

NEAR EAST UNIVERSITY

FACULTY OF THE ECONOMICS AND  
ADMINISTRATIVE SCIENCES

DEPARTMENT OF COMPUTER  
INFORMATION SYSTEMS

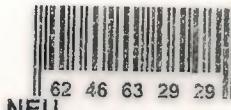
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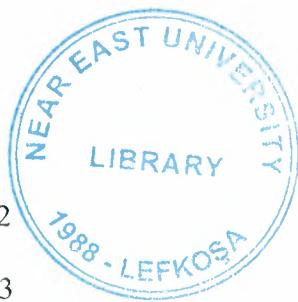
STUDENT REGISTRATION SYSTEM

SUBMITTED TO : DEPARTMENT OF CIS

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## **ABSTRACT**

Nowadays we know that, the Information Technology is very important in the human life. Almost we use the IT in our life every time. Why do we use it ? Because it provides us to do our business very easily, quickly and securely. Therefore this project called STUDENT REGISTRATION SYSTEM. System will provide for workers of the universities, for teachers, as well for students to do their business.

In the world is possible to find and to reach to each different information from the internet or any places. The technology is improving very fast. By this technological improvement of course the computer and internet world has more a big improvement in the technology. If we want to follow the technology or if there is a competition between the business or in any subjects we must produce and use like this programs.

## **INTRODUCTION**

The name of the project and document is called Student Registration System. This project will be used in the universities or who is using for student processes. These processes can be student information, the university information, registration information and teacher. These are the availability of these projects.

There will be an easy user interface of this project. The aim of the simple interface is to provide easily to use this project for secretary or who is using this program. Especially this document will be very useful when this program is worked. For some unknown places in the project, the user can take benefit from this document.

When we design this project, we need some programs and some documents as well we need a good research about Registration System. Before starting of the project a useful researching, we must do. In fact this researching is valid for all the like this project.

We had explained a little above about the aim of the project. This project or program will provide to learn and make process for student registration and grades, also for situation of teachers.

### - User Requirement definition

1. The system must cover all the registration activities.
2. The system must be flexible and easy to use either to novice or to professional computer users.
3. The system users should have a permeation to login inside the system space.
4. To increase the speed of the operation by the users, and must have good server machine for local and for internet.
5. Generally by the users to prevent loss of data.
6. To restrict some privileges from the system for attachment of the hacker.
7. Should have passwords of system, according to use it.

V

- System Requirements specification

1. The authorized individuals (computer center authorized staff) should be provided with facilities to access information about the structure of the system.
2. Unauthorized individuals are unable to gain access to the structure of the website to make their operations.
3. Making constraints on users; every user has his limited authorizations.
4. The system should be connected to the university server.

I am going to build this system to solve whole problems in the old one. These problems look as: the time as a main problem and end-users needs.

I want here to classify some problems face us in the current system:

1. A lot of paper usage in registration operation.
2. The student kills a lot of time in the registration operation; "about one or two work days to make a complete operation".
3. A lot of money expenses on papers, printers, electricity, and salaries for registration staff.
4. The old operation is not flexible. It is very complex and cumbersome.
5. The back-up operation for the registration and students data is difficult and not safe. Because it depends on the paper and hard copies.
6. Registration employees staff mistakes in transferring data inside the system.

I want to talk that there are more organizations in this time built and developed computerized solutions for these problems and tasks. Of course, they are certainly believed that this new technology is very feasible and efficient to them. So, you can see the internet technology enters the commercial and scientifically sectors at the same level. This system we are going to build shows a very good efficiency in more universities and institutes over the world.

## **METHODS**

As stated before, Object Oriented approach is a good approach for designing software products, since it uses objects around and trying to implement those objects in software. Here after analyzing the software after reading the requirements below:

1. The registration system could not work over the web, maybe in future we will set for web.
2. The system must keep track of all the students' information
3. The system would be able to show the students grades.
4. The system would have error checking mechanism for wrong entries.
5. The instructors would be able to put grades to students.
6. Student in a class/lab should not be more than 30 students.
7. Security should be taking into the consideration.

I assumed that students paid their tuition fees before registering themselves.

## **DESIGN OF THE SYSTEM**

### **EXPLANATION :**

**The minimum requirements of the system are as follows;**

- Intel Pentium 3 processor or Celeron 2.00
- 550 Mhz
- 128 MB of RAM
- 30 GB HDD
- 14" Monitor
- Microsoft Windows 98/2000

- CD-ROM 52xmax

**The recommended requirements of the system are as follows;**

- Intel Pentium 4 processor
- 800 Mhz
- 512 MB of RAM
- 80 GB HDD
- 17" Monitor
- Microsoft Windows XP Professional
- CD-ROM 52xmax

## **A Brief Description of How the Current System Works**

We can classify the whole registration operation to three main points as shown below:

1. Selects courses for each semester and makes the time tables for the lectures (done by the chairman of each department)
2. The students registration operation (done by the registration department employees staff)
3. Paying fees for the university accountants (done by students themselves and accounting department staff)

I want now to detail the steps of each point above in small sentences:

- How the selecting semester courses operation done?

- a. The chairman of the department, plus some helps from the dean and registration department, selects how many courses will be offer in this semester, and what are there.
- b. Assigning the number expectant students in each course in this semester.
- c. Assigning the available classroom for each course and each section depends on time and number of seats.
- d. Assigning the teacher for each course depends on his/her knowledge.
- e. Designing the time table for the weekly lectures.

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- How does the registration system work?

- a. For each department in the university there is a specific registrar. The goal of him is entering the registration data for the students' registration operation.
- b. Each student should visit his/her registrar to take his Registration Form to start his registration operation.
- c. Now the student should visit his/her advisor to take advises of what the best courses he/she can enroll in, and then sign the registration form.
- d. After that, the student should return the registration form for his/her registrar to reenter the data into student's official file.

- How the student can pay his/her fees?

- a. After finishing registration operation, all students' financial data transferred to the accounting department in the university.
- b. The accountant calculates the fees on each student.
- c. Each student goes to the accountant to pay his/her fees depends on his/her educational level (under or post graduates)
- d. The accountant adds the health insurance and social activates fees over all students as a same.

In this way, we can say that the registration operation is completed successfully now.

## A Description of How the New System Works

We can classify the whole system registration operation to some main points and we will explain later as shown below;

1. The system should have information's for students to make registration processes for the students. (done by secretary, administrator)
2. The system should have a course menu to make add, update, delete and selects courses for each semester and makes the time tables for lecturers (done by chairman of each department)
3. The system should includes lecturers menu as well, to take information about them and makes some operations for them.(done by the administrator)
4. For each faculty we have department(s), the system must include department's information. (done by the administrator)
5. For student's registration, the system allows the user to enroll the students in the courses. (done by the advisor)
6. The system should give report for any registration operation (will see by admin, lecturer etc...)
7. Login panel will be found in the system to register any new user to use this system. (done by the administrator)

Let's detail each point above as steps shown below;

**1. How the system should have information's for students to make registration processes for the students?**

- Entering the registration data for the students' registration operation.
- The new system making the student processes. After that advisor and the secretary will make some process about the students. So follow the other steps.

- The staff of the university registrars register student or add a new one to the system. System gives the number of students and then accepts it as student. So all personal information of student will be stored in the system database.
- The advisor of the student will give the courses by using advisor access level permission. Advisor and student choose courses, and then registration will be completed.
- System provides to admin, advisor and other staff of the university to update available student information, to change their information.
- As well system allows the authorized staff to delete student registration.
- In other steps will be explained student registration for to take course and for their payments, debts.

**2. How the system should have a course menu to make add, update, delete and selects courses for each semester and makes the time tables for lecturers?**

- The authorized user from the university will add courses for each departments of the faculty. The system must have some description about the courses. When student takes the course for their choice it will be useful.
- The current stored courses will be updated by the users. May some changes can occur by the departments' courses.
- Also some course may be closed or cancelled. The system allows the users to delete it from system.
- The chairman of the department, plus some helps from the dean and registration department, selects how many courses will be offer in this semester, and what they are.

**3. How the system includes Lecturer as well, to take information about lecturer and makes some operations for lecturer:**

- New lecturer can be adding to the system by using the lecturer process. It will be added by admin of the system.
- All information of the lecturer like who is in which department and what is his/her title should be stored in the system by using addition process.

- Current lecturer may update by using the system.
- May a lecturer can be deleted from the system when he/she left from the working and may retire.

**4. For each faculty we have department(s), the system must include department information:**

- For the university faculty of course we have departments name and their description, so we must store these departments' name and their descriptions about them by using addition process in the system.
- Maybe some changes occur from departments' names and their information so will be updated by the authorized users of the university.
- Also we can delete department from the system, when it is closed down from the university.

**5. For course registration of student, system allow to the user to enroll the students and give the courses to the students:**

- Advisor will give some courses to the student by using the course registration process from the system. Advisor will choose one or more courses and then can give the student account.
- Here also advisor can see the information of the student and their GPA, CGPA, and which course he/she has passed or failed, advisor can give course to student according to this information.
- Maybe some changes can be occur from the student courses, system will allow to the user to drop and add some course for student.
- As well as, system will have the grading for students. After examinations or at the end of the term, staff of the university will store the grade of the students. (Lecturer sends to the staff the list of the students' courses with grading and then realized this process)

**6. How the system should give report for any registration operation?**

- System show the users some reports, but it will change according to the authorized user

- Generally some of these reports will be teacher, department, and course reports; just it will show to the users' information about these things.
- Also reports for departments to teachers and courses; courses to teacher and departments.
- Most importantly the reports will show the transcript of each student. In transcript is shown the term of the year, which course in which term of year, as well GPA and CGPA of the student will be shown.

## 7. Login panel will be in system, to register any user to use the system to do some operations:

- Settings of the system will be specified here by specify the user according to their privileges and limitations.
- New user can be specified here as advisor, secretary, admin and normal staff.
- Also current users' information, their privileges and limitations can be updated from here.

## The Feasibility Study

Firstly, I want to remember the goal of our project. It is to change the traditional view of the registration operation to a new one to save time and money if we can.

In software engineering process, we classify this study to three major parts:

- **Economic Feasibility**: that's mean assigning the costs to build the system and then compare it with the current and future benefits. The result should be positive. Means the benefits is more the costs.

### Benefits

- Tangible Benefits:

Increasing the speed of registration operation and making the process more flexible.

- Intangible benefits:

Updating the traditional way of registration to be modern.

## Costs

- Tangible costs:

We shall calculate the building project expenses and new staff in computer center expenses, plus that we need; servers and web space to active our system.

- Intangible Costs:

User should have knowledge in using computer and internet.

- **Technical Feasibility:** Here we must know the organization needs, to decide if the system technically efficient or not.

In tangible costs we were denote that we should have some new equipments. These equipments will make our system more efficient to make it in a good technical status.

- **Operational Feasibility:** to define the ability of operation the system. Our project is designed to make the registration process for the students computerized so as to develop the registration process to become speedy and easy.

## Determining Requirements

We have two general methods for determining requirements: traditional and modern method. In this project, I will choose the modern method to determine the requirements. Joint Application Design (JAD) one of the modern method manners. We will use this manner for these tow reasons:

- Because we want to collect system requirements simultaneously from key users (registration staff and students).
- At the end of using this method we should have detailed features of the proposed system.

## - **Functional Requirements**

- The user of the system *shall* be able to gain access to the desired information he/she wants.
- The system *shall* inform the users what on-line registration system is.
- The system *shall* provide some security issues, such as making it difficult to make vandalism in the website.
- The system *shall* provide appropriate tools to deal with it for expected users, e.g. new students.

## - **Non-Functional Requirements**

### (2.1) Product Requirement:

- a. Performance requirements: the system should have high performance (relatively high speed).
- b. Reliability requirements:
  - i. Hardware reliability: As we know, hardware exhibits relatively high failure rate early in its life, then defects are corrected and failure rate drops to a steady level, then, later on the failure rates rise again. But the key point here is that these defects and failures of the hardware can be easily fixed.
  - ii. Software reliability: the situation here is different from hardware reliability because software doesn't wear out, it does deteriorate.
  - iii. Operator reliability: the operator of the system will rarely produce errors and if so these errors should be handled quickly.

### (2.2) Organizational requirements:

In these requirements according to the policies and procedures between customers (receipts of the system; that are students and teachers) and developers, we will deliver the system and its documentation at the specified time, and we will explain the design method that was used.

### (2.3) External requirements:

We will ensure that the system will operate within the law and ethical requirements, to make the system acceptable to its users and to the public, in general.

## **Privileges, Responsibilities And Limitations**

Our system has four general of the users, which are;

1. Administrator (computer center staff)
2. Advisor(Teacher, Administrator)
3. Students(User)

When we want to see the privileges, responsibilities and limitations of these users as detail we can define like that;

### **1. Administrator (computer center staff)**

The following is a list of all privileges, responsibilities, administration events and tools for administration team;

- Updating the site as needed.
- Administrating the system database.
- Administrating the registration times.
- Add users, update and remove them from the system.
- Giving limited privileges to the authorized users
- Receiving and studying the feedback information.
- To change the access level of the users.
- Backup the system, when is needed.
- There are no any limitations for the administrator.
- To evaluate the all system reports.
- Control the system in specific time.

- Add department, if there is a new.

## 2. Advisor(Teacher, Administrator):

For completion the registration of the students, advisor or chairman must give them the courses. So some authority is giving to the advisors. The Lecturer must give the necessary information to the system. The secretary is responsible to enter data of the students.

The list of the authorized privileges, responsibilities and limitations for the registrars in the new on-line system is written below ;

- Controlling the registration operations
- Inserting the courses and sections data for each semester to the system
- Entering the students marks to calculate the GPA
- Making the registration reports for the chairman of each department
- Controlling the penalties on the students if exist
- To transfer the marks of the student to the Registrar
- To prepare some documents for system or for departments
- They can not interfere inside of the system
- Registrar staff can not have all privileges of the administrator
- Can not give courses to the students
- Can not change their access level in the system, they must want from the administrator
- They can not open a new account for login the system themselves, administrator will open their account, specify the access level.
- Advisor must give courses to the students
- Can drop some course for student
- Add or change a course after course registration
- Responsible to interest the student's problems and to reflect on system
- Can not change the access level in system

### **3.Students(User):**

In the new online registration system, the student can now make the registration operation by himself in any time and from any where he/she wants. The privileges for students in new on-line system are written below;

- Sign up to the system by using their registration information like their registrar code.
- Submitting all registration operation data to the system
- To look their mark, debts and payments from the system
- Can not update or change the course or their mark.
- Can not change the access level of the system

## **Conceptual Database Design Description**

Our system contains a database. This database classified all entities in the system. Now, we need to discuss this database and the tables' contains. All the information about registration will be stored in this database. We were designing and implementing the tables and their relationships by using the Microsoft Access programming.

*The database has a number of tables, which are:*

1. Department
2. Student
3. Teacher
4. Course
5. Transcript
6. Login

We are going now to discuss all these tables in detail. Some tables are not major tables, we defined them here to validate the many-to-many relationships between some tables. We will discuss this idea later on this report.

### **Department:**

Department table has a strong relation with the previous table, faculty table. This table contains a complete description about all departments inside the university. Each

department has an identification code; this code will be as a unique code for each department. It will contain three characters denotes the name of the department. It will help us to name codes of courses offered from the department.

This table has a strong relation with the faculty table to reference each department with its faculty belongs to.

#### **Student :**

These tables are a very important table inside our database. They will contain the most important information for all students registered to the university. The student identification number; it is a unique number for all students registered to the university. They give to each student when he registered for the first time. We will use this number to identify all students inside our system.

All the data attributes above stored in the database to help us when the system makes the student registration report after he/she finishing his/her registration operation.

#### **Teacher:**

These tables contain some usable information about the Lecturers, Advisors, and Chairmans inside each department. So, we should connect all lecturers with their departments by the department code.

We used the lecturer identification number to define the instructor number here. We can get the lecturer identification number from the employee's affairs department inside the university.

#### **Course:**

Any course must offer from a department and not more than one department. Each course has a unique code over all university's courses. This code contains six characters. The first three characters are the department code which it belongs to, and the second three are a unique number denotes the courses offered from a department and its level.

Each course record inside the database will contain the course name, credit hours for the course, number of groups for the course depends on how many students registered to the course, a checking variable if the course has a lab lectures or not.

This table helps students in the registration operation to see all information about the courses offered which they can enroll on it. The system will show just the courses that the student can take them from his/her department.

#### **Transcript:**

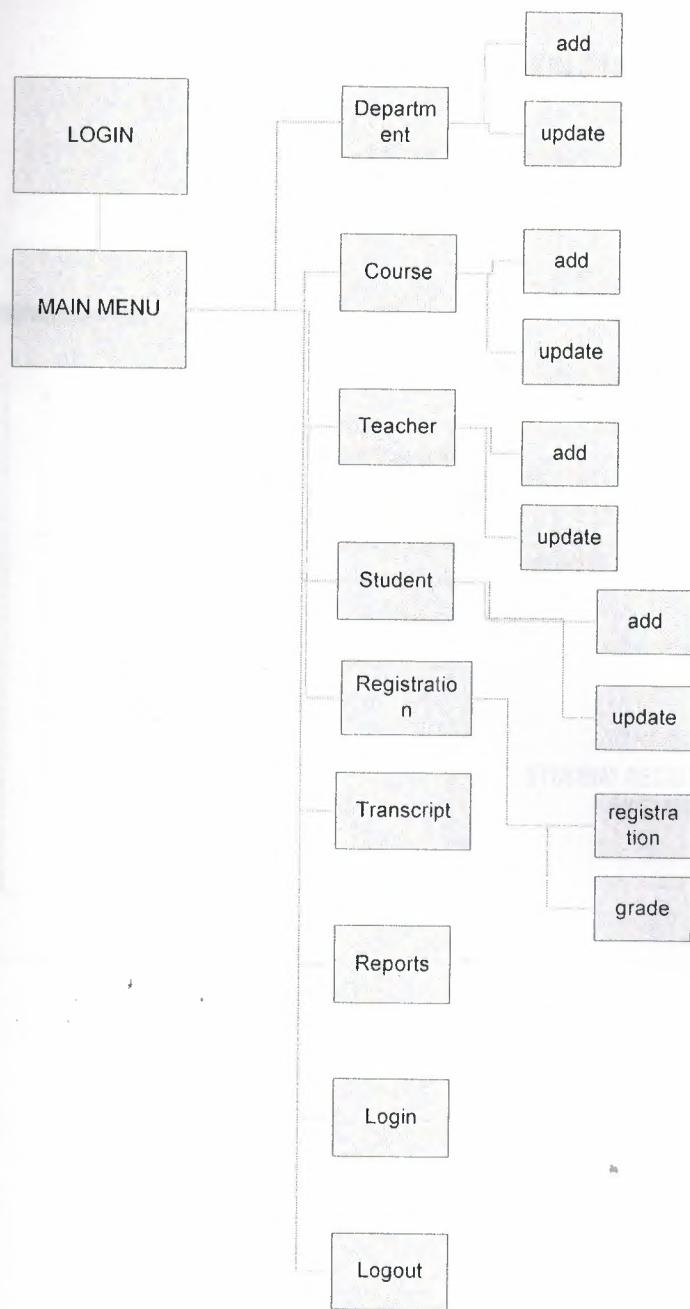
At end of each semester, each instructor or secretary should upload all grades for his/her students that he/she instruct them. The table grade will be containing all this data. The data will be stored here are: the student number and the course code that he/she enrolled in also the grade for his/her in a specific course.

To define the transcript uniquely here in this table, we should insert the student number and the course code together. That's mean, each course has a group of students and each student has a number of grades. Number of grades for each student is equal to number of courses which he/she enrolled in.

#### **Login:**

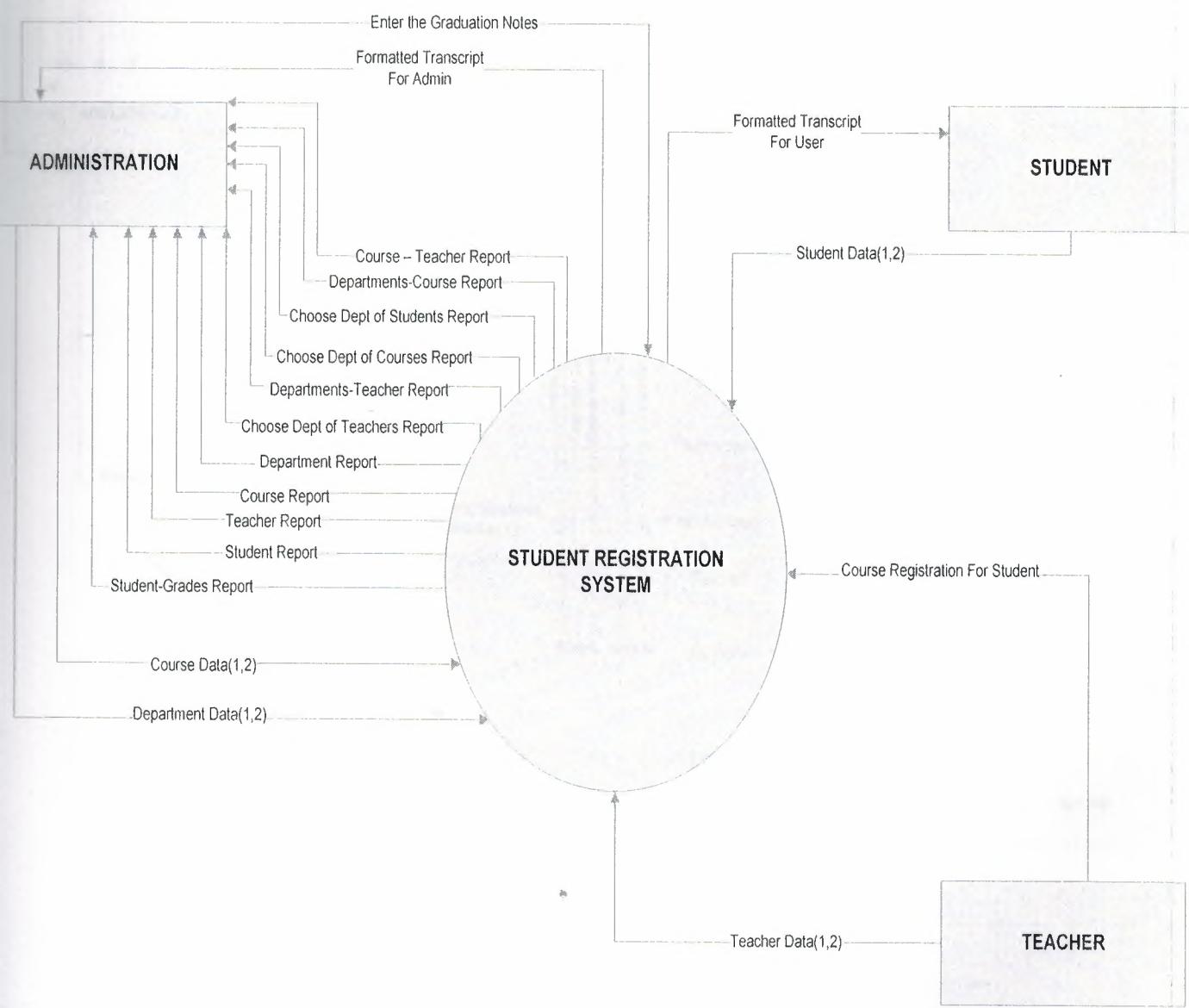
The goal of this table is to register new users and control all the log-in and log-out operations for all users. The system checks all log-in operations in the first page of the system over internet. This table contains a list of usernames, passwords, and the categories for the system's users.

## SYSTEM BLOCK DIAGRAM

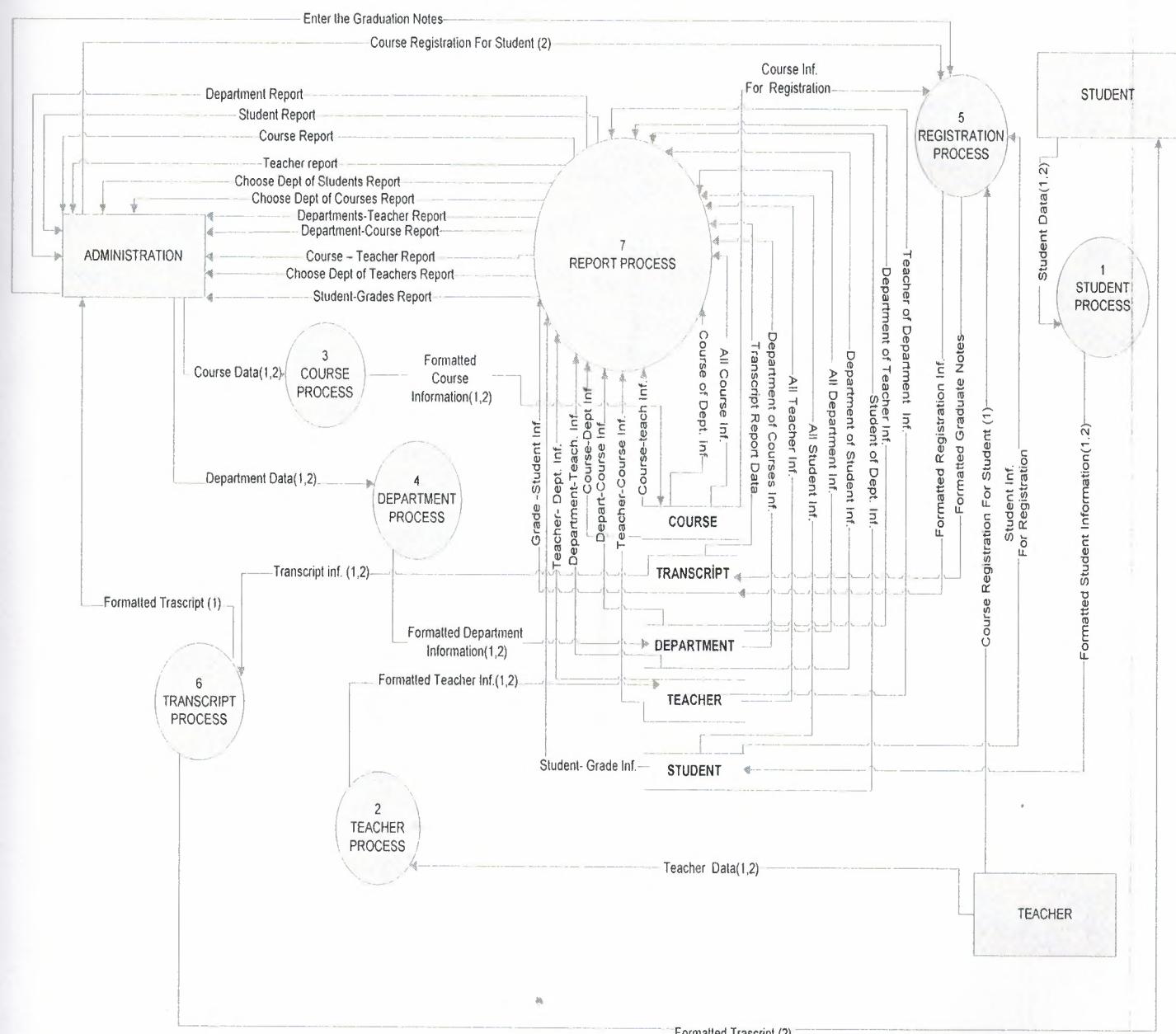


## DATA FLOW DIAGRAM:

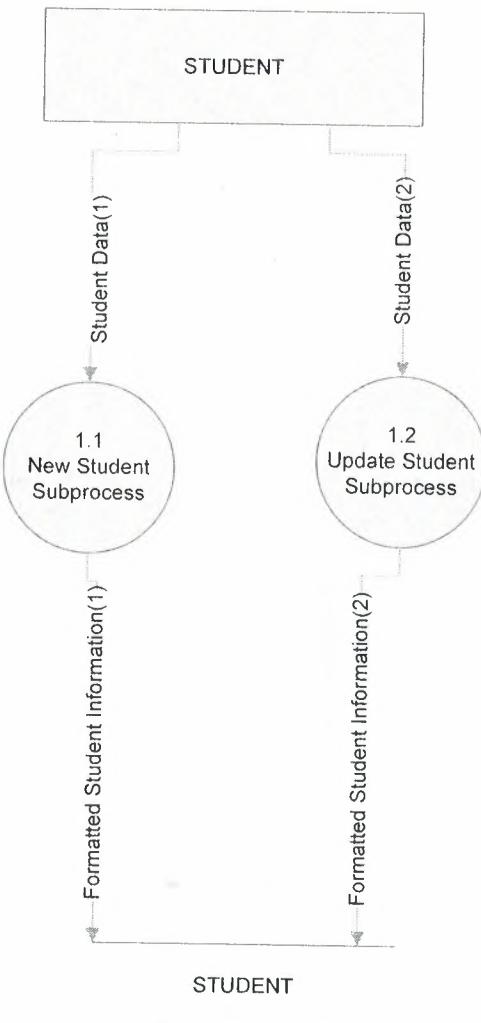
### STUDENT REGISTRATION SYSTEM FOR CONTEX DIAGRAM



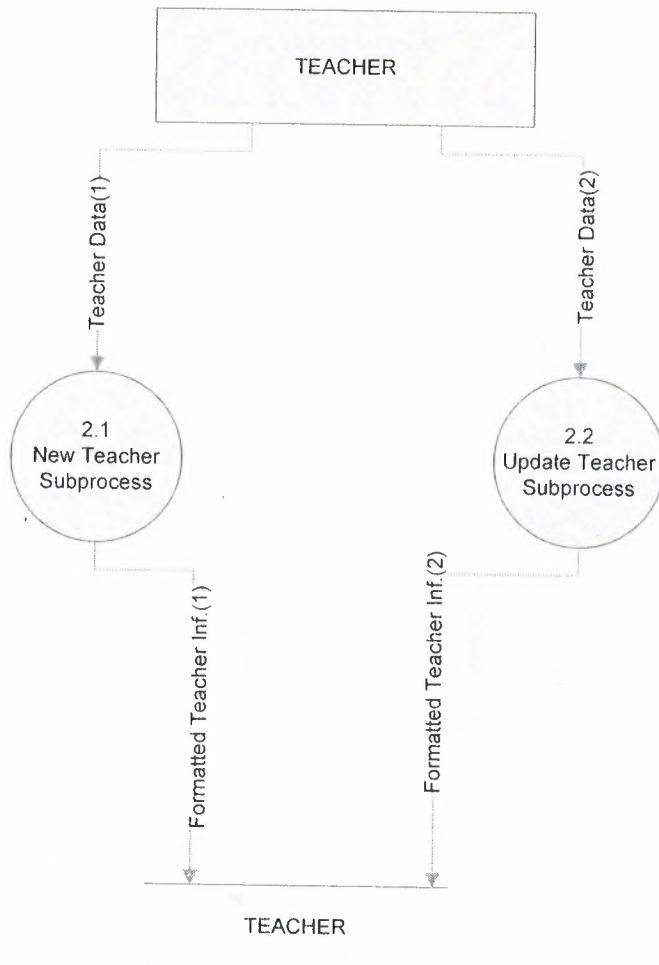
## STUDENT REGISTRATION SYSTEM FOR TOP LEVEL DFD



