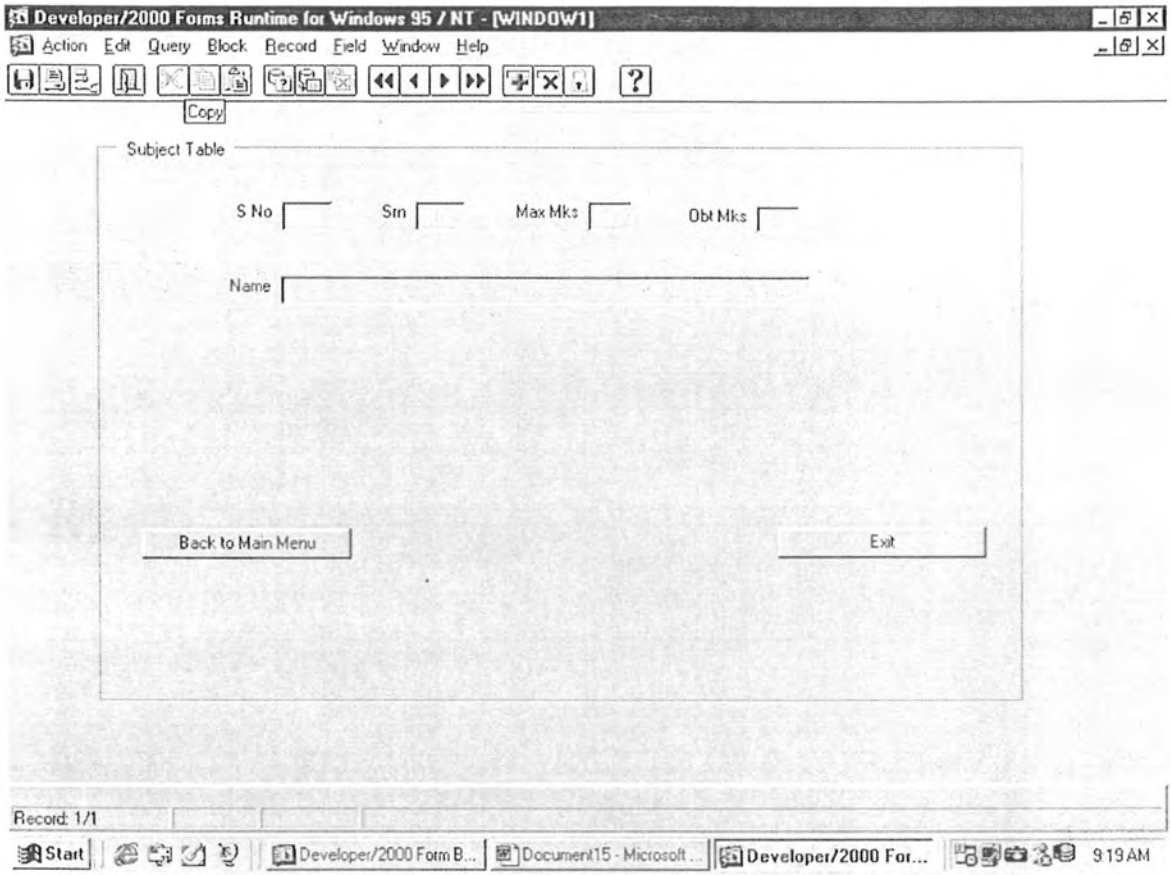

Developer/2000 Forms Runtime for Windows 95 / NT - [WINDOW1]
Action Edit Query Block Record Field Window Help
Previous Record
City Table
City Code
City Name
Back to Main Menu
Exit
Record: 1/1
Start
Developer/2000 Form B...
Document3 - Microsoft ...
Developer/2000 For...
8:53 AM

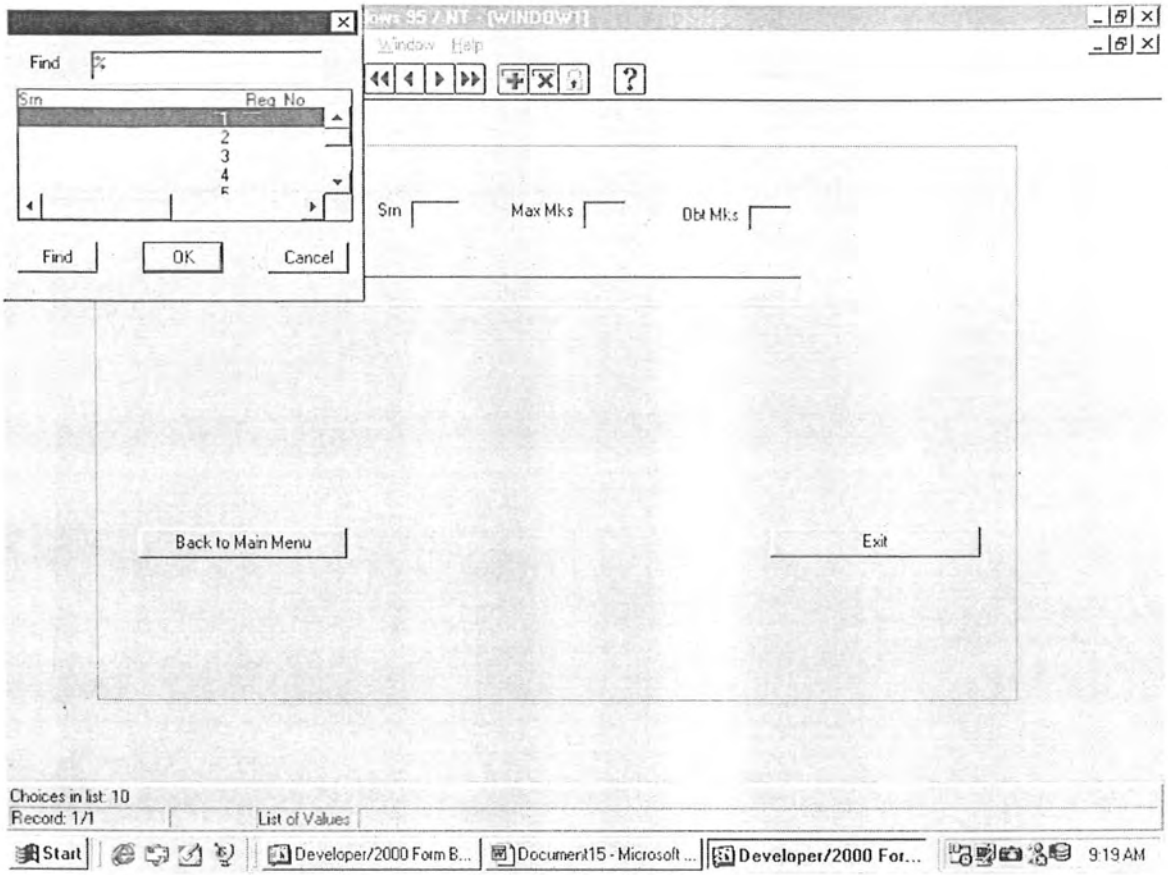

Developer/2000 Forms Runtime for Windows 95 / NT - [WINDOW1]
Action Edit Query Block Record Field Window Help
Degree Table
Srn
Reg No
Descp
Back to Main Menu
Exit
Record: 1/1
Start
Developer/2000 Form B...
Document6 - Microsoft ...
Developer/2000 For...
9:00 AM

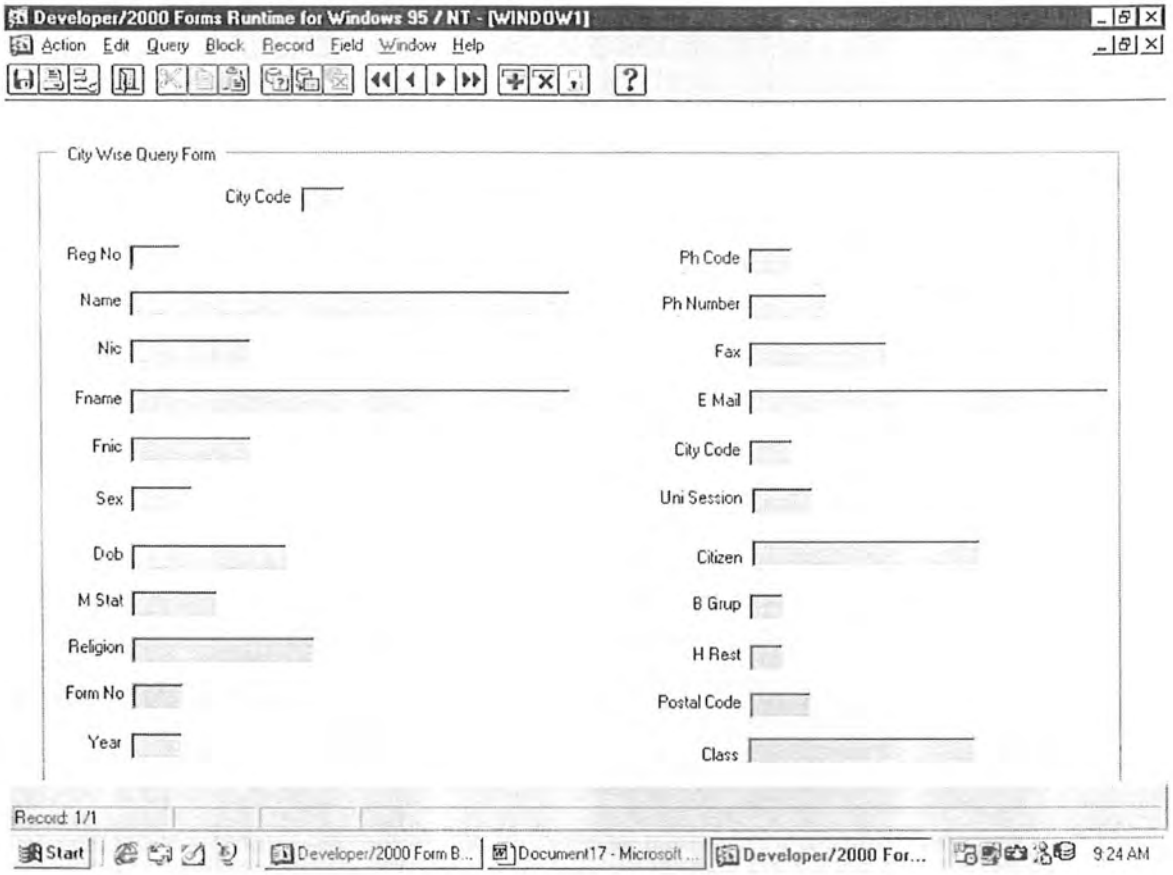

Find
%
Reg No
1
2
Find
OK
Cancel
Window Help
Reg No
Descp
Back to Main Menu
Exit
Choices in list: 2
Record: 1/1
List of Values
Start
Developer/2000 Form B...
Document6 - Microsoft ...
Developer/2000 For...
9:00 AM

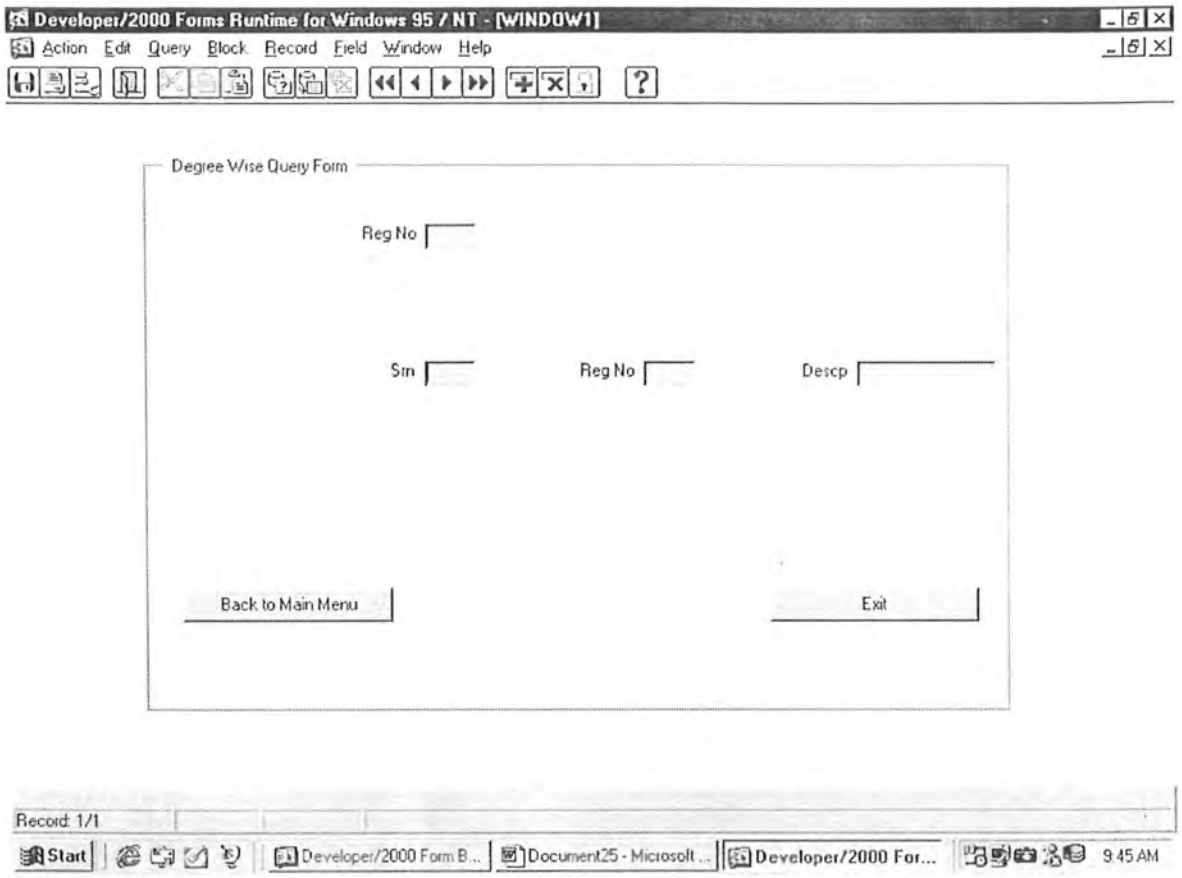

Developer/2000 Forms Runtime for Windows 95 / NT - [WINDOW1]
Action Edit Query Block Record Field Window Help
Detail Table
S No
Sm
Roll No
Year Pass
Grup
Board Uni
City
Inst
Grade
Max Mks
Obt Mks
Reg Prvt
Back to Main Menu
Exit
Record: 1/1
Start
Developer/2000 Form B...
Document9 - Microsoft ...
Developer/2000 For...
9:03 AM

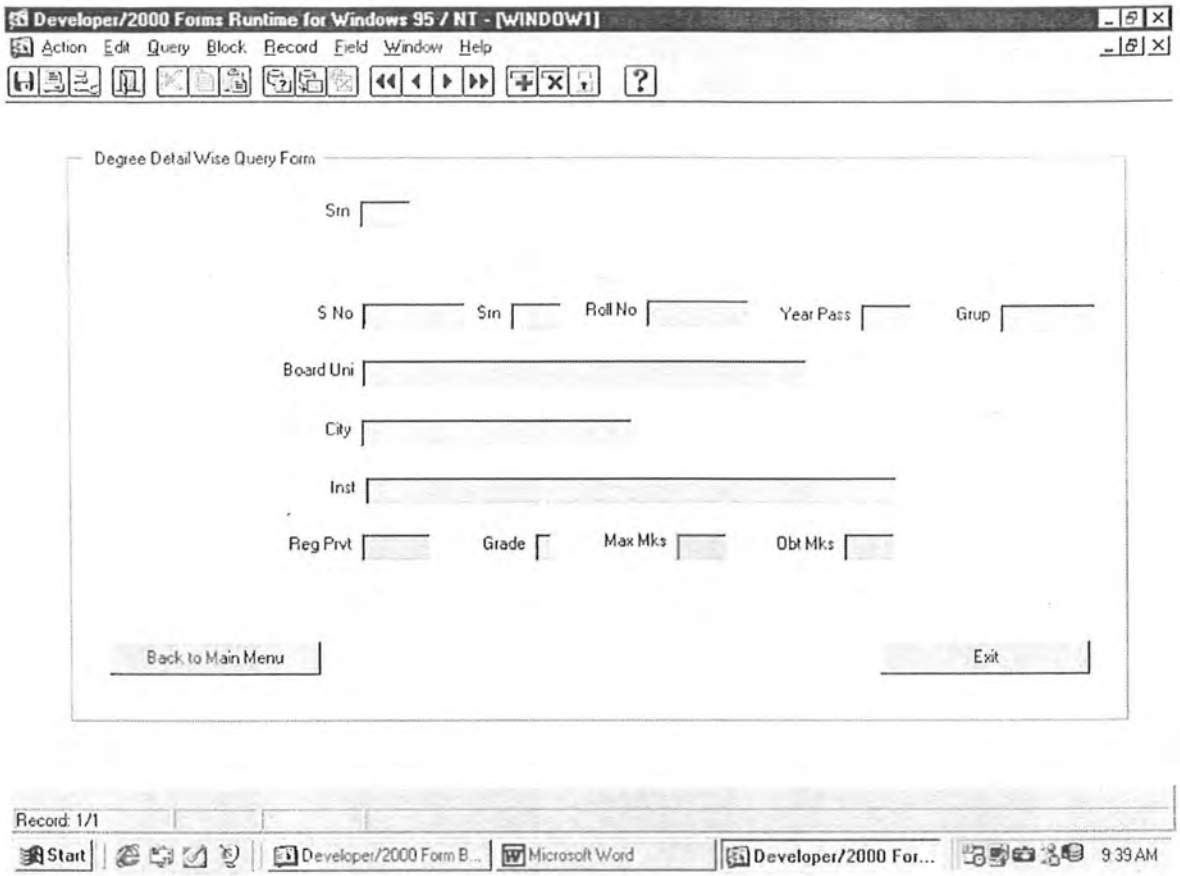

Find
%
Srn
Reg_No
1
2
3
4
Find
OK
Cancel
Window Help
Srn
Roll No
Year Pass
Board Uni
City
Inst
Grade
Max Mks
Obt Mks
Reg Pnt
Back to Main Menu
Exit
Choices in list: 10
Record: 1/1
List of Values
Start
Developer/2000 Form B...
Document9 - Microsoft ...
Developer/2000 For...
9:04 AM

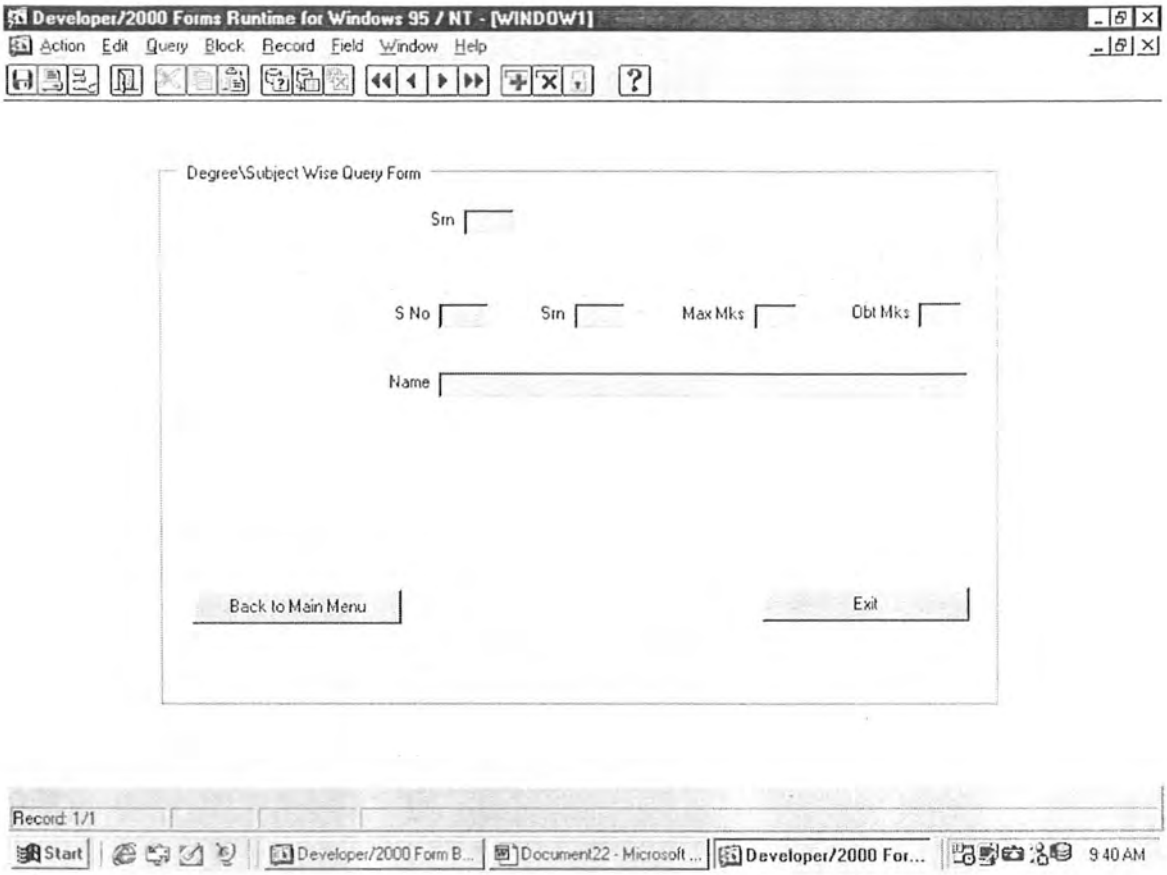

Developer/2000 Forms Runtime for Windows 95 / NT - [WINDOW1]
Action Edit Query Block Record Field Window Help
Copy
Subject Table
S No
Sm
Max Mks
Obt Mks
Name
Back to Main Menu
Exit
Record: 1/1
Start
Developer/2000 Form B...
Document15 - Microsoft ...
Developer/2000 For...
9:19 AM