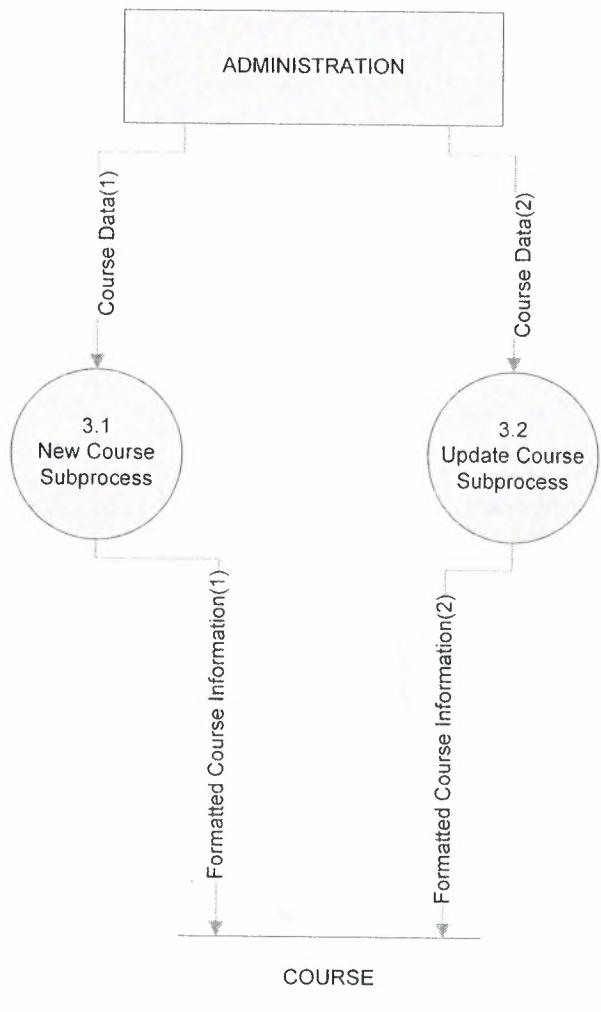
## STUDENT PROCESS DETAIL DFD FOR STUDENT REGISTRATION SYSTEM



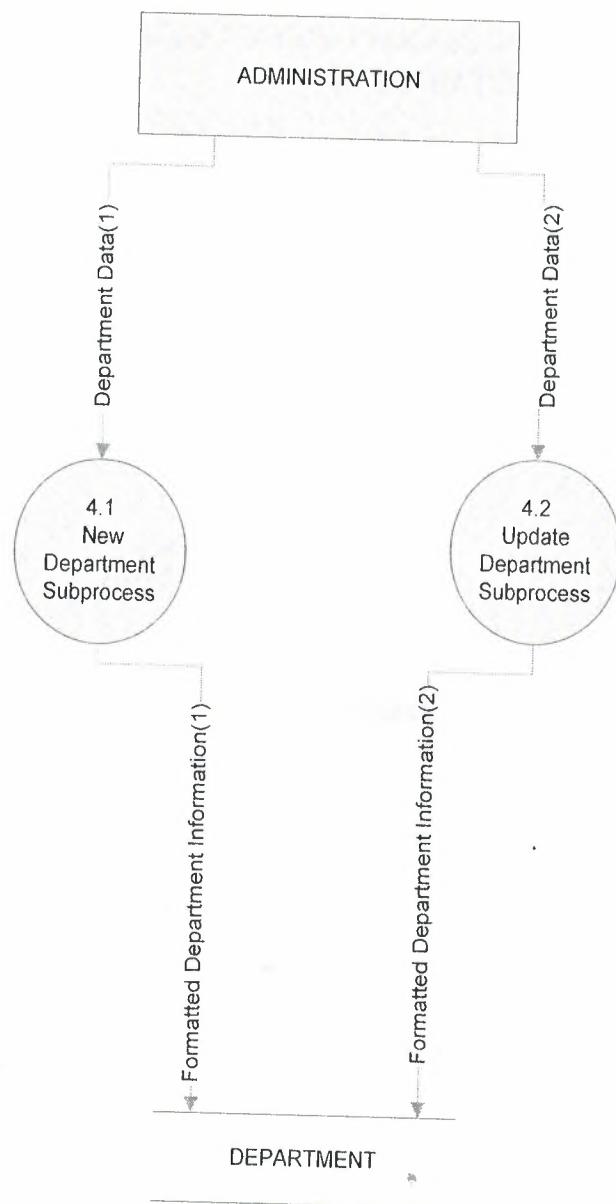
## TEACHER PROCESS DETAIL DFD FOR STUDENT REGISTRATION SYSTEM



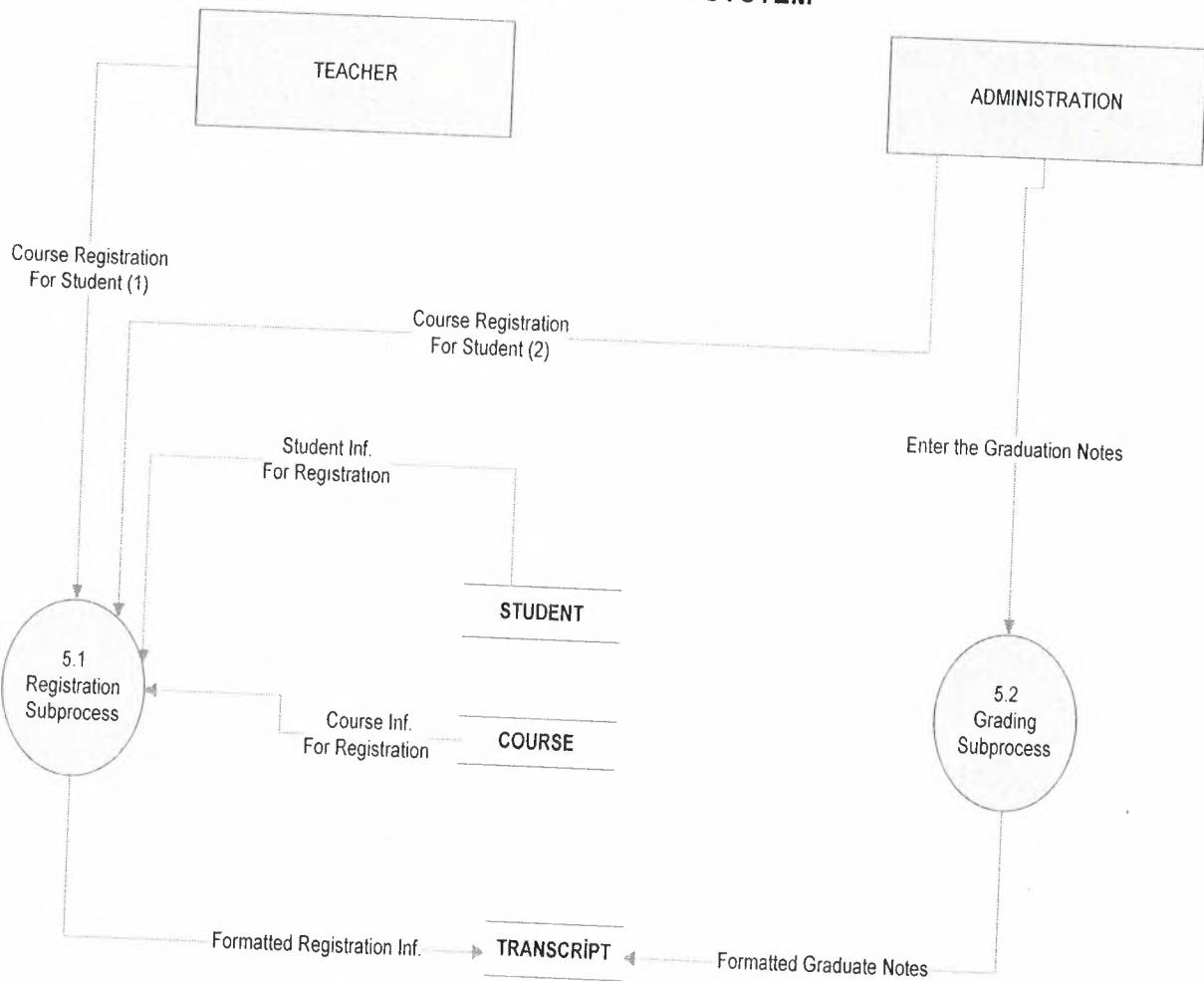
## COURSE PROCESS DETAIL DFD FOR STUDENT REGISTRATION SYSTEM



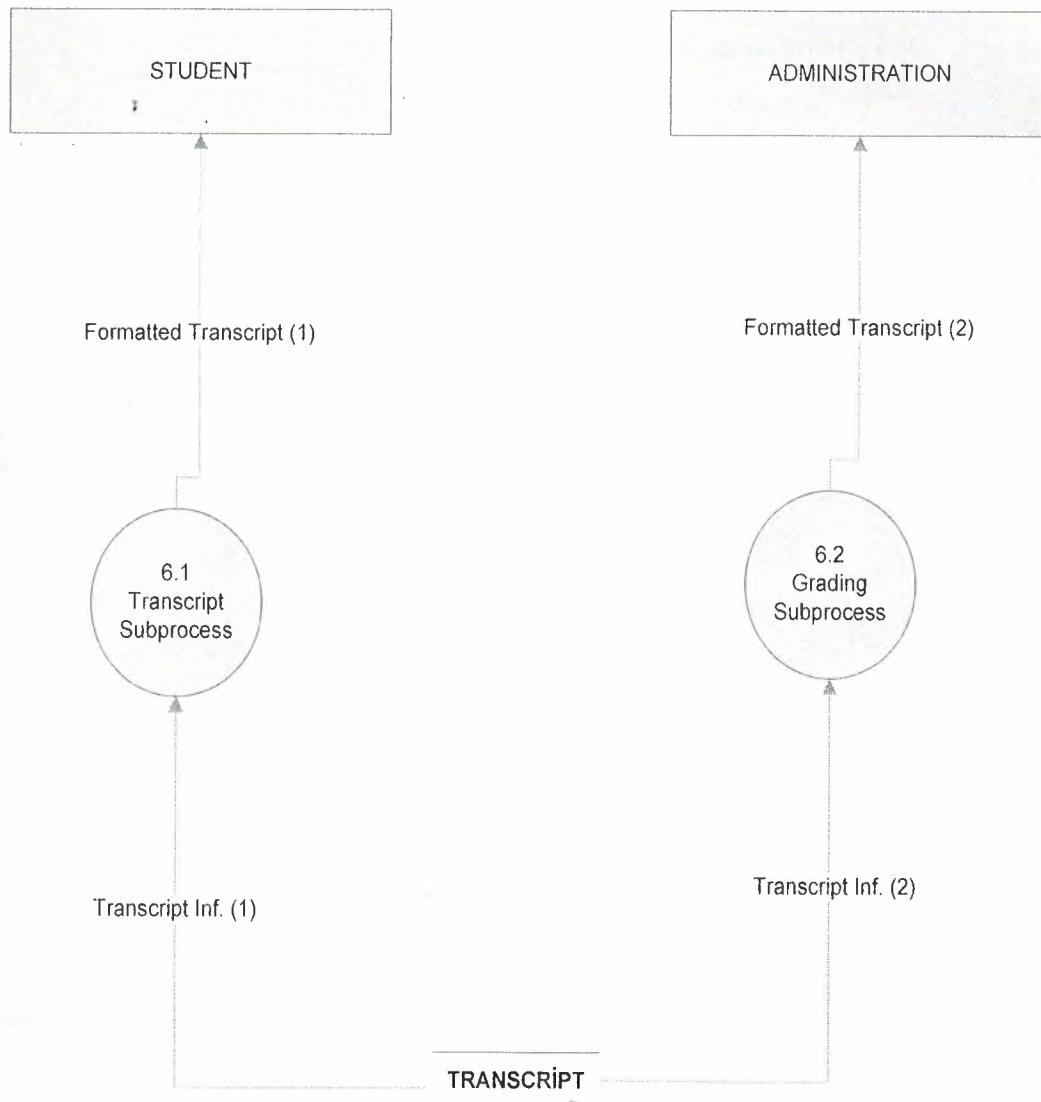
## DEPARTMENT PROCESS DETAIL DFD FOR STUDENT REGISTRATION SYSTEM



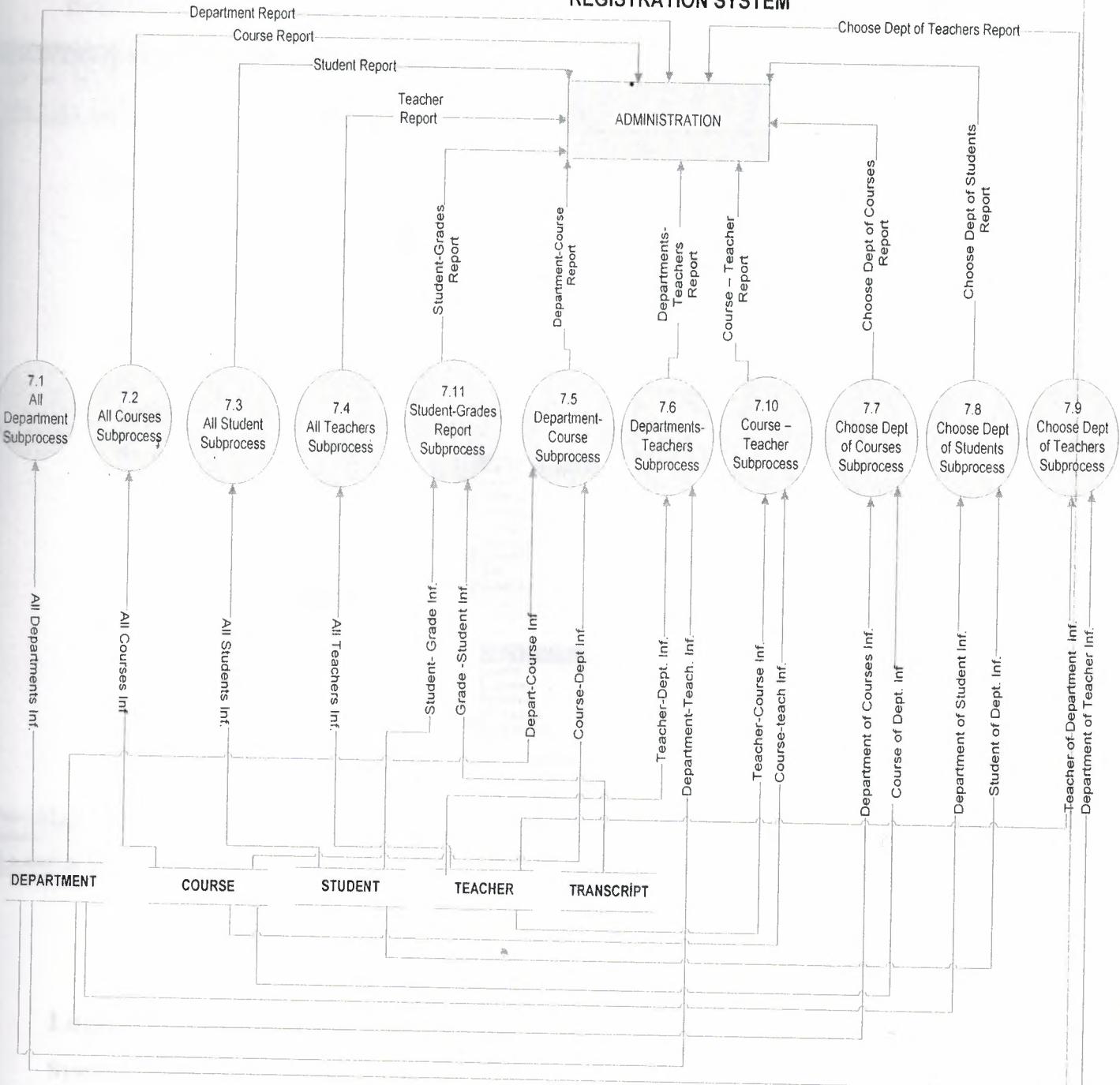
## REGISTRATION PROCESS DETAIL DFD FOR STUDENT REGISTRATION SYSTEM



## TRANSCRIPT PROCESS DETAIL DFD FOR STUDENT REGISTRATION SYSTEM

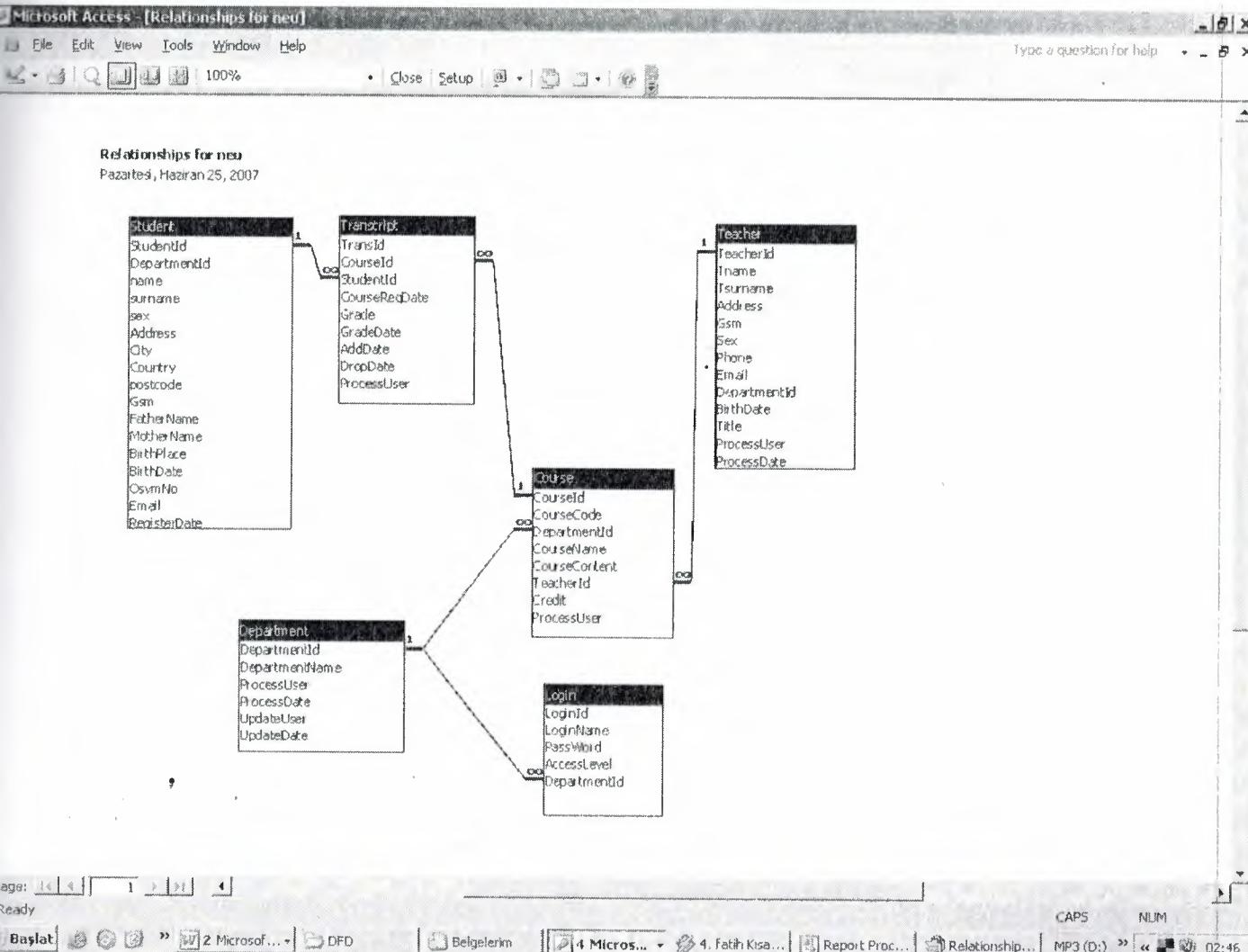


## REPORTS PROCESS DETAIL DFD FOR STUDENT REGISTRATION SYSTEM



## DATABASE DESIGN:

### Relationships:



## Logical Database Design Description

### System Relationships Types

As we mentioned before our system include set of entities and we have between these entities many relationships. These relationships must be clear and simple. In this part we are going to mention and explain all these relationships and all business rules are related to these relationships.

### **1. Relationship between Student and Transcript:**

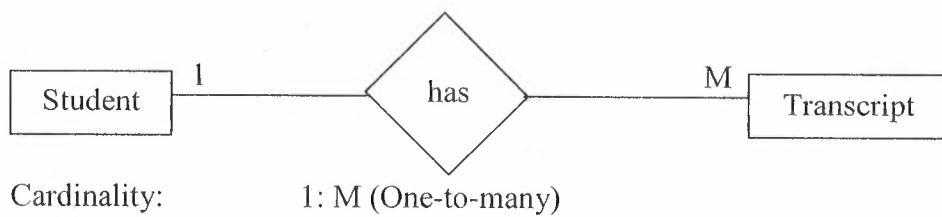
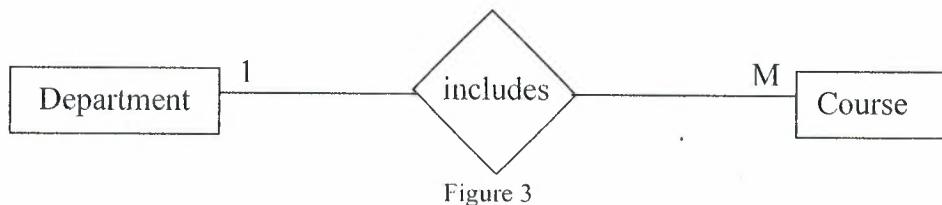


Figure 2

Business Rule: - One student has one more transcripts.

- Many transcripts are for one student.

### **2. Relationship between Department and Course :**

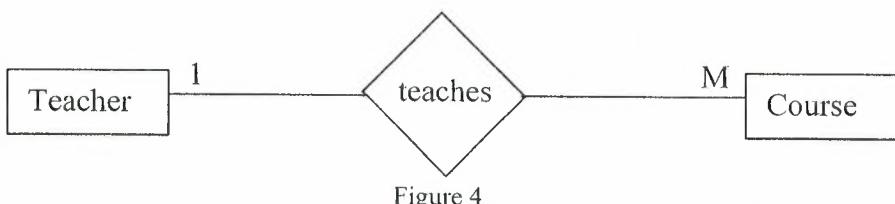


Cardinality: 1: M (One-to-Many)

Business Rule:- One department includes many Courses.

- One course included in one department.

### **3. Relationship between Teacher and Course :**



Cardinality: 1: M (One-to-Many)

Business Rule:- One teacher teaches many courses.

- Many courses can be taught by one teacher.

#### 4. Relationship between Course and Transcript :

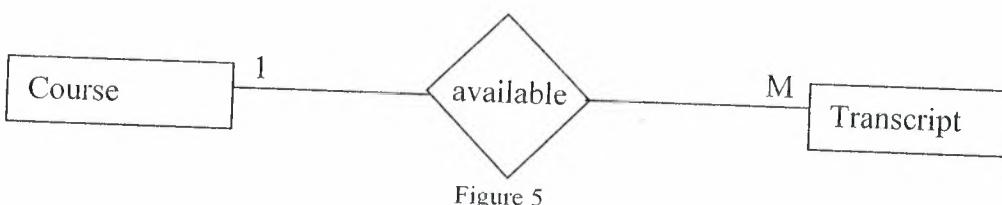


Figure 5

Cardinality: 1: M (One-to-many)

Business Rule:- One course can be available in more transcripts.

- One transcript has single course(not same more).

#### 5. Relationship between Department and Login:

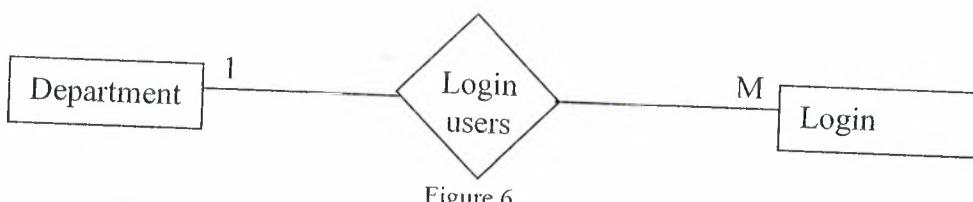


Figure 6

Cardinality: 1: M (One-to-Many)

Business Rule:- In a department can be logged many users

- Many users can be logged in one department.

## Document Attributes for the System

Entity	Attributes names	Data type and length	Constraint	Real Name
MANSCRIPT	TransId	4 auto number	PK	Transcript Id
	CourseId	6 number	FK2	Course id
	StudentId	10 Text	FK1	Student id
	CourseRegDate	Date/time		Course Reg. Date
	Grade	2 text		Grade
	GradeDate	Date/time		Grade Date
	AddDate	Date/time		Adding Date
	ProcessUser	20 text		Process user
	ProcessDate	Date/time		Process date
	UpdateUser	20 text		Update by user
STUDENT	StudentId	10 text	PK	Student id
	DepartmentId	10 text		Department id
	Name	30 text		Student first name
	surname	20 text		Student lastname
	sex	4 text		Sex
	address	50 text		Address
	city	20 text		City
	country	20 text		Country
	postcode	20 text		Postcode
	Gsm	20 text		Mobile phone
	Fathername	20 text		Father name
	Mothername	20 text		Mother name
	Birthdate	Date/time		Birth date
	Birthplace	20 text		Birth place
	Osymno	20 text		Osym no
	Email	20 text		Email address
	Registerdate	Date/Time		Registered date
	Phone	20 text		Phone
	Isgraduated	Yes/No		Is graduated?
	Graduationdate	Date/time		Graduation date
	Graduationcom	20 text		Graduation comment
	Isdismissed	Yes/no		Is dismissed?

	Dismissdate	Date/time		Dismiss date
	Dismisscomment	20 text		Dismiss comment
	Processuser	20 text		Process user
	Updateprocess	20 text		Update process
	Updatedate	Date/time		Update date
SE	courseId	auto number	PK	Course id
	coursecode	10 text		Course Code
	departmentId	10 text	FK1	Department id
	coursename	30 text		Course Name
	coursecontent	40 text		Course Content
	teacherId	2 number	FK2	Teacher id
	credit	2 number		Course Credit
	processuser	20 text		Process user
	processdate	Date/time		Process date
	updateuser	20 text		Update process
	updatedate	Date/time		Update date
RTMENT	DepartmentId	10 text	PK	Department id
	DeptName	30 text		Department Name
	processuser	20 text		Process user
	processdate	Date/time		Process date
	updateuser	20 text		Update process
	updatedate	Date/time		Update date
HER	TeacherId	auto number	PK	Teacher id
	Tname	20 text		Teacher First name
	Tsurname	20 text		Teacher Last name
	Address	50 text		Address
	Gsm	15 text		Mobile phone
	Sex	10 text		Sex
	Phone	15 text		Home Phone
	Email	20 text		Email address
	DepartmentId	10 text		Department id
	Birthdate	Date/time		Birth date
	Title	15 text		Title
	processuser	20 text		Process user
	processdate	Date/time		Process date
	updateuser	20 text		Update process

	updatedate	Date/time		Update date
IN	LoginId	auto number	PK	Login id
	Loginame	25 text		User name
	Password	20 text		Password
	Accesslevel	15 text		Access level
	DepartmentId	10 text	FK1	Department id

## Physical Database Description

In this part we have physical database design. Details table design of database is draw here. So, I will show tables of database with their details properties. Also the relationships of the tables will be shown.

### Course :

Course : Table

Field Name	Data Type	Description
CourseId	AutoNumber	
CourseCode	Text	
DepartmentId	Text	
CourseName	Text	
CourseContent	Text	
TeacherId	Number	
Credit	Number	
ProcessUser	Text	
ProcessDate	Date/Time	
UpdateUser	Text	
UpdateDate	Date/Time	

Field Properties

General	Lookup
Field Size	Long Integer
New Values	Increment
Format	
Caption	
Indexed	Yes (No Duplicates)
Smart Tags	

A field name can be up to 64 characters long, including spaces. Press F1 for help on field names.

## Department:

The screenshot shows the 'Department : Table' properties dialog box in Microsoft Access. The main table structure is displayed in a grid:

Field Name	Data Type	Description
DepartmentId	Text	
DepartmentName	Text	
ProcessUser	Text	
ProcessDate	Date/Time	
UpdateUser	Text	
UpdateDate	Date/Time	

Below the table grid, the 'Field Properties' section is open, showing the 'General' tab selected. A dropdown menu for 'Field Size' is open, with '50' currently selected. Other options visible in the dropdown include 'Yes', 'Yes', 'Yes (No Duplicates)', 'No', 'No Control', and 'None'. To the right of the dropdown, a note states: 'A field name can be up to 64 characters long, including spaces. Press F1 for help on field names.'

## Login :

■ Login : Table

	Field Name	Data Type	Description
1	LoginId	AutoNumber	
2	LoginName	Text	
3	PassWord	Text	
4	AccessLevel	Text	
5	DepartmentId	Text	

Field Properties

General      **Lookup**

Field Size	Long Integer
New Values	Increment
Format	
Caption	
Indexed	Yes (No Duplicates)
Smart Tags	

A field name can be up to 64 characters long, including spaces. Press F1 for help on field names.

## Student :

■ Student : Table

Field Name	Data Type	Description
StudentId	Text	
DepartmentId	Text	
name	Text	
surname	Text	
sex	Text	
Address	Text	
City	Text	
Country	Text	
postcode	Text	
Gsm	Text	
FatherName	Text	
MotherName	Text	
BirthPlace	Text	
BirthDate	Date/Time	
OsymNo	Text	
Email	Text	
RegisterDate	Date/Time	
phone	Text	
isGraduated	Yes/No	
GraduationDate	Date/Time	
GraduationComment	Text	

Field Properties

General    Lookup

Field Size	8
Format	
Input Mask	
Caption	
Default Value	
Validation Rule	
Validation Text	
Required	Yes
Allow Zero Length	Yes
Indexed	Yes (No Duplicates)
Unicode Compression	No
IME Mode	No Control
IME Sentence Mode	None
Smart Tags	

A field name can be up to 64 characters long, including spaces. Press F1 for help on field names.

Teacher:

■ Teacher : Table

Field Name	Data Type	Description
TeacherId	AutoNumber	
Tname	Text	
Tsurname	Text	
Address	Text	
Gsm	Text	
Sex	Text	
Phone	Text	
Email	Text	
DepartmentId	Text	
BirthDate	Date/Time	
Title	Text	
ProcessUser	Text	
ProcessDate	Date/Time	
UpdateUser	Text	
UpdateDate	Date/Time	

Field Properties

General      Lookup

Field Size  
New Values  
Format  
Caption  
Indexed  
Smart Tags

Long Integer  
Increment  
Yes (No Duplicates)

A field name can be up to 64 characters long, including spaces. Press F1 for help on field names.

## Transcript :

Transcript : Table

Field Name	Data Type	Description
TransId	AutoNumber	
CourseId	Number	
StudentId	Text	
CourseRegDate	Date/Time	
Grade	Text	
GradeDate	Date/Time	
AddDate	Date/Time	
DropDate	Date/Time	
ProcessUser	Text	
ProcessDate	Date/Time	
UpdateUser	Text	

Field Properties

General    Lookup

Field Size: Long Integer  
New Values: Increment  
Format:  
Caption:  
Indexed:  
Smart Tags:  
Yes (No Duplicates)

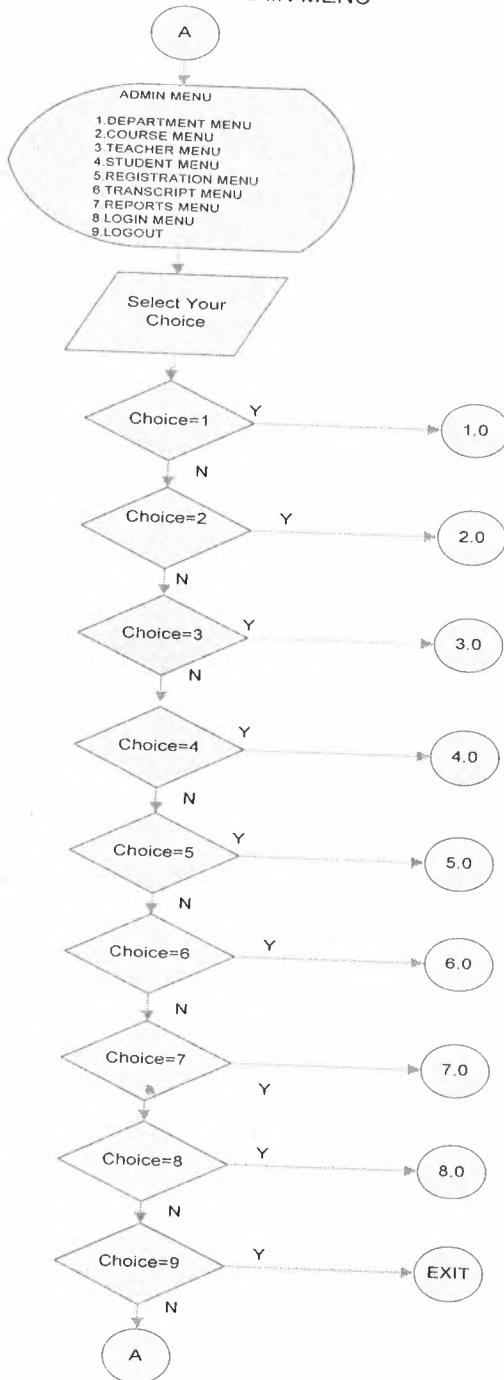
A field name can be up to 64 characters long, including spaces. Press F1 for help on field names.

# USER MANUEL:

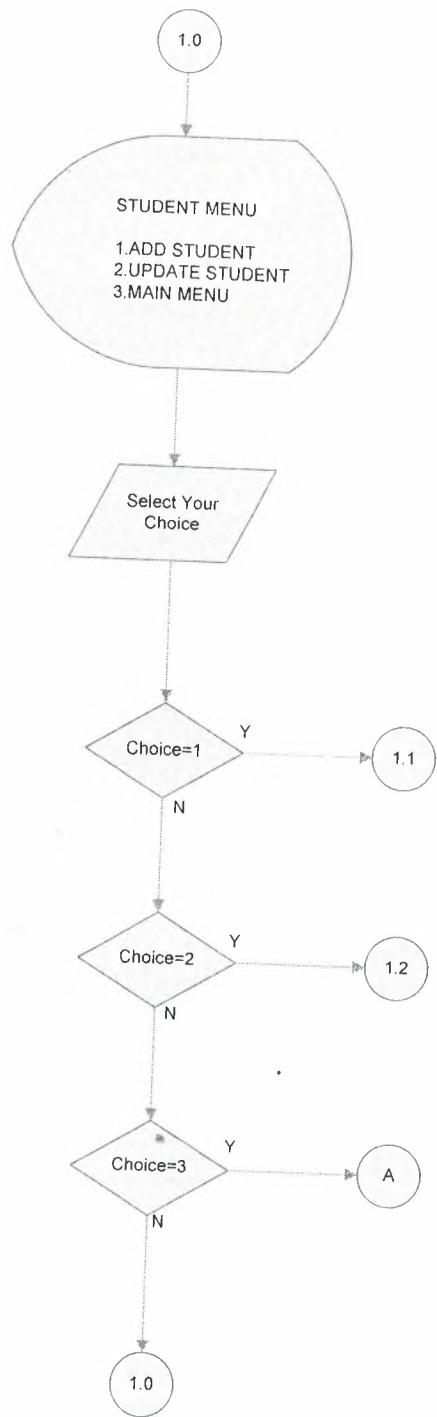
*aahlan yah*

## USER FLOW CHARTS

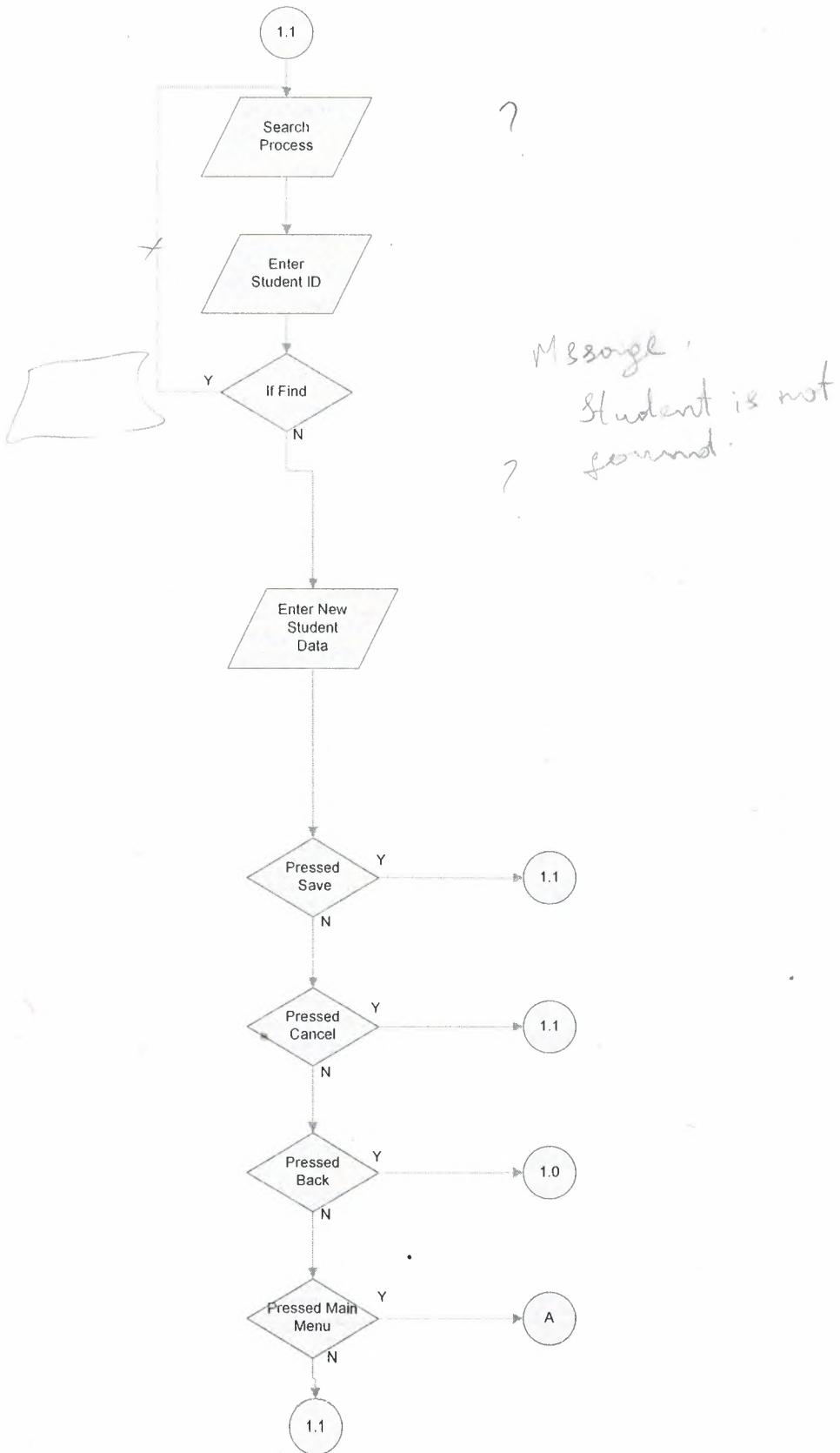
### ADMINISTRATION MAIN MENU

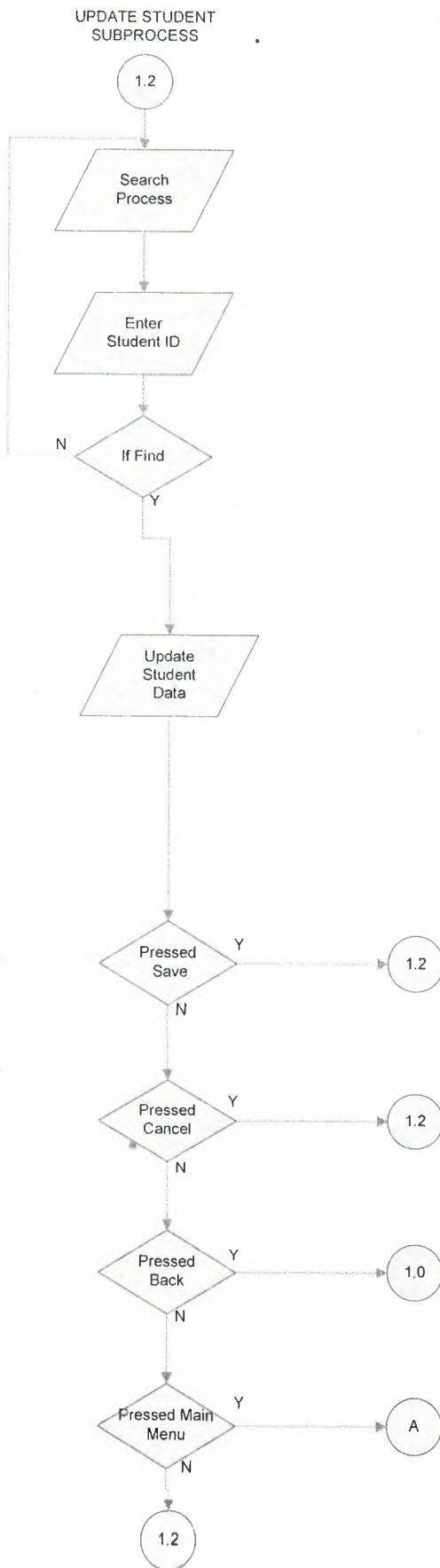


## STUDENT MENU

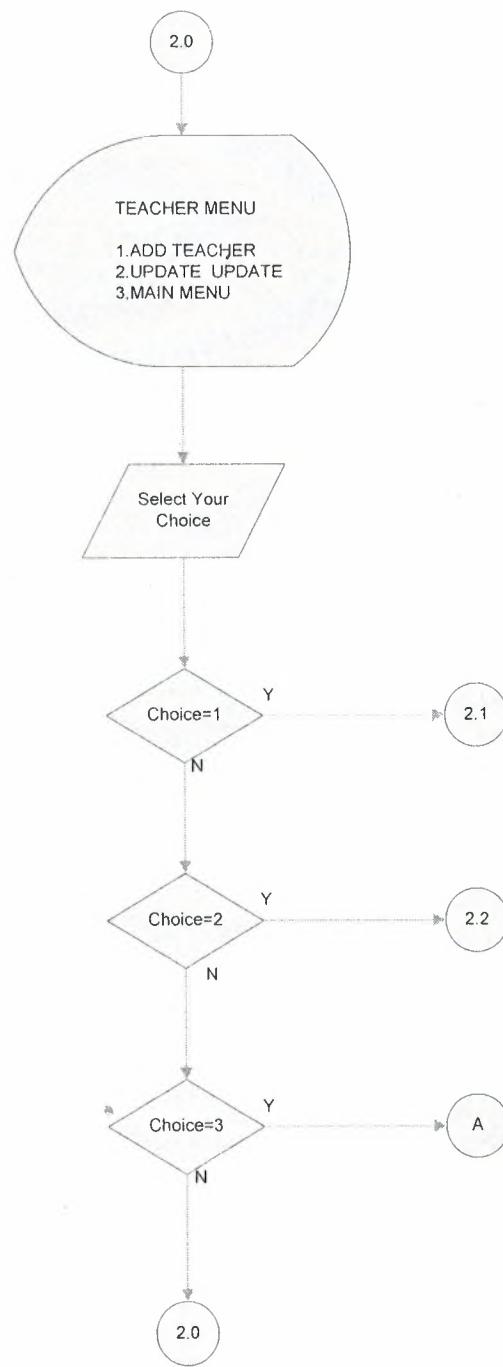


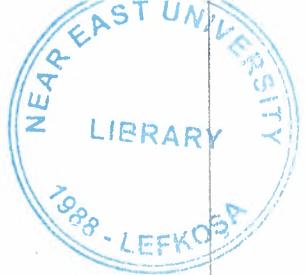
NEW STUDENT  
SUBPROCESS



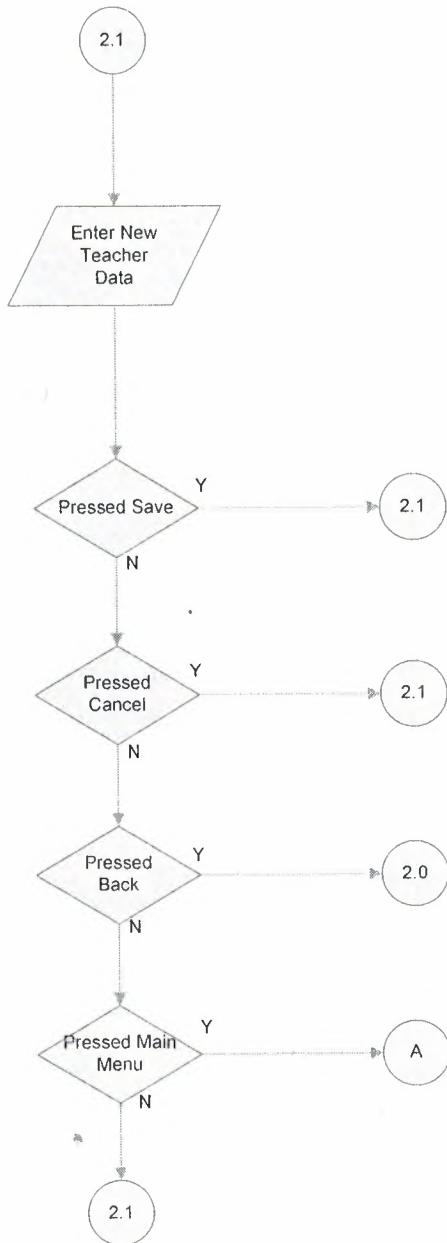


## TEACHER MENU

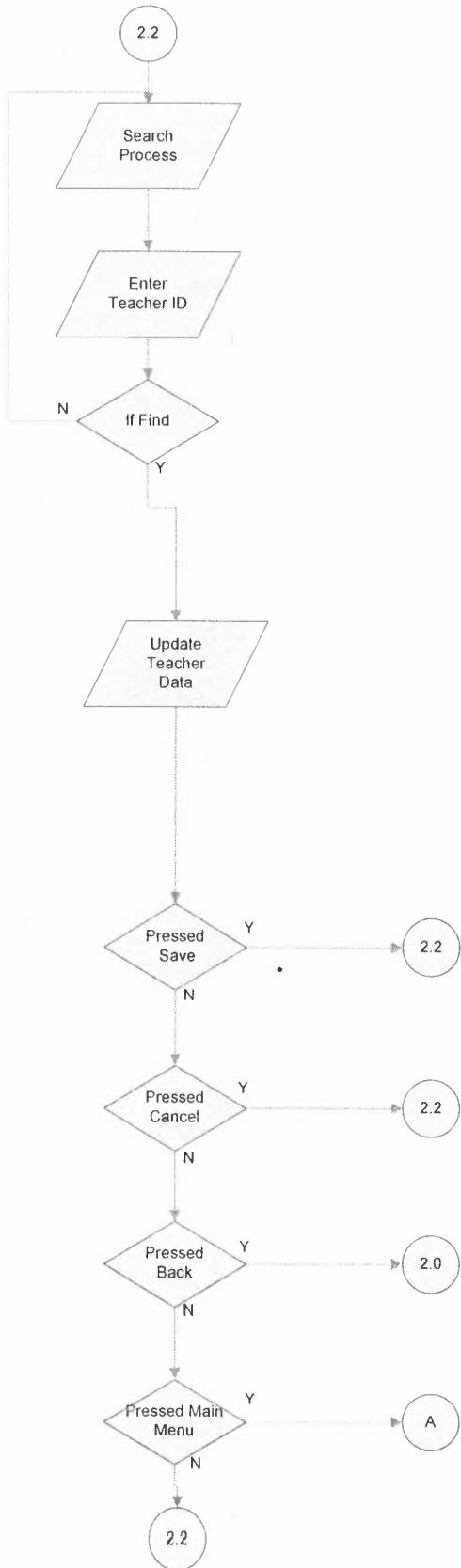




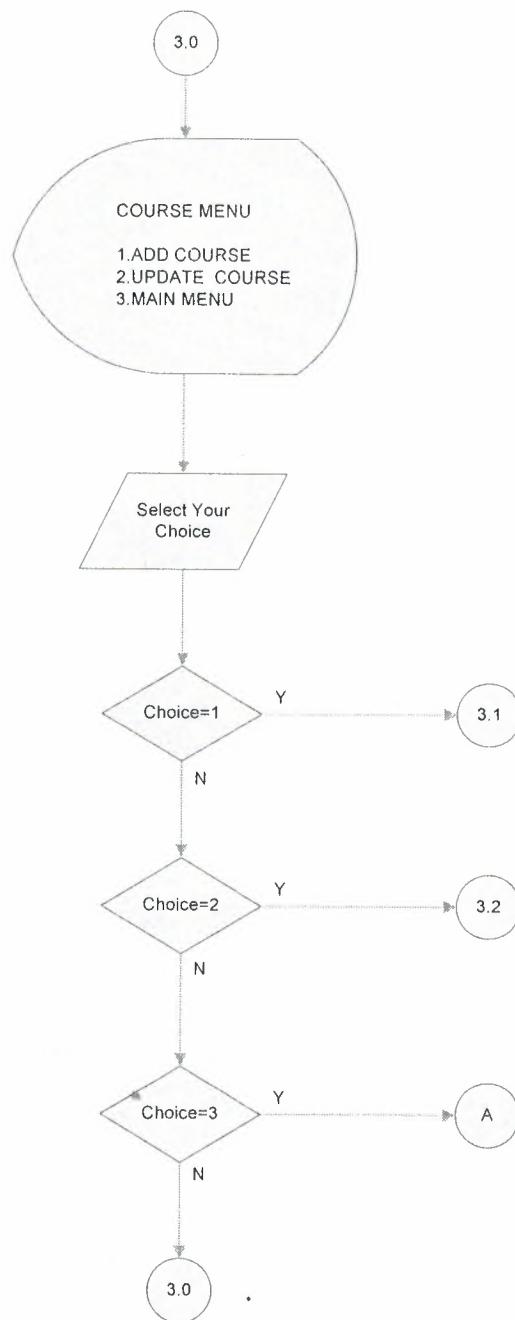
NEW TEACHER  
SUBPROCESS



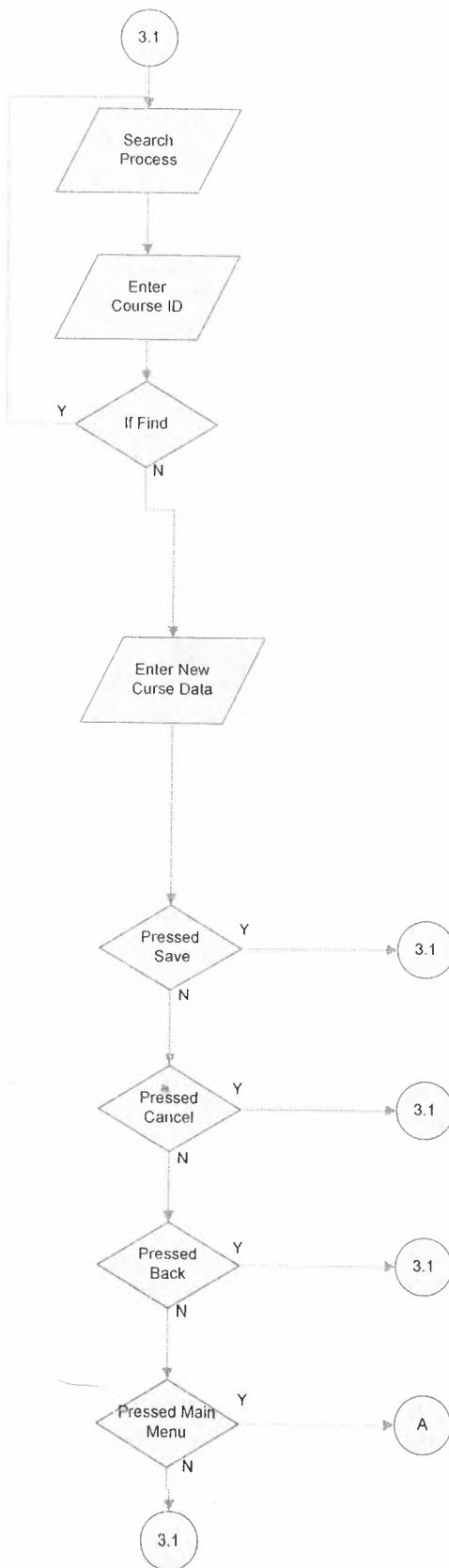
UPDATE TEACHER  
SUBPROCESS

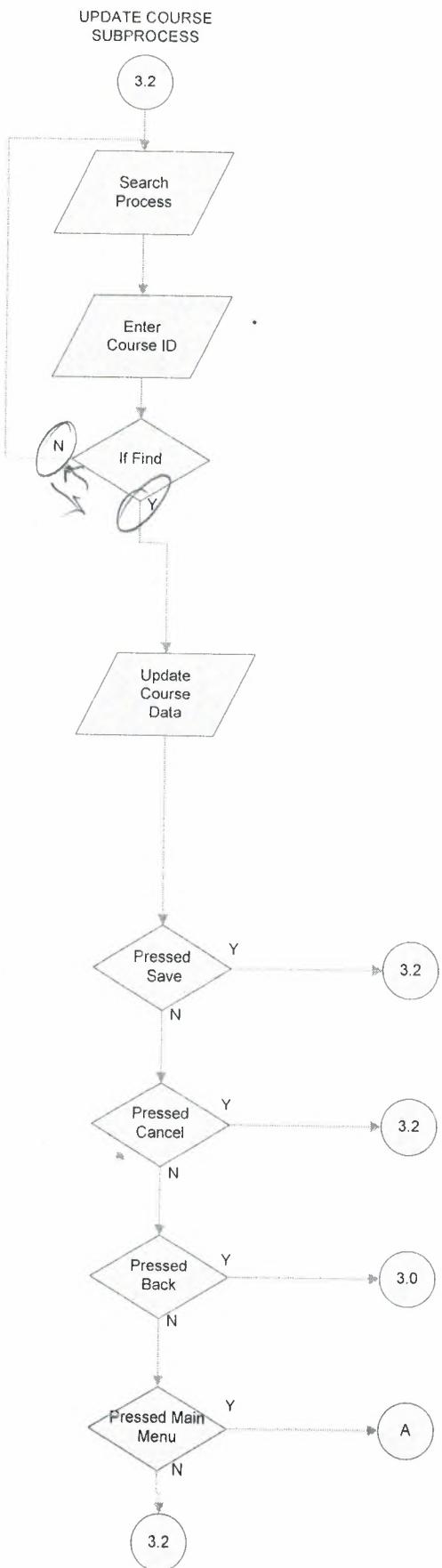


## COURSE MENU

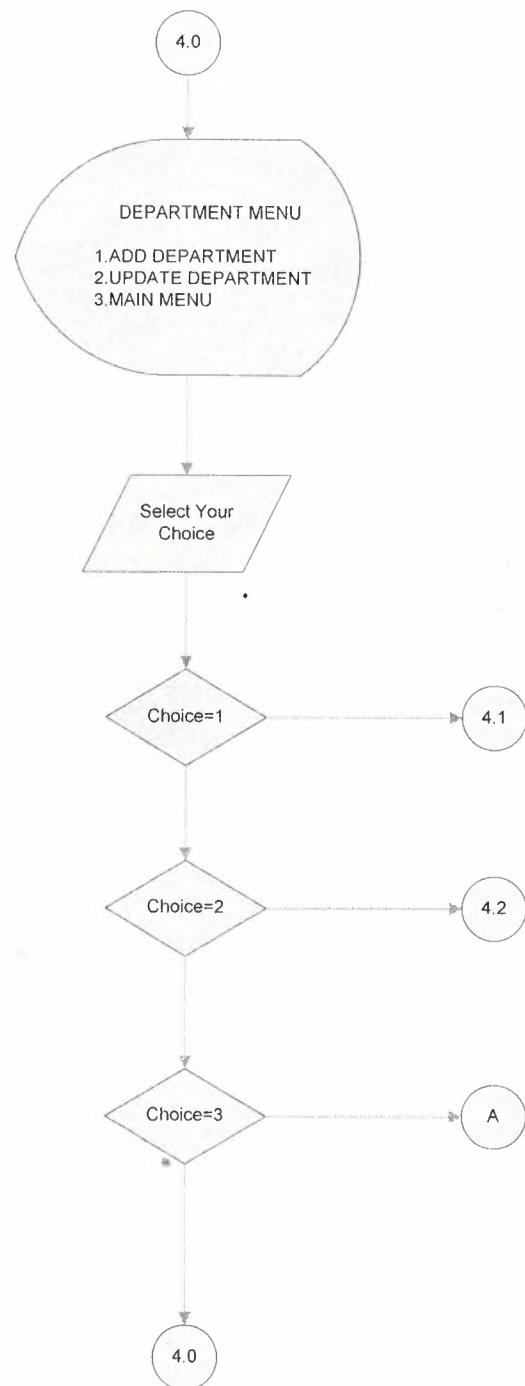


NEW COURSE  
SUBPROCESS

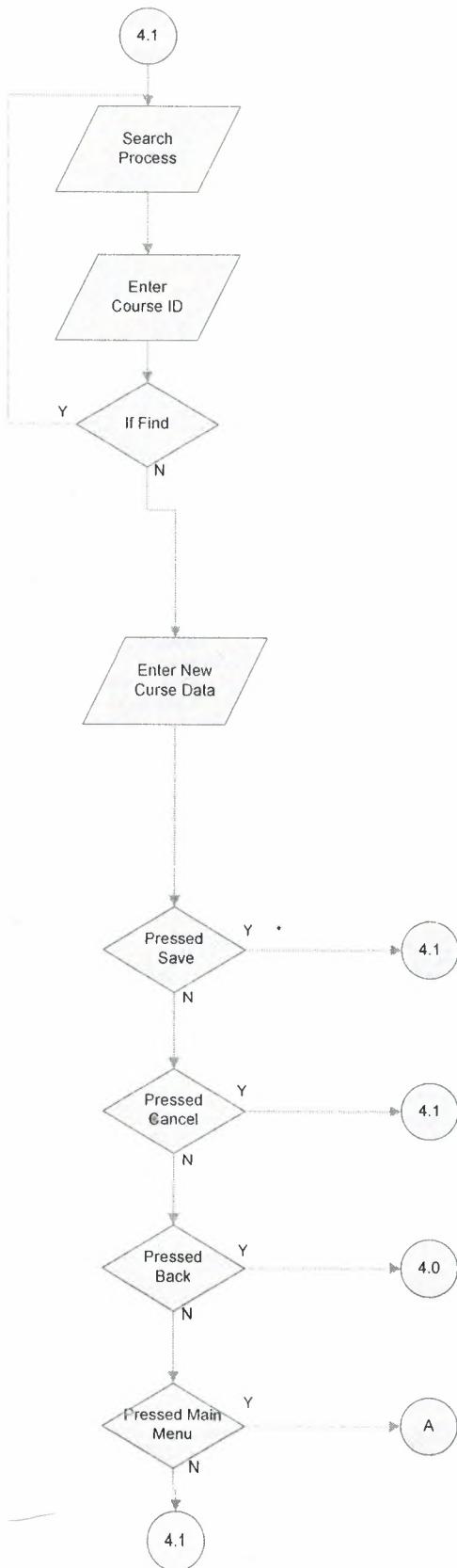




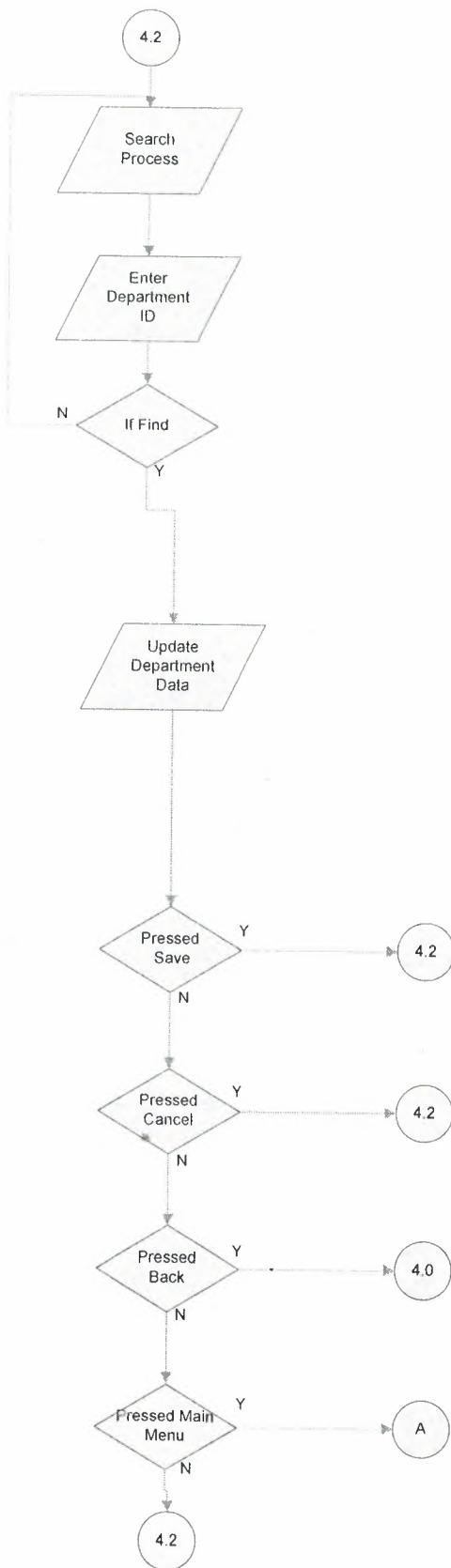
## DEPARTMENT MENU



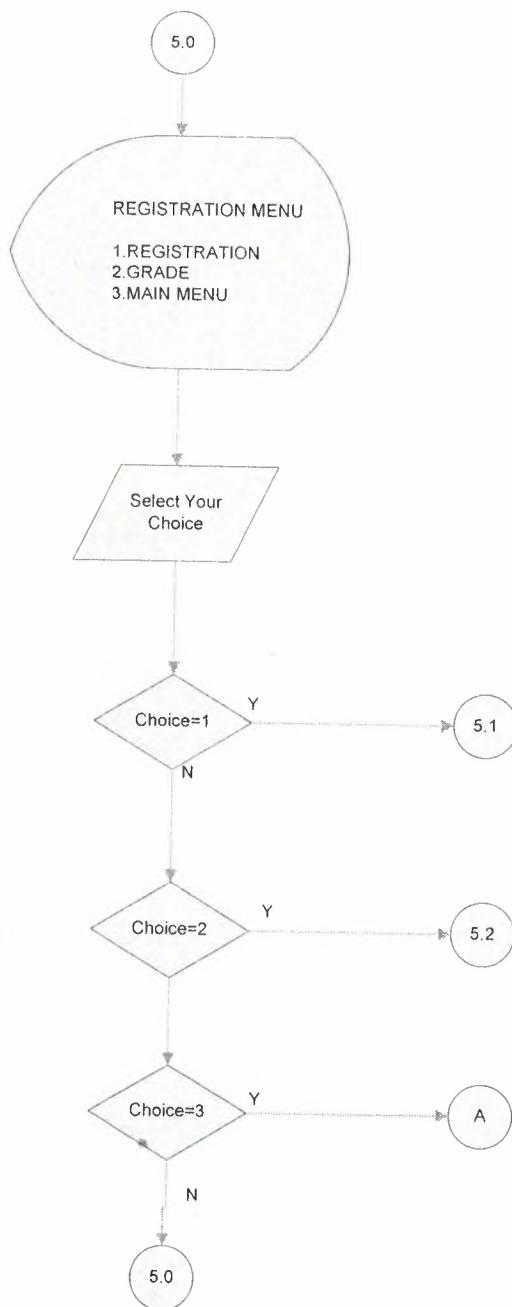
NEW DEPARTMENT  
SUBPROCESS



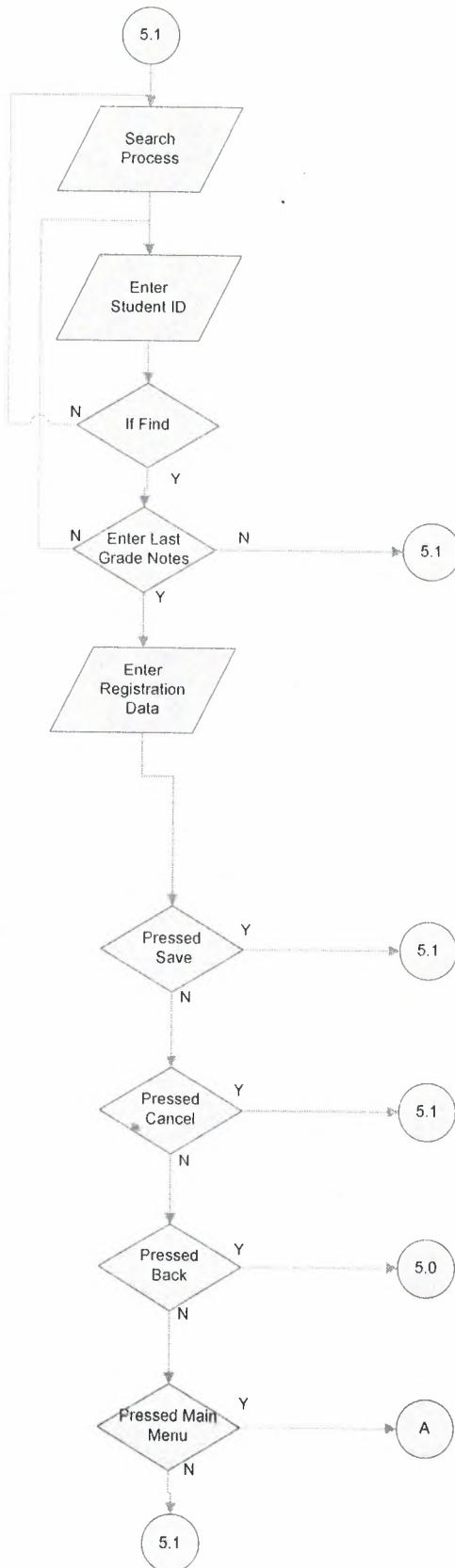
UPDATE DEPARTMENT  
SUBPROCESS



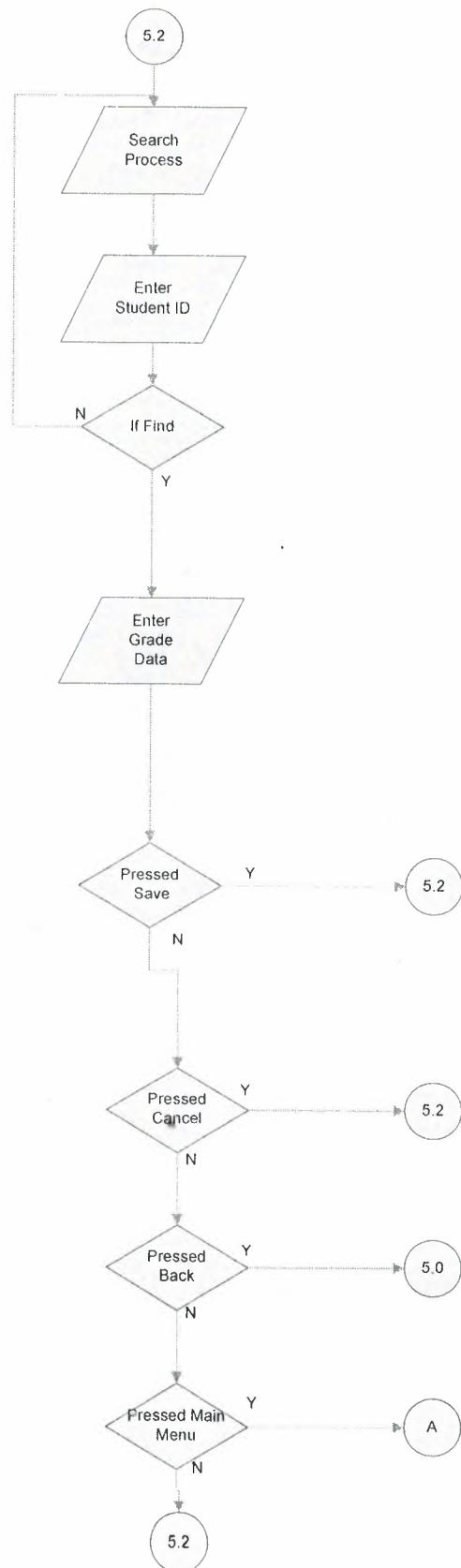
## REGISTRATION MENU



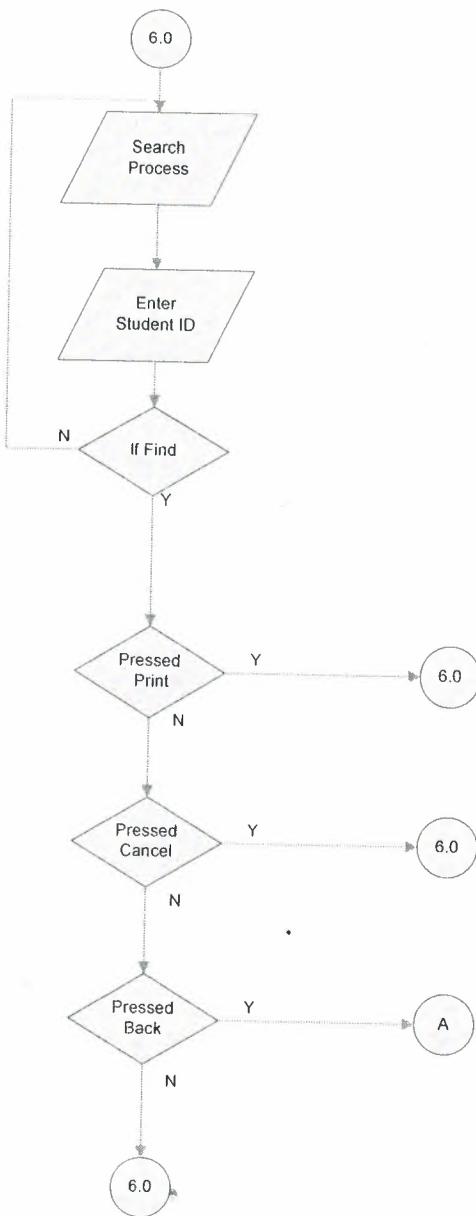
REGISTRATION  
SUBPROCESS



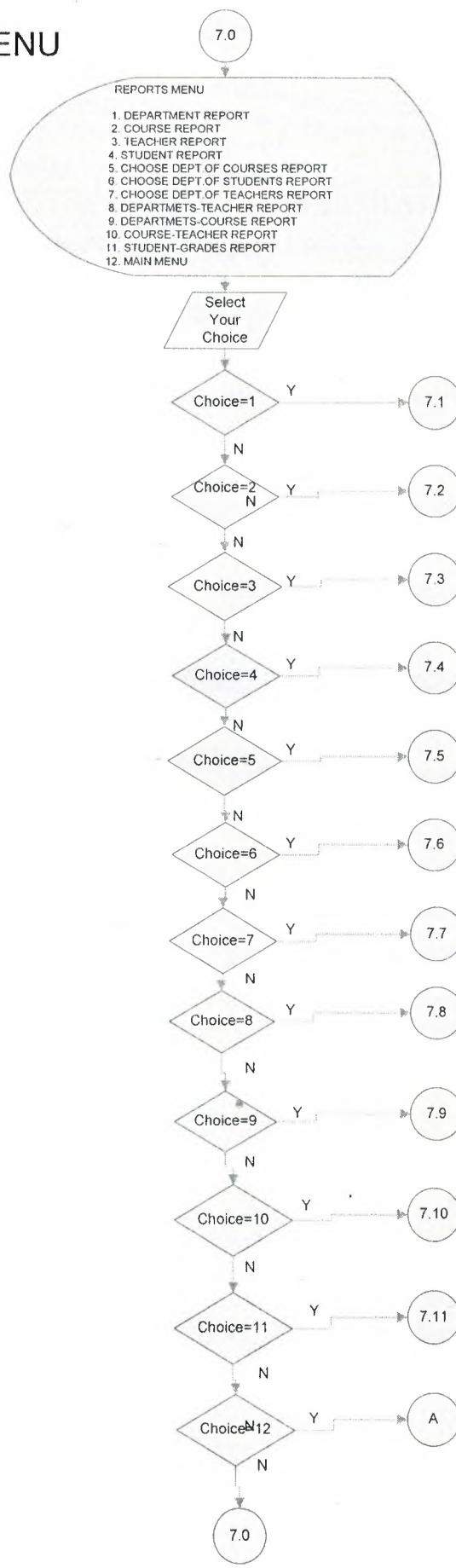
GRADING SUBPROCESS



## TRANSCRIPT MENU



## REPORTS MENU



## **References**

1. Database Systems a practical approach to design, implementation, ad managment 2<sup>nd</sup> edition, Thomas M. Connolly, Carolyn E.Begg; Addison Wesley Longman Limited, 1999.
2. Modern System Analysis and Design, 3rd edition, Jeffrey Hoffer, Joey George, and Joseph Valacich, Prentice Hall, 2002.
3. Software Engineering, 6th edition, Ian Sommerville, Addison Wesley, 2001.
4. Database System Concepts. 4th edition, Abraham Silberschatz, Henry F. Korth, and S. Sudarshan, McGraw-Hill, 2002.

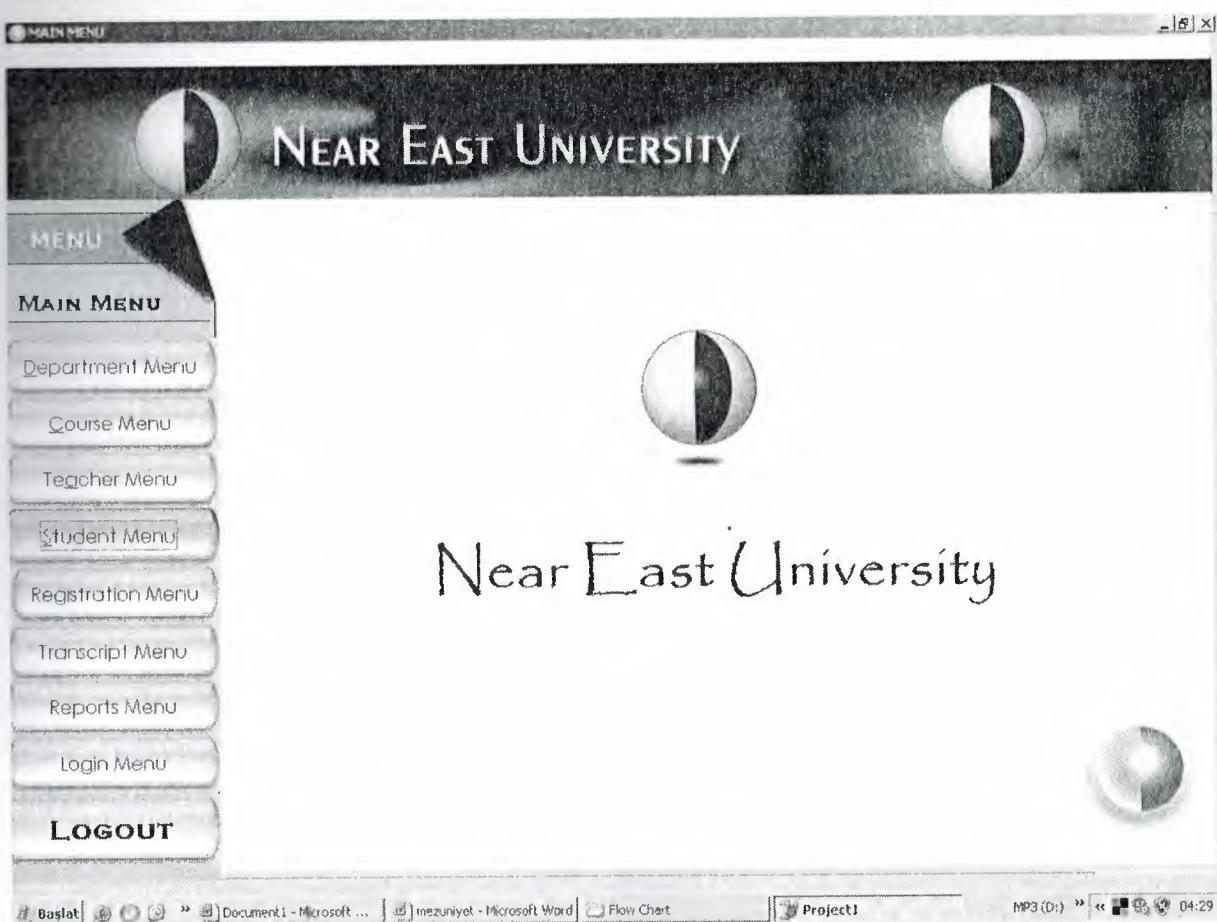
## APPENDIX I

### SCREEN OUTPUT

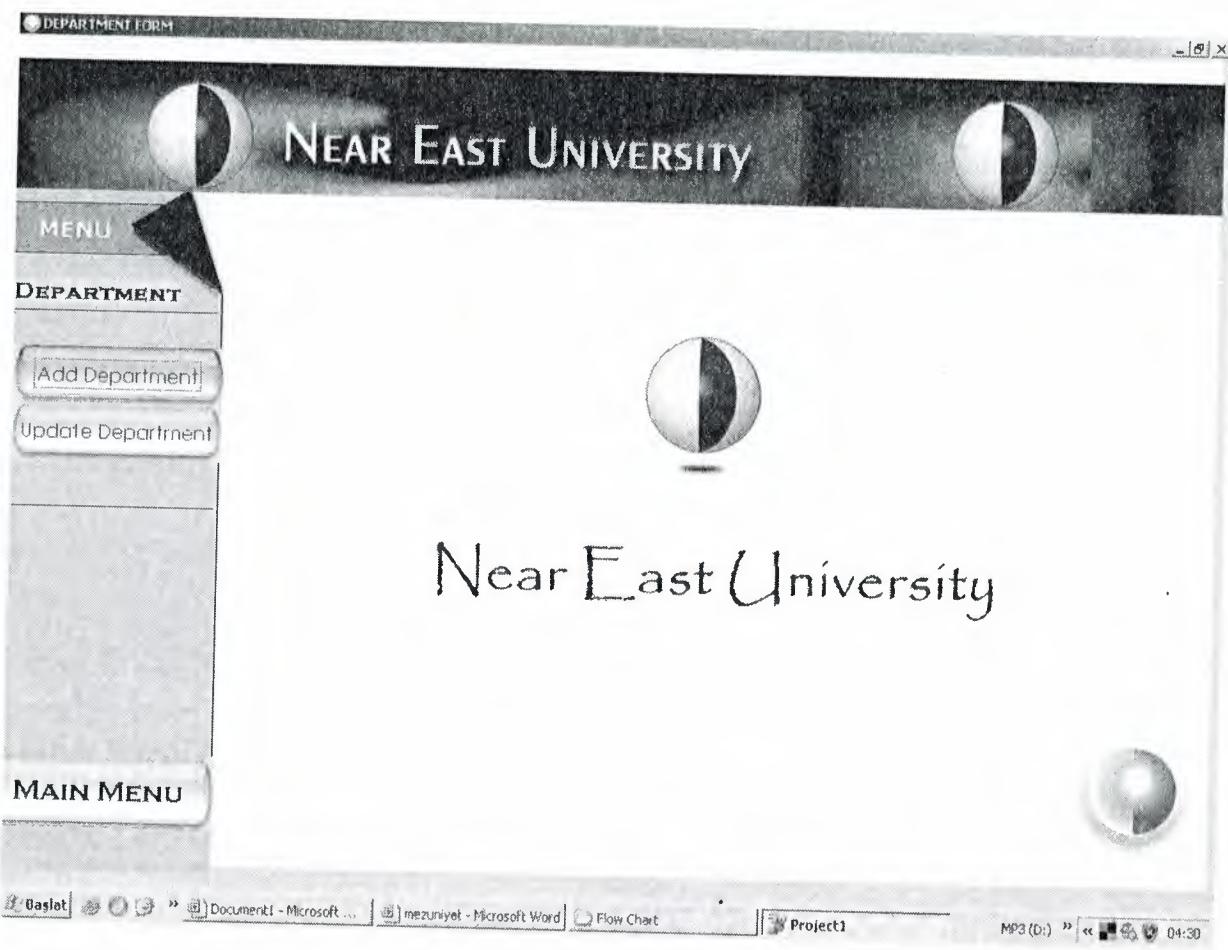
#### Access Control:



Main menu:



**Department Menu:**



## Add Department:

ADD DEPARTMENT FORM

# NEAR EAST UNIVERSITY

## ADD DEPARTMENT

Department ID :

Department Name :

DepartmentId	DepartmentName
ACC	ACCOUNTING
ARC	ARCHITECTURE
BESYO	BEDEN EĞİTİM SPOR MESLEK
BF	BANKING AND FINANCE

DEPARTMENT MENU

MAIN MENU

Baslat | Document1 - Microsoft Word | mezuniyet - Microsoft Word | Flow Chart | Project1 | MP3 (D.) » | « | 01:32

## Update Department:

UPDATE DEPARTMENT FORM

[S] [X]

# NEAR EAST UNIVERSITY

MENU

## UPDATE DEPARTMENT

Department ID :  Search

Department ID :  Save  
Department Name :  Cancel  
[<< BACK](#)

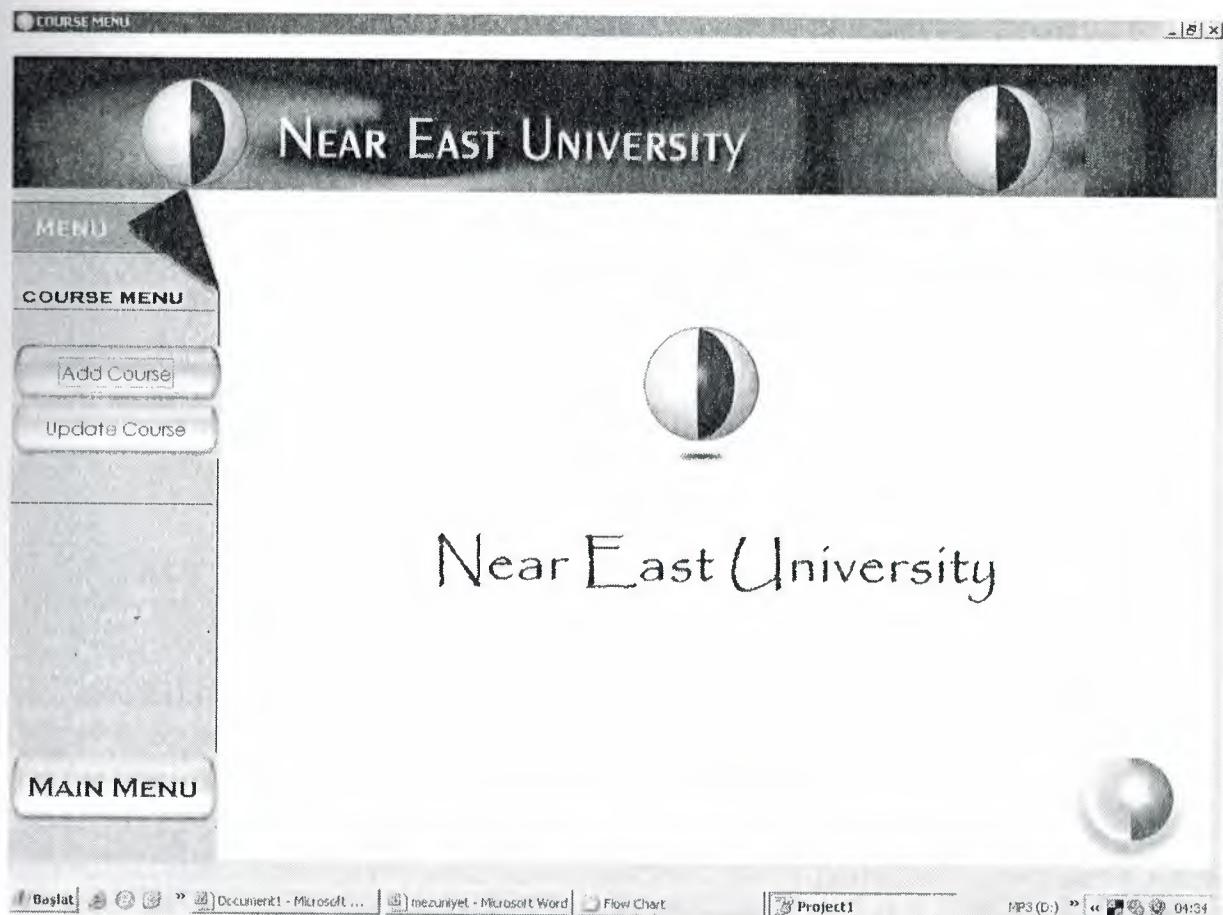
DepartmentId	DepartmentName
ACC	ACCOUNTING
ARC	ARCHITECTURE
BESYO	BEDEN EGITIM SPOR MESLEK
BF	BANKING AND FINANCE

DEPARTMENT MENU

MAIN MENU

Boslat | Dокумент1 - Microsoft Word | mezuniyet - Microsoft Word | Flow Chart | Project | MP3 (D:) » | 09:33

**Course Menu:**



## Add Course:

ADD COURSE FORM