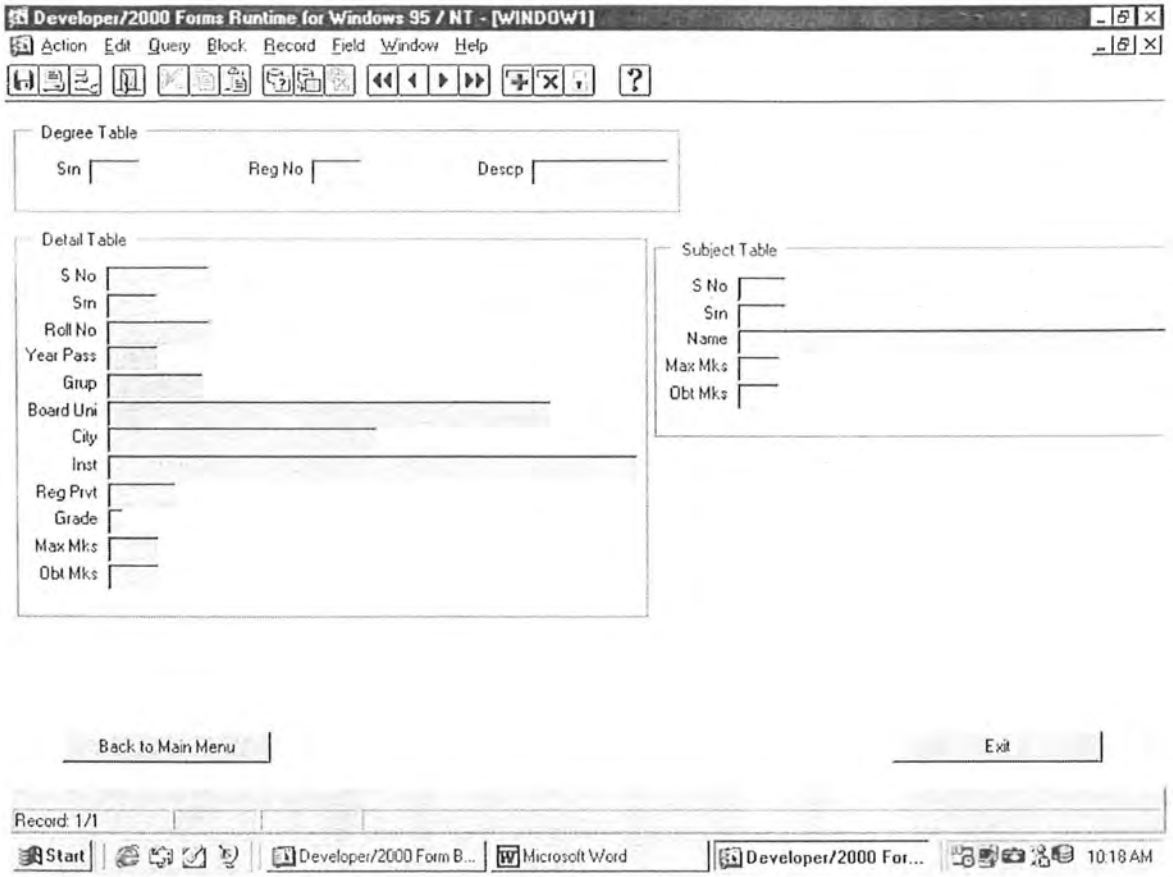

Find
Srn
Reg No
1
2
3
4
Find
OK
Cancel
Window Help
Srn
Max Mks
Obt Mks
Back to Main Menu
Exit
Choices in list: 10
Record: 1/1
List of Values
Start
Developer/2000 Form B...
Document15 - Microsoft ...
Developer/2000 For...
9:19 AM

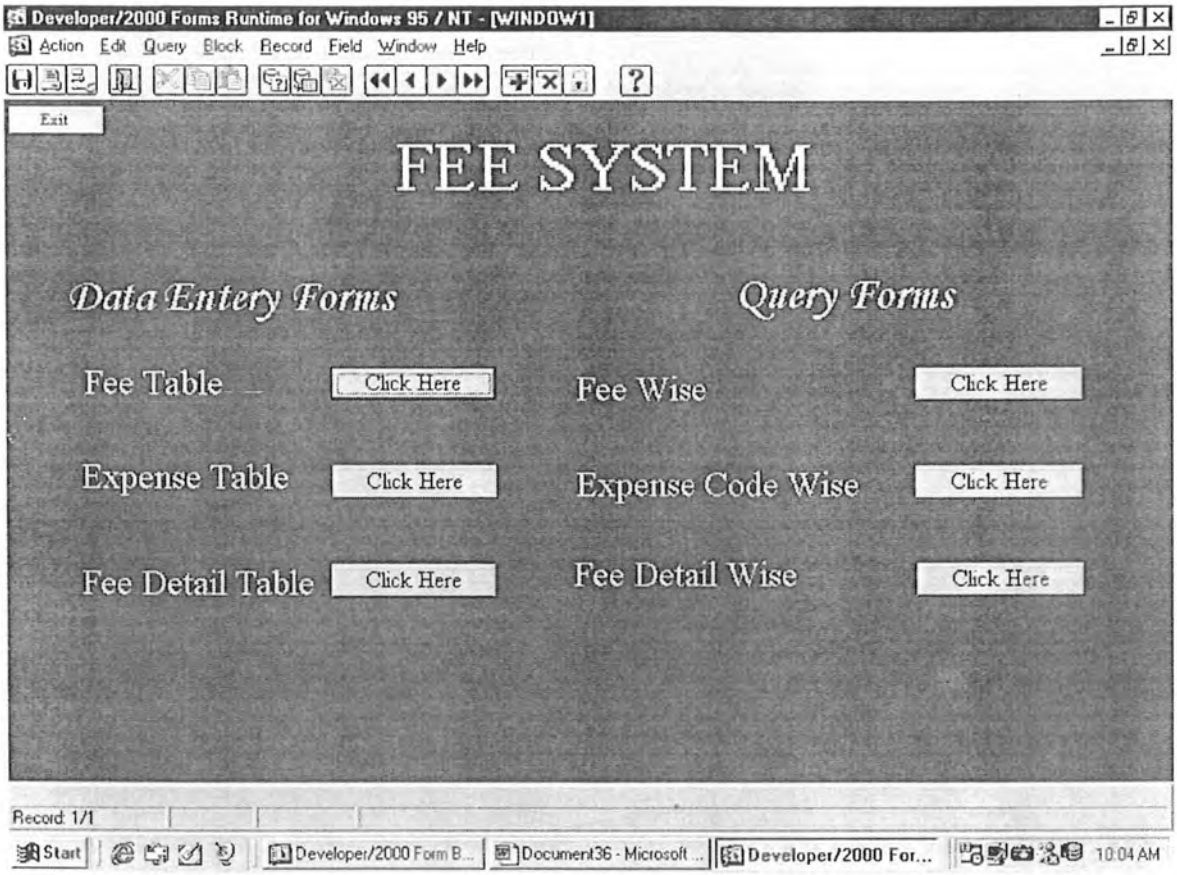

Developer/2000 Forms Runtime for Windows 95 / NT - [WINDOW1]
Action Edit Query Block Record Field Window Help
City Wise Query Form
City Code
Reg No
Name
Nic
Fname
Fnic
Sex
Dob
M Stat
Religion
Form No
Year
Ph Code
Ph Number
Fax
E Mail
City Code
Uni Session
Citizen
B Grup
H Rest
Postal Code
Class
Record: 1/1
Start
Developer/2000 Form B...
Document17 - Microsoft ...
Developer/2000 For...
9:24 AM

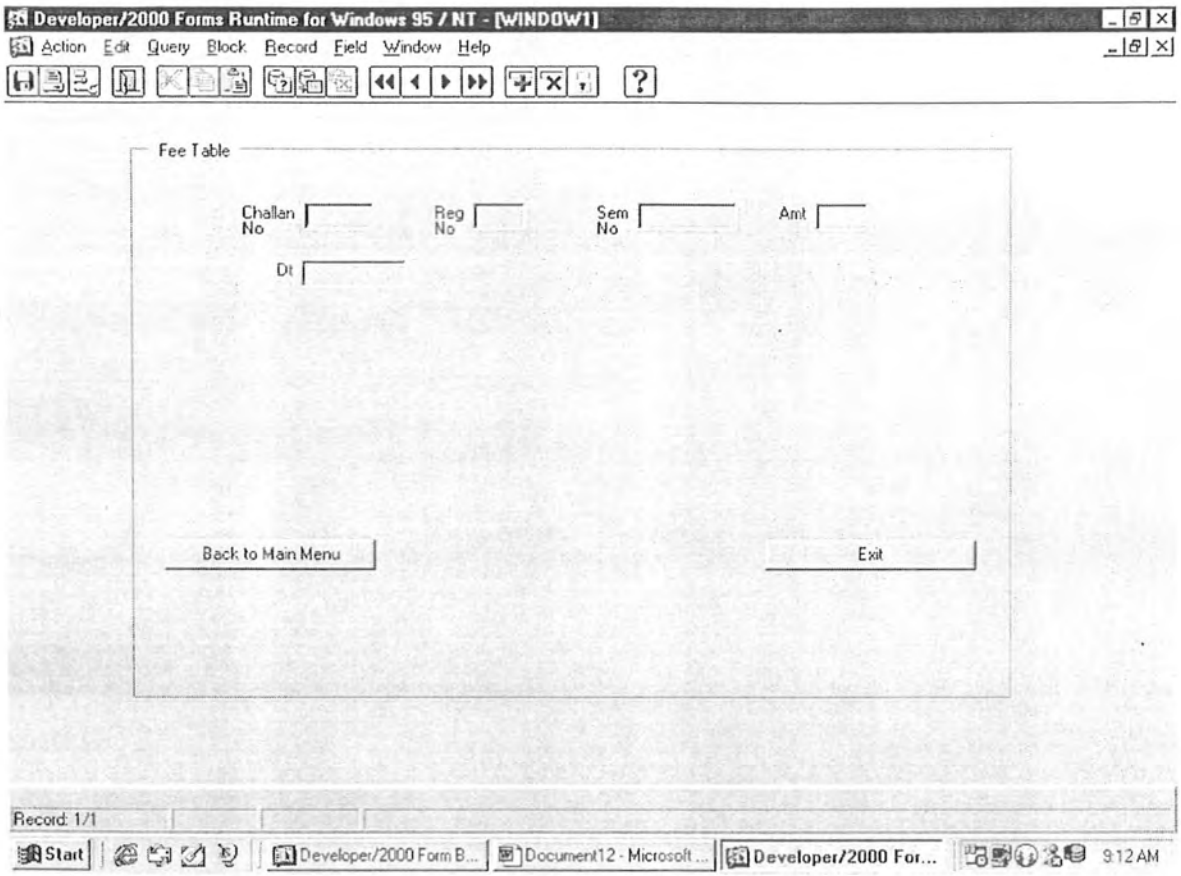

Developer/2000 Forms Runtime for Windows 95 / NT - [WINDOW1]
Action Edit Query Block Record Field Window Help
Degree Wise Query Form
Reg No
Sm
Reg No
Descp
Back to Main Menu
Exit
Record: 1/1
Start
Developer/2000 Form B...
Document25 - Microsoft ...
Developer/2000 For...
9:45 AM

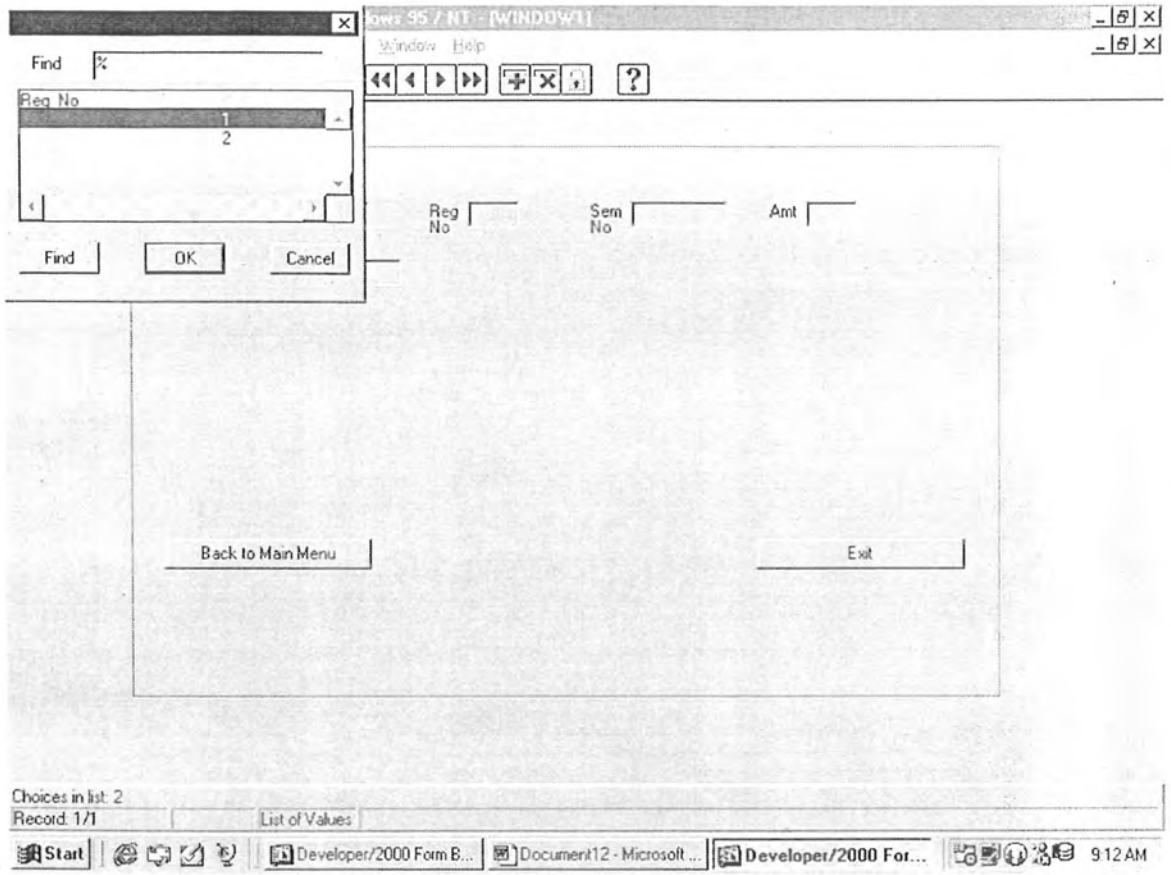

Developer/2000 Forms Runtime for Windows 95 / NT - [WINDOW1]
Action Edit Query Block Record Field Window Help
Degree Detail Wise Query Form
Srn
S No
Srn
Roll No
Year Pass
Grup
Board Uni
City
Inst
Reg Prvt
Grade
Max Mks
Obt Mks
Back to Main Menu
Exit
Record: 1/1
Start
Developer/2000 Form B...
Microsoft Word
Developer/2000 For...
9:39 AM

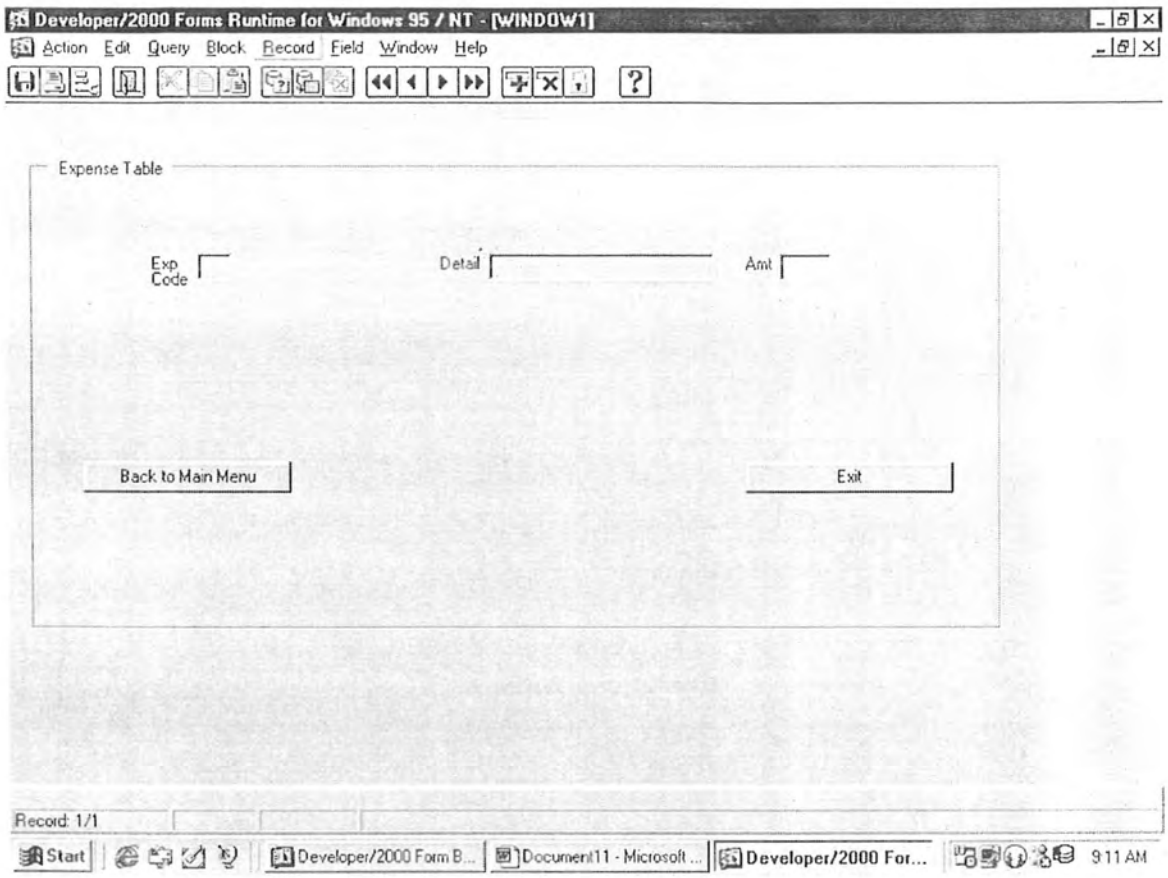

Developer/2000 Forms Runtime for Windows 95 / NT - [WINDOW1]
Action Edit Query Block Record Field Window Help
Degree\Subject Wise Query Form
Stn
S No
Stn
Max Mks
Obt Mks
Name
Back to Main Menu
Exit
Record: 1/1
Start
Developer/2000 Form B...
Document22 - Microsoft ...
Developer/2000 For...
9:40 AM

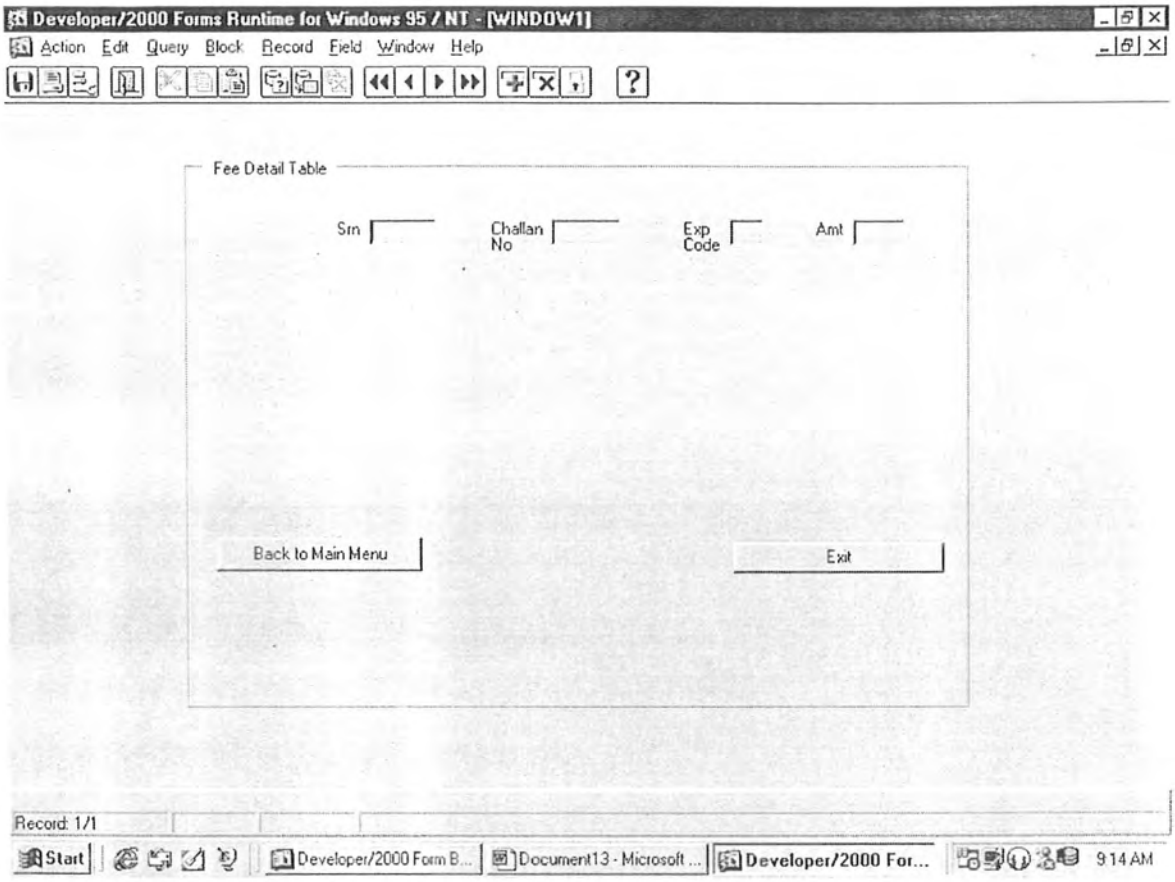

Developer/2000 Forms Runtime for Windows 95 / NT - [WINDOW1]
Action Edit Query Block Record Field Window Help
Degree Table
Srn
Reg No
Descp
Detail Table
S No
Srn
Roll No
Year Pass
Grup
Board Uni
City
Inst
Reg Prvt
Grade
Max Mks
Obt Mks
Subject Table
S No
Srn
Name
Max Mks
Obt Mks
Back to Main Menu
Exit
Record: 1/1
Start
Developer/2000 Form B...
Microsoft Word
Developer/2000 For...
10:18 AM