# NEAR EAST UNIVERSITY

MENU

ADD COURSE

Course List

CourseId	CourseCode	DepartmentId	CourseName
1	MAN404	CIS	INTRODUCTION
2	MAN401	MAN	SMALL BUSINESS
3	MAN303	MAN	MARKETING
4	MAN306	MAN	MARKETING 2
5	CIS412	CIS	MIS
6	CIS240	CIS	DELPHI

MAIN MENU

ADD COURSE

Course Code

Course Name

Course Content

Department ID

Teacher ID

Course Credit

Save

Cancel

<< BACK

Teacher List

Project1

Document1 - Microsoft Word

Flow Chart

04:35

Baslat

## Update Course:

UPDATE COURSE INFORMATION

NEAR EAST UNIVERSITY

UPDATE COURSE

MENU

UPDATE COURSE

COURSE MENU

MAIN MENU

CourseCode  Search

Course Name  Teacher ID  Save

Course Content  Course Credit  Cancel

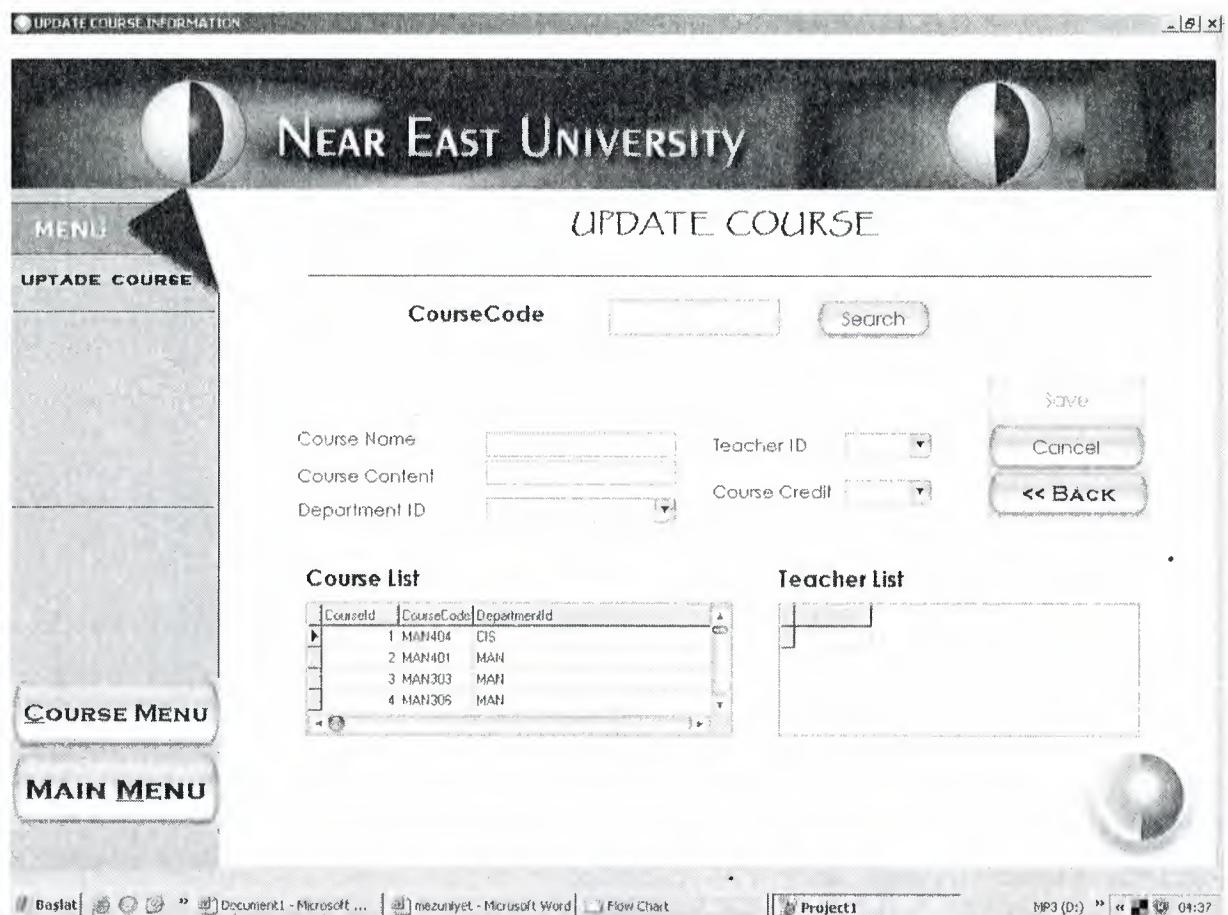
Department ID  << BACK

Course List

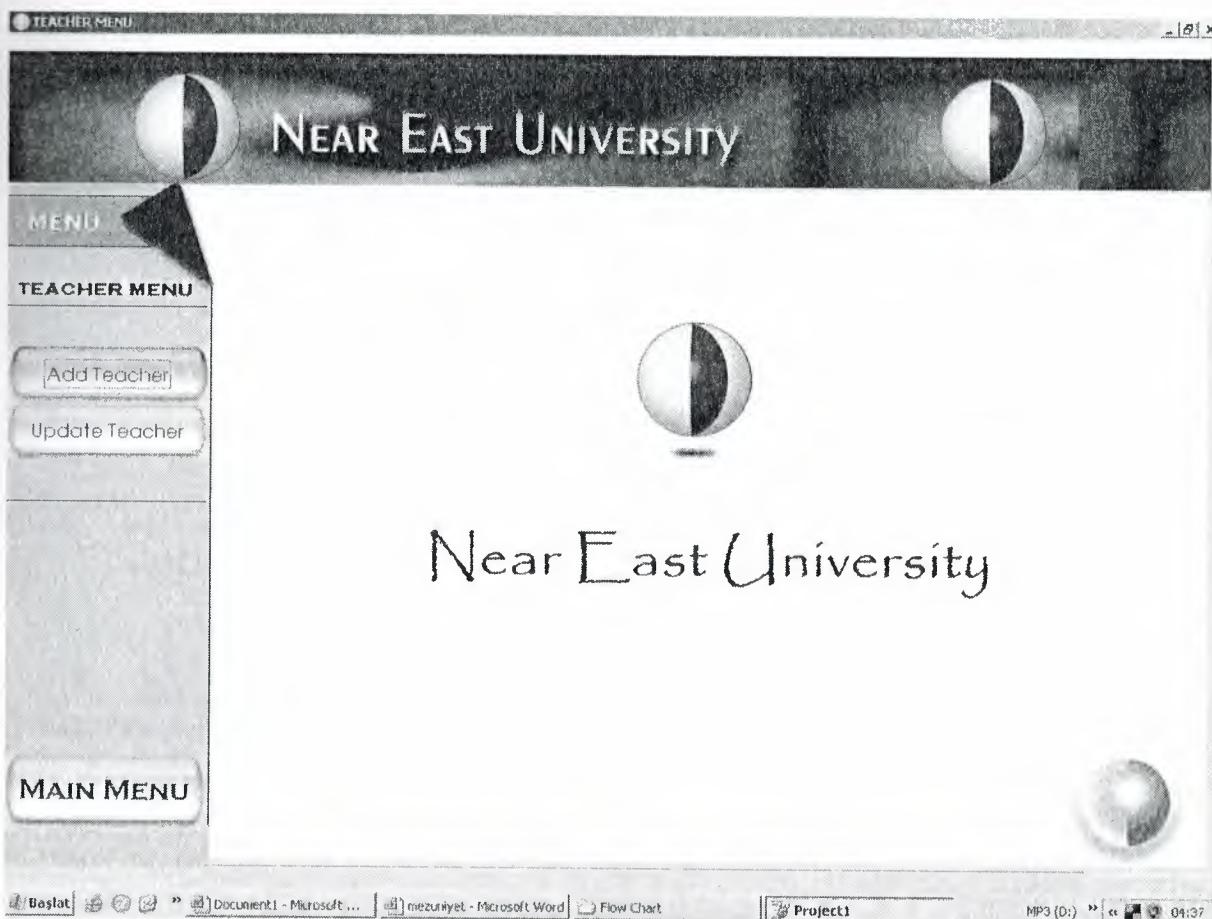
CourseId	CourseCode	DepartmentId
1	MAN404	DIS
2	MAN401	MAN
3	MAN303	MAN
4	MAN305	MAN

Teacher List

Başlat Dokument1 - Microsoft ... mezuniyet - Microsoft Word Project1 04:37



**Teacher Menu:**



## Add Teacher:

ADD TEACHER

# NEAR EAST UNIVERSITY

ADD TEACHER

Teacher ID: 27

Name \*:

Surname \*:

Birth Date \*: 1/1/1970

Gender:

Phone, GSM No:

Address:

E-Mail:

Department ID \*:

Title \*:

Save

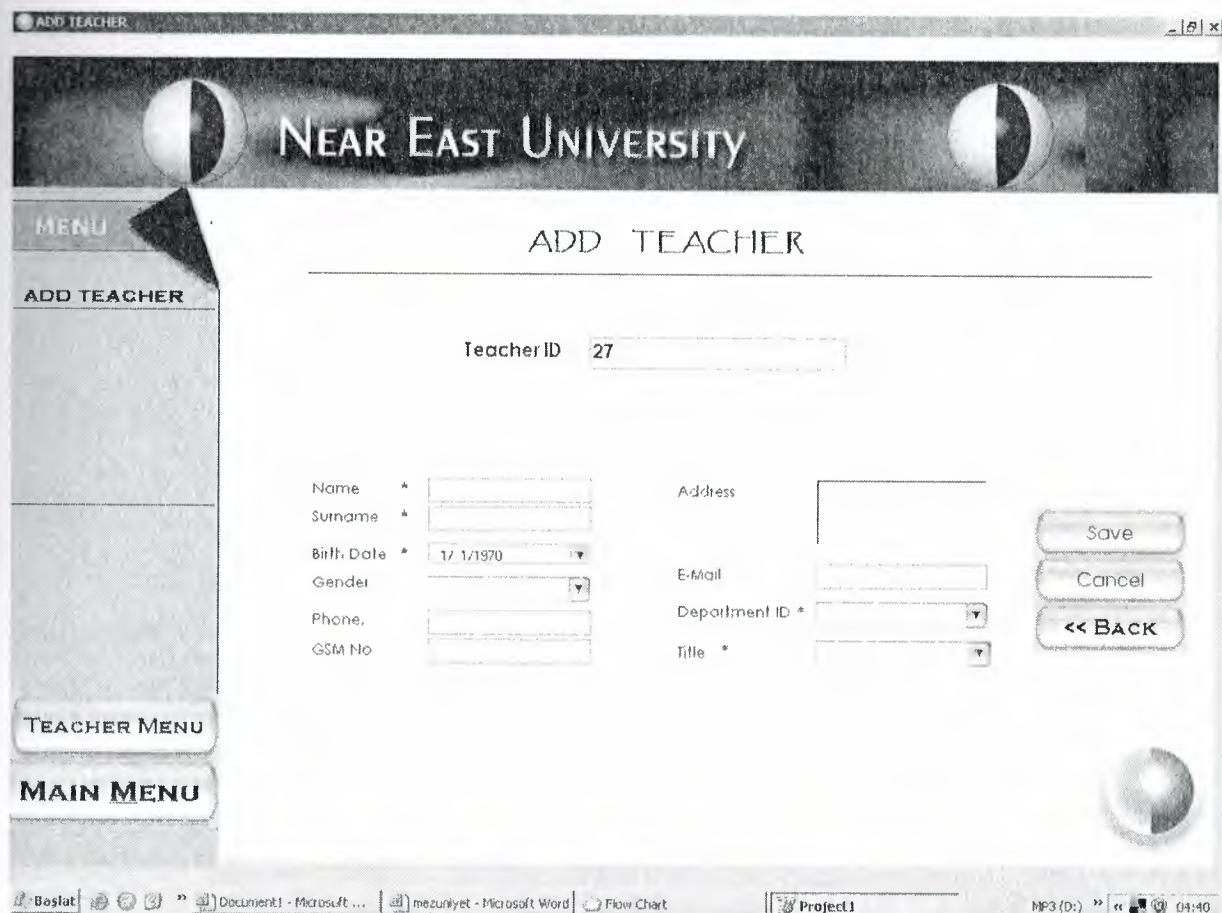
Cancel

<< BACK

TEACHER MENU

MAIN MENU

Boslat | Document1 - Microsoft ... | mezuniyet - Microsoft Word | Flow Chart | Project1 | MP3 (D:) » | 04:40



## Update Teacher:

UPDATE TEACHER INFORMATION

NEAR EAST UNIVERSITY

MENU

UPDATE TEACHER

TeacherID  
Name  
Surname

Name\* Address  
Surname\* E-Mail  
Birth Date\* Department ID\*  
Gender  
Phone  
GSM No Title\*

Save  
Cancel  
**<< BACK**

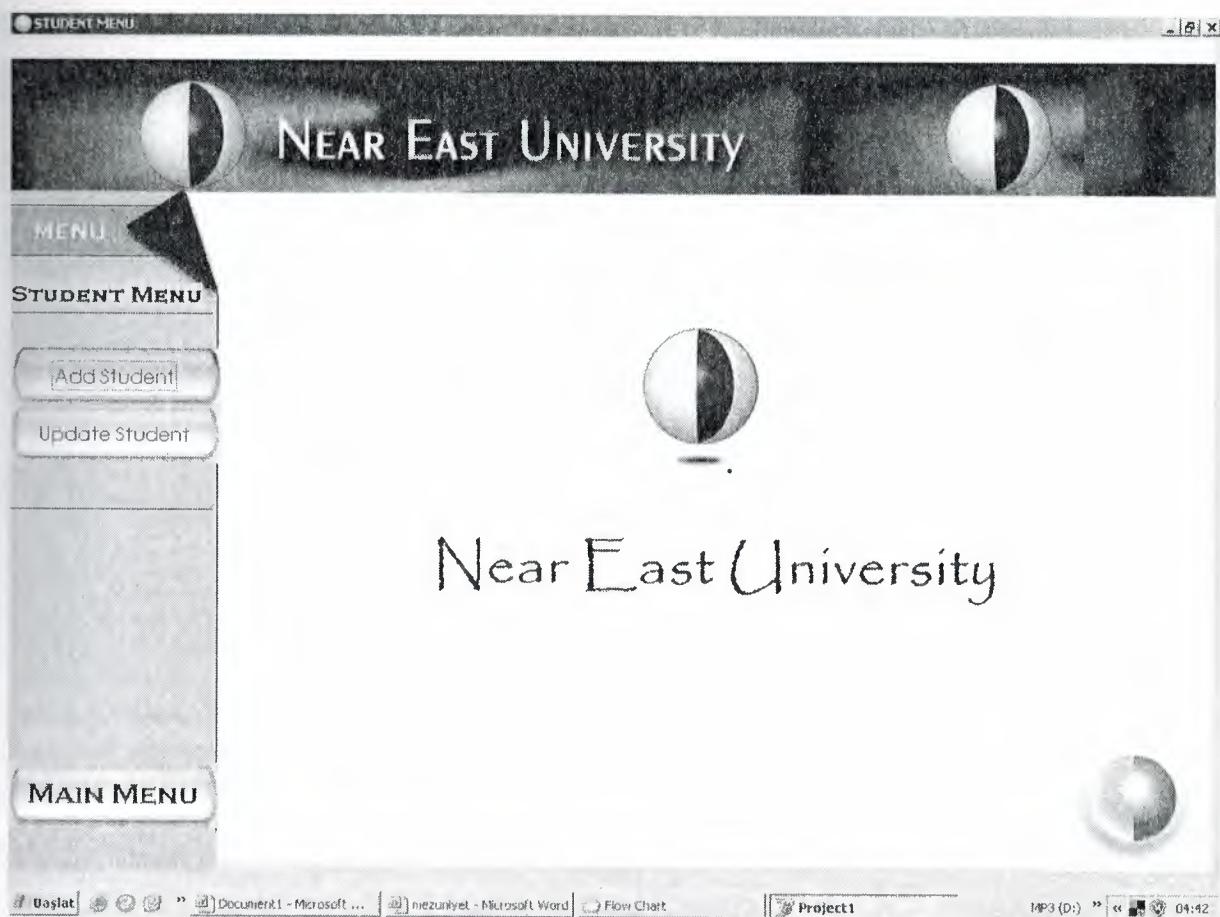
TEACHER MENU

MAIN MENU

Başlat Document1 - Microsoft ... mezuniyet - Microsoft Word Flow Chart Project1

MP3 (D:) 04:41

**Student Menu:**



## Add Student:

ADD STUDENT FORM

# NEAR EAST UNIVERSITY

MENU

ADD STUDENT

## ADD STUDENT

Student ID :

Name *	City
Surname *	Country *
Place of Birth	Postal Code
Birth Date *	Phone
Gender	Gsm
Mother Name	E-mail
Father Name	Osym No
Address	Department *

STUDENT MENU

MAIN MENU

The screenshot shows a web-based application for managing student information. The main header reads "NEAR EAST UNIVERSITY". Below it, the title "ADD STUDENT" is displayed. A search bar for "Student ID" is present. To the right, there is a form with various fields for entering student details: Name, Surname, Place of Birth, Birth Date, Gender, Mother Name, Father Name, Address, City, Country, Postal Code, Phone, Gsm, E-mail, Osym No, and Department. On the right side of the form, there are three buttons: "Save", "Cancel", and "<< BACK". On the far left, there are two menu buttons: "STUDENT MENU" and "MAIN MENU". The overall design is a standard web form with a dark background and light-colored text and inputs.