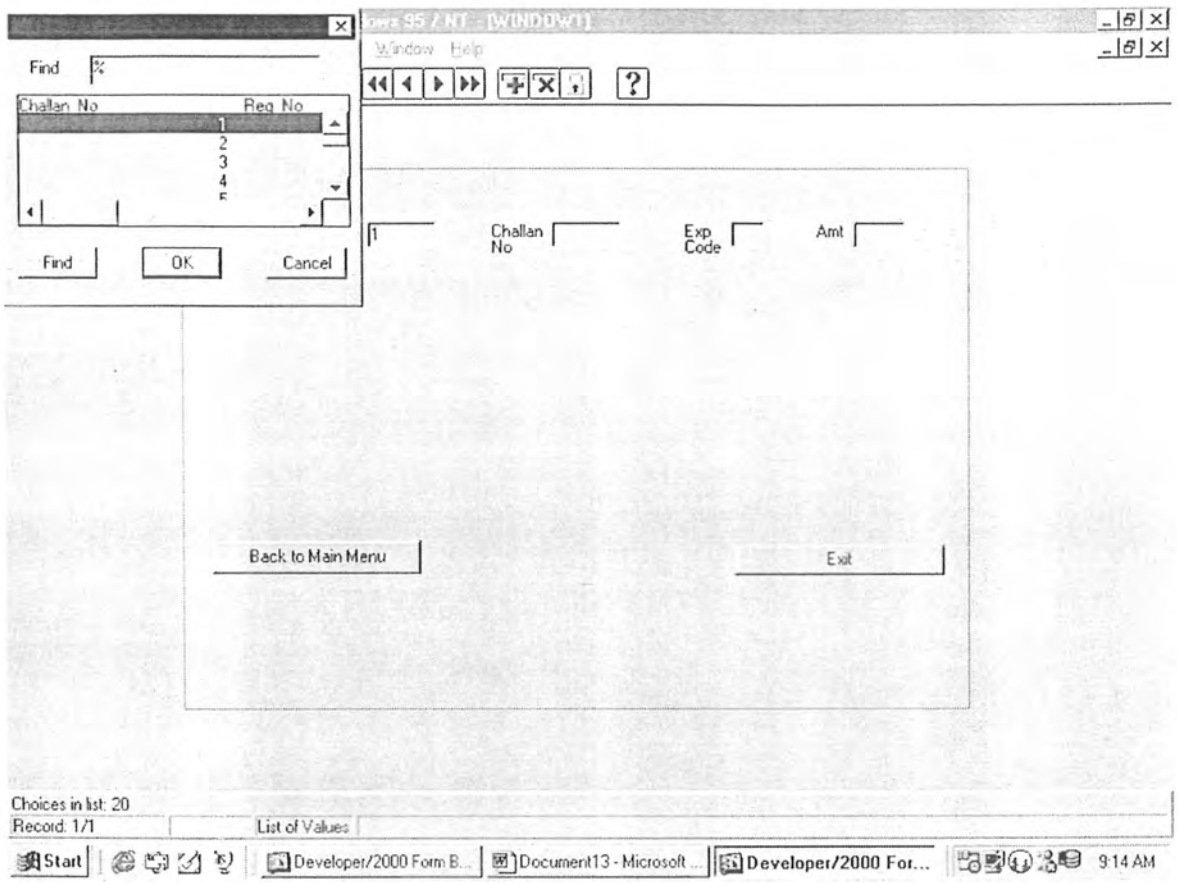

Developer/2000 Forms Runtime for Windows 95 / NT - [WINDOW1]
Action Edit Query Block Record Field Window Help
Exit
FEE SYSTEM
Data Entery Forms
Query Forms
Fee Table
Click Here
Fee Wise
Click Here
Expense Table
Click Here
Expense Code Wise
Click Here
Fee Detail Table
Click Here
Fee Detail Wise
Click Here
Record: 1/1
Start
Developer/2000 Form B...
Document36 - Microsoft ...
Developer/2000 For...
10:04 AM

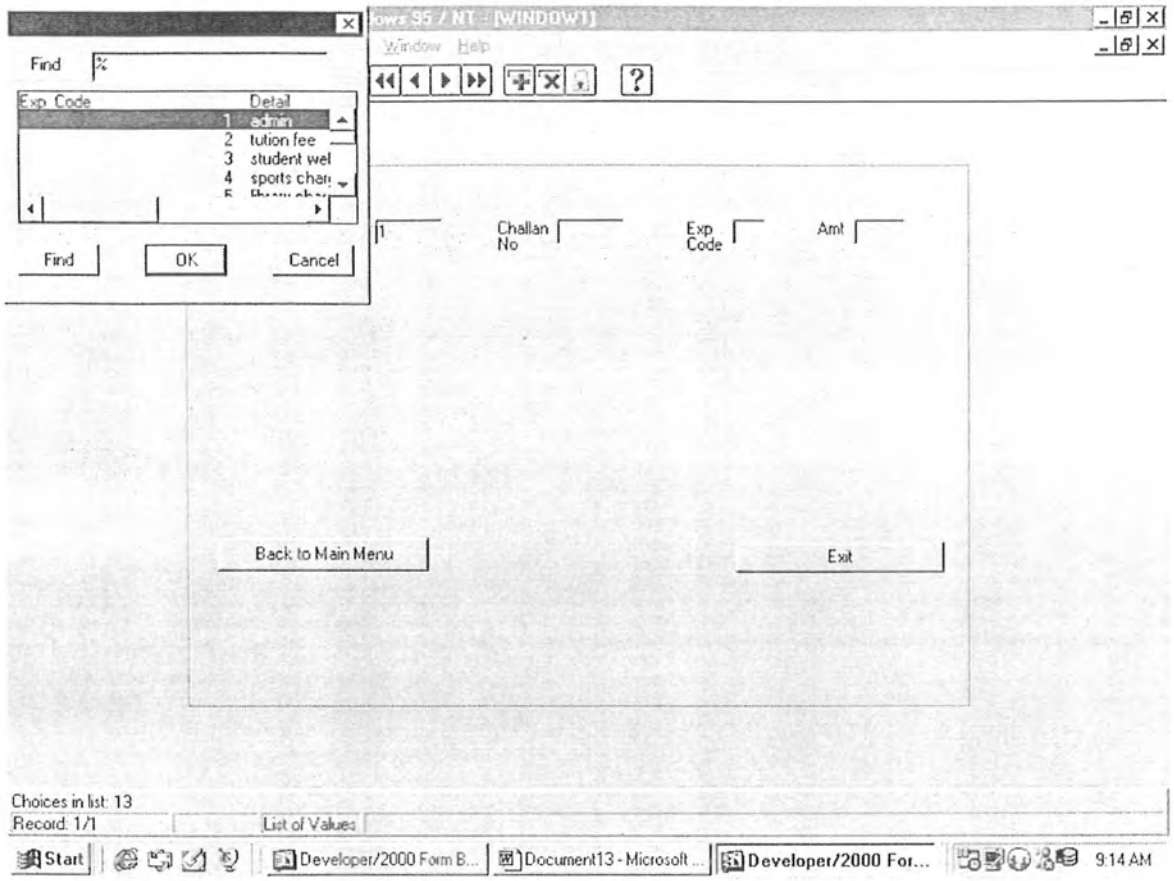

Developer/2000 Forms Runtime for Windows 95 / NT - [WINDOW1]
Action Edit Query Block Record Field Window Help
Fee Table
Challan No
Reg No
Sem No
Amt
Dt
Back to Main Menu
Exit
Record: 1/1
Start
Developer/2000 Form B...
Document12 - Microsoft ...
Developer/2000 For...
9:12 AM

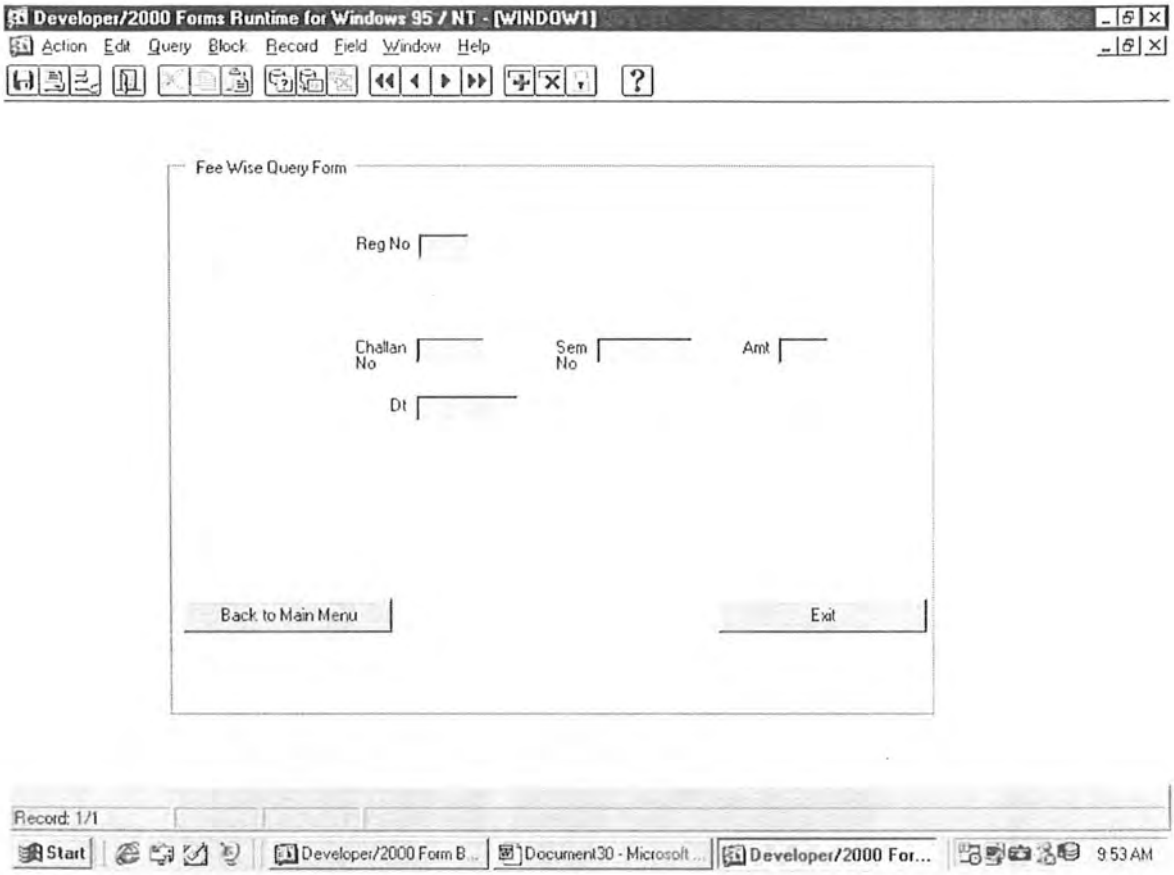

Find
%
Reg No
1
2
Find
OK
Cancel
Window Help
Reg No
Sem No
Amt
Back to Main Menu
Exit
Choices in list: 2
Record: 1/1
List of Values
Start
Developer/2000 Form B...
Document12 - Microsoft ...
Developer/2000 For...
9:12 AM

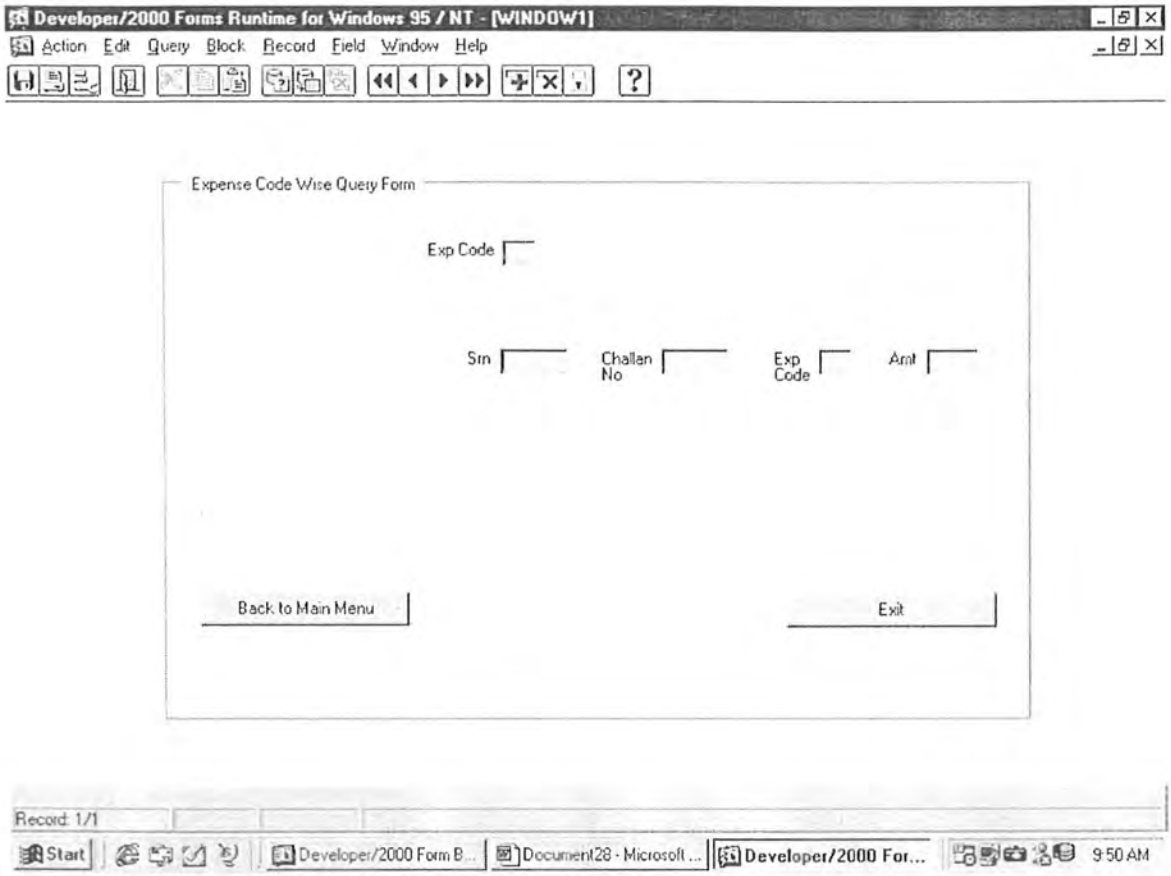

Developer/2000 Forms Runtime for Windows 95 / NT - [WINDOW1]
Action Edit Query Block Record Field Window Help
Expense Table
Exp Code
Detail
Amt
Back to Main Menu
Exit
Record: 1/1
Start
Developer/2000 Form B...
Document11 - Microsoft ...
Developer/2000 For...
9:11 AM

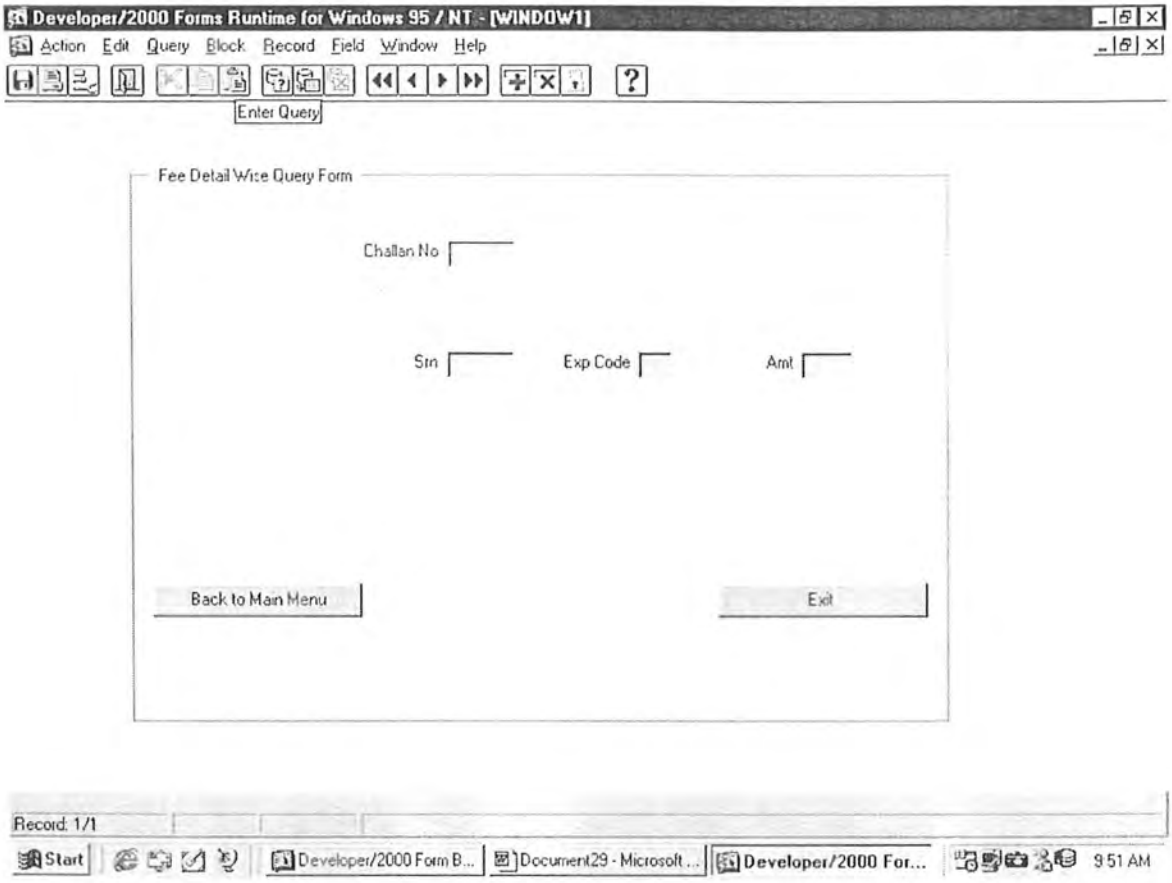

Developer/2000 Forms Runtime for Windows 95 / NT - [WINDOW1]
Action Edit Query Block Record Field Window Help
Fee Detail Table
Srn
Challan No
Exp Code
Amt
Back to Main Menu
Exit
Record: 1/1
Start
Developer/2000 Form B...
Document13 - Microsoft ...
Developer/2000 For...
9:14 AM

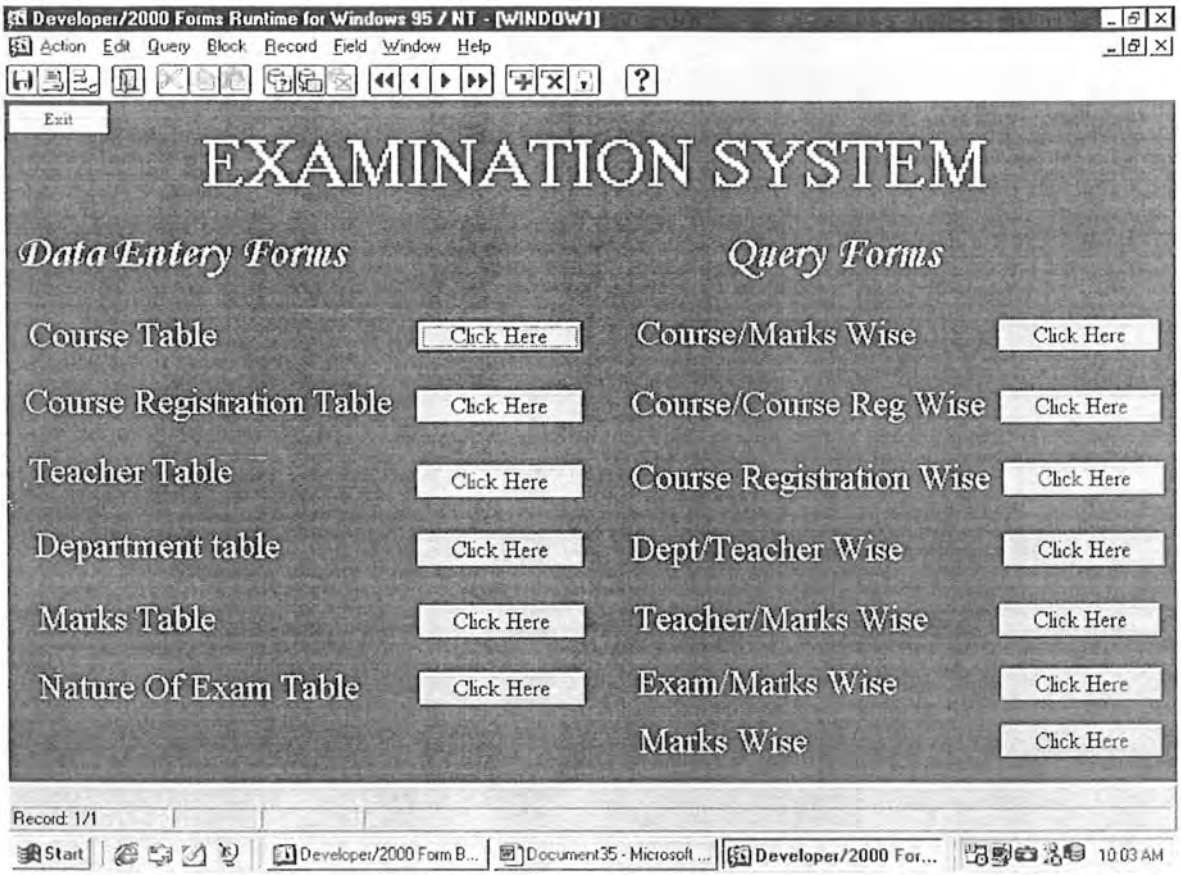

Find
%
Challan No
Reg No
1
2
3
4
Find
OK
Cancel
Window Help
1
Challan No
Exp Code
Amt
Back to Main Menu
Exit
Choices in list: 20
Record: 1/1
List of Values
Start
Developer/2000 Form B...
Document13 - Microsoft ...
Developer/2000 For...
9:14 AM

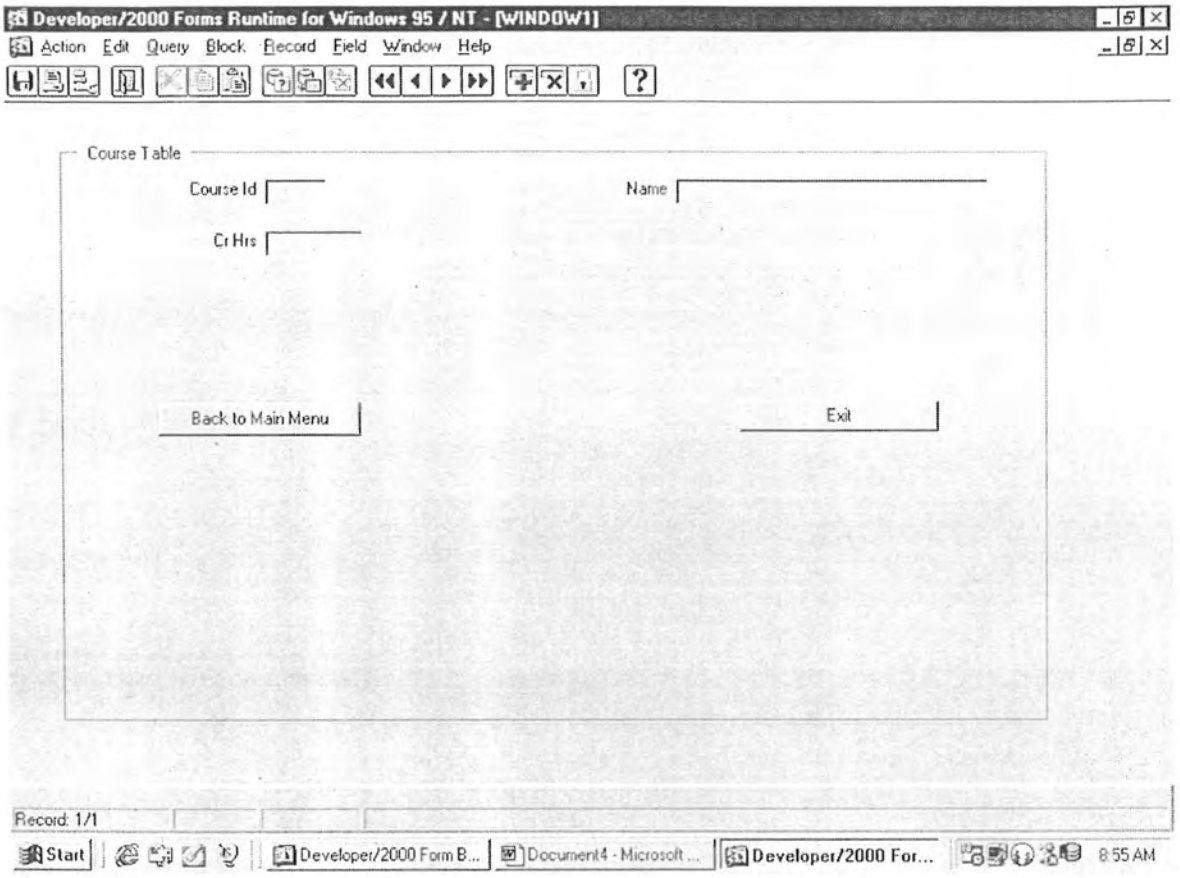

Find
%
Exp Code
Detail
1 admin
2 tution fee
3 student wel
4 sports char
Find
OK
Cancel
Window Help
1
Challan No
Exp Code
Amt
Back to Main Menu
Exit
Choices in list: 13
Record: 1/1
List of Values
Start
Developer/2000 Form B...
Document13 - Microsoft ...
Developer/2000 For...
9:14 AM

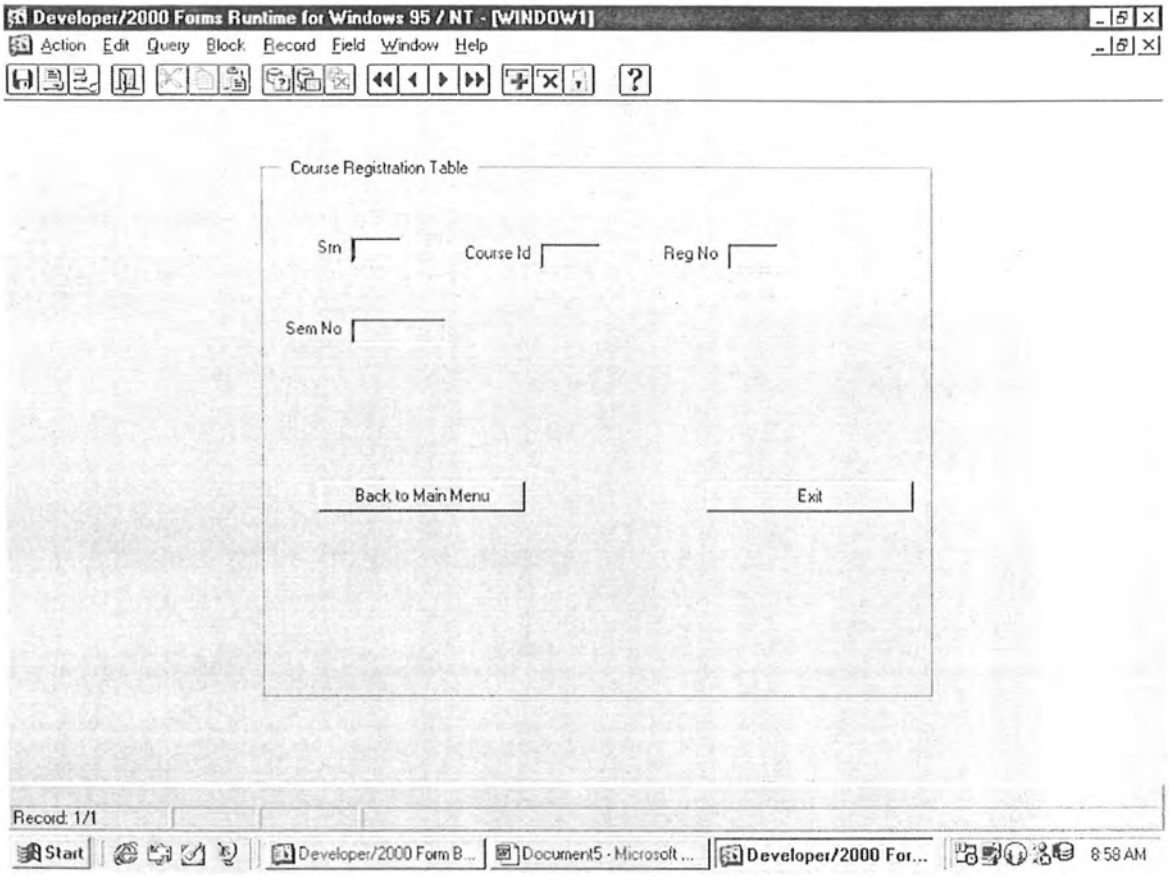

Developer/2000 Forms Runtime for Windows 95 / NT - [WINDOW1]
Action Edit Query Block Record Field Window Help
Fee Wise Query Form
Reg No
Challan No
Sem No
Amt
Dt
Back to Main Menu
Exit
Record: 1/1
Start
Developer/2000 Form B...
Document30 - Microsoft ...
Developer/2000 For...
9:53 AM

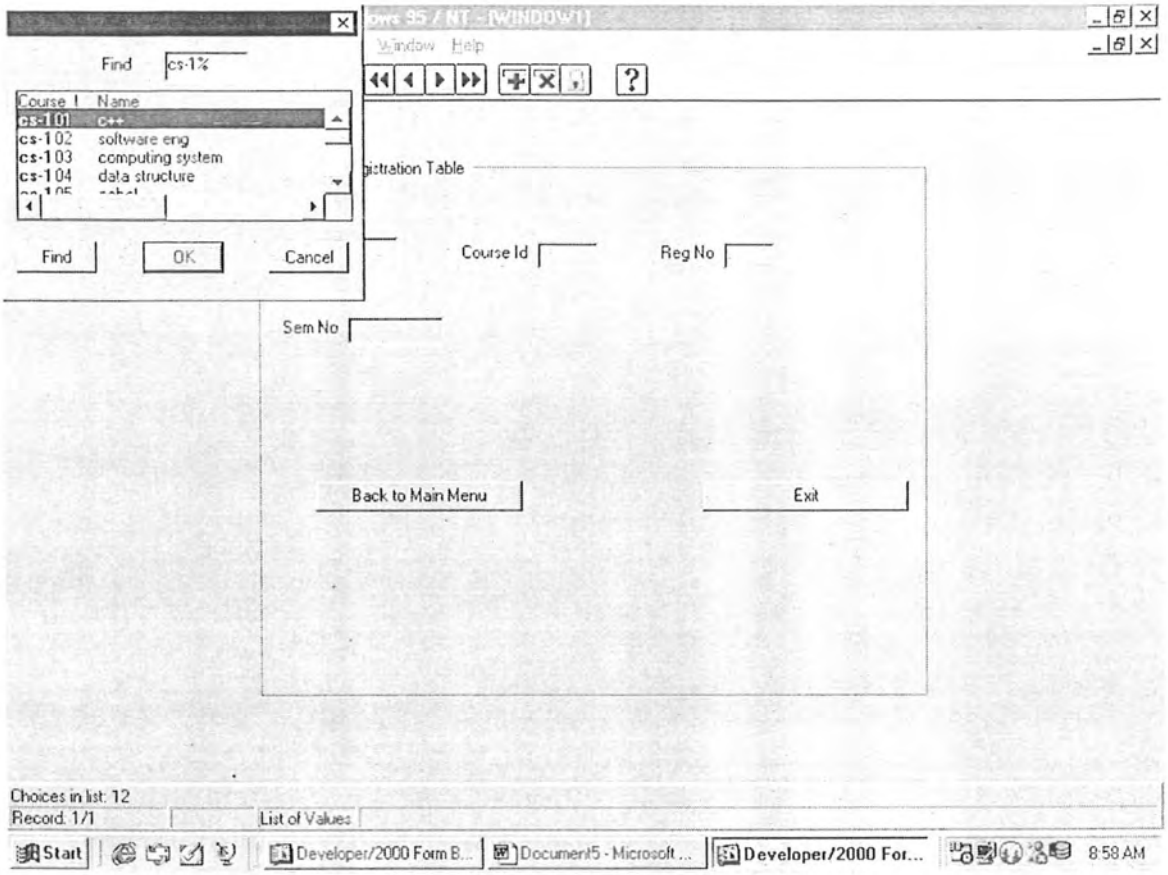

Developer/2000 Forms Runtime for Windows 95 / NT - [WINDOW1]
Action Edit Query Block Record Field Window Help
Expense Code Wise Query Form
Exp Code
Srn
Challan No
Exp Code
Amt
Back to Main Menu
Exit
Record: 1/1
Start
Developer/2000 Form B...
Document28 - Microsoft ...
Developer/2000 For...
9:50 AM

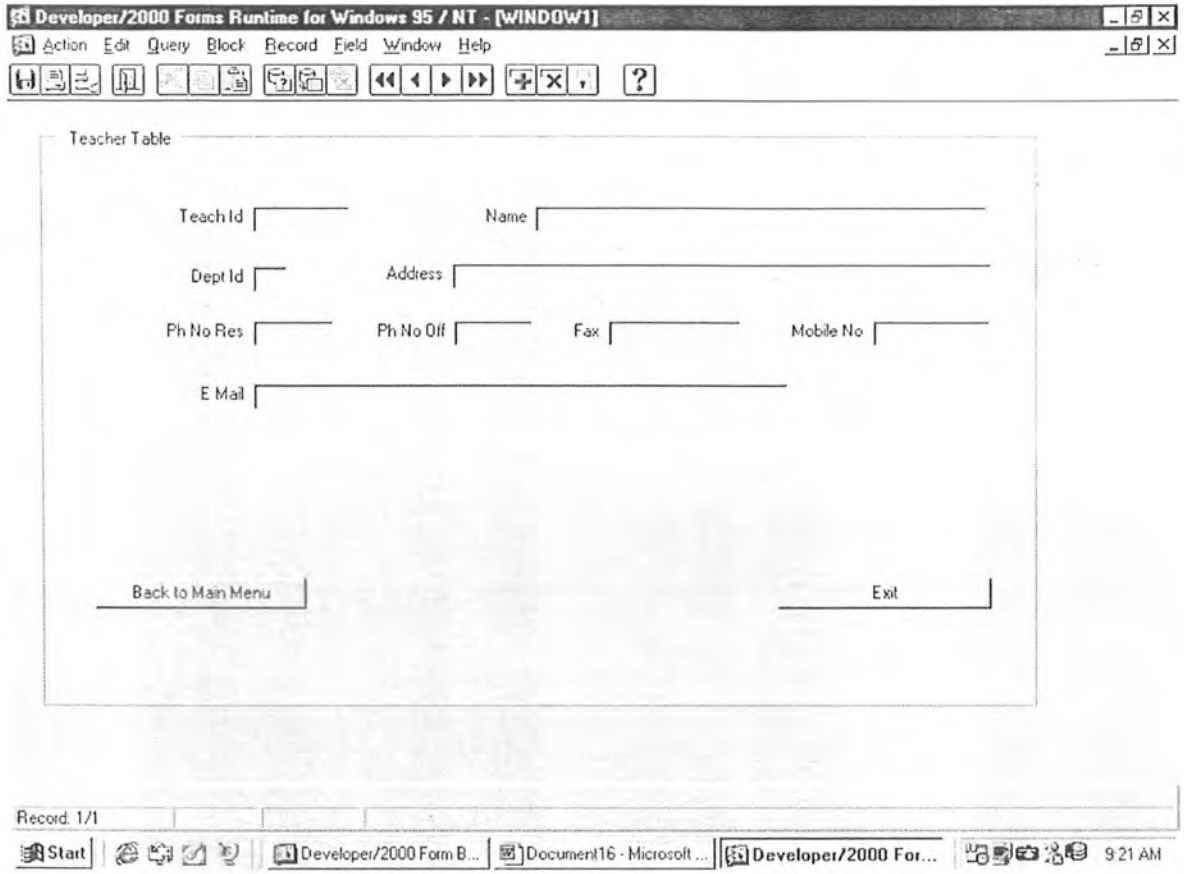

Developer/2000 Forms Runtime for Windows 95 / NT - [WINDOW1]
Action Edit Query Block Record Field Window Help
Enter Query
Fee Detail Wise Query Form
Challan No
Stn
Exp Code
Amt
Back to Main Menu
Exit
Record: 1/1
Start
Developer/2000 Form B...
Document29 - Microsoft ...
Developer/2000 For...
9:51 AM

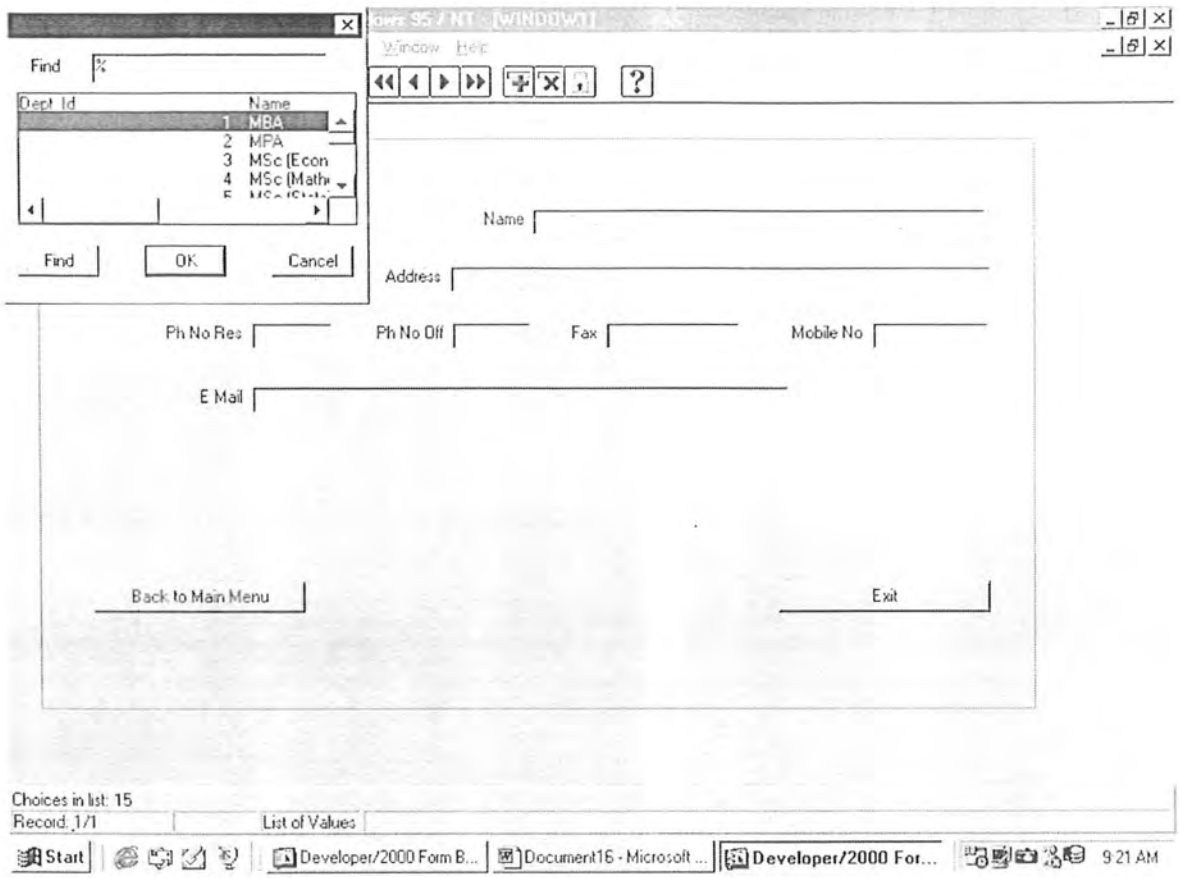

Developer/2000 Forms Runtime for Windows 95 / NT - [WINDOW1]
Action Edit Query Block Record Field Window Help
Exit
EXAMINATION SYSTEM
Data Entery Forms
Query Forms
Course Table
Click Here
Course Registration Table
Click Here
Teacher Table
Click Here
Department table
Click Here
Marks Table
Click Here
Nature Of Exam Table
Click Here
Course/Marks Wise
Click Here
Course/Course Reg Wise
Click Here
Course Registration Wise
Click Here
Dept/Teacher Wise
Click Here
Teacher/Marks Wise
Click Here
Exam/Marks Wise
Click Here
Marks Wise
Click Here
Record: 1/1
Start
Developer/2000 Form B...
Document35 - Microsoft ...
Developer/2000 For...
10:03 AM

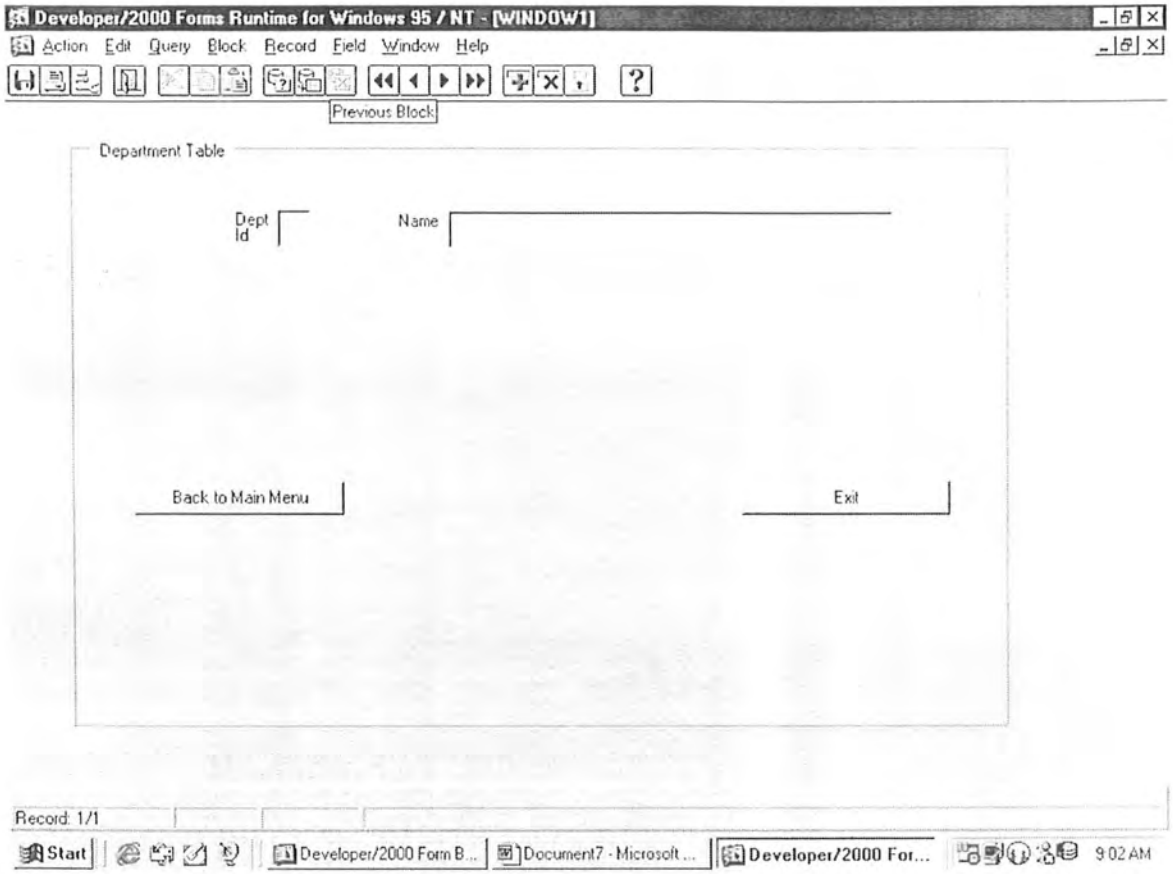

Developer/2000 Forms Runtime for Windows 95 / NT - [WINDOW1]
Action Edit Query Block Record Field Window Help
Course Table
Course Id
Name
Cr Hrs
Back to Main Menu
Exit
Record: 1/1
Start
Developer/2000 Form B...
Document4 - Microsoft ...
Developer/2000 For...
8:55 AM

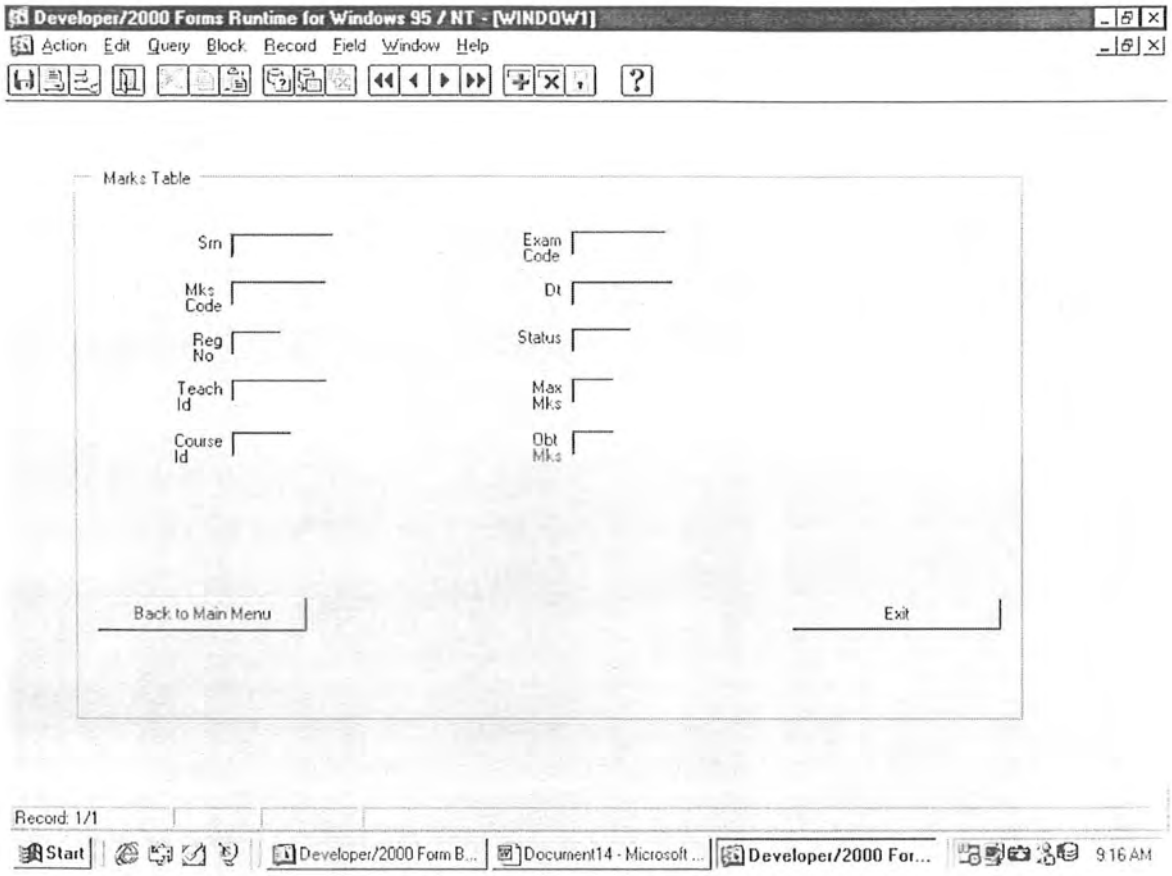

Developer/2000 Forms Runtime for Windows 95 / NT - [WINDOW1]
Action Edit Query Block Record Field Window Help
Course Registration Table
Stn
Course Id
Reg No
Sem No
Back to Main Menu
Exit
Record: 1/1
Start
Developer/2000 Form B...
Document5 - Microsoft ...
Developer/2000 For...
8:58 AM