## Update Student:

UPDATE STUDENT INFORMATION

# NEAR EAST UNIVERSITY

MENU

UPDATE STUDENT

UPDATE STUDENT

Student ID :

Name *	City
Surname *	Country *
Place of Birth	Postal Code
Birth Date *	Phone
Gender	Gsm
Mother Name	E-mail
Father Name	Oyuncu No
Address	Department *

Save

Cancel

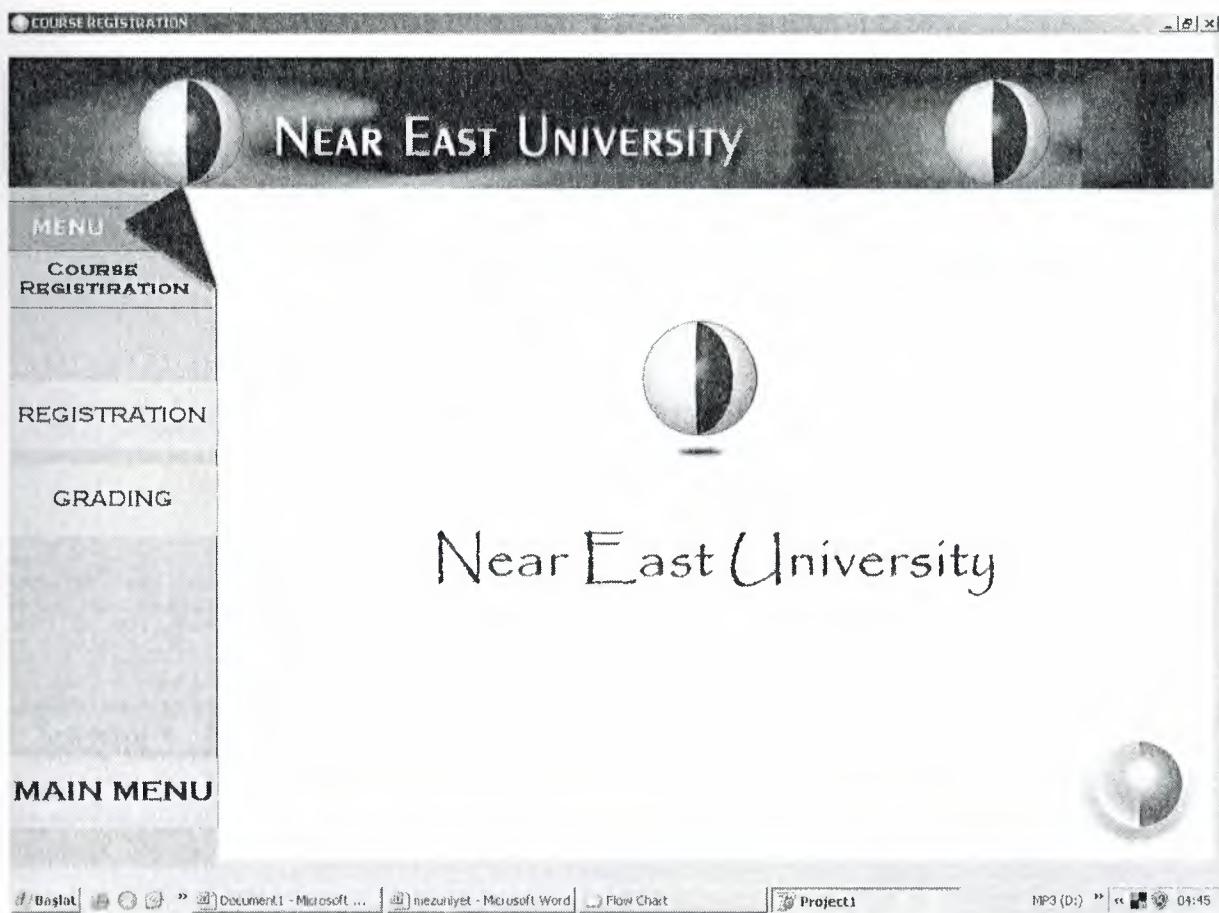
<< BACK

STUDENT MENU

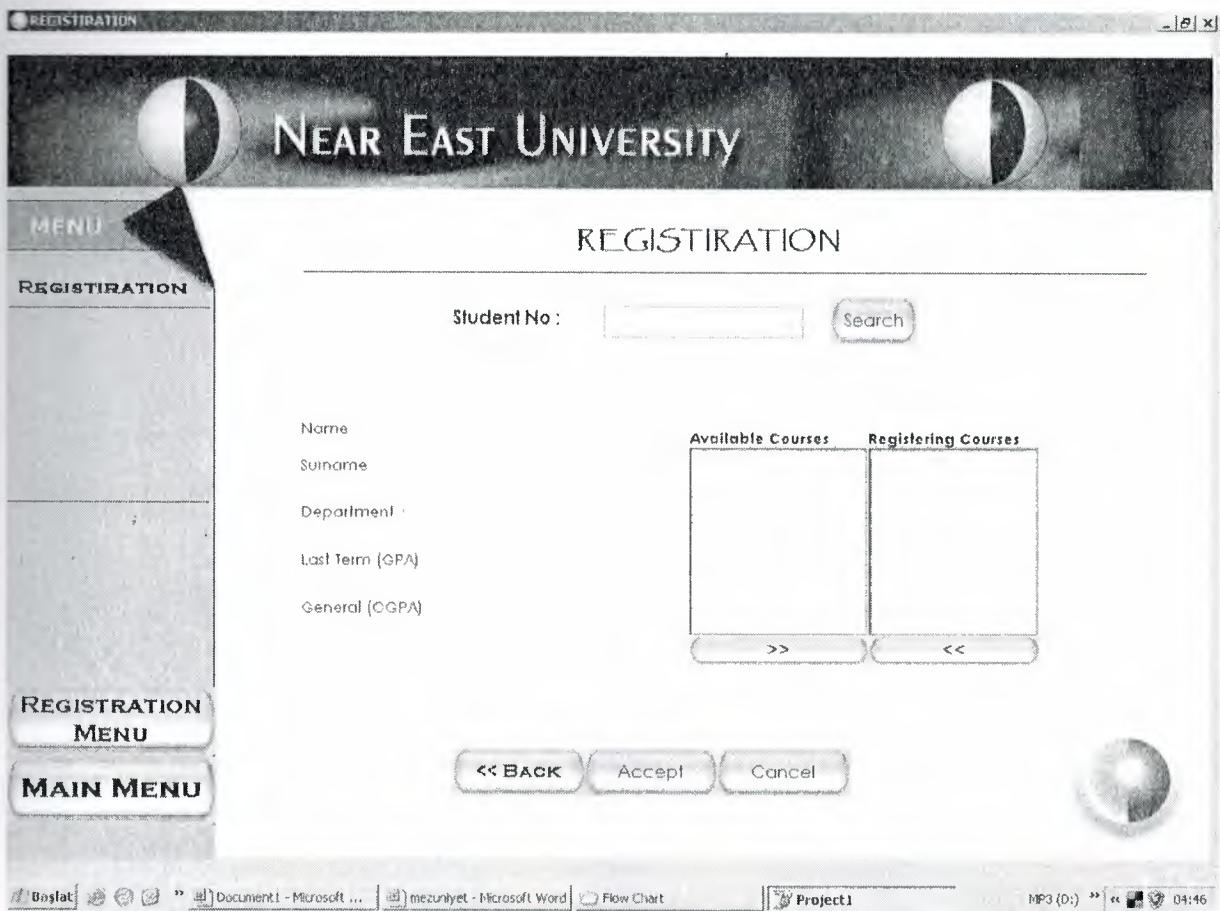
MAIN MENU

Baslat | Dокумент1 - Microsoft Word | nezuniyet - Microsoft Word | Flow Chart | Project | MP3 (D:) | 01:44

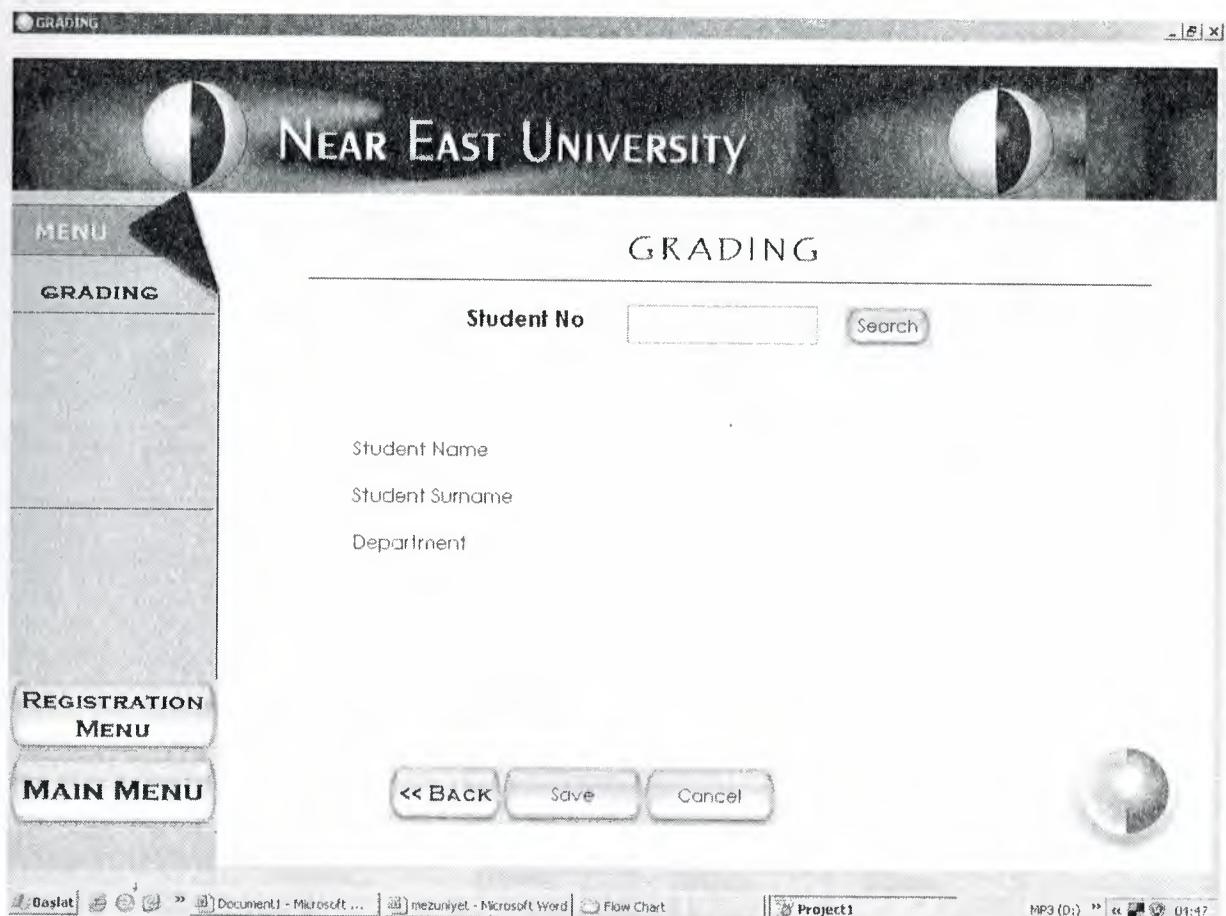
## Registration Menu:



### **Registration:**



## Grading:



## Transcript Menu:

Transcript Form

NEAR EAST UNIVERSITY

MENU

TRANSCRIPT MENU

Student Id: 20071980 | Search

Student ID: 20071980  
Student Name: MEHMET YUSUF  
Student Surname: AKKILIC  
Date Of Birth: 12/09/1980  
Student Department: CIS

CGPA: 3.22

Cancel | Print | << BACK

2007 - Fall Term | 2007 - Spring Term | 2008 - Fall Term | 2008 - Spring Term

MAN101 AA	CIS101 CB	MAN303 AA	MAN304 AA
ECON101 CR	MAN308 BA	CIS311 DC	MAN306 CC
ENGR101 BA	CIS331 DC	CIS412 BA	COM318 CB
CR101 RR	CIS347 DC	MAN403 BA	
CR151 CR	CIS305 BB	ENG102 FF	

GPA: 3.00 GPA: 2.40 GPA: 3.00 GPA: 2.83

2007 - Spring Term |

MAN101 AA		
CIS240 AA		
CIS244		
CIS347 AA		
CIS244 AA		
CIS456 BA		
CIS132 AA		

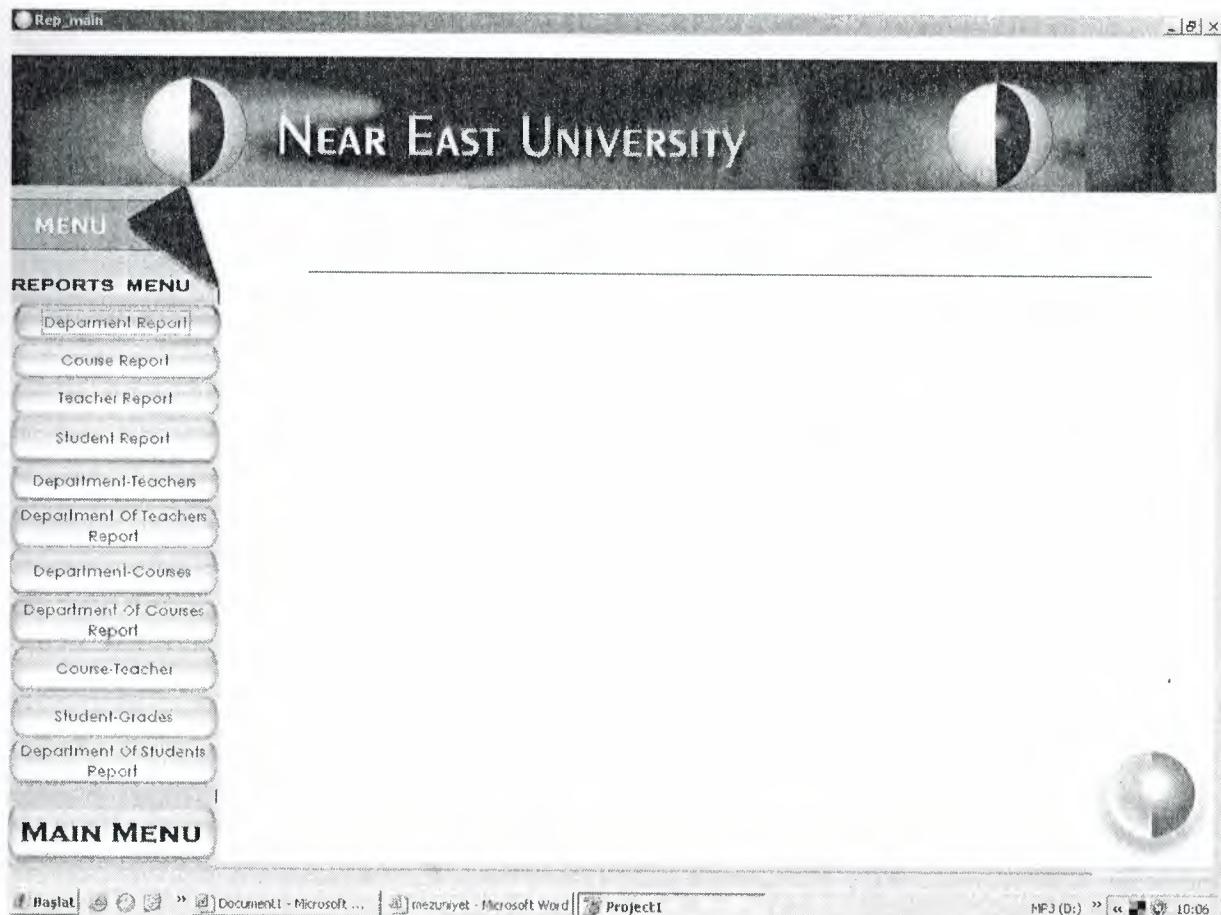
GPA: 3.55

MAIN MENU

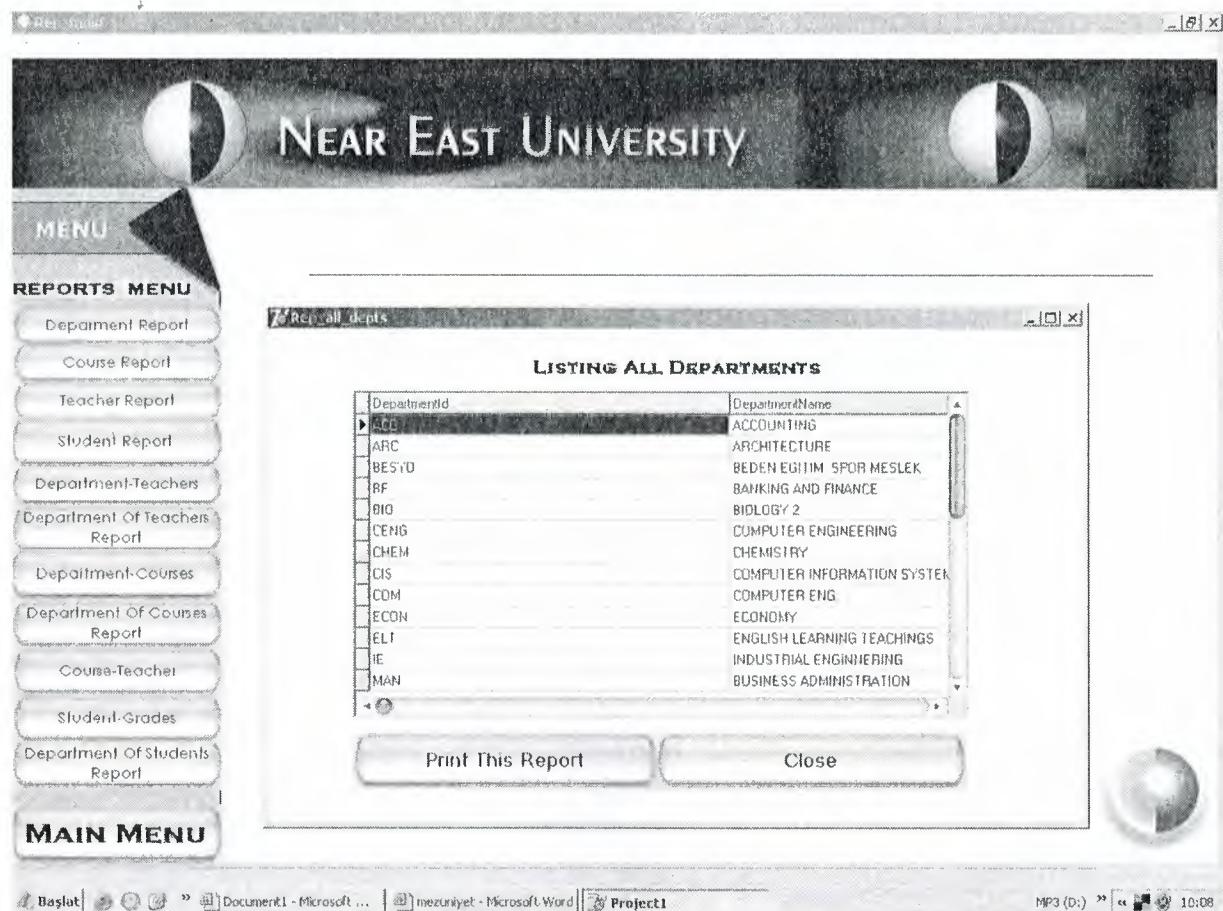
Baslat » Document1 - Microsoft ... | mezuniyet - Microsoft Word | Project1

MP3 (D:) » 10:04

## Reports Menu:



## Department Report:



## Course Report:

The screenshot shows a Windows application window titled "NEAR EAST UNIVERSITY". The main title bar has a magnifying glass icon and the text "NEAR EAST UNIVERSITY". Below the title bar is a menu bar with "FILE", "EDIT", "VIEW", "REPORTS MENU", and "MAIN MENU". The "REPORTS MENU" dropdown contains the following items: Department Report, Course Report, Teacher Report, Student Report, Department-Teachers, Department Of Teachers Report, Department-Courses, Department Of Courses Report, Course-Teacher, Student-Grades, and Department Of Students Report. The "MAIN MENU" dropdown contains the item "Print This Page". The central area of the window is titled "Listing All Courses" and displays a table of course data. The table has columns: CourseId, CourseCode, DepartmentId, and CourseName. The data is as follows:

CourseId	CourseCode	DepartmentId	CourseName
29	ARC		ASD
23	COM31B	DIS	DATA COMMUNICATION
27	CIS243	DIS	DATA STRUCTURE
12	CIS244	DIS	DATA STRUCTURES
6	CIS240	DIS	DELPHI
10	ECON101	ECON	ECONOMY
7	ENG101	MAN	ENGLISH
8	ENG102	MAN	ENGLISH 2
22	CIS347	DIS	HKDAS
15	CIS151	DIS	INT
25	CIS132	DIS	INTRO. COMPUTER
9	CIS131	MAN	INTRODUCTION
1	MAN404	DIS	INTRODUCTION
16	CIS456	DIS	JAVA
3	MAN303	MAN	MARKETING
4	MAN306	MAN	MARKETING 2
19	MAN403	MAN	MARKETING 3
26	MAT101	DIS	MATEMATICS

At the bottom of the window are two buttons: "Print This Page" and "Close". The taskbar at the bottom of the screen shows several open applications: Baslat, Microsoft Word, Project, and MP3 (D:). The system tray shows the date and time as 10:52.

## Teacher Report:

The screenshot shows a Windows desktop environment. In the center is a window titled "NEAR EAST UNIVERSITY". The window has a title bar with standard window controls (minimize, maximize, close). Below the title bar is a dark banner with the university's name in white, flanked by two circular icons.

The main content area of the window is titled "Listing All Teachers". It contains a table with two columns: "TeacherId" and "Tname". The table lists 14 entries, each consisting of a teacher ID and their name. To the right of the table is a vertical scroll bar. At the bottom of the table are two buttons: "Print This Page" and "Close".

To the left of the main window is a vertical "REPORTS MENU" sidebar. The menu items are:

- Department Report
- Course Report
- Teacher Report
- Student Report
- Department-Teachers
- Department Of Teachers Report
- Department-Courses
- Department Of Courses Report
- Course-Teacher
- Student-Grades
- Department Of Students Report

At the bottom of the sidebar is a "MAIN MENU" button.

At the very bottom of the screen, there is a taskbar with several open application icons. From left to right, they are: Baslat (Start), Microsoft Word document, Microsoft Project document, and a media player window showing MP3 (D:) and a play/pause button.

## Student Report:

**NEAR EAST UNIVERSITY**

**MENU**

**REPORTS MENU**

- Department Report
- Course Report
- Teacher Report
- Student Report
- Department-Teachers
- Department Of Teachers Report
- Department-Courses
- Department Of Courses Report
- Course-Teacher
- Student-Grade
- Department Of Students Report

**MAIN MENU**

**All Students**

**Listing All Students**

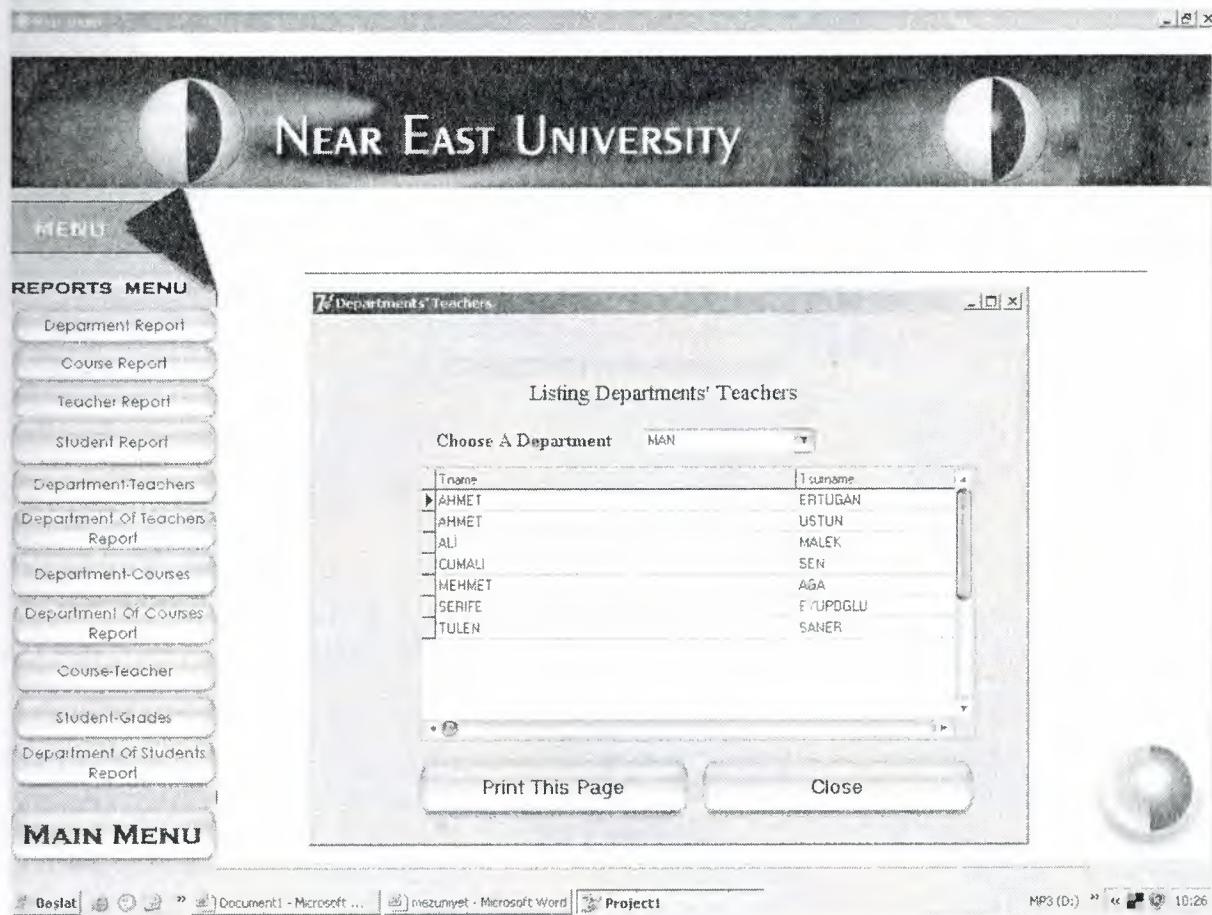
StudentId	DepartmentId	Name
20071980	CIS	MEHMET YUSUF
20071981	CIS	CEMIL
20071985	MAN	NAZAN
20071986	MAN	OSMAN
20071987	IR	SERVET
20071988	CIS	SALİHA
20071989	CIS	MARIA

Print This Page      Close

Başlat » Document1 - Microsoft Word mezuniyet - Microsoft Word Project

MP3 (Dü) » 10:24

## Department – Teachers:



## Department of Teachers Report:

The screenshot shows a Windows desktop environment. At the top, there is a taskbar with several icons and open windows. One window is titled "NEAR EAST UNIVERSITY" and contains a list of teachers categorized by department. The main menu on the left includes options like "Department Report", "Course Report", "Teacher Report", "Student Report", "Department-Teachers", "Department Of Teachers Report", "Department-Courses", "Department Of Courses Report", "Course-Teacher", "Student-Grades", and "Department Of Students Report". The "MAIN MENU" button is also present. The application window has a title bar "Rep\_Teaches\_Dept" and a button bar with "Print This Page" and "Close".

Name	departmentId
MUHAMMET	ACC
AHMET	ARC
SUREYYA	CHEM
ILHAM	CIS
ADIL	CIS
UMIT	CIS
NADIRE	CIS
YALCIN	CIS
MUSTAFA	CIS
TANSEL	CIS
HUSEYIN	COM
ERDAL	ECON
FATMA	ECON
MEHMET	MAN

## Department – Courses:

**NEAR EAST UNIVERSITY**

**Dept\_Course**

**Departments with Courses**

DepartmentId	departmentname	co_id
ARC	ARCHITECTURE	MA
MAN	BUSINESS ADMINISTRATION	AT
MAN	BUSINESS ADMINISTRATION	MP
MAN	BUSINESS ADMINISTRATION	MA
MAN	BUSINESS ADMINISTRATION	EN
MAN	BUSINESS ADMINISTRATION	EN
MAN	BUSINESS ADMINISTRATION	CI
MAN	BUSINESS ADMINISTRATION	MA
MAN	BUSINESS ADMINISTRATION	MA
CIS	COMPUTER INFORMATION SYSTEMS	MA
CIS	COMPUTER INFORMATION SYSTEMS	CI
CIS	COMPUTER INFORMATION SYSTEMS	CI
CIS	COMPUTER INFORMATION SYSTEMS	CI
CIS	COMPUTER INFORMATION SYSTEMS	CI
CIS	COMPUTER INFORMATION SYSTEMS	CI
CIS	COMPUTER INFORMATION SYSTEMS	MA
CIS	COMPUTER INFORMATION SYSTEMS	CI

**REPORTS MENU**

- Department Report
- Course Report
- Teacher Report
- Student Report
- Department-Teachers
- Department Of teachers Report
- Department-Courses
- Department Of Courses Report
- Course-Teacher
- Student-Grades
- Department Of Students Report

**MAIN MENU**

Print This Page      Close

Baslat Document1 - Microsoft ... mezunyet - Microsoft Word Project1 MP3 (D:) 10:28

## Department of Courses Report:

The screenshot shows a Windows application window titled "Courses According to Department". The main title bar says "NEAR EAST UNIVERSITY". On the left, there's a vertical menu under "REPORTS MENU" with options like "Department Report", "Course Report", "Teacher Report", etc. At the bottom left is a "MAIN MENU" button. The main content area has a title "Listing Departent's Courses" and a dropdown menu "Choose A Department" set to "MAN". Below is a table listing courses:

CourseId	CourseCode	DepartmentId	CourseName
7	ENG101	MAN	ENGLISH
8	ENG102	MAN	ENGLISH 2
9	CIS131	MAN	INTRODUCTION
3	MAN303	MAN	MARKETING
4	MAN306	MAN	MARKETING 2
19	MAN403	MAN	MARKETING 3
13	MAN308	MAN	OPERATIONS RESE
2	MAN401	MAN	SMALL BUSINESS
20	ATA101	MAN	TARIH

At the bottom are "Print This Page" and "Close" buttons.

## Course – Teacher:

The screenshot shows a Windows application window titled "Course\_Teacher". The window contains a table titled "Courses with Teachers" with two columns: "coursecode" and "coursetname". The table lists various courses and their corresponding teachers. At the bottom of the window are two buttons: "Print This Page" and "Close".

coursecode	coursetname	name
MAN303	MARKETING	AHMET
MAN306	MARKETING 2	AHMET
	ASD	AHMET
MAN403	MARKETING 3	AHMET
MAN308	OPERATIONS RESEARCH	ALİ
CIS456	JAVA	ALİ
ATA101	TARIH	CÜMALİ
CIS331	SYSTEM ANALYS	ILHAM
DIS305	PROGRAMMING TECHNICS	ILHAM
CIS244	DATA STRUCTURES	MUSTAFA
CIS151	INT	MUSTAFA
CIS243	DATA STRUCTURE	MUSTAFA
COM318	DATA COMMUNICATION	NADIRE
DIS240	DELPHI	NADIRE
DIS347	HKDAS	TANSEL
CIS301	PROGRAMMING WITH C	TANSEL
MAN401	SMALL BUSINESS	TÜLEN
MAT101	MATEMATICS	UMIT
MAN404	INTRODUCTION	YALCIN
CIS132	INTRO COMPUTER	YALCIN

## Student – Grades:

The screenshot shows a Windows application window titled "Stu\_Grades". The window has a title bar with standard window controls (minimize, maximize, close). Below the title bar is a decorative header featuring the text "NEAR EAST UNIVERSITY" in large, bold letters, flanked by two stylized eye icons.

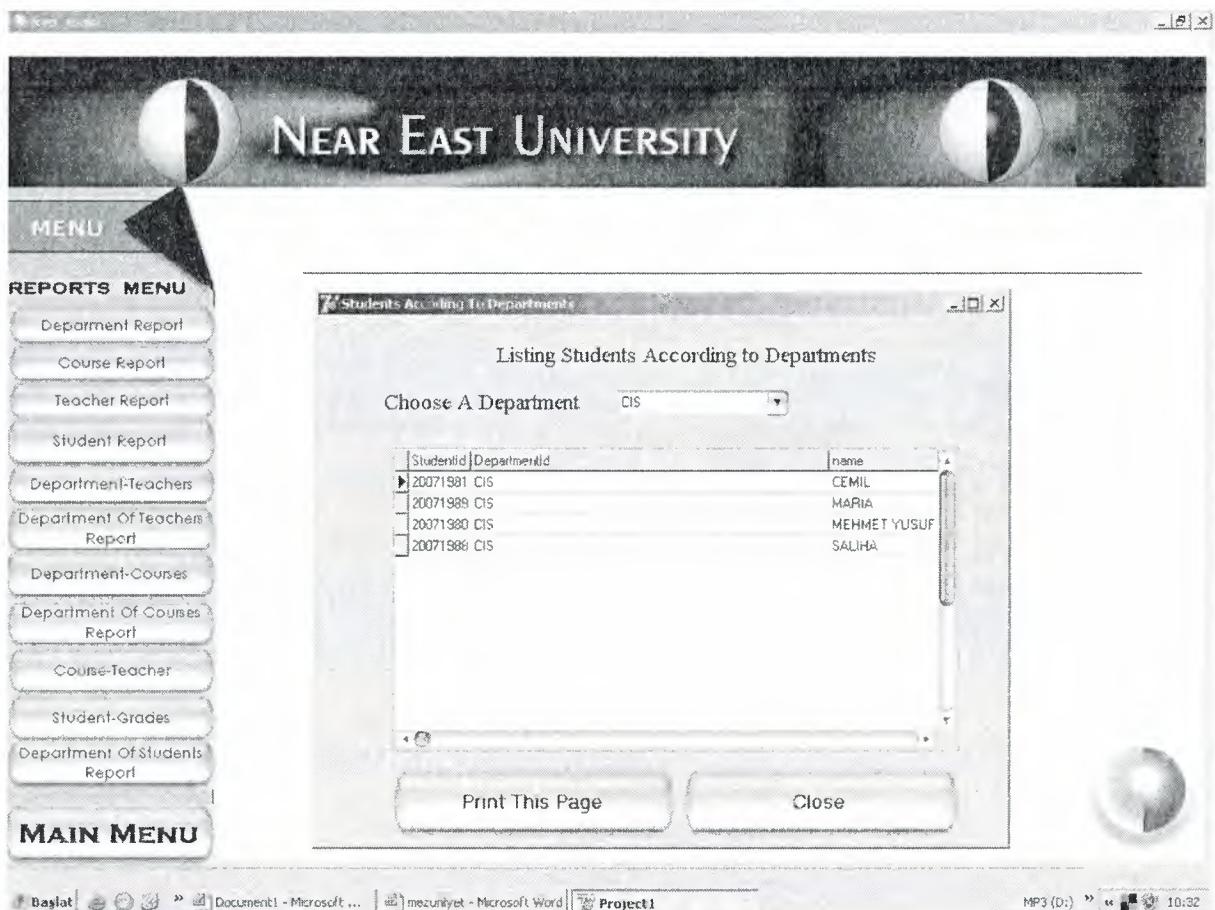
The left side of the window features a vertical "MENU" bar with several options under "REPORTS MENU": Department Report, Course Report, Teacher Report, Student Report, Department-Teachers, Department Of Teachers Report, Department-Courses, Department Of Courses Report, Course-Teacher, Student-Grades, and Department Of Students Report. Below this is a "MAIN MENU" section with a single item: "Print This Page".

The central area is titled "Students with Grades" and contains a table with two columns: "StudentId" and "Name". The "Name" column lists "MEHMET YUSUF" 20 times, and the "Surname" column lists "AKKILIC" 20 times. The table has scroll bars on the right and bottom.

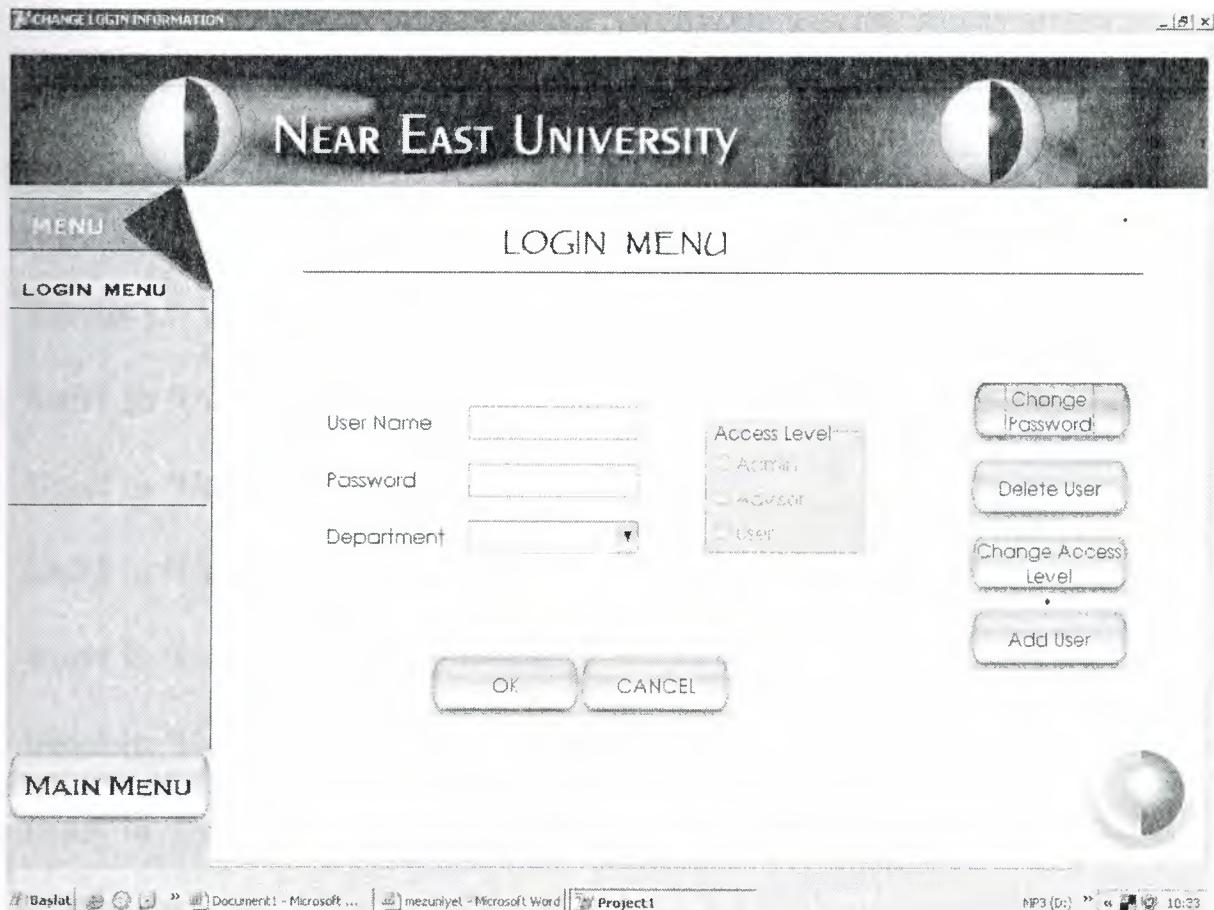
At the bottom of the window are two buttons: "Print This Page" and "Close".

The taskbar at the bottom of the screen shows several open applications: "Basit", "Document1 - Microsoft Word", "mezuniyet - Microsoft Word", "Project1", "MP3 (D1)", and the system tray with icons for date/time (10:31).

## Department of Student Report:



## Login Menu:



## **APPENDIX II**

### **SOURCE CODE**

**program Project1;**

**uses**

**Forms,**

**Unit1 in 'Unit1.pas' {frm\_main},**

**Unit2 in 'Unit2.pas' {frm\_std},**

**Unit3 in 'Unit3.pas' {frm\_addstd},**

**Unit4 in 'Unit4.pas' {frm\_updstd},**

**Unit5 in 'Unit5.pas' {frm\_teacher},**

**Unit6 in 'Unit6.pas' {frm\_addteacher},**

**Unit8 in 'Unit8.pas' {frm\_course},**

**Unit9 in 'Unit9.pas' {frm\_addcourse},**

**Unit10 in 'Unit10.pas' {frm\_updcourse},**

**Unit11 in 'Unit11.pas' {frm\_dept},**

**Unit12 in 'Unit12.pas' {frm\_adddept},**

**Unit13 in 'Unit13.pas' {frm\_upddept},**

**Unit14 in 'Unit14.pas' {frm\_trans},**

**Unit22 in 'Unit22.pas' {frm\_correg},**

**Unit15 in 'Unit15.pas' {frm\_semend},**

**Unit16** in 'Unit16.pas' {Rep\_main},

**Unit17** in 'Unit17.pas' {Rep\_all\_depts},

**Unit18** in 'Unit18.pas' {Rep\_all\_teacs},

**Unit19** in 'Unit19.pas' {Rep\_teacs\_dept},

**Unit20** in 'Unit20.pas' {Rep\_dept\_teacs},

**Unit21** in 'Unit21.pas' {Rep\_all\_courses},

**Unit23** in 'Unit23.pas' {Rep\_dept\_cor},

**Unit24** in 'Unit24.pas' {Rep\_all\_stu},

**Unit25** in 'Unit25.pas' {Rep\_dept\_stu},

**Unit40** in 'Unit40.pas' {frm\_about},

**Unit7** in 'Unit7.pas' {frm\_updteacher},

**Unit26** in 'Unit26.pas' {frm\_password},

**Unit27** in 'Unit27.pas' {frm\_login},

**Unit28** in 'Unit28.pas' {frm\_beginsemester},

**Unit29** in 'Unit29.pas' {frm\_adddrop},

**Unit30** in 'Unit30.pas' {Form30},

**Unit31** in 'Unit31.pas' {Form31},

**Unit32** in 'Unit32.pas' {Form32},

**Unit33** in 'Unit33.pas' {Form33};

{\$R \*.res}

**begin**

**Application.Initialize;**

**Application.CreateForm(Tfrm\_password, frm\_password);**

**Application.CreateForm(Tfrm\_main, frm\_main);**

**Application.CreateForm(Tfrm\_std, frm\_std);**

**Application.CreateForm(Tfrm\_addstd, frm\_addstd);**

**Application.CreateForm(Tfrm\_updstd, frm\_updstd);**

**Application.CreateForm(Tfrm\_teacher, frm\_teacher);**

**Application.CreateForm(Tfrm\_addteacher, frm\_addteacher);**

**Application.CreateForm(Tfrm\_course, frm\_course);**

**Application.CreateForm(Tfrm\_addcourse, frm\_addcourse);**

**Application.CreateForm(Tfrm\_updcourse, frm\_updcourse);**

**Application.CreateForm(Tfrm\_dept, frm\_dept);**

**Application.CreateForm(Tfrm\_adddept, frm\_adddept);**

**Application.CreateForm(Tfrm\_upddept, frm\_upddept);**

**Application.CreateForm(Tfrm\_trans, frm\_trans);**

**Application.CreateForm(Tfrm\_correg, frm\_correg);**

**Application.CreateForm(Tfrm\_semend, frm\_semend);**

**Application.CreateForm(TRep\_main, Rep\_main);**

**Application.CreateForm(TRep\_all\_depts, Rep\_all\_depts);**

**Application.CreateForm(TRep\_all\_teacs, Rep\_all\_teacs);**

**Application.CreateForm(TRep\_teacs\_dept, Rep\_teacs\_dept);**

```
Application.CreateForm(TRep_dept_teacs, Rep_dept_teacs);
Application.CreateForm(TRep_all_courses, Rep_all_courses);
Application.CreateForm(TRep_dept_cor, Rep_dept_cor);
Application.CreateForm(TRep_all_stu, Rep_all_stu);
Application.CreateForm(TRep_dept_stu, Rep_dept_stu);
Application.CreateForm(Tfrm_about, frm_about);
Application.CreateForm(Tfrm_updteacher, frm_updteacher);
Application.CreateForm(Tfrm_login, frm_login);
Application.CreateForm(Tfrm_beginsemester, frm_beginsemester);
Application.CreateForm(Tfrm_adddrop, frm_adddrop);
Application.CreateForm(TForm30, Form30);
Application.CreateForm(TForm31, Form31);
Application.CreateForm(TForm32, Form32);
Application.CreateForm(TForm33, Form33);
Application.Run;
end.
```

---

```
unit Unit1;
interface
uses
  Windows, Messages, SysUtils, Variants, Classes, Graphics, Controls, Forms,
  Dialogs, DB, DBTables, ADODB, StdCtrls, ExtCtrls, jpeg, ComCtrls;
```

```
type
Tfrm_main = class(TForm)
  Button1: TButton;
  Button2: TButton;
  Button4: TButton;
  Button5: TButton;
  Button7: TButton;
  DataSource1: TDataSource;
  ADOTable1: TADOTable;
  ADOTable2: TADOTable;
  ADOTable3: TADOTable;
  ADOTable5: TADOTable;
  ADOTable6: TADOTable;
  DataSource2: TDataSource;
  DataSource3: TDataSource;
  DataSource5: TDataSource;
  DataSource6: TDataSource;
  ADOQuery1: TADOQuery;
  DataSource7: TDataSource;
  ADOQuery2: TADOQuery;
  DataSource8: TDataSource;
  ADOQuery3: TADOQuery;
  DataSource9: TDataSource;
  ADOQuery4: TADOQuery;
  DataSource10: TDataSource;
```

```
ADOQuery5: TADOQuery;  
DataSource11: TDataSource;  
ADOQuery6: TADOQuery;  
DataSource12: TDataSource;  


---

Button8: TButton;  
Button6: TButton;  
Button11: TButton;  
ADOTable4: TADOTable;  
DataSource4: TDataSource;  
DataSource13: TDataSource;  
Image1: TImage;  
Label2: TLabel;  
Image2: TImage;  
Button10: TButton;  
  
procedure Button7Click(Sender: TObject);  
procedure Button1Click(Sender: TObject);  
procedure Button2Click(Sender: TObject);  
procedure Button4Click(Sender: TObject);  
procedure Button5Click(Sender: TObject);  
procedure Button8Click(Sender: TObject);  
procedure Button3Click(Sender: TObject);  
procedure Button6Click(Sender: TObject);  
procedure Button10Click(Sender: TObject);  
procedure Button11Click(Sender: TObject);  
  
private
```

```
{ Private declarations }

public

{ Public declarations }

end;

var

frm_main: Tfrm_main;

implementation

uses Unit2, Unit5, Unit8, Unit11, Unit22, Unit14, Unit15, Unit16, Unit40,
Unit27, unit26, Unit28;

{$R *.dfm}

procedure Tfrm_main.Button7Click(Sender: TObject);
begin

//application.Terminate;

frm_main.Close;

frm_password.Show;

end;

procedure Tfrm_main.Button1Click(Sender: TObject);
begin

if level='Admin' then

begin

frm_std.show;

frm_main.hide;

end

else

messagedlg('You are not an accessible person to this part!!',mtinformation,[mbok],0);
```

```
end;

procedure Tfrm_main.Button2Click(Sender: TObject);
begin
if level='Admin' then
begin
  frm_teacher.show;
  frm_main.Hide;
end
else
messagedlg('You are not an accessible person to this part!!',mtinformation,[mbok],0);
end;

procedure Tfrm_main.Button4Click(Sender: TObject);
begin
if level='Admin' then
begin
  frm_course.show;
  frm_main.hide;
end
else
messagedlg('You are not an accessible person to this part!!',mtinformation,[mbok],0);
end;

procedure Tfrm_main.Button5Click(Sender: TObject);
begin
if level='Admin' then
begin
```

```
frm_dept.show;
frm_main.Hide;
end
else
messagedlg('You are not an accessible person to this part!!',mtinformation,[mbok],0);
end;

procedure Tfrm_main.Button8Click(Sender: TObject);
begin
if (level='Advisor') or (level='Admin') then
begin
frm_main.Hide;
frm_beginsemester.show;
end
else
messagedlg('You are not an accessible person to this part!!',mtinformation,[mbok],0);
end;

procedure Tfrm_main.Button3Click(Sender: TObject);
begin
if (level='Admin') or (level='User') then
begin
frm_trans.show;
frm_main.Hide;
end
else
messagedlg('You are not an accessible person to this part!!',mtinformation,[mbok],0);
```

end;

procedure Tfrm\_main.Button6Click(Sender: TObject);

begin

if (level='Admin') or (level='User') then

begin

rep\_main.show;

frm\_main.Hide;

end

else

messagedlg('You are not an accessible person to this part!!',mtinformation,[mbok],0);

end;

procedure Tfrm\_main.Button10Click(Sender: TObject);

begin

if (level='Admin') or (level='User') then

begin

frm\_trans.show;

frm\_main.hide;

end

else

messagedlg('You are not an accessible person to this part!!',mtinformation,[mbok],0);

end;

procedure Tfrm\_main.Button11Click(Sender: TObject);

begin

  frm\_login.show;

  frm\_main.Hide;

end;

end.

---

**unit Unit2;**

interface

uses

Windows, Messages, SysUtils, Variants, Classes, Graphics, Controls, Forms,

Dialogs, Buttons, jpeg, ExtCtrls, StdCtrls;

type

Tfrm\_std = class(TForm)

  Image1: TImage;

  Button1: TButton;

  Button2: TButton;

  Button3: TButton;

  Label1: TLabel;

  Image2: TImage;

```
procedure FormClose(Sender: TObject; var Action: TCloseAction);
procedure Button1Click(Sender: TObject);
procedure Button2Click(Sender: TObject);
procedure Button3Click(Sender: TObject);
procedure Button4Click(Sender: TObject);
private
{ Private declarations }
public
{ Public declarations }
end;
var
frm_std: Tfrm_std;
implementation
uses Unit1, Unit3, Unit4, unit26;
{$R *.dfm}
procedure Tfrm_std.FormClose(Sender: TObject; var Action: TCloseAction);
begin
frm_main.show;
end;
procedure Tfrm_std.Button1Click(Sender: TObject);
begin
frm_addstd.show;
frm_std.Hide;
end;
procedure Tfrm_std.Button2Click(Sender: TObject);
```

```
begin
  frm_updstd.Show;
  frm_std.Hide;
end;

procedure Tfrm_std.Button3Click(Sender: TObject);
begin
  frm_std.Close;
  frm_main.Show;
end;

procedure Tfrm_std.Button4Click(Sender: TObject);
begin
  frm_main.Close;
  frm_password.Show;
end;
end.
```

---

### **unit Unit3;**

interface

uses

Windows, Messages, SysUtils, Variants, Classes, Graphics, Controls, Forms,  
Dialogs, StdCtrls, Mask, DBCtrls, ExtCtrls, jpeg, strutils, dateutils,  
ComCtrls;

type

```
Tfrm_addstd = class(TForm)
  Button1: TButton;
  Button2: TButton;
  Edit1: TEdit;
  Edit2: TEdit;
  Edit3: TEdit;
```

```
Edit4: TEdit;
Edit5: TEdit;
Edit6: TEdit;
Edit7: TEdit;
Edit8: TEdit;
Edit9: TEdit;
Edit10: TEdit;
Edit11: TEdit;
Edit12: TEdit;
Edit13: TEdit;
Memo1: TMemo;
ComboBox1: TComboBox;
Button3: TButton;
Button4: TButton;
Button5: TButton;
ComboBox2: TComboBox;
DateTimePicker1: TDateTimePicker;
Image1: TImage;
Label24: TLabel;
Label25: TLabel;
Label26: TLabel;
Label27: TLabel;
Label28: TLabel;
Label29: TLabel;
Label30: TLabel;
Label34: TLabel;
Label35: TLabel;
Label36: TLabel;
Label37: TLabel;
Label38: TLabel;
Label39: TLabel;
Label40: TLabel;
Label41: TLabel;
Label23: TLabel;
Label2: TLabel;
Label1: TLabel;
Label3: TLabel;
Image2: TImage;
Label10: TLabel;
Label4: TLabel;
Label5: TLabel;
Label6: TLabel;
Label7: TLabel;
Button6: TButton;
procedure Button1Click(Sender: TObject);
procedure Button2Click(Sender: TObject);
procedure FormShow(Sender: TObject);
procedure FormClose(Sender: TObject; var Action: TCloseAction);
procedure Edit1KeyPress(Sender: TObject; var Key: Char);
procedure Button5Click(Sender: TObject);
```

```
procedure Button4Click(Sender: TObject);
procedure Button3Click(Sender: TObject);
procedure Edit2KeyPress(Sender: TObject; var Key: Char);
procedure Memo1KeyPress(Sender: TObject; var Key: Char);
procedure ComboBox2KeyPress(Sender: TObject; var Key: Char);

private
  { Private declarations }

public
  { Public declarations }

end;

var
  frm_addstd: Tfrm_addstd;

implementation
uses unit1, Unit2, unit26;

{$R *.dfm}

procedure Tfrm_addstd.Button1Click(Sender: TObject);
begin
  frm_std.show;
  frm_addstd.Close;
end;

procedure Tfrm_addstd.Button2Click(Sender: TObject);
begin
  frm_main.show;
  frm_addstd.hide;
end;

procedure clearing(Sender:Tobject);
begin
  frm_addstd.Edit1.Clear;
  frm_addstd.Edit2.Clear;
  frm_addstd.Edit3.Clear;
  frm_addstd.Edit4.Clear;
  frm_addstd.Edit5.Clear;
  frm_addstd.Edit6.Clear;
  frm_addstd.Edit7.Clear;
  frm_addstd.Edit8.Clear;
  frm_addstd.Edit9.Clear;
  frm_addstd.Edit10.Clear;
  frm_addstd.Edit11.Clear;
  frm_addstd.Edit12.Clear;
```

```
frm_addstd.Edit13.Clear;
frm_addstd.combobox2.Clear;
frm_addstd.combobox2.Items.Clear;
frm_addstd.Memo1.Clear;
frm_addstd.combobox1.Clear;
frm_addstd.combobox1.Items.Clear;
end;
```

```
procedure invisibility(Sender:Tobject);
begin
  frm_addstd.Edit2.Visible:=false;
  frm_addstd.Edit3.Visible:=false;
  frm_addstd.Edit4.Visible:=false;
  frm_addstd.Edit5.Visible:=false;
  frm_addstd.Edit6.Visible:=false;
  frm_addstd.Edit7.Visible:=false;
  frm_addstd.Edit8.Visible:=false;
  frm_addstd.Edit9.Visible:=false;
  frm_addstd.Edit10.Visible:=false;
  frm_addstd.Edit11.Visible:=false;
  frm_addstd.Edit12.Visible:=false;
  frm_addstd.Edit13.Visible:=false;
  frm_addstd.DateTimePicker1.Visible:=false;
  frm_addstd.combobox2.Visible:=false;
  frm_addstd.memo1.Visible:=false;
  frm_addstd.combobox1.Visible:=false;
```

```
end;
```

```
procedure visibility(Sender:Tobject);
begin
  frm_addstd.Edit2.Visible:=true;
  frm_addstd.Edit3.Visible:=true;
  frm_addstd.Edit4.Visible:=true;
  frm_addstd.Edit5.Visible:=true;
  frm_addstd.Edit6.Visible:=true;
  frm_addstd.Edit7.Visible:=true;
  frm_addstd.Edit8.Visible:=true;
  frm_addstd.Edit9.Visible:=true;
  frm_addstd.Edit10.Visible:=true;
  frm_addstd.Edit11.Visible:=true;
  frm_addstd.Edit12.Visible:=true;
  frm_addstd.Edit13.Visible:=true;
  frm_addstd.DateTimePicker1.Visible:=true;
  frm_addstd.memo1.Visible:=true;
  frm_addstd.combobox1.Visible:=true;
  frm_addstd.combobox2.Visible:=true;
```

```
end;
```

```
procedure enabling(Sender:Tobject);
begin
  frm_addstd.edit2.enabled:=true;
  frm_addstd.edit3.enabled:=true;
  frm_addstd.edit4.enabled:=true;
  frm_addstd.edit5.enabled:=true;
  frm_addstd.edit6.enabled:=true;
  frm_addstd.edit7.enabled:=true;
  frm_addstd.edit8.enabled:=true;
  frm_addstd.edit9.enabled:=true;
  frm_addstd.edit10.enabled:=true;
  frm_addstd.edit11.enabled:=true;
  frm_addstd.edit12.enabled:=true;
  frm_addstd.edit13.enabled:=true;
  frm_addstd.DateTimePicker1.enabled:=true;
  frm_addstd.combobox1.enabled:=true;
  frm_addstd.combobox2.enabled:=true;
  frm_addstd.memo1.enabled:=true;
  frm_addstd.button3.enabled:=true;
  frm_addstd.button4.enabled:=true;
```

end;

```
procedure disabling(Sender:Tobject);
begin
  frm_addstd.edit2.enabled:=false;
  frm_addstd.edit3.enabled:=false;
  frm_addstd.edit4.enabled:=false;
  frm_addstd.edit5.enabled:=false;
  frm_addstd.edit6.enabled:=false;
  frm_addstd.edit7.enabled:=false;
  frm_addstd.edit8.enabled:=false;
  frm_addstd.edit9.enabled:=false;
  frm_addstd.edit10.enabled:=false;
  frm_addstd.edit11.enabled:=false;
  frm_addstd.edit12.enabled:=false;
  frm_addstd.edit13.enabled:=false;
  frm_addstd.edit13.enabled:=false;
  frm_addstd.DateTimePicker1.enabled:=false;
  frm_addstd.combobox1.enabled:=false;
  frm_addstd.combobox2.enabled:=false;
  frm_addstd.memo1.enabled:=false;
  frm_addstd.button3.enabled:=false;
  frm_addstd.button4.enabled:=false;
end;
```

```
procedure Tfrm_addstd.FormShow(Sender: TObject);
begin
  edit1.ReadOnly:=false;
```

```

clearing(sender);
edit1.SetFocus;
disabling(sender);
invisibility(sender);
// frm_addstd.Position:=poscreencenter;
end;

procedure Tfrm_addstd.FormClose(Sender: TObject; var Action: TCloseAction);
begin
edit1.ReadOnly:=false;

// disabling(sender);
frm_std.Show;
end;

procedure Tfrm_addstd.Edit1KeyPress(Sender: TObject; var Key: Char);
begin
if not((key in ['0'..'9'])or(key=#8) or (key=#13)) then
begin
key:=#0;
messagedlg('Please Enter a Numeric Character ',mtwarning,[mbok],0);
end;
if key=#13 then
button5.Click;
end;

procedure Tfrm_addstd.Button5Click(Sender: TObject);
begin
if edit1.text<>" then
begin
ShortDateFormat := 'yyyy';

if Ansileftstr(edit1.Text,4)=datetostr(date) then
begin
if length(edit1.Text)=8 then
begin
with frm_main.ADOquery1 do
begin
sql.clear;
sql.Add('Select StudentId from student where StudentId="'+edit1.text+''");
open;
end;
if frm_main.DataSource7.DataSet.RecordCount=0 then
begin
shortdateformat:='m/d/yyyy';
enabling(sender);
visibility(sender);
edit2.SetFocus;
combobox2.Items.Add('Male');
combobox2.Items.Add('Female');

```

```

edit1.ReadOnly:=true;
with frm_main.ADOquery1 do
begin
  sql.clear;
  sql.Add('Select DepartmentId from Department');
  open;
end;
frm_main.datasource7.DataSet.First;
while not frm_main.datasource7.DataSet.Eof do
begin
  combobox1.Items.Add(frm_main.datasource7.DataSet.FieldValues['DepartmentId']);
  frm_main.DataSource7.DataSet.Next;
end;
datetimepicker1.Date:=strtodate('01/01/1985');
end
else
begin
  messagedlg('This Student Number Is Already Recorded !',mtwarning,[mbok],0);
  edit1.SetFocus;
end;
end
else
begin
  messagedlg('Student Number Must Be 8 Digits !',mtwarning,[mbok],0);
  edit1.SetFocus;
end;
end
else
begin
  messagedlg('First 4 digit must be same with current year !',mtwarning,[mbok],0);
  edit1.Clear;
  edit1.SetFocus;
end;
end
else
begin
  messagedlg('Please Enter Number For New Student ! ',mtwarning,[mbok],0);
  edit1.Clear;
  edit1.SetFocus;
end;
end;

procedure Tfrm_addstd.Button4Click(Sender: TObject);
begin
  clearing(sender);
  disabling(sender);
  invisibility(sender);
  edit1.SetFocus;
  edit1.Clear;
  edit1.ReadOnly:=false;

```

```

end;

procedure Tfrm_addstd.Button3Click(Sender: TObject);
begin
if ((edit2.Text<>"")and(edit3.Text<>"")and(edit8.Text<>"")and(combo1.Text<>")) then
begin
with frm_main.DataSource1 do
begin
edit1.ReadOnly:=false;
dataset.Edit;
dataset.Append;
dataset.FieldValues['StudentId]:=edit1.Text;
if combo1.text<>"" then
dataset.FieldValues['DepartmentId]:=combo1.Text;
dataset.FieldValues['name]:=edit2.Text;
dataset.FieldValues['surname]:=edit3.Text;
if combo2.text<>"" then
dataset.FieldValues['sex]:=combo2.Text;
if memo1.Text<>"" then
dataset.FieldValues['Address]:=memo1.Text;
if edit7.text<>"" then
dataset.FieldValues['City]:=edit7.Text;
if edit8.text<>"" then
dataset.FieldValues['Country]:=edit8.Text;
if edit9.text<>"" then
dataset.FieldValues['postcode]:=edit9.Text;
if edit11.text<>"" then
dataset.FieldValues['Gsm]:=edit11.Text;
if edit6.text<>"" then
dataset.FieldValues['FatherName]:=edit6.Text;
if edit5.text<>"" then
dataset.FieldValues['MotherName]:=edit5.Text;
if edit4.text<>"" then
dataset.FieldValues['BirthPlace]:=edit4.Text;

dataset.FieldValues['BirthDate]:=datetimepicker1.Date;
if edit13.text<>"" then
dataset.FieldValues['OsymNo]:=edit13.Text;
if edit12.text<>"" then
dataset.FieldValues['Email]:=edit12.Text;

dataset.FieldValues['RegisterDate]:=Date;

if edit10.text<>"" then
dataset.FieldValues['Phone]:=edit10.Text;

dataset.FieldValues['ProcessUser]:=username;

dataset.Post;
messagedlg('The student recorded successfully !',mtwarning,[mbok],0);

```

```
clearing(sender);
disabling(sender);
invisibility(sender);
edit1.SetFocus;
end;

end
else
begin
messagedlg('Please Fill All The Required Fields !',mtwarning,[mbok],0);
edit2.SetFocus;

end;
end;

procedure Tfrm_addstd.Edit2KeyPress(Sender: TObject; var Key: Char);
begin
if not((upcase(key) in ['A'..'Z'])or(key=#8) or (key=#13) or (key=chr(VK_SPACE)))then
begin
key:=#0;
messagedlg('Please Enter a Character ',mtwarning,[mbok],0);
end
else
key:=upcase(key);

end;

procedure Tfrm_addstd.Memo1KeyPress(Sender: TObject; var Key: Char);
begin
key:=upcase(key);
end;

procedure Tfrm_addstd.ComboBox2KeyPress(Sender: TObject; var Key: Char);
begin
key:=#0;
end;
```