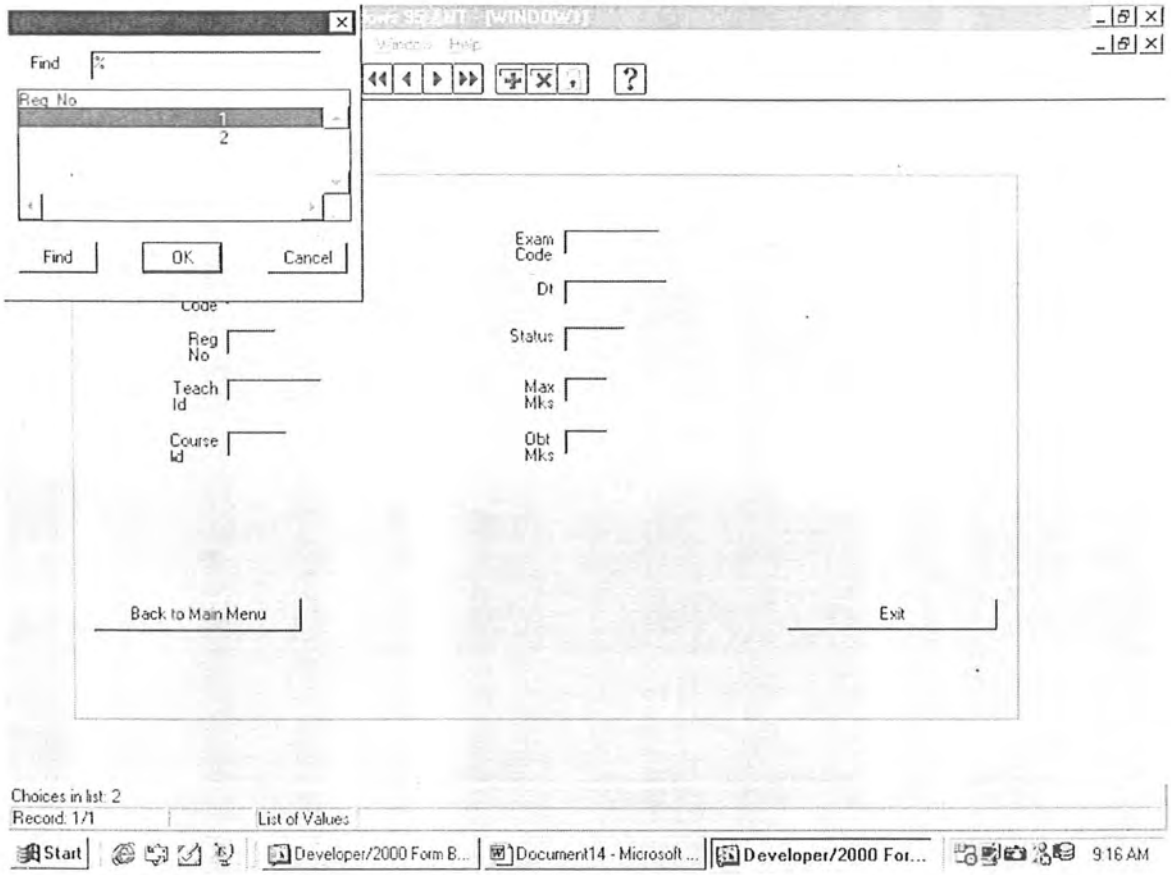

Find
cs-1%
Course I
Name
cs-101
c++
cs-102
software eng
cs-103
computing system
cs-104
data structure
Find
OK
Cancel
Window
Help
gistration Table
Course Id
Reg No
Sem No
Back to Main Menu
Exit
Choices in list: 12
Record: 1/1
List of Values
Start
Developer/2000 Form B...
Document5 - Microsoft ...
Developer/2000 For...
8:58 AM

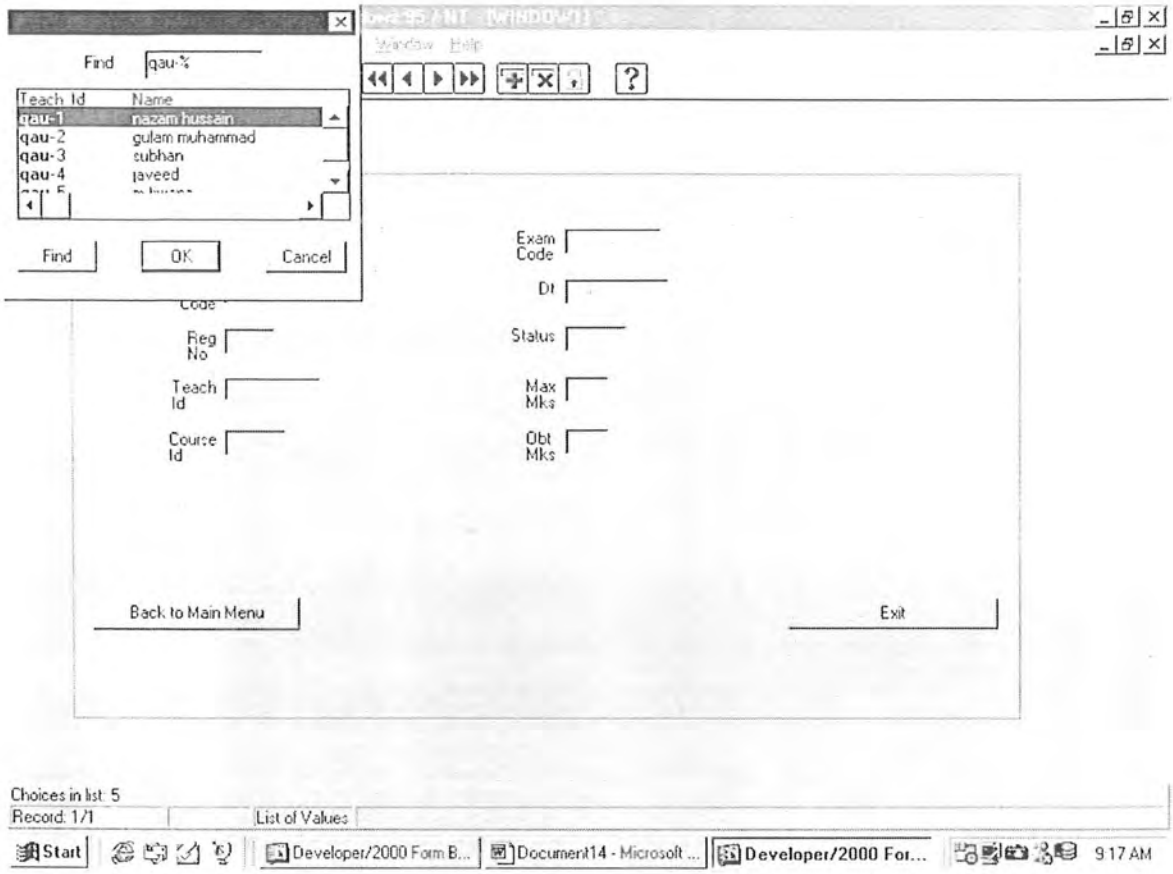

Developer/2000 Forms Runtime for Windows 95 / NT - [WINDOW1]
Action Edit Query Block Record Field Window Help
Teacher Table
Teach Id
Name
Dept Id
Address
Ph No Res
Ph No Off
Fax
Mobile No
E Mail
Back to Main Menu
Exit
Record: 1/1
Start
Developer/2000 Form B...
Document16 - Microsoft ...
Developer/2000 For...
9:21 AM

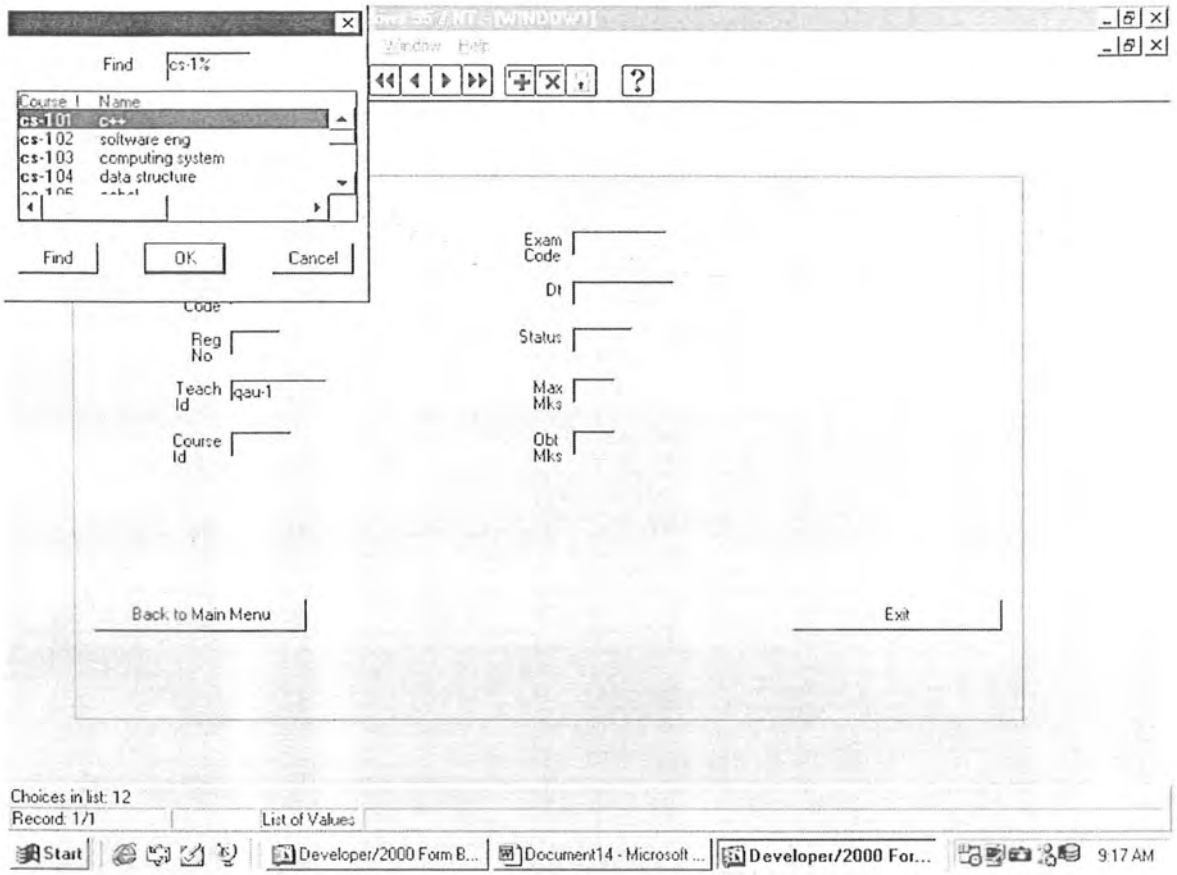

Find
%
Dept Id
Name
1 MBA
2 MPA
3 MSc (Econ
4 MSc (Math
Find
OK
Cancel
Window Help
Name
Address
Ph No Res
Ph No Off
Fax
Mobile No
E Mail
Back to Main Menu
Exit
Choices in list: 15
Record: 1/1
List of Values
Start
Developer/2000 Form B...
Document16 - Microsoft ...
Developer/2000 For...
9:21 AM

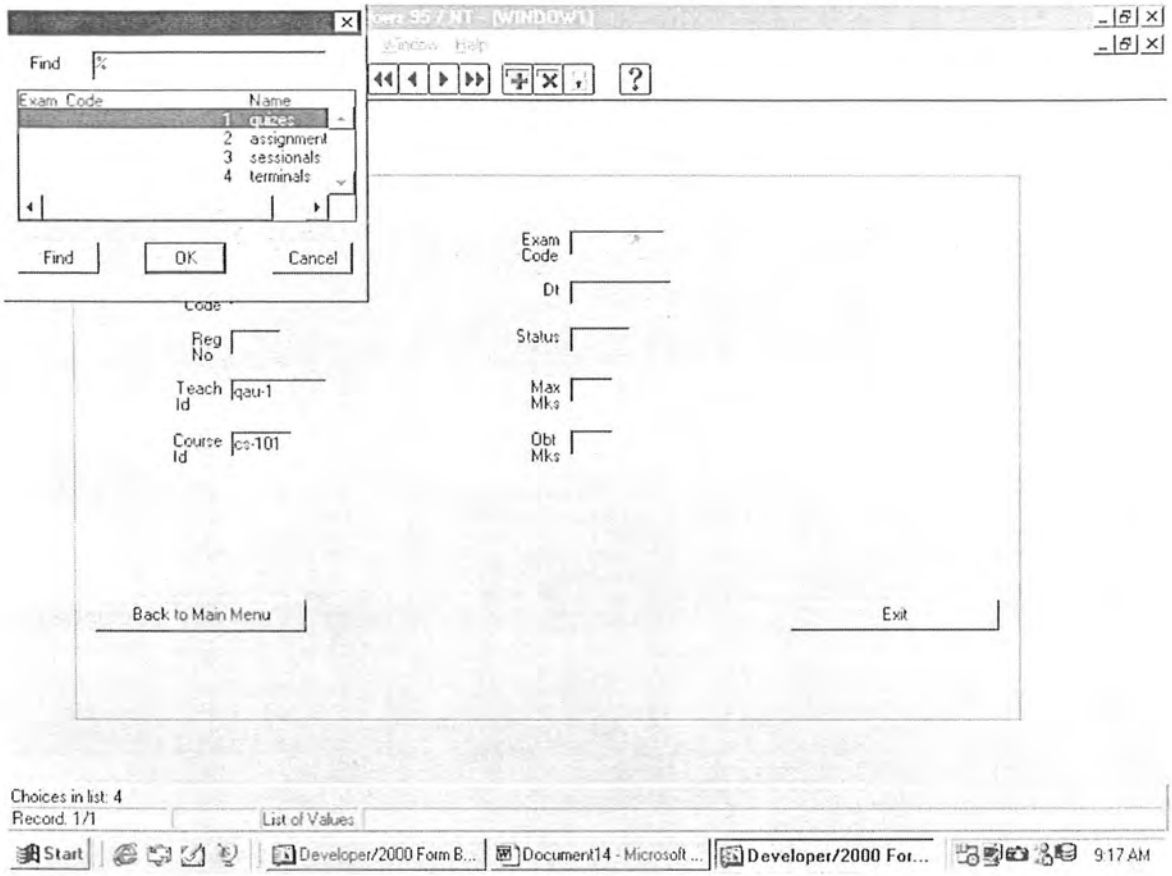

Developer/2000 Forms Runtime for Windows 95 / NT - [WINDOW1]
Action Edit Query Block Record Field Window Help
Previous Block
Department Table
Dept Id
Name
Back to Main Menu
Exit
Record: 1/1
Start
Developer/2000 Form B...
Document7 - Microsoft ...
Developer/2000 For...
9:02 AM

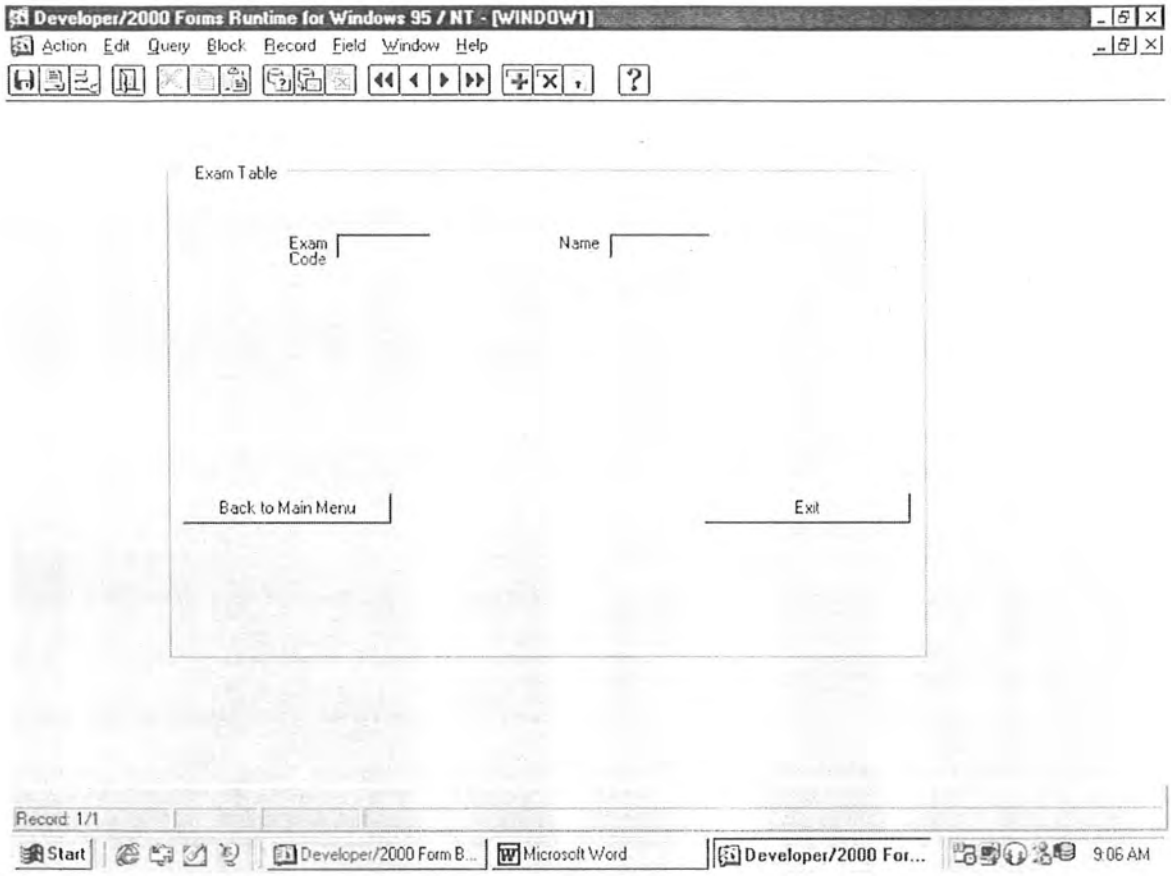

Developer/2000 Forms Runtime for Windows 95 / NT - [WINDOW1]
Action Edit Query Block Record Field Window Help
Marks Table
Sm
Exam Code
Mks Code
Dt
Reg No
Status
Teach Id
Max Mks
Course Id
Obt Mks
Back to Main Menu
Exit
Record: 1/1
Start
Developer/2000 Form B...
Document14 - Microsoft ...
Developer/2000 For...
9:16 AM

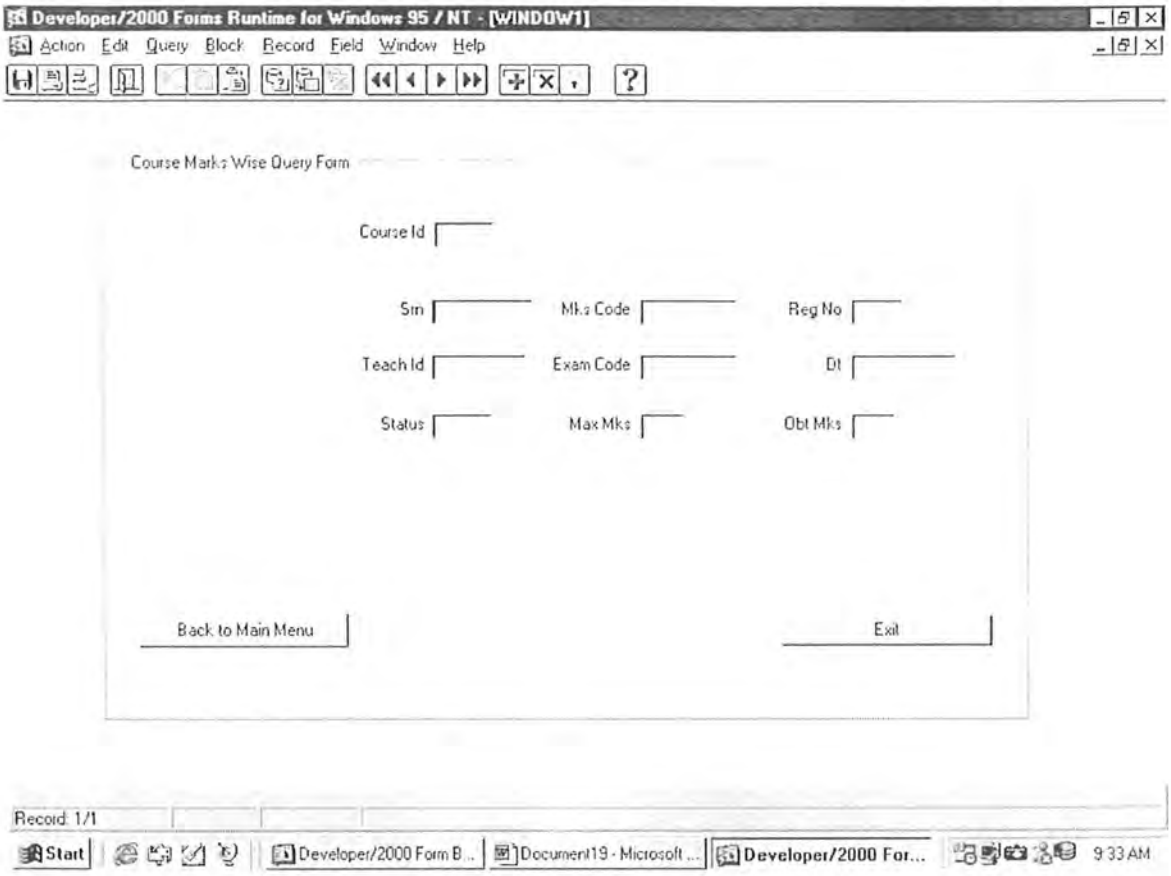

Find
%
Reg No
1
2
Find
OK
Cancel
Exam Code
Dt
Status
Max Mks
Obt Mks
Reg No
Teach Id
Course Id
Back to Main Menu
Exit
Choices in list: 2
Record: 1/1
List of Values
Start
Developer/2000 Form B...
Document14 - Microsoft ...
Developer/2000 For...
9:16 AM

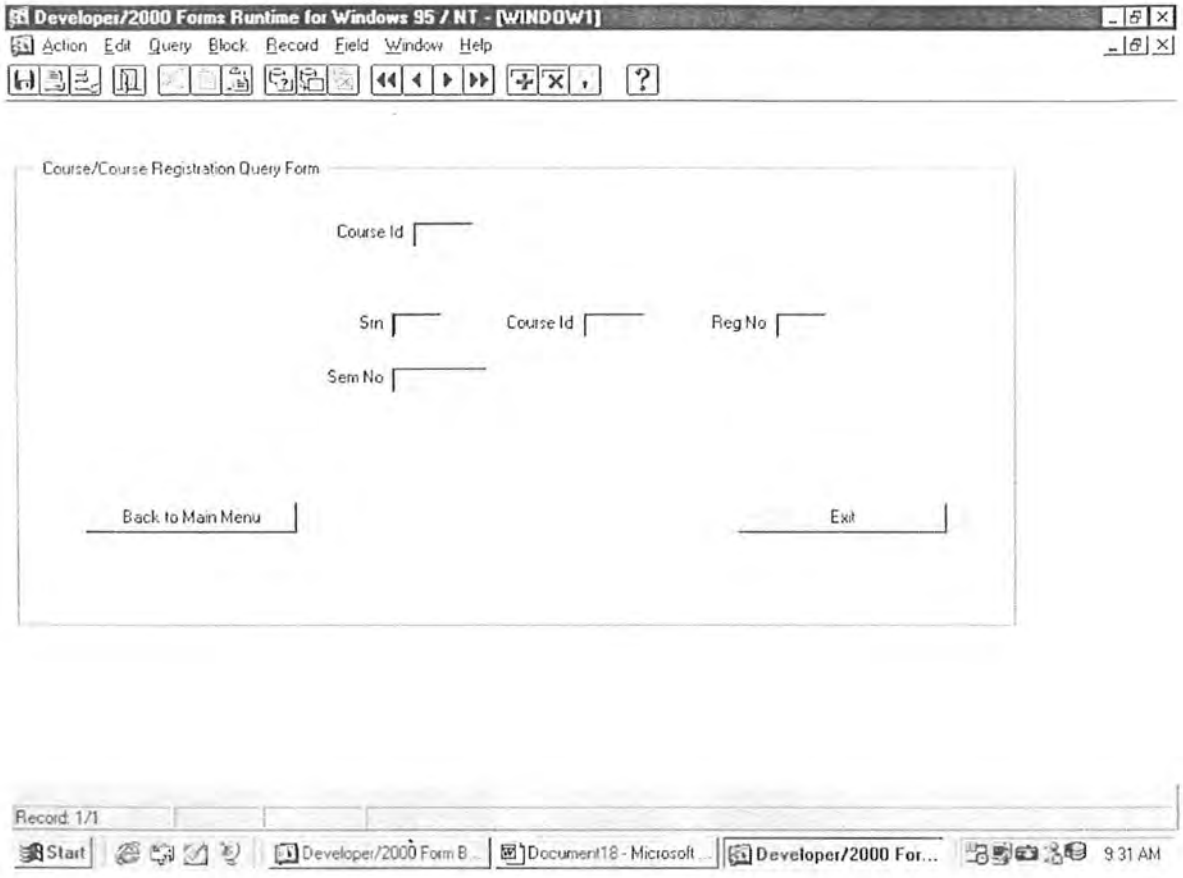

Find
qau-%
Teach Id
Name
qau-1
nazam hussain
qau-2
gulam muhammad
qau-3
subhan
qau-4
javeed
Find
OK
Cancel
Window
Help
Exam Code
Dt
Status
Reg No
Max Mks
Teach Id
Obt Mks
Cource Id
Back to Main Menu
Exit
Choices in list: 5
Record: 1/1
List of Values
Start
Developer/2000 Form B...
Document14 - Microsoft ...
Developer/2000 For...
9:17 AM

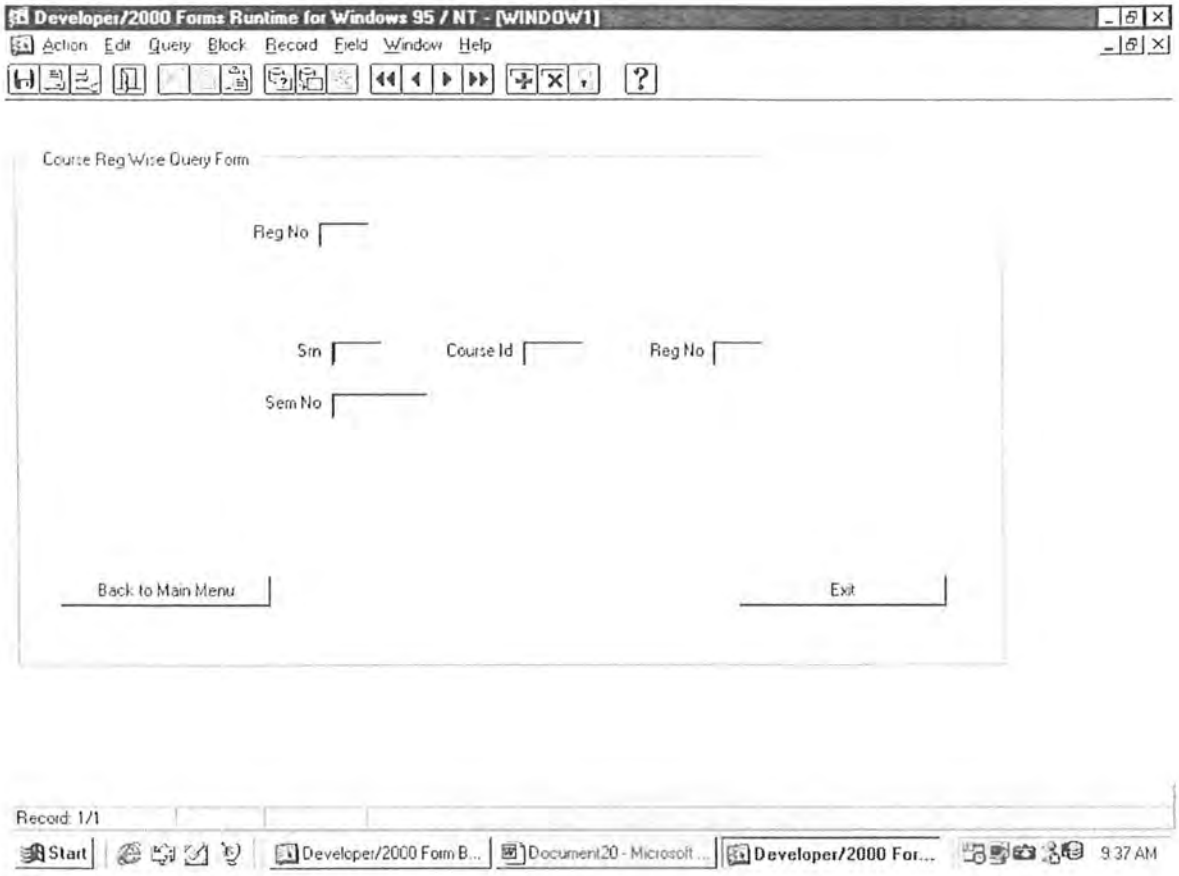

Find
cs-1%
Course I
Name
cs-101
c++
cs-102
software eng
cs-103
computing system
cs-104
data structure
Find
OK
Cancel
Exam Code
Dt
Status
Reg No
Teach Id
qau-1
Max Mks
Course Id
Obt Mks
Back to Main Menu
Exit
Choices in list: 12
Record: 1/1
List of Values
Start
Developer/2000 Form B...
Document14 - Microsoft ...
Developer/2000 For...
9:17 AM

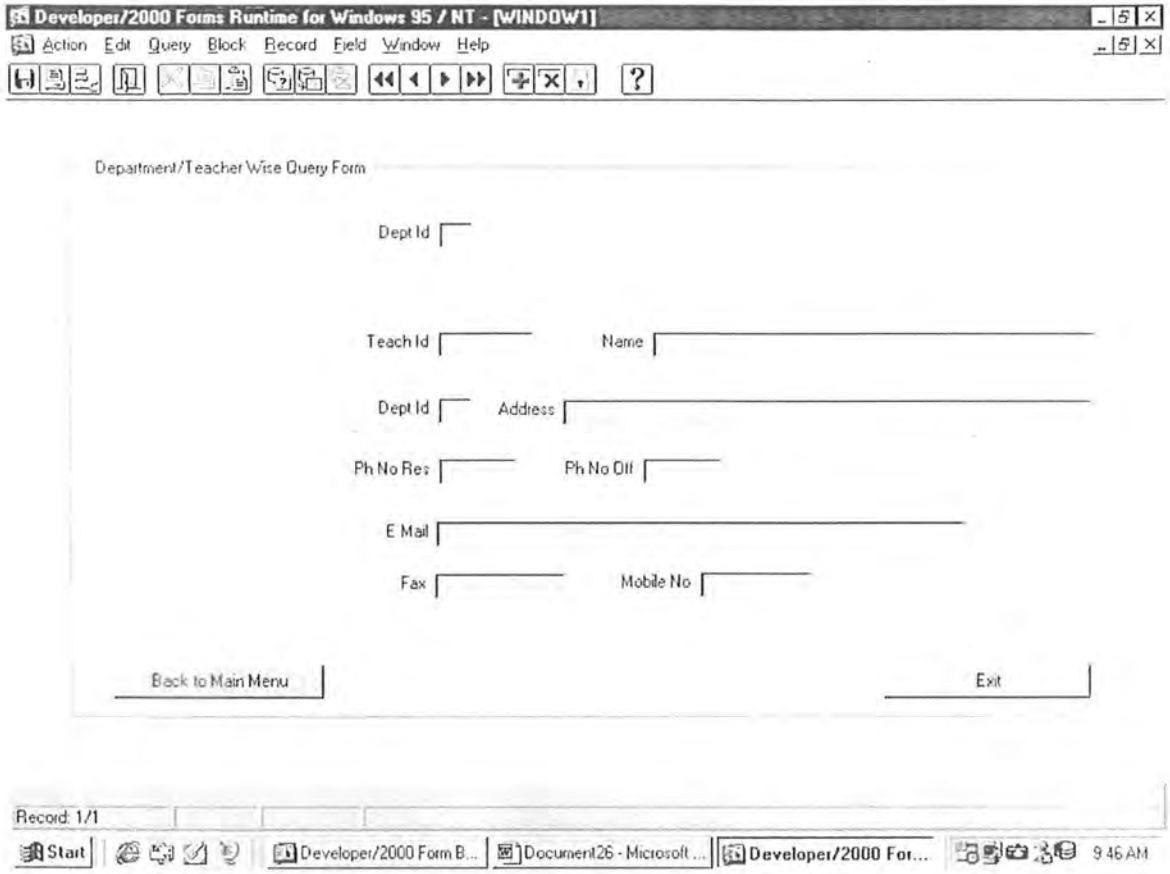

Find
%
Exam Code
Name
1 quizes
2 assignment
3 sessionals
4 terminals
Find
OK
Cancel
Exam Code
Dt
Status
Reg No
Teach Id
qau-1
Max Mks
Course Id
cs-101
Obt Mks
Back to Main Menu
Exit
Choices in list: 4
Record: 1/1
List of Values
Start
Developer/2000 Form B...
Document14 - Microsoft ...
Developer/2000 For...
9:17 AM

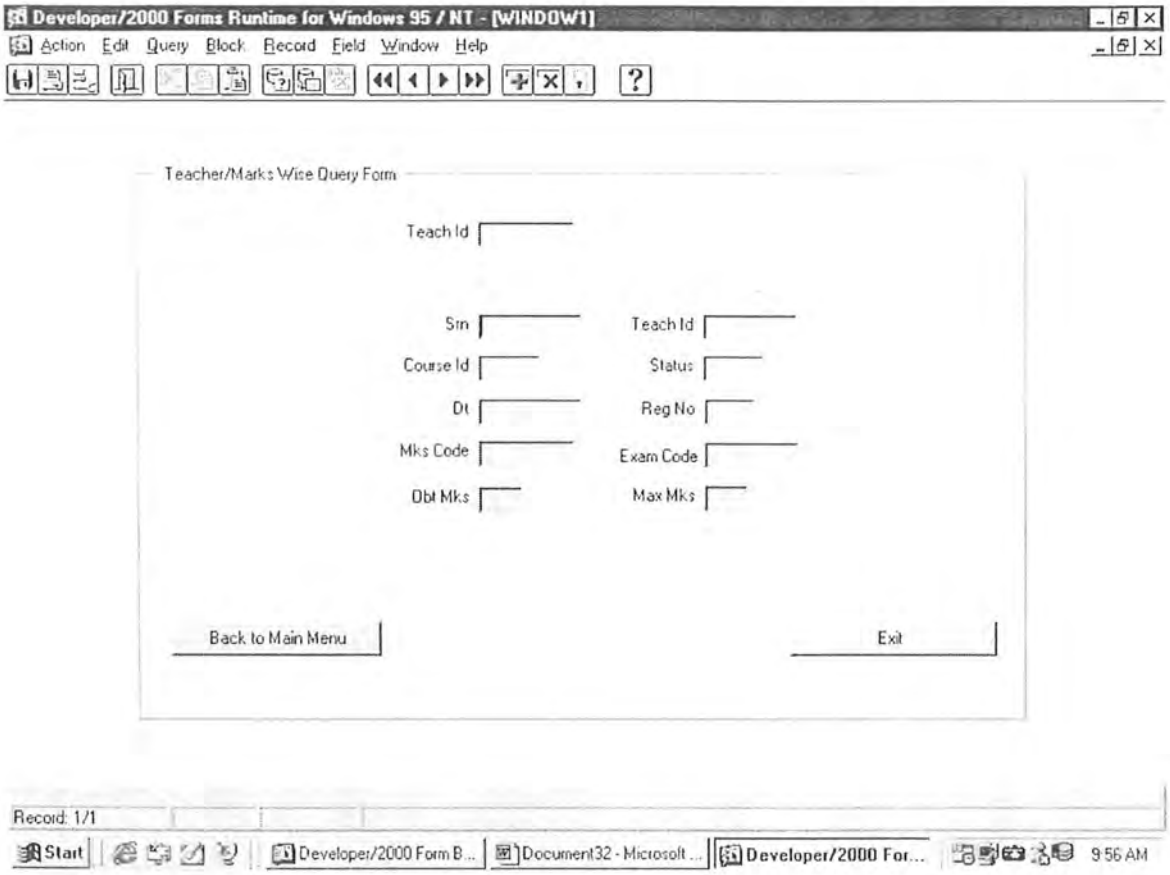

Developer/2000 Forms Runtime for Windows 95 / NT - [WINDOW1]
Action Edit Query Block Record Field Window Help
Exam Table
Exam Code
Name
Back to Main Menu
Exit
Record: 1/1
Start
Developer/2000 Form B...
Microsoft Word
Developer/2000 For...
9:06 AM

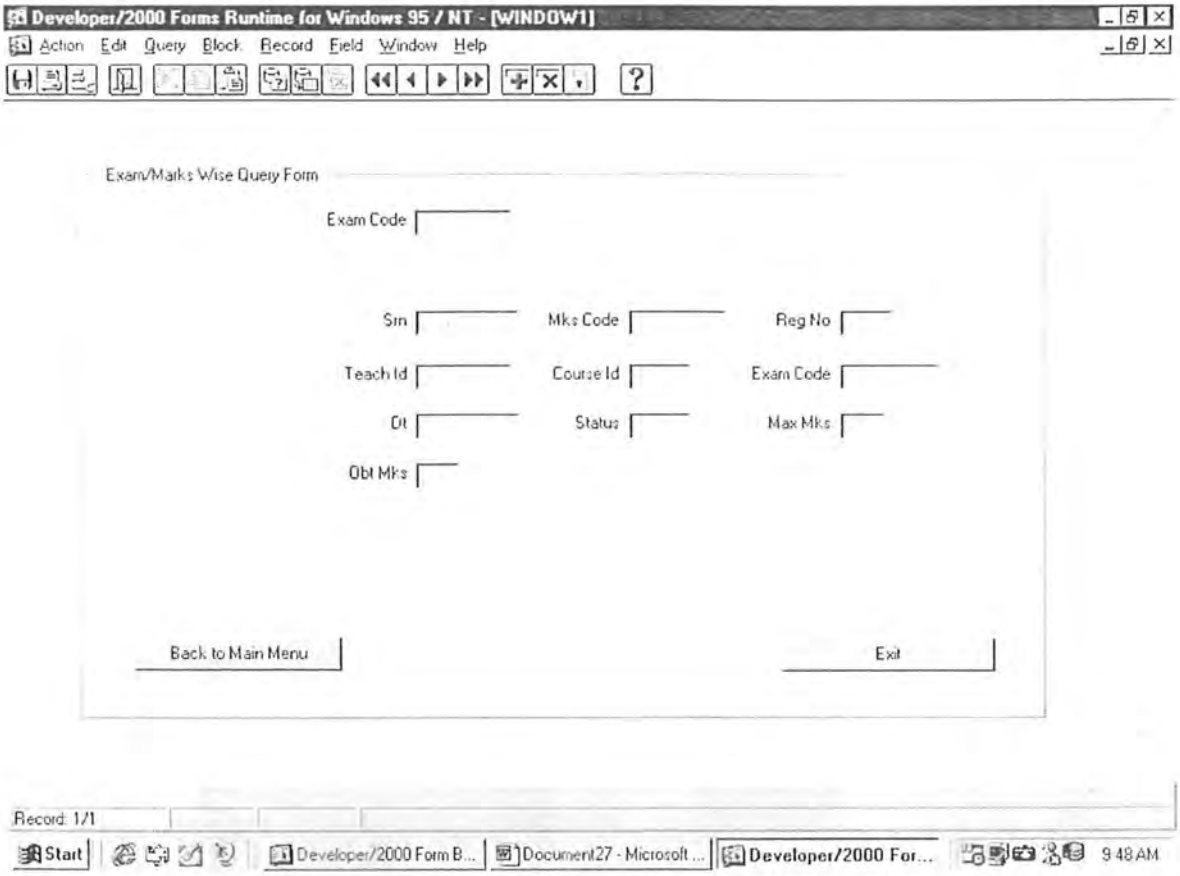

Developer/2000 Forms Runtime for Windows 95 / NT - [WINDOW1]
Action Edit Query Block Record Field Window Help
Course Marks Wise Query Form
Course Id
Sm
Mks Code
Reg No
Teach Id
Exam Code
Dt
Status
Max Mks
Obt Mks
Back to Main Menu
Exit
Record: 1/1
Start
Developer/2000 Form B...
Document19 - Microsoft ...
Developer/2000 For...
9:33 AM

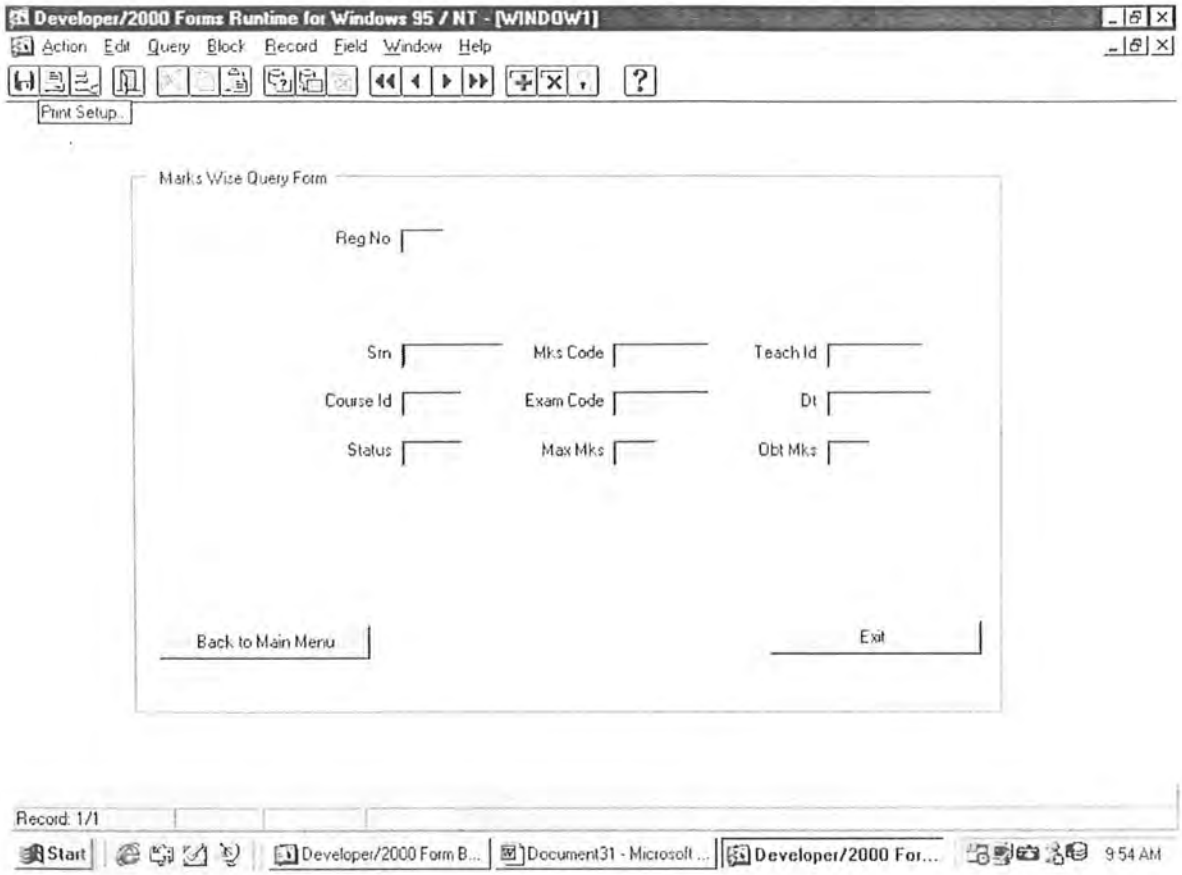

Developer/2000 Forms Runtime for Windows 95 / NT - [WINDOW1]
Action Edit Query Block Record Field Window Help
Course/Course Registration Query Form
Course Id
Srn
Course Id
Reg No
Sem No
Back to Main Menu
Exit
Record: 1/1
Start
Developer/2000 Form B...
Document18 - Microsoft ...
Developer/2000 For...
9:31 AM