## **unit Unit4;**

interface

uses

Windows, Messages, SysUtils, Variants, Classes, Graphics, Controls, Forms,  
Dialogs, StdCtrls, DBCtrls, ExtCtrls, Mask, jpeg, ComCtrls;

type

Tfrm\_updstd = class(TForm)
Image1: TImage;

```
Button1: TButton;
Button2: TButton;
Edit1: TEdit;
Edit2: TEdit;
Edit3: TEdit;
Edit4: TEdit;
Edit5: TEdit;
Edit6: TEdit;
Edit7: TEdit;
Edit8: TEdit;
Edit9: TEdit;
Edit10: TEdit;
Edit11: TEdit;
Edit12: TEdit;
Edit13: TEdit;
Memo1: TMemo;
ComboBox1: TComboBox;
Button3: TButton;
Button4: TButton;
Button5: TButton;
ComboBox2: TComboBox;
DateTimePicker1: TDateTimePicker;
Label1: TLabel;
Label25: TLabel;
Label26: TLabel;
Label27: TLabel;
Label28: TLabel;
Label29: TLabel;
Label30: TLabel;
Label34: TLabel;
Label35: TLabel;
Label36: TLabel;
Label37: TLabel;
Label38: TLabel;
Label39: TLabel;
Label40: TLabel;
Label41: TLabel;
Label2: TLabel;
Label3: TLabel;
Label4: TLabel;
Label5: TLabel;
Image2: TImage;
Label6: TLabel;
Label7: TLabel;
Label8: TLabel;
Label9: TLabel;
Label10: TLabel;
Label23: TLabel;
Label24: TLabel;
Button7: TButton;
```

```
procedure Button1Click(Sender: TObject);
procedure Button2Click(Sender: TObject);
procedure FormClose(Sender: TObject; var Action: TCloseAction);
procedure FormShow(Sender: TObject);
procedure Button5Click(Sender: TObject);
procedure Button4Click(Sender: TObject);
procedure Button3Click(Sender: TObject);
procedure Edit2KeyPress(Sender: TObject; var Key: Char);
procedure Edit1KeyPress(Sender: TObject; var Key: Char);
procedure Memo1KeyPress(Sender: TObject; var Key: Char);
procedure Button6Click(Sender: TObject);
private
  { Private declarations }
public
  { Public declarations }
end;

var
  frm_updstd: Tfrm_updstd;

implementation

uses Unit1, Unit2, unit26, unit3;

{$R *.dfm}
procedure clearing(Sender:Tobject);
begin
  frm_updstd.Edit1.Clear;
  frm_updstd.Edit2.Clear;
  frm_updstd.Edit3.Clear;
  frm_updstd.Edit4.Clear;
  frm_updstd.Edit5.Clear;
  frm_updstd.Edit6.Clear;
  frm_updstd.Edit7.Clear;
  frm_updstd.Edit8.Clear;
  frm_updstd.Edit9.Clear;
  frm_updstd.Edit10.Clear;
  frm_updstd.Edit11.Clear;
  frm_updstd.Edit12.Clear;
  frm_updstd.Edit13.Clear;
  frm_updstd.combobox2.Clear;
  frm_updstd.combobox2.Items.Clear;
  frm_updstd.Memo1.Clear;
  frm_updstd.combobox1.Clear;
  frm_updstd.combobox1.Items.Clear;
  frm_updstd.Label23.Caption:="";
  frm_updstd.Label24.Caption:="";
end;
```

```
procedure invisibility(Sender:Tobject);
begin
  frm_updstd.Edit2.Visible:=false;
  frm_updstd.Edit3.Visible:=false;
  frm_updstd.Edit4.Visible:=false;
  frm_updstd.Edit5.Visible:=false;
  frm_updstd.Edit6.Visible:=false;
  frm_updstd.Edit7.Visible:=false;
  frm_updstd.Edit8.Visible:=false;
  frm_updstd.Edit9.Visible:=false;
  frm_updstd.Edit10.Visible:=false;
  frm_updstd.Edit11.Visible:=false;
  frm_updstd.Edit12.Visible:=false;
  frm_updstd.Edit13.Visible:=false;
  frm_updstd.DateTimePicker1.Visible:=false;
  frm_updstd.combobox2.Visible:=false;
  frm_updstd.memo1.Visible:=false;
  frm_updstd.combobox1.Visible:=false;
```

end;

```
procedure visibility(Sender:Tobject);
begin
  frm_updstd.Edit2.Visible:=true;
  frm_updstd.Edit3.Visible:=true;
  frm_updstd.Edit4.Visible:=true;
  frm_updstd.Edit5.Visible:=true;
  frm_updstd.Edit6.Visible:=true;
  frm_updstd.Edit7.Visible:=true;
  frm_updstd.Edit8.Visible:=true;
  frm_updstd.Edit9.Visible:=true;
  frm_updstd.Edit10.Visible:=true;
  frm_updstd.Edit11.Visible:=true;
  frm_updstd.Edit12.Visible:=true;
  frm_updstd.Edit13.Visible:=true;
  frm_updstd.DateTimePicker1.Visible:=true;
  frm_updstd.memo1.Visible:=true;
  frm_updstd.combobox1.Visible:=true;
  frm_updstd.combobox2.Visible:=true;
```

end;

```
procedure enabling(Sender:Tobject);
begin
  frm_updstd.edit2.enabled:=true;
  frm_updstd.edit3.enabled:=true;
  frm_updstd.edit4.enabled:=true;
  frm_updstd.edit5.enabled:=true;
  frm_updstd.edit6.enabled:=true;
  frm_updstd.edit7.enabled:=true;
```

```
frm_updstd.edit8.enabled:=true;
frm_updstd.edit9.enabled:=true;
frm_updstd.edit10.enabled:=true;
frm_updstd.edit11.enabled:=true;
frm_updstd.edit12.enabled:=true;
frm_updstd.edit13.enabled:=true;
frm_updstd.DateTimePicker1.enabled:=true;
frm_updstd.combobox1.enabled:=true;
frm_updstd.combobox2.enabled:=true;
frm_updstd.memo1.enabled:=true;
frm_updstd.button3.enabled:=true;
frm_updstd.button4.enabled:=true;

end;
```

```
procedure disabling(Sender:Tobject);
begin
frm_updstd.edit2.enabled:=false;
frm_updstd.edit3.enabled:=false;
frm_updstd.edit4.enabled:=false;
frm_updstd.edit5.enabled:=false;
frm_updstd.edit6.enabled:=false;
frm_updstd.edit7.enabled:=false;
frm_updstd.edit8.enabled:=false;
frm_updstd.edit9.enabled:=false;
frm_updstd.edit10.enabled:=false;
frm_updstd.edit11.enabled:=false;
frm_updstd.edit12.enabled:=false;
frm_updstd.edit13.enabled:=false;
frm_updstd.edit13.enabled:=false;
frm_updstd.DateTimePicker1.enabled:=false;
frm_updstd.combobox1.enabled:=false;
frm_updstd.combobox2.enabled:=false;
frm_updstd.memo1.enabled:=false;
frm_updstd.button3.enabled:=false;
frm_updstd.button4.enabled:=false;
```

```
end;
```

```
procedure Tfrm_updstd.Button1Click(Sender: TObject);
begin
frm_std.show;
frm_updstd.hide;
end;
```

```
procedure Tfrm_updstd.Button2Click(Sender: TObject);
begin
```

```

frm_main.Show;
frm_updstd.hide;
end;

procedure Tfrm_updstd.FormClose(Sender: TObject; var Action: TCloseAction);
begin
edit1.ReadOnly:=false;

// disabling(sender);
frm_std.Show;
end;

procedure Tfrm_updstd.FormShow(Sender: TObject);
begin
edit1.ReadOnly:=false;
clearing(sender);
edit1.SetFocus;
disabling(sender);
invisibility(sender);
end;

procedure Tfrm_updstd.Button5Click(Sender: TObject);
begin
if edit1.text<>" then
begin
ShortDateFormat := 'm/dd/yyyy';
if length(edit1.Text)=8 then
begin
with frm_main.ADOquery1 do
begin
sql.clear;
sql.Add('Select * from student where StudentId="'+edit1.text+''");
open;
end;
if frm_main.DataSource7.DataSet.RecordCount<>0 then
begin
enabling(sender);
visibility(sender);
edit2.SetFocus;
combobox2.Items.Add('Male');
combobox2.Items.Add('Female');
edit1.ReadOnly:=true;
with frm_main.ADOquery1 do
begin
sql.clear;
sql.Add('Select DepartmentId from Department');
open;
end;
frm_main.datasource7.DataSet.First;

```

```

while not frm_main.datasource7.DataSet.Eof do
begin
  combobox1.Items.Add(frm_main.datasource7.DataSet.FieldValues['DepartmentId']);
  frm_main.DataSource7.DataSet.Next;
end;

with frm_main.ADOquery1 do
begin
  sql.clear;
  sql.Add('Select * from student where StudentId="'+edit1.text+''");
  open;
end;

if frm_main.DataSource7.DataSet.FieldValues['name']<>null then
  edit2.Text:=frm_main.DataSource7.DataSet.FieldValues['name'];
if frm_main.DataSource7.DataSet.FieldValues['surname']<>null then
  edit3.Text:=frm_main.DataSource7.DataSet.FieldValues['surname'];
if frm_main.DataSource7.DataSet.FieldValues['BirthPlace']<>null then
  edit4.Text:=frm_main.DataSource7.DataSet.FieldValues['BirthPlace'];
if frm_main.DataSource7.DataSet.FieldValues['MotherName']<>null then
  edit5.Text:=frm_main.DataSource7.DataSet.FieldValues['MotherName'];
if frm_main.DataSource7.DataSet.FieldValues['fathername']<>null then
  edit6.Text:=frm_main.DataSource7.DataSet.FieldValues['fathername'];
if frm_main.DataSource7.DataSet.FieldValues['city']<>null then
  edit7.Text:=frm_main.DataSource7.DataSet.FieldValues['city'];
if frm_main.DataSource7.DataSet.FieldValues['country']<>null then
  edit8.Text:=frm_main.DataSource7.DataSet.FieldValues['country'];
if frm_main.DataSource7.DataSet.FieldValues['postcode']<>null then
  edit9.Text:=frm_main.DataSource7.DataSet.FieldValues['postcode'];
if frm_main.DataSource7.DataSet.FieldValues['phone']<>null then
  edit10.Text:=frm_main.DataSource7.DataSet.FieldValues['phone'];
if frm_main.DataSource7.DataSet.FieldValues['Gsm']<>null then
  edit11.Text:=frm_main.DataSource7.DataSet.FieldValues['Gsm'];
if frm_main.DataSource7.DataSet.FieldValues['Email']<>null then
  edit12.Text:=frm_main.DataSource7.DataSet.FieldValues['Email'];
if frm_main.DataSource7.DataSet.FieldValues['OsymNo']<>null then
  edit13.Text:=frm_main.DataSource7.DataSet.FieldValues['OsymNo'];
if frm_main.DataSource7.DataSet.FieldValues['DepartmentId']<>null then
  combobox1.Text:=frm_main.DataSource7.DataSet.FieldValues['DepartmentId'];
if frm_main.DataSource7.DataSet.FieldValues['sex']<>null then
  combobox2.Text:=frm_main.DataSource7.DataSet.FieldValues['sex'];
if frm_main.DataSource7.DataSet.FieldValues['BirthDate']<>null then
  datetimepicker1.Date:=frm_main.DataSource7.DataSet.FieldValues['BirthDate'];
if frm_main.DataSource7.DataSet.FieldValues['Address']<>null then
  memo1.Text:=frm_main.DataSource7.DataSet.FieldValues['Address'];

label23.Caption:='The Student Is Registered At
'+DatetoStr(frm_main.DataSource7.DataSet.FieldValues['RegisterDate'])+' By
'+frm_main.DataSource7.DataSet.FieldValues['ProcessUser'];
  if frm_main.DataSource7.DataSet.FieldValues['UpdateUser']<>null then

```

```

label24.Caption:='The Student Record Was last Updated At
'+DatetoStr(frm_main.DataSource7.DataSet.FieldValues['UpdateDate'])+' By
'+frm_main.DataSource7.DataSet.FieldValues['UpdateUser'];

end
else
begin
messagedlg('Student Number Is Not Found !',mtwarning,[mbok],0);
edit1.SetFocus;
end;
end
else
begin
messagedlg('Student Number Must Be 8 Digits !',mtwarning,[mbok],0);
edit1.SetFocus;
end;
end
else
begin
messagedlg('Please Enter Number For Student To Update ! ',mtwarning,[mbok],0);
edit1.Clear;
edit1.SetFocus;
end;
end;

procedure Tfrm_updstd.Button4Click(Sender: TObject);
begin
clearing(sender);
disabling(sender);
invisibility(sender);
edit1.SetFocus;
edit1.Clear;
edit1.ReadOnly:=false;
end;

procedure Tfrm_updstd.Button3Click(Sender: TObject);
begin
if ((edit2.Text<>"")and(edit3.Text<>"")and(edit8.Text<>"")and(comboBox1.Text<>"")) then
begin
with frm_main.ADOquery1 do
begin
sql.clear;
sql.Add('Select * from student where StudentId="'+edit1.text+'"');
open;
end;
with frm_main.DataSource7 do
begin
edit1.ReadOnly:=false;
dataset.Edit;

```

```

if combobox1.text<>" then
dataset.FieldValues['DepartmentId']: =combobox1.Text;
dataset.FieldValues['name']: =edit2.Text;
dataset.FieldValues['surname']: =edit3.Text;
if combobox2.text<>" then
dataset.FieldValues['sex']: =combobox2.Text;
if memo1.Text<>" then
dataset.FieldValues['Address']: =memo1.Text;
if edit7.text<>" then
dataset.FieldValues['City']: =edit7.Text;
if edit8.text<>" then
dataset.FieldValues['Country']: =edit8.Text;
if edit9.text<>" then
dataset.FieldValues['postcode']: =edit9.Text;
if edit11.text<>" then
dataset.FieldValues['Gsm']: =edit11.Text;
if edit6.text<>" then
dataset.FieldValues['FatherName']: =edit6.Text;
if edit5.text<>" then
dataset.FieldValues['MotherName']: =edit5.Text;
if edit4.text<>" then
dataset.FieldValues['BirthPlace']: =edit4.Text;

dataset.FieldValues['BirthDate']: =datetimepicker1.Date;
if edit13.text<>" then
dataset.FieldValues['OsymNo']: =edit13.Text;
if edit12.text<>" then
dataset.FieldValues['Email']: =edit12.Text;

dataset.FieldValues['UpdateDate']: =Date;

if edit10.text<>" then
dataset.FieldValues['Phone']: =edit10.Text;
datetimepicker1.Enabled:=True;
dataset.FieldValues['UpdateUser']: =username;

dataset.Post;
messagedlg('The student recorded successfully !',mtwarning,[mbok],0);
clearing(sender);
disabling(sender);
invisibility(sender);
edit1.SetFocus;
end;

end
else
begin
messagedlg('Please Fill All The Required Fields !',mtwarning,[mbok],0);
edit2.SetFocus;

```

```
end;
end;

procedure Tfrm_updstd.Edit2KeyPress(Sender: TObject; var Key: Char);
begin
if not((uppercase(key) in ['A'..'Z'])or(key=#8) or (key=#13)) then
begin
key:=#0;
messagedlg('Please Enter a Character ',mtwarning,[mbok],0);
end
else
key:=uppercase(key);
end;

procedure Tfrm_updstd.Edit1KeyPress(Sender: TObject; var Key: Char);
begin
if not((key in ['0'..'9'])or(key=#8) or (key=#13)) then
begin
key:=#0;
messagedlg('Please Enter a Numeric Character ',mtwarning,[mbok],0);
end;
if key=#13 then
button5.Click;
end;

procedure Tfrm_updstd.Memo1KeyPress(Sender: TObject; var Key: Char);
begin
key:=uppercase(key);
end;

procedure Tfrm_updstd.Button6Click(Sender: TObject);
begin
frm_updstd.Close;
frm_password.Show;
end;

end.
```

## **unit Unit5;**

interface

uses

Windows, Messages, SysUtils, Variants, Classes, Graphics, Controls, Forms,  
Dialogs, Buttons, jpeg, ExtCtrls, StdCtrls;

type

Tfrm\_teacher = class(TForm)
Button1: TButton;
Button2: TButton;

```
Button3: TButton;
Image1: TImage;
Image2: TImage;
Label1: TLabel;
procedure Button3Click(Sender: TObject);
procedure formClose(Sender: TObject; var Action: TCloseAction);
procedure Button1Click(Sender: TObject);
procedure Button2Click(Sender: TObject);
procedure Button4Click(Sender: TObject);
private
  { Private declarations }
public
  { Public declarations }
end;

var
  frm_teacher: Tfrm_teacher;

implementation

uses Unit1, Unit6, Unit7, Unit26;

{$R *.dfm}

procedure Tfrm_teacher.Button3Click(Sender: TObject);
begin
  frm_main.show;
  frm_teacher.Close;
end;

procedure Tfrm_teacher.FormClose(Sender: TObject;
  var Action: TCloseAction);
begin
  frm_main.show;
end;

procedure Tfrm_teacher.Button1Click(Sender: TObject);
begin
  frm_addteacher.show;
  frm_teacher.Hide;
end;

procedure Tfrm_teacher.Button2Click(Sender: TObject);
begin
  frm_updteacher.show;
  frm_teacher.Hide;
end;

procedure Tfrm_teacher.Button4Click(Sender: TObject);
```

```
begin
  frm_teacher.Close;
  frm_main.Show;
end;
```

---

end.

**unit Unit6;**

interface

uses

Windows, Messages, SysUtils, Variants, Classes, Graphics, Controls, Forms,  
Dialogs, StdCtrls, ExtCtrls, DBCtrls, Mask, ComCtrls, jpeg;

type

```
Tfrm_addteacher = class(TForm)
  Image1: TImage;
  Label1: TLabel;
  Label2: TLabel;
  Label3: TLabel;
  Label5: TLabel;
  Label6: TLabel;
  Label7: TLabel;
  Label8: TLabel;
  Label9: TLabel;
  Label10: TLabel;
  Label14: TLabel;
  Label11: TLabel;
  Label12: TLabel;
  Label13: TLabel;
  Label17: TLabel;
  Button1: TButton;
  Button2: TButton;
  Edit1: TEdit;
  Edit2: TEdit;
  Edit3: TEdit;
  Edit4: TEdit;
  Edit5: TEdit;
  Edit6: TEdit;
  Memo1: TMemo;
  ComboBox1: TComboBox;
  ComboBox2: TComboBox;
  Button3: TButton;
  Button4: TButton;
  DateTimePicker1: TDateTimePicker;
  ComboBox3: TComboBox;
  Label15: TLabel;
  Label16: TLabel;
```

```
Label18: TLabel;
Button5: TButton;
Image2: TImage;
procedure FormClose(Sender: TObject; var Action: TCloseAction);
procedure Button2Click(Sender: TObject);
procedure Button1Click(Sender: TObject);
procedure FormShow(Sender: TObject);
procedure Button4Click(Sender: TObject);
procedure Button3Click(Sender: TObject);
procedure Edit2KeyPress(Sender: TObject; var Key: Char);
procedure Memo1KeyPress(Sender: TObject; var Key: Char);
procedure ComboBox3KeyDown(Sender: TObject; var Key: Word;
  Shift: TShiftState);
private
  { Private declarations }
public
  { Public declarations }
end;

var
  frm_addteacher: Tfrm_addteacher;

implementation

uses Unit5, Unit1, unit26;

{$R *.dfm}

procedure clearing(Sender:Tobject);
begin
  frm_addteacher.Edit2.Clear;
  frm_addteacher.Edit3.Clear;
  frm_addteacher.Edit4.Clear;
  frm_addteacher.Edit5.Clear;
  frm_addteacher.Edit6.Clear;
  frm_addteacher.DateTimePicker1.Date:=StrToDate('01/01/1970');
  frm_addteacher.combobox2.Clear;
  frm_addteacher.combobox2.Items.Clear;
  frm_addteacher.Memo1.Clear;
  frm_addteacher.combobox1.Clear;
  frm_addteacher.combobox1.Items.Clear;
  frm_addteacher.combobox3.Clear;
  frm_addteacher.combobox3.Items.Clear;
end;

procedure invisibility(Sender:Tobject);
begin
  frm_addteacher.Edit2.Visible:=false;
  frm_addteacher.Edit3.Visible:=false;
```

```
frm_addteacher.Edit4.Visible:=false;
frm_addteacher.Edit5.Visible:=false;
frm_addteacher.Edit6.Visible:=false;
frm_addteacher.DateTimePicker1.Visible:=false;
frm_addteacher.combobox2.Visible:=false;
frm_addteacher.memo1.Visible:=false;
frm_addteacher.combobox1.Visible:=false;
frm_addteacher.combobox3.Visible:=false;
```

```
end;
```

```
procedure visibility(Sender:Tobject);
```

```
begin
```

```
  frm_addteacher.Edit2.Visible:=true;
  frm_addteacher.Edit3.Visible:=true;
  frm_addteacher.Edit4.Visible:=true;
  frm_addteacher.Edit5.Visible:=true;
  frm_addteacher.Edit6.Visible:=true;
```

```
  frm_addteacher.DateTimePicker1.Visible:=true;
  frm_addteacher.memo1.Visible:=true;
  frm_addteacher.combobox1.Visible:=true;
  frm_addteacher.combobox2.Visible:=true;
  frm_addteacher.combobox3.Visible:=true;
```

```
end;
```

```
procedure enabling(Sender:Tobject);
```

```
begin
```

```
  frm_addteacher.edit2.enabled:=true;
  frm_addteacher.edit3.enabled:=true;
  frm_addteacher.edit4.enabled:=true;
  frm_addteacher.edit5.enabled:=true;
  frm_addteacher.edit6.enabled:=true;
```

```
  frm_addteacher.DateTimePicker1.enabled:=true;
  frm_addteacher.combobox1.enabled:=true;
  frm_addteacher.combobox2.enabled:=true;
  frm_addteacher.combobox3.enabled:=true;
  frm_addteacher.memo1.enabled:=true;
end;
```

```
procedure disabling(Sender:Tobject);
```

```
begin
```

```
  frm_addteacher.edit2.enabled:=true;
  frm_addteacher.edit3.enabled:=true;
  frm_addteacher.edit4.enabled:=true;
  frm_addteacher.edit5.enabled:=true;
  frm_addteacher.edit6.enabled:=true;
```

```
  frm_addteacher.DateTimePicker1.enabled:=false;
```

```

frm_addteacher.ComboBox1.Enabled:=true;
frm_addteacher.ComboBox2.Enabled:=true;
frm_addteacher.ComboBox3.Enabled:=true;
frm_addteacher.Memo1.Enabled:=true;
end;

procedure Tfrm_addteacher.FormClose(Sender: TObject;
  var Action: TCloseAction);
begin
  frm_teacher.show;
end;

procedure Tfrm_addteacher.Button2Click(Sender: TObject);
begin
  frm_main.show;
  frm_addteacher.Hide;
end;

procedure Tfrm_addteacher.Button1Click(Sender: TObject);
begin
  frm_teacher.Show;
  frm_addteacher.Hide;
end;

procedure Tfrm_addteacher.FormShow(Sender: TObject);
begin
  clearing(sender);
  edit1.ReadOnly:=true;
  edit2.SetFocus;
end;

with frm_main.ADOquery1 do
begin
  sql.clear;
  sql.Add('Select Max(TeacherId) as id from Teacher');
  open;
end;
edit1.Text:=IntToStr(frm_main.DataSource7.DataSet.FieldValues['id']+1);
comboBox1.Items.Add('Male');
comboBox1.Items.Add('Female');
comboBox2.Items.Add('Prof.Dr.');
comboBox2.Items.Add('Assoc.Prof.Dr.');
comboBox2.Items.Add('Asist.Prof.Dr.');
comboBox2.Items.Add('Teacher');
with frm_main.ADOquery1 do
begin
  sql.clear;
  sql.Add('Select DepartmentId from Department');
  open;
end;
frm_main.datasource7.DataSet.First;

```

```
while not frm_main.datasource7.DataSet.Eof do
begin
  combobox3.Items.Add(frm_main.datasource7.DataSet.FieldValues['DepartmentId']);
  frm_main.DataSource7.DataSet.Next;
end;

end;

procedure Tfrm_addteacher.Button4Click(Sender: TObject);
begin
  clearing(sender);
  edit2.SetFocus;
end;

procedure Tfrm_addteacher.Button3Click(Sender: TObject);
begin
if ((edit2.Text<>"")and(edit3.Text<>"")and(combobox2.Text<>"")and(combobox3.Text<>"))
then
begin
  with frm_main.DataSource3 do
  begin
    dataset.Edit;
    dataset.Append;
//  dataset.FieldValues['TeacherId]:=edit1.Text;
    if combobox1.text<>"" then
      dataset.FieldValues['Sex']:=(combobox1.Text);

    dataset.FieldValues['Tname]:=edit2.Text;

    dataset.FieldValues['Tsurname]:=edit3.Text;

    if combobox2.text<>"" then
      dataset.FieldValues['Title']:=(combobox2.Text);

    if combobox3.text<>"" then
      dataset.FieldValues['DepartmentId']:=(combobox3.Text);
    if memo1.Text<>"" then
      dataset.FieldValues['Address']:=(memo1.Text);
    if edit5.text<>"" then
      dataset.FieldValues['Gsm']:=(edit5.Text);
    if edit6.text<>"" then
      dataset.FieldValues['Email']:=(edit6.Text);
    if edit4.text<>"" then
      dataset.FieldValues['Phone']:=(edit4.Text);

    dataset.FieldValues['BirthDate']:=(datetimepicker1.Date);
```

```

dataset.FieldValues['ProcessDate]:=Date;
dataset.FieldValues['ProcessUser]:=username;

dataset.Post;
messagedlg('The Teacher recorded successfully !',mtwarning,[mbok],0);
clearing(sender);
edit2.SetFocus;
edit1.ReadOnly:=false;
with frm_main.ADOquery2 do
begin
  sql.clear;
  sql.Add('Select Max(TeacherId) as id from Teacher');
  open;
end;
// frm_main.DataSource7.DataSet:=frm_main.ADOQuery1;
edit1.Text:=IntToStr(frm_main.DataSource8.DataSet.FieldValues['id']+1);
edit1.ReadOnly:=true;
end;
else
begin
  messagedlg('Please Fill All The Required Fields !',mtwarning,[mbok],0);
  edit2.SetFocus;
end;
end;

procedure Tfrm_addteacher.Edit2KeyPress(Sender: TObject; var Key: Char);
begin
if not((upcase(key) in ['A'..'Z'])or(key=#8) or (key=#13)) then
begin
  key:=#0;
  messagedlg('Please Enter a Character ',mtwarning,[mbok],0);
end
else
  key:=upcase(key);
end;

procedure Tfrm_addteacher.Memo1KeyPress(Sender: TObject; var Key: Char);
begin
  key:=upcase(key);
end;

procedure Tfrm_addteacher.ComboBox3KeyDown(Sender: TObject; var Key: Word;
  Shift: TShiftState);
begin
if not((key=vk_down)or(key=vk_up)) then
  key:=vk_up;
end;

```

end.

---

**unit Unit7;**

interface

uses

Windows, Messages, SysUtils, Variants, Classes, Graphics, Controls, Forms,  
Dialogs, StdCtrls, ExtCtrls, DBCtrls, Mask, ComCtrls, jpeg;

type

Tfrm\_updteacher = class(TForm)

  Image1: TImage;

  Label1: TLabel;

  Label2: TLabel;

  Label3: TLabel;

  Label5: TLabel;

  Label6: TLabel;

  Label7: TLabel;

  Label8: TLabel;

  Label9: TLabel;

  Label10: TLabel;

  Label4: TLabel;

  Label11: TLabel;

  Label12: TLabel;

  Label13: TLabel;

  Label14: TLabel;

  Label16: TLabel;

  Label17: TLabel;

  Label15: TLabel;

  Label18: TLabel;

  Label23: TLabel;

  Label24: TLabel;

  Button1: TButton;

  Button2: TButton;

  Edit1: TEdit;

  Edit2: TEdit;

  Edit3: TEdit;

  Edit4: TEdit;

  Edit5: TEdit;

  Edit6: TEdit;

  Memo1: TMemo;

  ComboBox1: TComboBox;

  ComboBox2: TComboBox;

  Button3: TButton;

  Button4: TButton;

  DateTimePicker1: TDateTimePicker;

  ComboBox3: TComboBox;

  Edit7: TEdit;

  Edit8: TEdit;

```
Button5: TButton;
Label19: TLabel;
Label20: TLabel;
Button6: TButton;
Image2: TImage;
procedure FormClose(Sender: TObject; var Action: TCloseAction);
procedure Button1Click(Sender: TObject);
procedure Button2Click(Sender: TObject);
procedure Edit1KeyPress(Sender: TObject; var Key: Char);
procedure FormShow(Sender: TObject);
procedure Button5Click(Sender: TObject);
procedure Button4Click(Sender: TObject);
procedure Button3Click(Sender: TObject);
procedure Edit2KeyPress(Sender: TObject; var Key: Char);
procedure Memo1KeyPress(Sender: TObject; var Key: Char);
```

```
private
  { Private declarations }
public
  { Public declarations }
end;
```

```
var
  frm_updteacher: Tfrm_updteacher;
```

implementation

```
uses Unit1, Unit5, unit26;
```

```
{$R *.dfm}
```

```
procedure clearing(Sender:Tobject);
begin
  frm_updteacher.Edit1.Clear;
  frm_updteacher.Edit2.Clear;
  frm_updteacher.Edit3.Clear;
  frm_updteacher.Edit4.Clear;
  frm_updteacher.Edit5.Clear;
  frm_updteacher.Edit6.Clear;
  frm_updteacher.Edit7.Clear;
  frm_updteacher.Edit8.Clear;
  frm_updteacher.DateTimePicker1.Date:=StrToDate('01/01/1970');
  frm_updteacher.combobox2.Clear;
  frm_updteacher.combobox2.Items.Clear;
  frm_updteacher.Memo1.Clear;
  frm_updteacher.combobox1.Clear;
  frm_updteacher.combobox1.Items.Clear;
  frm_updteacher.combobox3.Clear;
  frm_updteacher.combobox3.Items.Clear;
  frm_updteacher.Label23.Caption:="";
```

```
frm_updteacher.Label24.Caption:="";
end;
procedure invisibility(Sender:Tobject);
begin
  frm_updteacher.Edit4.Visible:=false;
  frm_updteacher.Edit5.Visible:=false;
  frm_updteacher.Edit6.Visible:=false;
  frm_updteacher.Edit7.Visible:=false;
  frm_updteacher.Edit8.Visible:=false;
  frm_updteacher.DateTimePicker1.Visible:=false;
  frm_updteacher.comboBox2.Visible:=false;
  frm_updteacher.memo1.Visible:=false;
  frm_updteacher.comboBox1.Visible:=false;
  frm_updteacher.comboBox3.visible:=false;
end;
procedure visibility(Sender:Tobject);
begin
  frm_updteacher.Edit4.Visible:=true;
  frm_updteacher.Edit5.Visible:=true;
  frm_updteacher.Edit6.Visible:=true;
  frm_updteacher.Edit7.Visible:=true;
  frm_updteacher.Edit8.Visible:=true;
  frm_updteacher.DateTimePicker1.Visible:=true;
  frm_updteacher.memo1.Visible:=true;
  frm_updteacher.comboBox1.Visible:=true;
  frm_updteacher.comboBox2.Visible:=true;
  frm_updteacher.comboBox3.visible:=true;
end;
procedure enabling(Sender:Tobject);
begin
  frm_updteacher.edit4.enabled:=true;
  frm_updteacher.edit5.enabled:=true;
  frm_updteacher.edit6.enabled:=true;
  frm_updteacher.edit7.enabled:=true;
  frm_updteacher.edit8.enabled:=true;
  frm_updteacher.DateTimePicker1.enabled:=true;
  frm_updteacher.comboBox1.enabled:=true;
  frm_updteacher.comboBox2.enabled:=true;
  frm_updteacher.comboBox3.enabled:=true;
  frm_updteacher.memo1.enabled:=true;
  frm_updteacher.Button3.Enabled:=true;