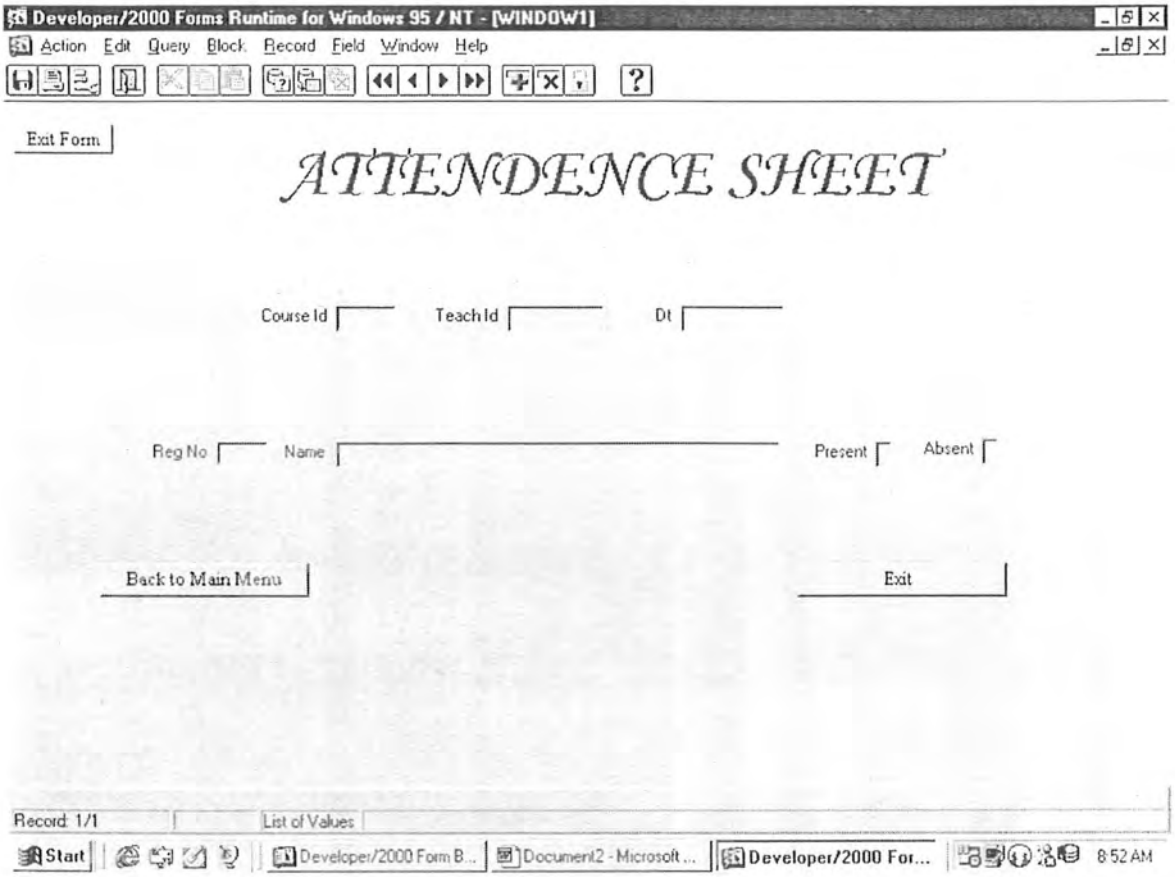

Developer/2000 Forms Runtime for Windows 95 / NT - [WINDOW1]
Action Edit Query Block Record Field Window Help
Course Reg Wise Query Form
Reg No
Sm
Course Id
Reg No
Sem No
Back to Main Menu
Exit
Record: 1/1
Start
Developer/2000 Form B...
Document20 - Microsoft ...
Developer/2000 For...
9:37 AM

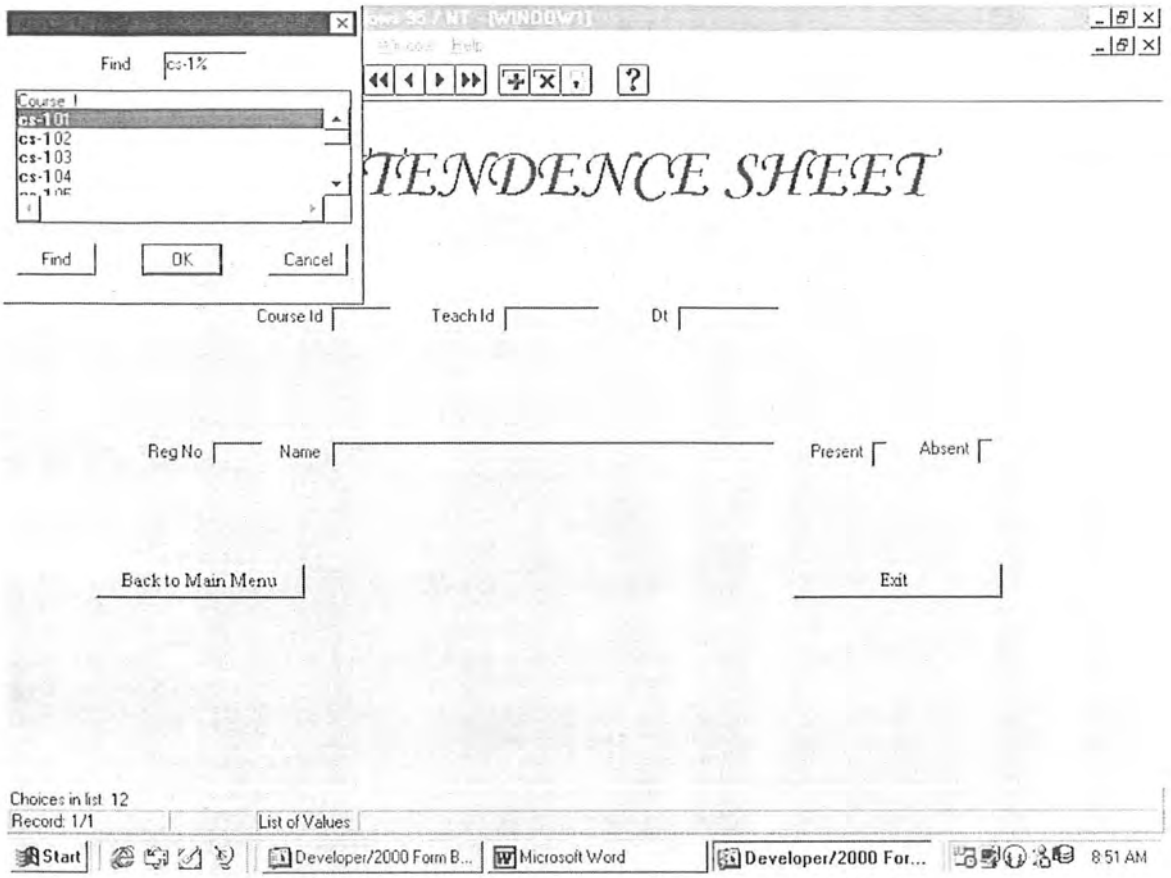

Developer/2000 Forms Runtime for Windows 95 / NT - [WINDOW1]
Action Edit Query Block Record Field Window Help
Department/Teacher Wise Query Form
Dept Id
Teach Id
Name
Dept Id
Address
Ph No Res
Ph No Off
E Mail
Fax
Mobile No
Back to Main Menu
Exit
Record: 1/1
Start
Developer/2000 Form B...
Document26 - Microsoft ...
Developer/2000 For...
9:46 AM

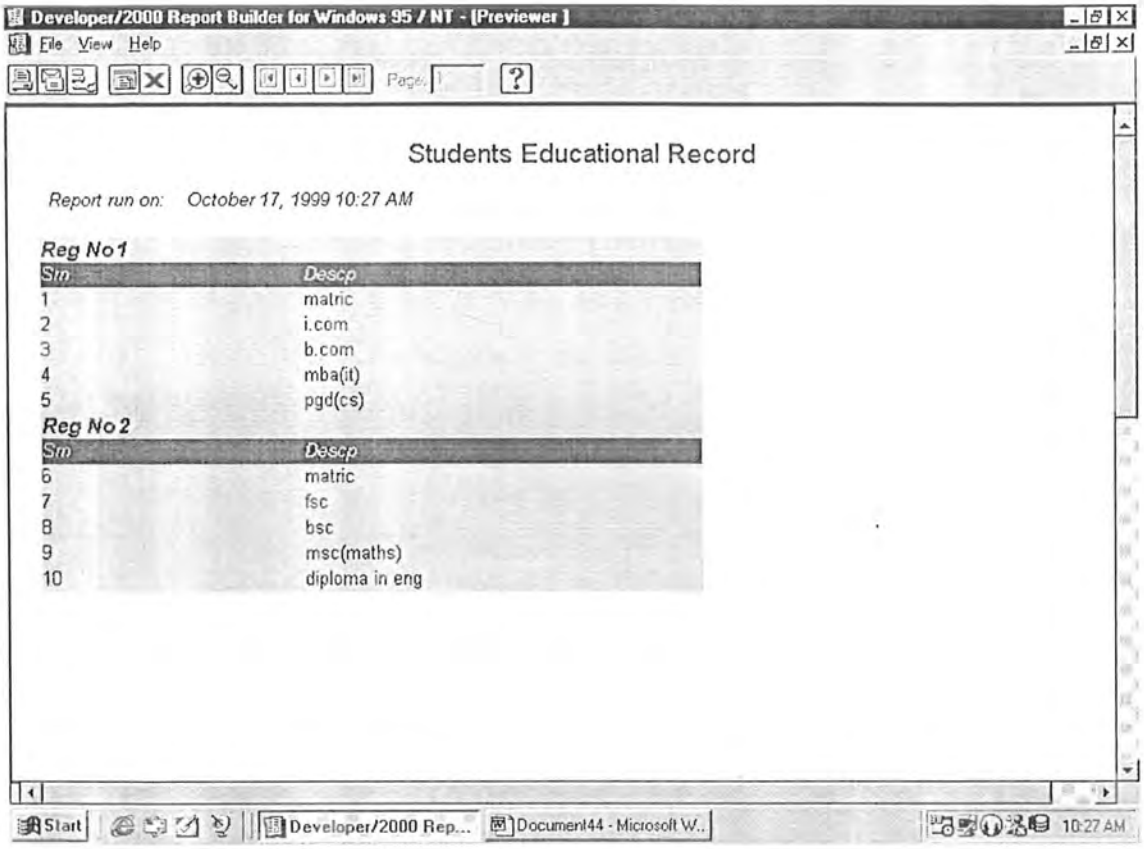

Developer/2000 Forms Runtime for Windows 95 / NT - [WINDOW1]
Action Edit Query Block Record Field Window Help
Teacher/Marks Wise Query Form
Teach Id
Sm
Course Id
Dt
Mks Code
Obt Mks
Teach Id
Status
Reg No
Exam Code
Max Mks
Back to Main Menu
Exit
Record: 1/1
Start
Developer/2000 Form B...
Document32 - Microsoft ...
Developer/2000 For...
9:56 AM

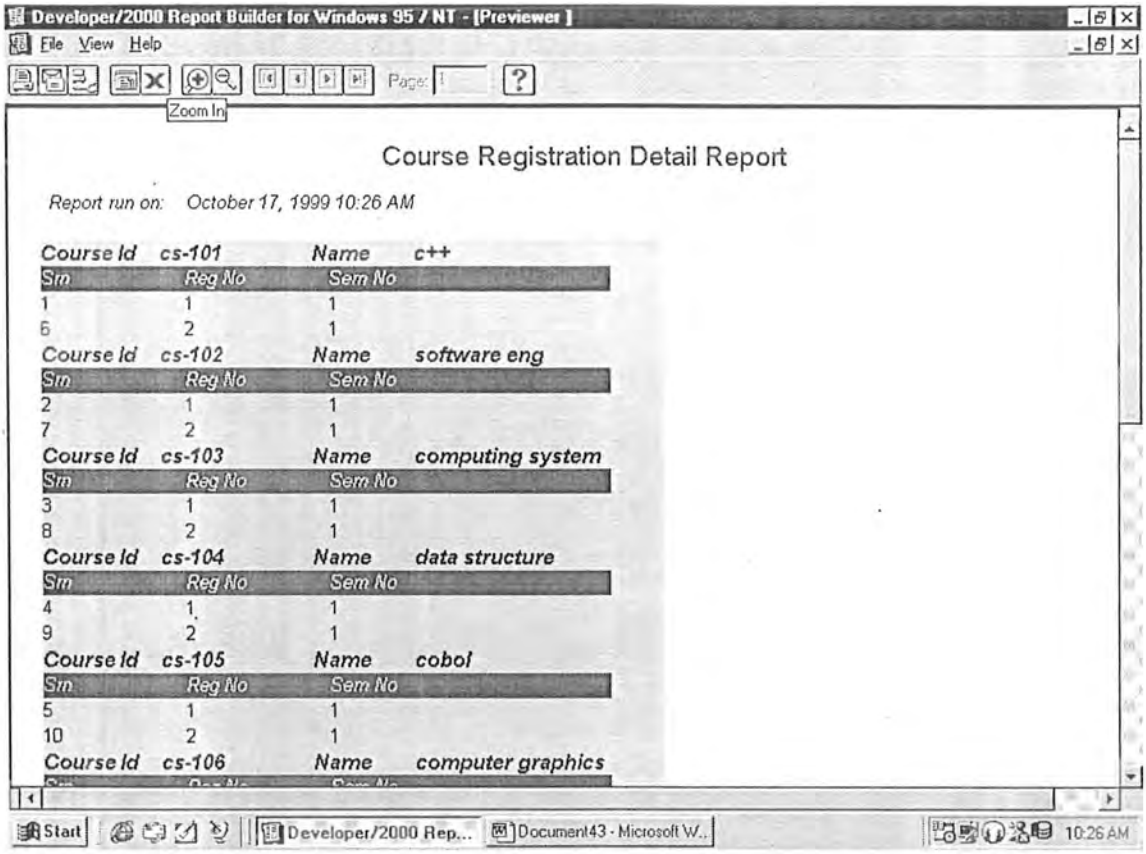

Developer/2000 Forms Runtime for Windows 95 / NT - [WINDOW1]
Action Edit Query Block Record Field Window Help
Exam/Marks Wise Query Form
Exam Code
Srn
Mks Code
Reg No
Teach Id
Course Id
Exam Code
Dt
Status
Max Mks
Obt Mks
Back to Main Menu
Exit
Record: 1/1
Start
Developer/2000 Form B...
Document27 - Microsoft ...
Developer/2000 For...
9:48 AM

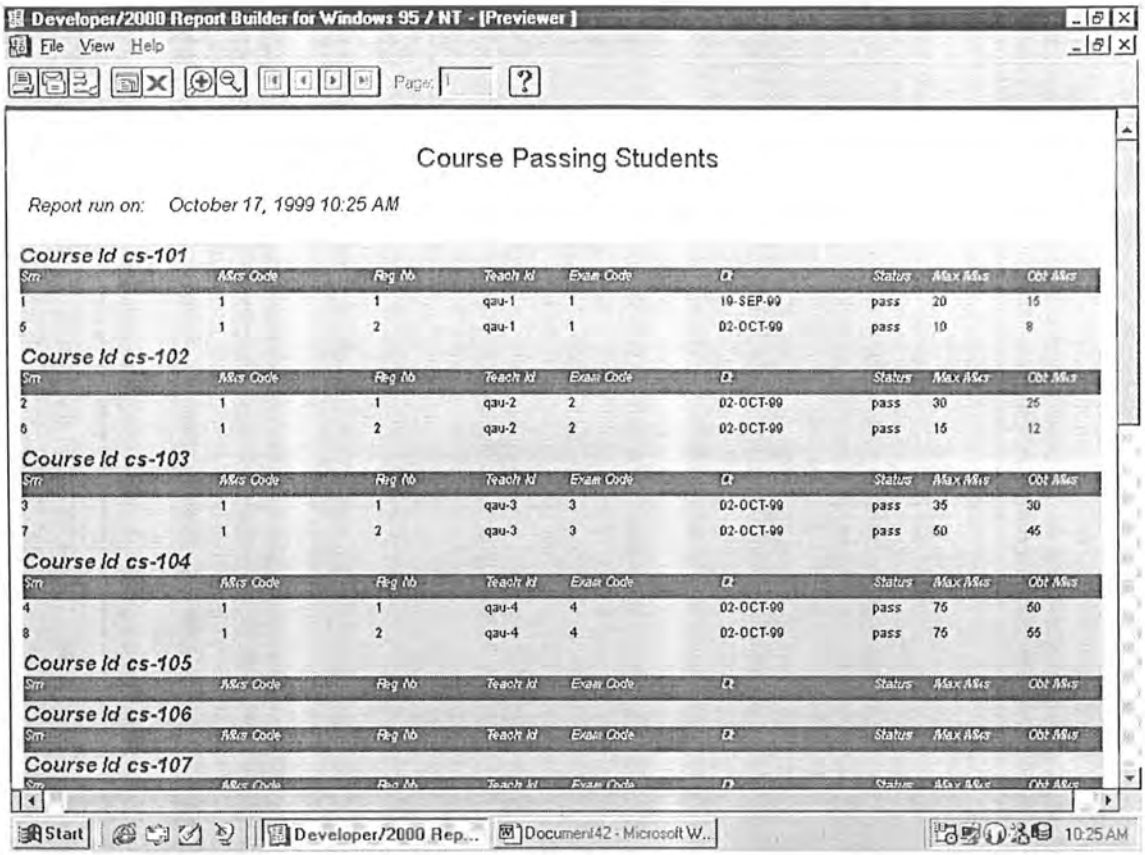

Developer/2000 Forms Runtime for Windows 95 / NT - [WINDOW1]
Action Edit Query Block Record Field Window Help
Print Setup...
Marks Wise Query Form
Reg No
Stn
Mks Code
Teach Id
Course Id
Exam Code
Dt
Status
Max Mks
Obt Mks
Back to Main Menu
Exit
Record: 1/1
Start
Developer/2000 Form B...
Document31 - Microsoft ...
Developer/2000 For...
9:54 AM

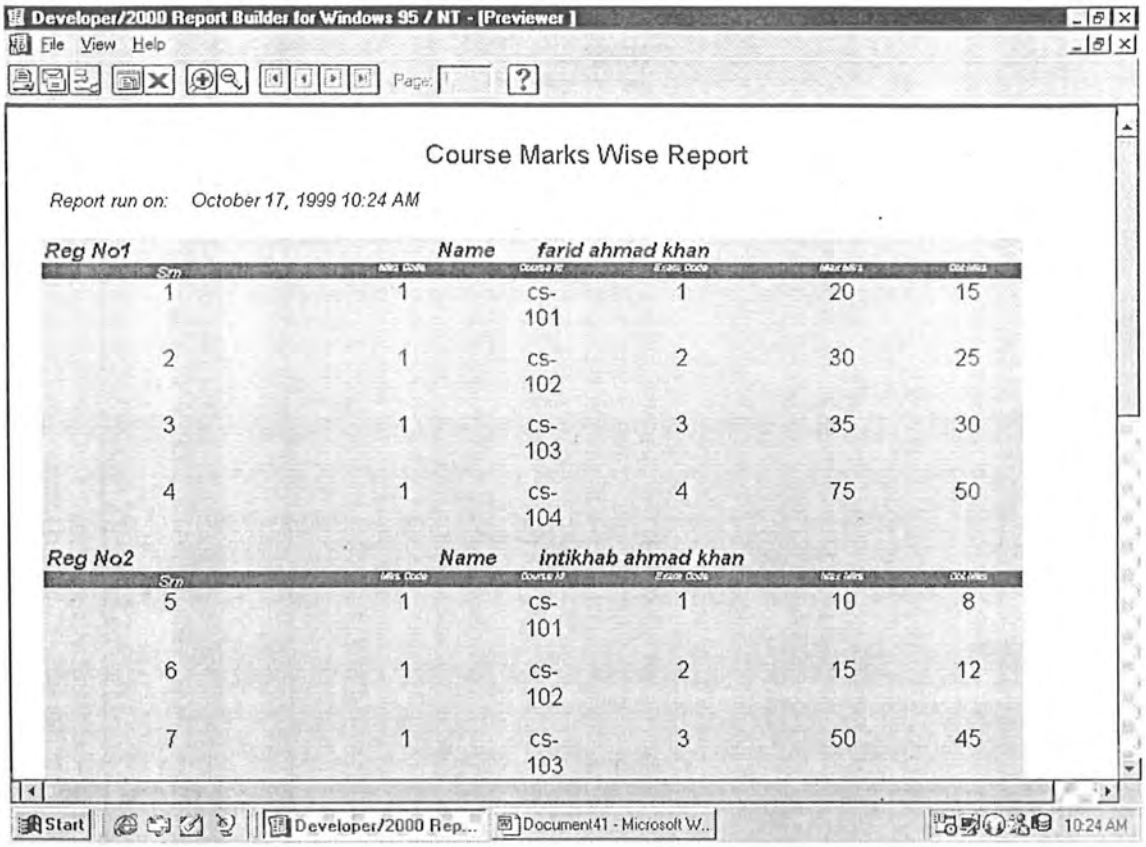

Developer/2000 Forms Runtime for Windows 95 / NT - [WINDOW1]
Action Edit Query Block Record Field Window Help
Exit Form
ATTENDENCE SHEET
Course Id
Teach Id
Dt
Reg No
Name
Present
Absent
Back to Main Menu
Exit
Record: 1/1
List of Values
Start
Developer/2000 Form B...
Document2 - Microsoft ...
Developer/2000 For...
8:52 AM

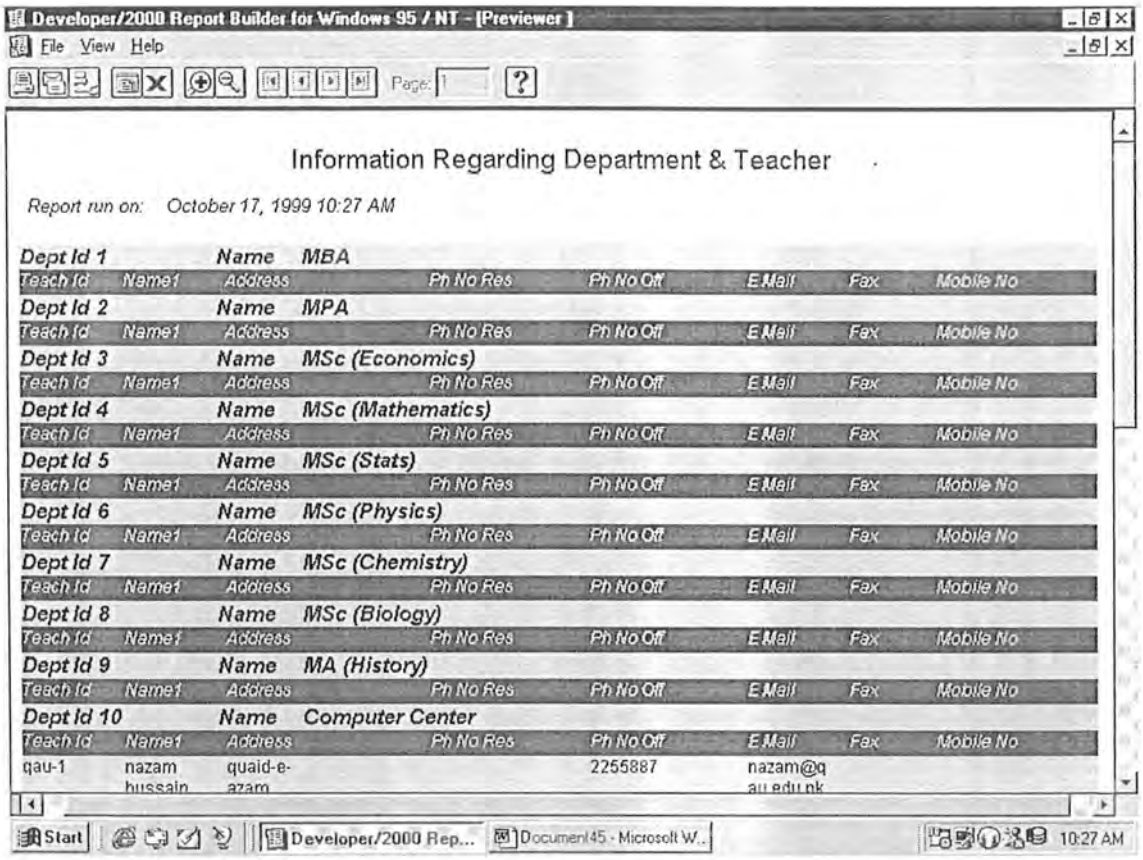

Find
cs-1%
Course I
cs-101
cs-102
cs-103
cs-104
Find
OK
Cancel
TENDENCE SHEET
Course Id
Teach Id
Dt
Reg No
Name
Present
Absent
Back to Main Menu
Exit
Choices in list 12
Record: 1/1
List of Values
Start
Developer/2000 Form B...
Microsoft Word
Developer/2000 For...
8:51 AM

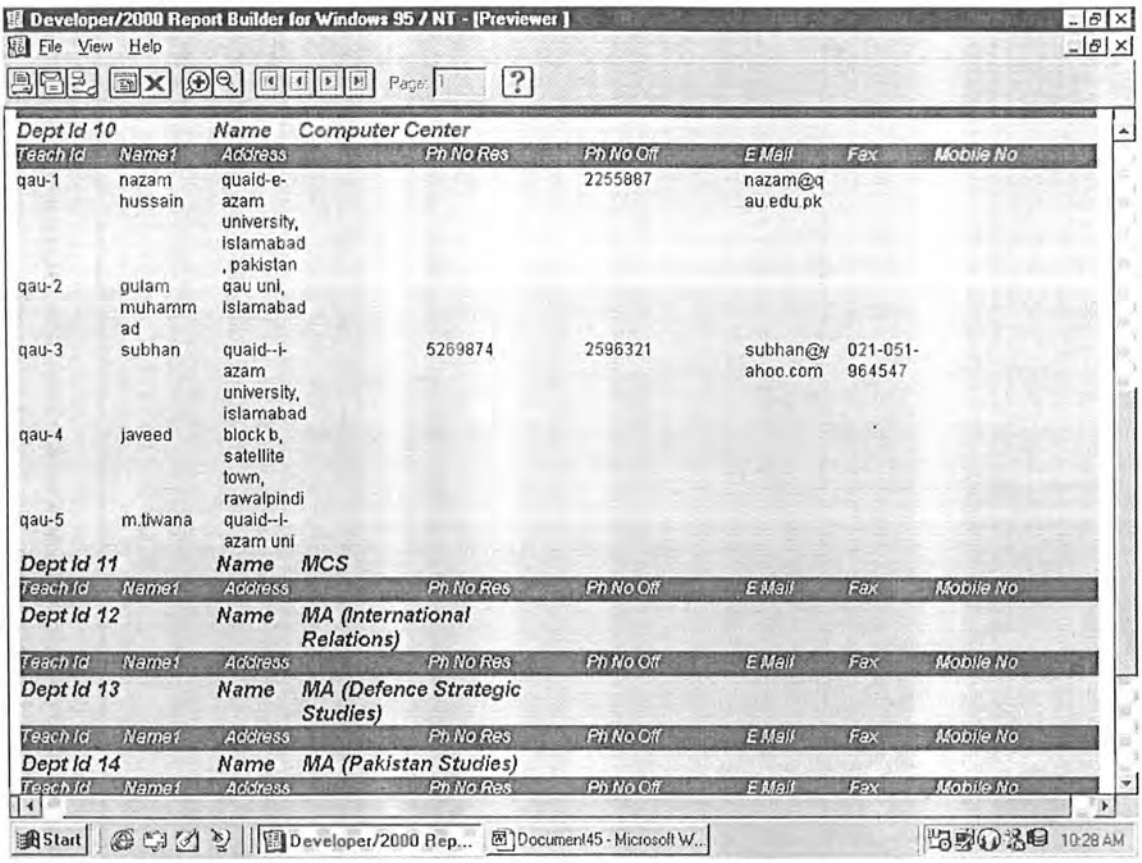

Developer/2000 Report Builder for Windows 95 / NT - [Previewer]
File View Help
Page:
Students Educational Record
Report run on: October 17, 1999 10:27 AM
Reg No1
Sm Descp
1 matric
2 i.com
3 b.com
4 mba(it)
5 pgd(cs)
Reg No2
Sm Descp
6 matric
7 fsc
8 bsc
9 msc(maths)
10 diploma in eng
Start
Developer/2000 Rep...
Document44 - Microsoft W...
10:27 AM

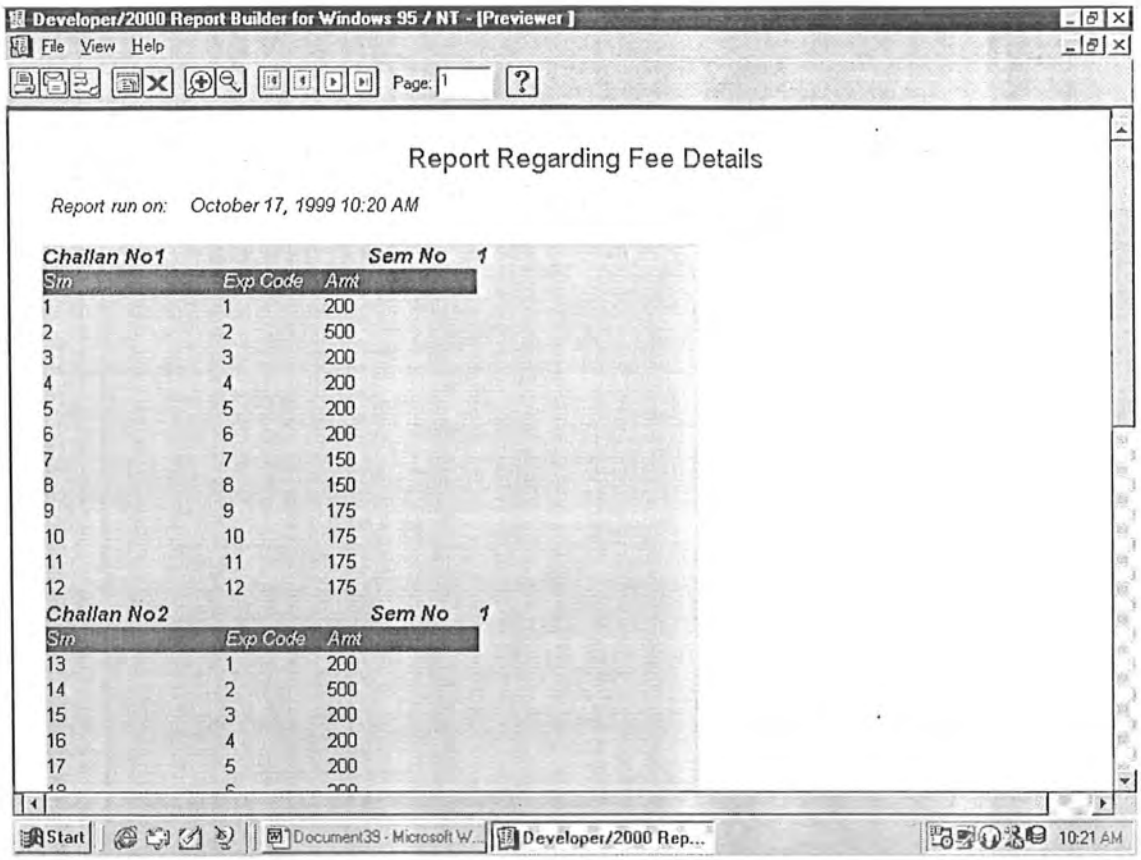

Developer/2000 Report Builder for Windows 95 / NT - [Previewer]
File View Help
Page: 1
Zoom In
Course Registration Detail Report
Report run on: October 17, 1999 10:26 AM
Course Id cs-101 Name c++
Srn Reg No Sem No
1 1 1
6 2 1
Course Id cs-102 Name software eng
Srn Reg No Sem No
2 1 1
7 2 1
Course Id cs-103 Name computing system
Srn Reg No Sem No
3 1 1
8 2 1
Course Id cs-104 Name data structure
Srn Reg No Sem No
4 1 1
9 2 1
Course Id cs-105 Name cobol
Srn Reg No Sem No
5 1 1
10 2 1
Course Id cs-106 Name computer graphics
Start
Developer/2000 Rep...
Document43 - Microsoft W...
10:26 AM

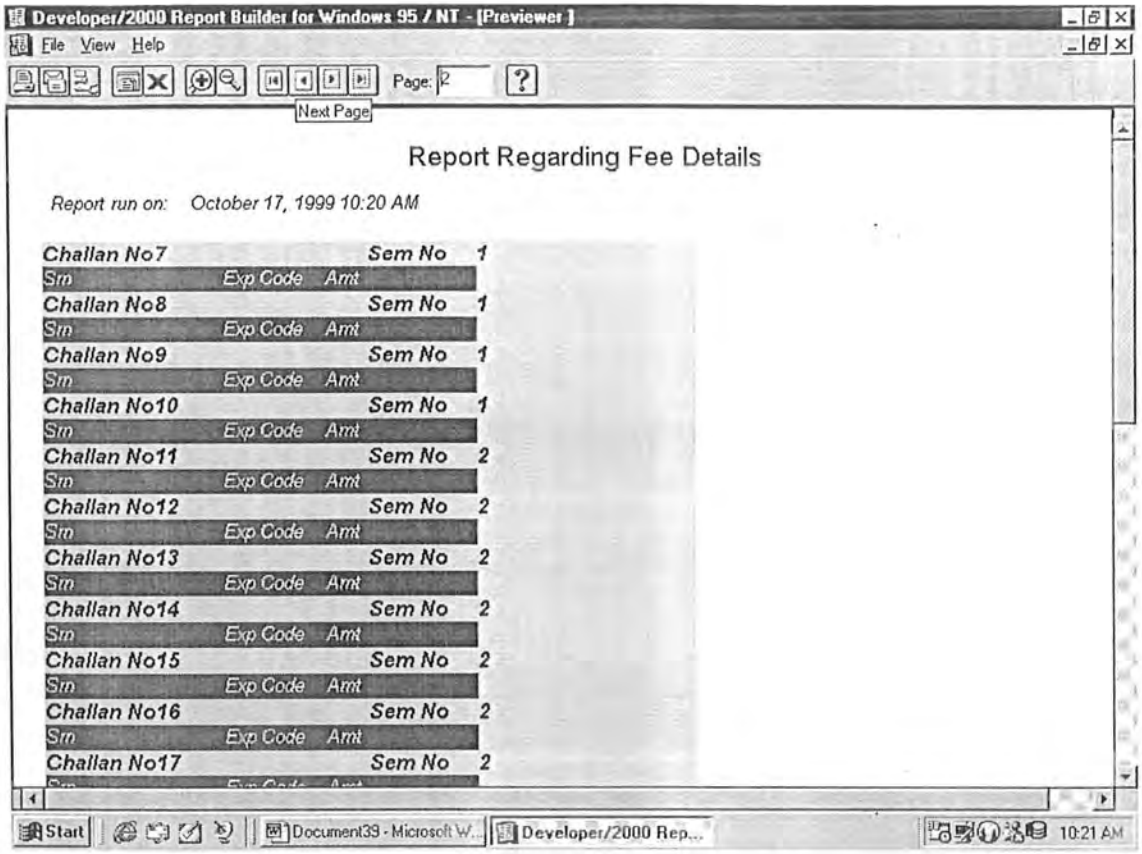

Developer/2000 Report Builder for Windows 95 / NT - [Previewer]
File View Help
Page:
Course Passing Students
Report run on: October 17, 1999 10:25 AM
Course Id cs-101
Stn | Mks Code | Reg No | Teach Id | Exam Code | Dt | Status | Max Mks | Obt Mks
1 | 1 | 1 | qau-1 | 1 | 19-SEP-99 | pass | 20 | 15
5 | 1 | 2 | qau-1 | 1 | 02-OCT-99 | pass | 10 | 8
Course Id cs-102
Stn | Mks Code | Reg No | Teach Id | Exam Code | Dt | Status | Max Mks | Obt Mks
2 | 1 | 1 | qau-2 | 2 | 02-OCT-99 | pass | 30 | 25
6 | 1 | 2 | qau-2 | 2 | 02-OCT-99 | pass | 15 | 12
Course Id cs-103
Stn | Mks Code | Reg No | Teach Id | Exam Code | Dt | Status | Max Mks | Obt Mks
3 | 1 | 1 | qau-3 | 3 | 02-OCT-99 | pass | 35 | 30
7 | 1 | 2 | qau-3 | 3 | 02-OCT-99 | pass | 60 | 45
Course Id cs-104
Stn | Mks Code | Reg No | Teach Id | Exam Code | Dt | Status | Max Mks | Obt Mks
4 | 1 | 1 | qau-4 | 4 | 02-OCT-99 | pass | 75 | 60
8 | 1 | 2 | qau-4 | 4 | 02-OCT-99 | pass | 75 | 55
Course Id cs-105
Stn | Mks Code | Reg No | Teach Id | Exam Code | Dt | Status | Max Mks | Obt Mks
Course Id cs-106
Stn | Mks Code | Reg No | Teach Id | Exam Code | Dt | Status | Max Mks | Obt Mks
Course Id cs-107
Start
Developer/2000 Rep...
Document42 - Microsoft W...
10:25 AM

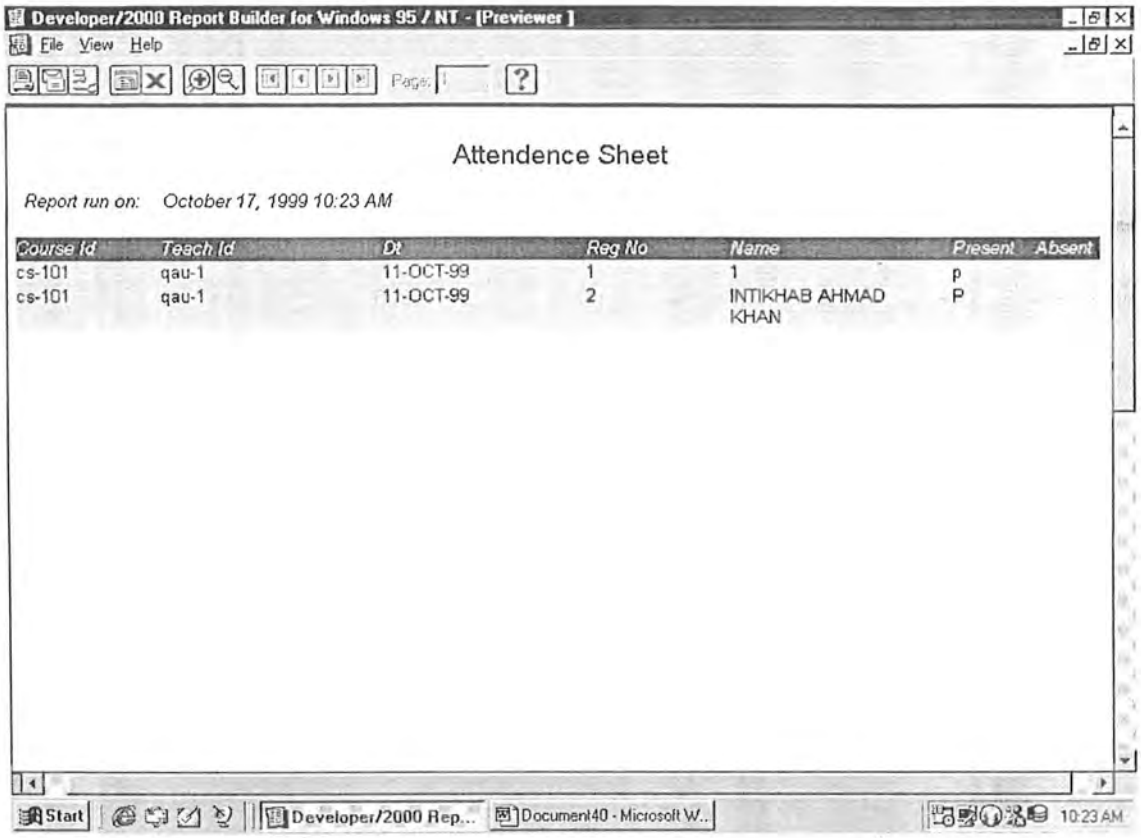

Developer/2000 Report Builder for Windows 95 / NT - [Previewer]
File View Help
Page:
Course Marks Wise Report
Report run on: October 17, 1999 10:24 AM
Reg No1 Name farid ahmad khan
Sm Mks. Code Course Id Exam Code Max Mks Obt Mks
1 1 cs-101 1 20 15
2 1 cs-102 2 30 25
3 1 cs-103 3 35 30
4 1 cs-104 4 75 50
Reg No2 Name intikhab ahmad khan
Sm Mks. Code Course Id Exam Code Max Mks Obt Mks
5 1 cs-101 1 10 8
6 1 cs-102 2 15 12
7 1 cs-103 3 50 45
Start
Developer/2000 Rep...
Document1 - Microsoft W...
10:24 AM


Developer/2000 Report Builder for Windows 95 / NT - [Previewer]
File View Help
Page: 1
Information Regarding Department & Teacher
Report run on: October 17, 1999 10:27 AM
Dept Id 1 Name MBA
Teach Id Name1 Address Ph No Res Ph No Off E Mail Fax Mobile No
Dept Id 2 Name MPA
Teach Id Name1 Address Ph No Res Ph No Off E Mail Fax Mobile No
Dept Id 3 Name MSc (Economics)
Teach Id Name1 Address Ph No Res Ph No Off E Mail Fax Mobile No
Dept Id 4 Name MSc (Mathematics)
Teach Id Name1 Address Ph No Res Ph No Off E Mail Fax Mobile No
Dept Id 5 Name MSc (Stats)
Teach Id Name1 Address Ph No Res Ph No Off E Mail Fax Mobile No
Dept Id 6 Name MSc (Physics)
Teach Id Name1 Address Ph No Res Ph No Off E Mail Fax Mobile No
Dept Id 7 Name MSc (Chemistry)
Teach Id Name1 Address Ph No Res Ph No Off E Mail Fax Mobile No
Dept Id 8 Name MSc (Biology)
Teach Id Name1 Address Ph No Res Ph No Off E Mail Fax Mobile No
Dept Id 9 Name MA (History)
Teach Id Name1 Address Ph No Res Ph No Off E Mail Fax Mobile No
Dept Id 10 Name Computer Center
Teach Id Name1 Address Ph No Res Ph No Off E Mail Fax Mobile No
qau-1 nazam hussain quaid-e-azam 2255887 nazam@qau.edu.pk
Start
Developer/2000 Rep...
Document45 - Microsoft W...
10:27 AM


Developer/2000 Report Builder for Windows 95 / NT - [Previewer]
File View Help
Page: 1
Dept Id 10 Name Computer Center
Teach Id | Name1 | Address | Ph No Res | Ph No Off | E Mail | Fax | Mobile No
qau-1 | nazam hussain | quaid-e-azam university, islamabad , pakistan | | 2255887 | nazam@qau.edu.pk | |
qau-2 | gulam muhammad | qau uni, islamabad | | | | |
qau-3 | subhan | quaid--i-azam university, islamabad | 5269874 | 2596321 | subhan@yahoo.com | 021-051-964547 |
qau-4 | javeed | block b, satellite town, rawalpindi | | | | |
qau-5 | m.tiwana | quaid--i-azam uni | | | | |
Dept Id 11 Name MCS
Teach Id | Name1 | Address | Ph No Res | Ph No Off | E Mail | Fax | Mobile No
Dept Id 12 Name MA (International Relations)
Teach Id | Name1 | Address | Ph No Res | Ph No Off | E Mail | Fax | Mobile No
Dept Id 13 Name MA (Defence Strategic Studies)
Teach Id | Name1 | Address | Ph No Res | Ph No Off | E Mail | Fax | Mobile No
Dept Id 14 Name MA (Pakistan Studies)
Teach Id | Name1 | Address | Ph No Res | Ph No Off | E Mail | Fax | Mobile No
Start
Developer/2000 Rep...
Document45 - Microsoft W...
10:28 AM


Developer/2000 Report Builder for Windows 95 / NT - [Previewer]
File View Help
Page: 1
Report Regarding Fee Details
Report run on: October 17, 1999 10:20 AM
Challan No1 Sem No 1
Sln Exp Code Amt
1 1 200
2 2 500
3 3 200
4 4 200
5 5 200
6 6 200
7 7 150
8 8 150
9 9 175
10 10 175
11 11 175
12 12 175
Challan No2 Sem No 1
Sln Exp Code Amt
13 1 200
14 2 500
15 3 200
16 4 200
17 5 200
Start
Document39 - Microsoft W...
Developer/2000 Rep...
10:21 AM


Developer/2000 Report Builder for Windows 95 / NT - [Previewer]
File View Help
Page: 2
Next Page
Report Regarding Fee Details
Report run on: October 17, 1999 10:20 AM
Challan No7 Sem No 1
Sm Exp Code Amt
Challan No8 Sem No 1
Sm Exp Code Amt
Challan No9 Sem No 1
Sm Exp Code Amt
Challan No10 Sem No 1
Sm Exp Code Amt
Challan No11 Sem No 2
Sm Exp Code Amt
Challan No12 Sem No 2
Sm Exp Code Amt
Challan No13 Sem No 2
Sm Exp Code Amt
Challan No14 Sem No 2
Sm Exp Code Amt
Challan No15 Sem No 2
Sm Exp Code Amt
Challan No16 Sem No 2
Sm Exp Code Amt
Challan No17 Sem No 2
Start
Document39 - Microsoft W...
Developer/2000 Rep...
10:21 AM


Developer/2000 Report Builder for Windows 95 / NT - [Previewer]
File View Help
Page:
Attendence Sheet
Report run on: October 17, 1999 10:23 AM
Course Id | Teach Id | Dt | Reg No | Name | Present | Absent
cs-101 | qau-1 | 11-OCT-99 | 1 | 1 | p
cs-101 | qau-1 | 11-OCT-99 | 2 | INTIKHAB AHMAD KHAN | P
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