```

```
frm_updteacher.Button4.Enabled:=true;
end;

procedure disabling(Sender:Tobject);
begin

frm_updteacher.edit4.enabled:=false;
frm_updteacher.edit5.enabled:=false;
frm_updteacher.edit6.enabled:=false;
frm_updteacher.edit7.enabled:=false;
frm_updteacher.edit8.enabled:=false;
frm_updteacher.DateTimePicker1.enabled:=false;
frm_updteacher.combobox1.enabled:=false;
frm_updteacher.combobox2.enabled:=false;
frm_updteacher.combobox3.enabled:=false;
frm_updteacher.memo1.enabled:=false;
frm_updteacher.Button3.Enabled:=false;
frm_updteacher.Button4.Enabled:=false;
end;

procedure Tfirm_updteacher.FormClose(Sender: TObject; var Action: TCloseAction);
begin
  frm_main.Show;
end;

procedure Tfrm_updteacher.Button1Click(Sender: TObject);
begin
  frm_teacher.show;
  frm_updteacher.Hide;
end;

procedure Tfirm_updteacher.Button2Click(Sender: TObject);
begin
  frm_updteacher.Hide;
  frm_main.Show;
end;

procedure Tfirm_updteacher.Edit1KeyPress(Sender: TObject; var Key: Char);
begin
  if key=#13 then
    edit1.OnExit(SENDER);
end;

procedure Tfrm_updteacher.FormShow(Sender: TObject);
begin
  clearing(sender);
  disabling(sender);
  invisibility(sender);
  edit1.SetFocus;
end;
```

```

procedure Tfrm_updteacher.Button5Click(Sender: TObject);
begin
if
((edit1.Text<>"")and(((edit2.text="")and(edit3.text=""))or((edit2.text<>")and(edit3.text=""))or((edit2.text="")and(edit3.text<>")))) then
begin
combobox1.Items.Add('Male');
combobox1.Items.Add('Female');
combobox2.Items.Add('Prof.Dr.');
combobox2.Items.Add('Assoc.Prof.Dr.');
combobox2.Items.Add('Asist.Prof.Dr.');
combobox2.Items.Add('Teacher');
with frm_main.ADOquery1 do
begin
sql.clear;
sql.Add('Select DepartmentId from Department');
open;
end;
frm_main.datasource7.DataSet.First;
while not frm_main.datasource7.DataSet.Eof do
begin
combobox3.Items.Add(frm_main.datasource7.DataSet.FieldValues['DepartmentId']);
frm_main.DataSource7.DataSet.Next;
end;

with frm_main.ADOquery1 do
begin
sql.clear;
sql.Add('Select * from Teacher where teacherId='+edit1.text);
open;
end;

if frm_main.DataSource7.DataSet.RecordCount>0 then
begin
visibility(sender);
enabling(sender);
if frm_main.DataSource7.DataSet.FieldValues['Tname']<>null then
edit4.Text:=frm_main.DataSource7.DataSet.FieldValues['Tname'];
if frm_main.DataSource7.DataSet.FieldValues['Tsurname']<>null then
edit5.Text:=frm_main.DataSource7.DataSet.FieldValues['Tsurname'];
if frm_main.DataSource7.DataSet.FieldValues['Phone']<>null then
edit6.Text:=frm_main.DataSource7.DataSet.FieldValues['phone'];
if frm_main.DataSource7.DataSet.FieldValues['Gsm']<>null then
edit7.Text:=frm_main.DataSource7.DataSet.FieldValues['Gsm'];
if frm_main.DataSource7.DataSet.FieldValues['Email']<>null then
edit8.Text:=frm_main.DataSource7.DataSet.FieldValues['Email'];
if frm_main.DataSource7.DataSet.FieldValues['BirthDate']<>null then
datetimepicker1.Date:=frm_main.DataSource7.DataSet.FieldValues['BirthDate'];
if frm_main.DataSource7.DataSet.FieldValues['Sex']<>null then

```

```

combobox1.Text:=frm_main.DataSource7.DataSet.FieldValues['Sex'];
if frm_main.DataSource7.DataSet.FieldValues['Title']<>null then
  combobox2.Text:=frm_main.DataSource7.DataSet.FieldValues['Title'];
if frm_main.DataSource7.DataSet.FieldValues['DepartmentId']<>null then
  combobox3.Text:=frm_main.DataSource7.DataSet.FieldValues['DepartmentId'];
if frm_main.DataSource7.DataSet.FieldValues['Address']<>null then
  memo1.Text:=frm_main.DataSource7.DataSet.FieldValues['Address'];

if frm_main.DataSource7.DataSet.FieldValues['ProcessUser']<>null then
  label23.Caption:='The Teacher Is Recorded At
'+DatetoStr(frm_main.DataSource7.DataSet.FieldValues['ProcessDate'])+' By
'+frm_main.DataSource7.DataSet.FieldValues['ProcessUser'];
  if frm_main.DataSource7.DataSet.FieldValues['UpdateUser']<>null then
    label24.Caption:='The Teacher Record Was last Updated At
'+DatetoStr(frm_main.DataSource7.DataSet.FieldValues['UpdateDate'])+' By
'+frm_main.DataSource7.DataSet.FieldValues['UpdateUser'];

edit4.SetFocus;
edit1.ReadOnly:=true;
edit2.ReadOnly:=true;
edit3.ReadOnly:=true;
end
else
begin
  messagedlg('Teacher Id is not found!!',mtinformation,[mbok],0);
  clearing(sender);
  edit1.SetFocus;
end;

end
else
begin
  if((edit1.text="")and((edit2.Text<>"")and(edit3.Text<>""))) then
    begin
      combobox1.Items.Add('Male');
      combobox1.Items.Add('Female');
      combobox2.Items.Add('Prof.Dr.');
      combobox2.Items.Add('Assoc.Prof.Dr.');
      combobox2.Items.Add('Asist.Prof.Dr.');
      combobox2.Items.Add('Teacher');
      with frm_main.ADOquery1 do
        begin
          sql.clear;
          sql.Add('Select DepartmentId from Department');
          open;
        end;
      frm_main.datasource7.DataSet.First;
      while not frm_main.datasource7.DataSet.Eof do
        begin

```

```

checkbox3.Items.Add(frm_main.datasource7.DataSet.FieldValues['DepartmentId']);
frm_main.DataSource7.DataSet.Next;
end;

with frm_main.ADOquery1 do
begin
  sql.clear;
  sql.Add('Select * from Teacher where Tname="'+edit2.text+'" and
Tsurname="'+edit3.Text+'");
  open;
end;

if frm_main.DataSource7.DataSet.RecordCount>0 then
begin
  visibility(sender);
  enabling(sender);

  edit1.Text:=IntToStr(frm_main.DataSource7.DataSet.FieldValues['TeacherId']);
  if frm_main.DataSource7.DataSet.FieldValues['Tname']<>null then
    edit4.Text:=frm_main.DataSource7.DataSet.FieldValues['Tname'];
  if frm_main.DataSource7.DataSet.FieldValues['Tsurname']<>null then
    edit5.Text:=frm_main.DataSource7.DataSet.FieldValues['Tsurname'];
  if frm_main.DataSource7.DataSet.FieldValues['Phone']<>null then
    edit6.Text:=frm_main.DataSource7.DataSet.FieldValues['phone'];
  if frm_main.DataSource7.DataSet.FieldValues['Gsm']<>null then
    edit7.Text:=frm_main.DataSource7.DataSet.FieldValues['Gsm'];
  if frm_main.DataSource7.DataSet.FieldValues['Email']<>null then
    edit8.Text:=frm_main.DataSource7.DataSet.FieldValues['Email'];
  if frm_main.DataSource7.DataSet.FieldValues['BirthDate']<>null then
    datetimepicker1.Date:=frm_main.DataSource7.DataSet.FieldValues['BirthDate'];
  if frm_main.DataSource7.DataSet.FieldValues['Sex']<>null then
    checkbox1.Text:=frm_main.DataSource7.DataSet.FieldValues['Sex'];
  if frm_main.DataSource7.DataSet.FieldValues['Title']<>null then
    checkbox2.Text:=frm_main.DataSource7.DataSet.FieldValues['Title'];
  if frm_main.DataSource7.DataSet.FieldValues['DepartmentId']<>null then
    checkbox3.Text:=frm_main.DataSource7.DataSet.FieldValues['DepartmentId'];
  if frm_main.DataSource7.DataSet.FieldValues['Address']<>null then
    memo1.Text:=frm_main.DataSource7.DataSet.FieldValues['Address'];

  if frm_main.DataSource7.DataSet.FieldValues['ProcessUser']<>null then
    label23.Caption:='The Teacher Is Recorded At
'+DatetoStr(frm_main.DataSource7.DataSet.FieldValues['ProcessDate'])+' By
'+frm_main.DataSource7.DataSet.FieldValues['ProcessUser'];
    if frm_main.DataSource7.DataSet.FieldValues['UpdateUser']<>null then
      label24.Caption:='The Teacher Record Was last Updated At
'+DatetoStr(frm_main.DataSource7.DataSet.FieldValues['UpdateDate'])+' By
'+frm_main.DataSource7.DataSet.FieldValues['UpdateUser'];

  edit4.SetFocus;
  edit1.ReadOnly:=true;

```

```

edit2.ReadOnly:=true;
edit3.ReadOnly:=true;
end
else
begin
messagedlg('Teacher Name and Surname are not found!!',mtinformation,[mbok],0);
clearing(sender);
edit1.SetFocus;
edit1.ReadOnly:=FALSE;
edit2.ReadOnly:=FALSE;
edit3.ReadOnly:=FALSE;
end;

end
else
begin
messagedlg('Please Enter Teacher ID or Teacher Name And Surname
!',mtinformation,[mbok],0);
edit1.SetFocus;
clearing(sender);

end;
end;

procedure Tfrm_updteacher.Button4Click(Sender: TObject);
begin
clearing(sender);
disabling(sender);
invisibility(sender);
edit1.SetFocus;
edit1.ReadOnly:=false;
edit2.ReadOnly:=false;
edit3.ReadOnly:=false;
end;

procedure Tfrm_updteacher.Button3Click(Sender: TObject);
begin
if ((edit4.Text<>"")and(edit5.Text<>"")and(comboBox2.Text<>"")and(comboBox3.Text<>"))
then
begin
with frm_main.ADOquery1 do
begin
sql.clear;
sql.Add('Select * from Teacher where TeacherId='+edit1.text);
open;
end;
with frm_main.DataSource7 do

```

```

begin
edit1.ReadOnly:=false;
edit2.ReadOnly:=false;
edit3.ReadOnly:=false;

dataset.Edit;

if combobox1.text<>" then
  dataset.FieldValues['sex']:={combobox1.Text};
  dataset.FieldValues['Tname']:={edit4.Text};
  dataset.FieldValues['Tsurname']:={edit5.Text};
if combobox2.text<>" then
  dataset.FieldValues['Title']:={combobox2.Text};
if combobox3.text<>" then
  dataset.FieldValues['DepartmentId']:={combobox3.Text};
if memo1.Text<>" then
  dataset.FieldValues['Address']:={memo1.Text};
if edit7.text<>" then
  dataset.FieldValues['Gsm']:={edit7.Text};
if edit8.text<>" then
  dataset.FieldValues['Email']:={edit8.Text};

dataset.FieldValues['BirthDate']:={Datetimepicker1.Date};

if edit6.text<>" then
  dataset.FieldValues['Phone']:={edit6.Text};
  datetimetype1.Enabled:=True;
  dataset.FieldValues['UpdateUser']:={username};
  dataset.FieldValues['UpdateDate']:={Date};

dataset.Post;
messagedlg('The Teacher Information Recorded successfully !',mtInformation,[mbok],0);
clearing(sender);
disabling(sender);
invisibility(sender);
edit1.SetFocus;
end;

end
else
begin
messagedlg('Please Fill All The Required Fields !',mtwarning,[mbok],0);
edit4.SetFocus;
end;
end;

procedure Tfrm_updteacher.Edit2KeyPress(Sender: TObject; var Key: Char);
begin
if not((upcase(key) in ['A'..'Z'])or(key=#8) or (key=#13)) then
begin

```

```
key:=#0;
messagedlg('Please Enter a Character ',mtwarning,[mbok],0);
end
else
key:=upcase(key);
end;

procedure Tfrm_updteacher.Memo1KeyPress(Sender: TObject; var Key: Char);
begin
key:=upcase(key);
end;
end.
```

## unit Unit8;

interface

uses

Windows, Messages, SysUtils, Variants, Classes, Graphics, Controls, Forms,  
Dialogs, Buttons, ExtCtrls, StdCtrls, jpeg;

type

```
Tfrm_course = class(TForm)
Image1: TImage;
Button1: TButton;
Button2: TButton;
Button3: TButton;
Label1: TLabel;
Image2: TImage;
```

```
procedure Button3Click(Sender: TObject);
procedure Button1Click(Sender: TObject);
procedure Button2Click(Sender: TObject);
```

private

```
{ Private declarations }
```

public

```
{ Public declarations }
```

end;

var

```
frm_course: Tfrm_course;
```

implementation

uses Unit1, Unit9, Unit10;

```
{$R *.dfm}
```

```
procedure Tfrm_course.Button3Click(Sender: TObject);
begin
  frm_main.show;
  frm_course.Close;
end;

procedure Tfrm_course.Button1Click(Sender: TObject);
begin
  frm_adcourse.show;
  frm_course.Close;
end;

procedure Tfrm_course.Button2Click(Sender: TObject);
begin
  frm_updcourse.show;
  frm_course.Close;
end;

end.
```

**unit Unit9;**

**interface**

**uses**

Windows, Messages, SysUtils, Variants, Classes, Graphics, Controls, Forms,  
Dialogs, ExtCtrls, DBCtrls, StdCtrls, Mask, jpeg, Grids, DBGrids,  
ComCtrls, DB, ADODB;

**type**

Tfrm\_adcourse = class(TForm)

Image1: TImage;  
 Label1: TLabel;  
 Label2: TLabel;  
 Label3: TLabel;  
 Label4: TLabel;  
 Label5: TLabel;  
 Label6: TLabel;  
 Label7: TLabel;  
 Button1: TButton;  
 Button2: TButton;  
 Edit1: TEdit;  
 Edit2: TEdit;  
 Edit3: TEdit;  
 ComboBox1: TComboBox;  
 ComboBox2: TComboBox;  
 ComboBox3: TComboBox;  
 Button3: TButton;

```
Button4: TButton;
DBGrid1: TDBGrid;
ADOTable1: ADOTable;
DBGrid2: TDBGrid;
DataSource1: TDataSource;
Label8: TLabel;
Image2: TImage;
Label9: TLabel;
Label10: TLabel;
Button5: TButton;
procedure FormClose(Sender: TObject; var Action: TCloseAction);
procedure Button1Click(Sender: TObject);
procedure Button2Click(Sender: TObject);
procedure FormShow(Sender: TObject);
procedure ComboBox1Exit(Sender: TObject);
procedure Button4Click(Sender: TObject);
procedure Button3Click(Sender: TObject);
private
  { Private declarations }
public
  { Public declarations }
end;

var
  frm_addcourse: Tfrm_addcourse;

implementation

uses Unit8, Unit1, unit26;

{$R *.dfm}

procedure clearing(Sender:Tobject);
begin
  frm_addcourse.Edit2.Clear;
  frm_addcourse.Edit3.Clear;
  frm_addcourse.Edit1.Clear;
  frm_addcourse.combobox2.Clear;
  frm_addcourse.combobox2.Items.Clear;

  frm_addcourse.combobox1.Clear;
  frm_addcourse.combobox1.Items.Clear;
  frm_addcourse.combobox3.Clear;
  frm_addcourse.combobox3.Items.Clear;

  frm_addcourse.combobox3.Items.Add(inttostr(0));
  frm_addcourse.combobox3.Items.Add(Inttostr(1));
  frm_addcourse.combobox3.Items.Add(Inttostr(2));
  frm_addcourse.combobox3.Items.Add(Inttostr(3));
  frm_addcourse.combobox3.Items.Add(Inttostr(4));
```

```
frm_addcourse.comboBox3.Items.Add(Inttostr(5));
frm_addcourse.comboBox3.Items.Add(Inttostr(6));
```

```
end;
```

```
procedure invisibility(Sender:Tobject);
begin
  frm_addcourse.Edit2.Visible:=false;
  frm_addcourse.Edit3.Visible:=false;
  frm_addcourse.Edit1.Visible:=false;
  frm_addcourse.comboBox2.Visible:=false;
  frm_addcourse.comboBox1.Visible:=false;
  frm_addcourse.comboBox3.Visible:=false;
```

```
end;
```

```
procedure visibility(Sender:Tobject);
begin
  frm_addcourse.Edit2.Visible:=true;
  frm_addcourse.Edit3.Visible:=true;
  frm_addcourse.Edit1.Visible:=true;
  frm_addcourse.comboBox1.Visible:=true;
  frm_addcourse.comboBox2.Visible:=true;
  frm_addcourse.comboBox3.Visible:=true;
end;
```

```
procedure enabling(Sender:Tobject);
begin
  frm_addcourse.edit2.enabled:=true;
  frm_addcourse.edit3.enabled:=true;
  frm_addcourse.edit1.enabled:=true;
  frm_addcourse.comboBox1.enabled:=true;
  frm_addcourse.comboBox2.enabled:=true;
  frm_addcourse.comboBox3.enabled:=true;
```

```
end;
```

```
procedure disabling(Sender:Tobject);
begin
  frm_addcourse.edit2.enabled:=false;
  frm_addcourse.edit3.enabled:=false;
// frm_addcourse.edit1.enabled:=false;
  frm_addcourse.comboBox1.enabled:=false;
  frm_addcourse.comboBox2.enabled:=false;
  frm_addcourse.comboBox3.enabled:=false;
end;
```

```

procedure Tfrm_addcourse.FormClose(Sender: TObject;
  var Action: TCloseAction);
begin
  frm_course.Show;
end;

procedure Tfrm_addcourse.Button1Click(Sender: TObject);
begin
  frm_addcourse.Close;
end;

procedure Tfrm_addcourse.Button2Click(Sender: TObject);
begin
  frm_main.Show;
end;

procedure Tfrm_addcourse.FormShow(Sender: TObject);
begin
  clearing(sender);
  // disabling(sender);
  edit1.SetFocus;
  with frm_main.ADOquery1 do
    begin
      sql.clear;
      sql.Add('Select DepartmentId from Department');
      open;
    end;
  frm_main.datasource7.DataSet.First;
  while not frm_main.datasource7.DataSet.Eof do
    begin
      combobox1.Items.Add(frm_main.datasource7.DataSet.FieldValues['DepartmentId']);
      frm_main.DataSource7.DataSet.Next;
    end;
  end;

procedure Tfrm_addcourse.ComboBox1Exit(Sender: TObject);
begin
  with frm_main.ADOquery4 do
    begin
      sql.clear;
      sql.Add('Select TeacherId,Tname+'+Tsurname As [Teacher Name&Surname] from
      Teacher where DepartmentId="'+combobox1.Text+'"');
      open;
    end;

```

```

end;

dbgrid1.DataSource:=frm_main.DataSource10;
combobox2.Items.Clear;
frm_main.datasource10.DataSet.First;
while not frm_main.datasource10.DataSet.Eof do
begin
  combobox2.Items.Add(frm_main.datasource10.DataSet.FieldValues['TeacherId']);
  frm_main.DataSource10.DataSet.Next;
end;

end;

procedure Tfrm_addcourse.Button4Click(Sender: TObject);
begin
  clearing(sender);
  with frm_main.ADOquery1 do
  begin
    sql.clear;
    sql.Add('Select DepartmentId from Department');
    open;
  end;
  frm_main.datasource7.DataSet.First;
  while not frm_main.datasource7.DataSet.Eof do
  begin
    combobox1.Items.Add(frm_main.datasource7.DataSet.FieldValues['DepartmentId']);
    frm_main.DataSource7.DataSet.Next;
  end;
  edit1.SetFocus;
  dbgrid1.DataSource:=frm_main.DataSource13;
  dbgrid1.Repaint;
end;

procedure Tfrm_addcourse.Button3Click(Sender: TObject);
begin
  with frm_main.ADOquery3 do
  begin
    sql.clear;
    sql.Add('Select CourseCode from course where coursecode="'+edit1.text+'"');
    open;
  end;
  if frm_main.DataSource9.DataSet.RecordCount=0 then
  begin
    if
      ((edit2.Text<>"")and(edit3.Text<>"")and(combobox1.Text<>"")and(combobox2.Text<>"")and(co
mbobox3.Text<>"")) then
    begin
      with frm_main.DataSource6 do
      begin
        dataset.Edit;
      end;
    end;
  end;
end;

```

```

dataset.Append;
dataset.FieldValues['Coursecode]:=edit1.Text;
if combobox1.text<>" then
  dataset.FieldValues['DepartmentId]:=combobox1.Text;

dataset.FieldValues['Coursesname]:=edit2.Text;

dataset.FieldValues['Coursecontent]:=edit3.Text;

if combobox2.text<>" then
  dataset.FieldValues['TeacherId]:=StrToint(combobox2.Text);

if combobox3.text<>" then
  dataset.FieldValues['Credit]:=Strtoint(combobox3.Text);
  dataset.FieldValues['ProcessDate]:=Date;
  dataset.FieldValues['ProcessUser]:=username;

dataset.Post;
messagedlg('The Course recorded successfully !',mtwarning,[mbok],0);
clearing(sender);
edit1.SetFocus;

with frm_main.ADOquery1 do
begin
  sql.clear;
  sql.Add('Select DepartmentId from Department');
  open;
end;
frm_main.datasource7.DataSet.First;
while not frm_main.datasource7.DataSet.Eof do
begin
  combobox1.Items.Add(frm_main.datasource7.DataSet.FieldValues['DepartmentId']);
  frm_main.DataSource7.DataSet.Next;
end;
end;
end
else
begin
  messagedlg('Please Fill All The Required Fields !',mtwarning,[mbok],0);
  edit2.SetFocus;
end;

end
else
begin
  messagedlg('This Course Is Already Recorded !',mtwarning,[mbok],0);
  edit1.SetFocus;
end;

end;

```

end.

---

**unit Unit10;**

interface

uses

Windows, Messages, SysUtils, Variants, Classes, Graphics, Controls, Forms,  
Dialogs, StdCtrls, DBCtrls, ExtCtrls, Mask, Grids, DBGrids, ComCtrls,  
jpeg;

type

Tfrm\_updcourse = class(TForm)  
    Image1: TImage;  
    Label15: TLabel;  
    Label2: TLabel;  
    Label3: TLabel;  
    Label4: TLabel;  
    Label5: TLabel;  
    Label6: TLabel;  
    Label7: TLabel;  
    Button1: TButton;  
    Button2: TButton;  
    Edit1: TEdit;  
    Edit2: TEdit;  
    Edit3: TEdit;  
    Button3: TButton;  
    Button4: TButton;  
    DBGrid1: TDBGrid;  
    ComboBox1: TComboBox;  
    ComboBox2: TComboBox;  
    ComboBox3: TComboBox;  
    Button5: TButton;  
    Button6: TButton;  
    DBGrid2: TDBGrid;  
    Label1: TLabel;  
    Label9: TLabel;  
    Label10: TLabel;  
    Image2: TImage;  
    procedure FormClose(Sender: TObject; var Action: TCloseAction);  
    procedure Button1Click(Sender: TObject);  
    procedure Button2Click(Sender: TObject);  
    procedure Button4Click(Sender: TObject);  
    procedure FormShow(Sender: TObject);  
    procedure Button5Click(Sender: TObject);  
    procedure ComboBox1Exit(Sender: TObject);  
    procedure ComboBox3Click(Sender: TObject);  
    procedure Button3Click(Sender: TObject);  
private

```
{ Private declarations }
public
{ Public declarations }
end;

var
frm_updcourse: Tfrm_updcourse;

implementation

uses Unit1, Unit8, unit26, Unit9;

{$R *.dfm}

procedure clearing(Sender:Tobject);
begin
frm_updcourse.Edit2.Clear;
frm_updcourse.Edit3.Clear;
frm_updcourse.Edit1.Clear;
frm_updcourse.combobox2.Clear;
frm_updcourse.combobox2.Items.Clear;
frm_updcourse.Edit1.readonly:=false;
frm_updcourse.Button3.Enabled:=false;

frm_updcourse.combobox1.Clear;
frm_updcourse.combobox1.Items.Clear;
frm_updcourse.combobox3.Clear;
frm_updcourse.combobox3.Items.Clear;

frm_updcourse.combobox3.Items.Add(inttostr(0));
frm_updcourse.combobox3.Items.Add(Inttostr(1));
frm_updcourse.combobox3.Items.Add(Inttostr(2));
frm_updcourse.combobox3.Items.Add(Inttostr(3));
frm_updcourse.combobox3.Items.Add(Inttostr(4));
frm_updcourse.combobox3.Items.Add(Inttostr(5));
frm_updcourse.combobox3.Items.Add(Inttostr(6));
frm_updcourse.dbgrid1.DataSource:=firm_main.DataSource13;
frm_updcourse.dbgrid1.repaint;

end;

procedure invisibility(Sender:Tobject);
begin
frm_updcourse.Edit2.Visible:=false;
frm_updcourse.Edit3.Visible:=false;
frm_updcourse.Edit1.Visible:=false;
frm_updcourse.combobox2.Visible:=false;
frm_updcourse.combobox1.Visible:=false;
frm_updcourse.combobox3.Visible:=false;
```

```
end;

procedure visibility(Sender:Tobject);
begin
  frm_updcourse.Edit2.Visible:=true;
  frm_updcourse.Edit3.Visible:=true;
  frm_updcourse.Edit1.Visible:=true;
  frm_updcourse.combobox1.Visible:=true;
  frm_updcourse.combobox2.Visible:=true;
  frm_updcourse.combobox3.Visible:=true;
end;

procedure enabling(Sender:Tobject);
begin
  frm_updcourse.edit2.enabled:=true;
  frm_updcourse.edit3.enabled:=true;
  frm_updcourse.edit1.enabled:=true;
  frm_updcourse.combobox1.enabled:=true;
  frm_updcourse.combobox2.enabled:=true;
  frm_updcourse.combobox3.enabled:=true;
end;

procedure disabling(Sender:Tobject);
begin
  frm_updcourse.edit2.enabled:=false;
  frm_updcourse.edit3.enabled:=false;
  frm_addcourse.edit1.enabled:=TRUE;
  frm_updcourse.combobox1.enabled:=false;
  frm_updcourse.combobox2.enabled:=false;
  frm_updcourse.combobox3.enabled:=false;
end;

procedure Tfrm_updcourse.FormClose(Sender: TObject;
  var Action: TCloseAction);
begin
  frm_course.show;
end;

procedure Tfrm_updcourse.Button1Click(Sender: TObject);
begin
  frm_course.show;
  frm_updcourse.Hide;
end;

procedure Tfrm_updcourse.Button2Click(Sender: TObject);
```

```

begin
  frm_updcourse.Hide;
  frm_main.Show;
end;

procedure Tfrm_updcourse.Button4Click(Sender: TObject);
begin
  frm_updcourse.Edit2.Clear;
  frm_updcourse.Edit3.Clear;
  frm_updcourse.Edit1.Clear;
  frm_updcourse.combobox2.Clear;
  frm_updcourse.combobox2.Items.Clear;
  frm_updcourse.Edit1.Enabled:=true;
  frm_updcourse.Button3.Enabled:=false;

  frm_updcourse.combobox1.Clear;
  frm_updcourse.combobox1.Items.Clear;
  frm_updcourse.combobox3.Clear;
  frm_updcourse.combobox3.Items.Clear;

  frm_updcourse.combobox3.Items.Add(inttostr(0));
  frm_updcourse.combobox3.Items.Add(Inttostr(1));
  frm_updcourse.combobox3.Items.Add(Inttostr(2));
  frm_updcourse.combobox3.Items.Add(Inttostr(3));
  frm_updcourse.combobox3.Items.Add(Inttostr(4));
  frm_updcourse.combobox3.Items.Add(Inttostr(5));
  frm_updcourse.combobox3.Items.Add(Inttostr(6));
with frm_main.ADOquery1 do
begin
  sql.clear;
  sql.Add('Select DepartmentId from Department');
  open;
end;
frm_main.datasource7.DataSet.First;
while not frm_main.datasource7.DataSet.Eof do
begin
  combobox1.Items.Add(frm_main.datasource7.DataSet.FieldValues['DepartmentId']);
  frm_main.DataSource7.DataSet.Next;
end;
edit1.SetFocus;
dbgrid1.DataSource:=frm_main.DataSource13;
dbgrid1.Repaint;
Disabling(sender);
end;

procedure Tfrm_updcourse.FormShow(Sender: TObject);
begin
  clearing(sender);
  edit1.SetFocus;
  Disabling(sender);

```

```

with frm_main.ADOquery1 do
begin
sql.clear;
sql.Add('Select DepartmentId from Department');
open;
end;
frm_main.datasource7.DataSet.First;
while not frm_main.datasource7.DataSet.Eof do
begin
combobox1.Items.Add(frm_main.datasource7.DataSet.FieldValues['DepartmentId']);
frm_main.DataSource7.DataSet.Next;
end;
end;

procedure Tfrm_updcourse.Button5Click(Sender: TObject);
begin
with frm_main.ADOquery3 do
begin
sql.clear;
sql.Add('Select * from course where coursecode="'+edit1.text+'"');
open;
end;
if frm_main.DataSource9.DataSet.RecordCount<>0 then
begin
enabling(sender);
button3.Enabled:=true;
with frm_main.ADOquery4 do
begin
sql.clear;
sql.Add('Select TeacherId,Tname+' "+Tsurname As [Teacher Name&Surname] from
Teacher where
DepartmentId="'+frm_main.DataSource9.DataSet.FieldValues['DepartmentId']+\"");
open;
end;

dbgrid1.DataSource:=frm_main.DataSource10;
combobox2.Items.Clear;
frm_main.datasource10.DataSet.First;
while not frm_main.datasource10.DataSet.Eof do
begin
combobox2.Items.Add(frm_main.datasource10.DataSet.FieldValues['TeacherId']);
frm_main.DataSource10.DataSet.Next;
end;
edit1.ReadOnly:=true;
with frm_main.DataSource9 do
begin
edit2.Text:=dataset.FieldValues['Coursename'];
edit3.Text:=dataset.FieldValues['Coursecontent'];
combobox1.Text:=dataset.FieldValues['departmentId'];
combobox2.Text:=inttostr(dataset.FieldValues['TeacherId']);

```

```

combobox3.Text:=inttostr(dataset.FieldValues['credit']);
end;

end
else
begin
messagedlg('The Course Is Not Found!',mtwarning,[mbok],0);
clearing(sender);
edit1.SetFocus;

end;

end;

procedure Tfrm_updcourse.ComboBox1Exit(Sender: TObject);
begin
with frm_main.ADOquery4 do
begin
sql.clear;
sql.Add('Select TeacherId,Tname+" "+Tsurname As [Teacher Name&Surname] from
Teacher where DepartmentId="'+combobox1.Text+'"');
open;
end;

dbgrid1.DataSource:=frm_main.DataSource10;
combobox2.Items.Clear;
frm_main.datasource10.DataSet.First;
while not frm_main.datasource10.DataSet.Eof do
begin
combobox2.Items.Add(frm_main.datasource10.DataSet.FieldValues['TeacherId']);
frm_main.DataSource10.DataSet.Next;
end;

end;

procedure Tfrm_updcourse.ComboBox3Click(Sender: TObject);
begin
frm_addcourse.combobox3.Items.Add(inttostr(0));
frm_addcourse.combobox3.Items.Add(Inttostr(1));
frm_addcourse.combobox3.Items.Add(Inttostr(2));
frm_addcourse.combobox3.Items.Add(Inttostr(3));
frm_addcourse.combobox3.Items.Add(Inttostr(4));
frm_addcourse.combobox3.Items.Add(Inttostr(5));
frm_addcourse.combobox3.Items.Add(Inttostr(6))
end;

procedure Tfrm_updcourse.Button3Click(Sender: TObject);

```

```

begin
  if ((edit2.Text<>"")and(edit3.Text<>"")and(combobox1.Text<>"")and(combobox2.Text<>"")and(co
mbobox3.Text<>")) then
    begin
      with frm_main.DataSource6 do
        begin
          dataset.Edit;

// dataset.FieldValues['Coursecode]:=edit1.Text;
if combobox1.text<>"" then .
dataset.FieldValues['DepartmentId]:=combobox1.Text;
dataset.FieldValues['Coursesname]:=edit2.Text;
dataset.FieldValues['Coursecontent]:=edit3.Text;

if combobox2.text<>"" then
  dataset.FieldValues['TeacherId]:=StrToint(combobox2.Text);

if combobox3.text<>"" then
  dataset.FieldValues['Credit]:=Strtoint(combobox3.Text);
dataset.FieldValues['ProcessDate]:=Date;
dataset.FieldValues['ProcessUser]:=username;

dataset.Post;
messagedlg('The Course Updated Successfully !',mtwarning,[mbok],0);
clearing(sender);
edit1.SetFocus;

with frm_main.ADOquery1 do
  begin
    sql.clear;
    sql.Add('Select DepartmentId from Department');
    open;
  end;
frm_main.datasource7.DataSet.First;
while not frm_main.datasource7.DataSet.Eof do
  begin
    combobox1.Items.Add(frm_main.datasource7.DataSet.FieldValues['DepartmentId']);
    frm_main.DataSource7.DataSet.Next;
  end;
end;
end
else
begin
messagedlg('Please Fill All The Required Fields !',mtwarning,[mbok],0);
edit2.SetFocus;
end;

end;

```

end.

---

**unit Unit11;**

interface

uses

Windows, Messages, SysUtils, Variants, Classes, Graphics, Controls, Forms,  
Dialogs, Buttons, jpeg, ExtCtrls, StdCtrls, ComCtrls;

type

Tfrm\_dept = class(TForm)  
 Image1: TImage;  
 Button1: TButton;  
 Button2: TButton;  
 Button3: TButton;  
 Label1: TLabel;  
 Image2: TImage;  
 procedure FormClose(Sender: TObject; var Action: TCloseAction);  
 procedure Button1Click(Sender: TObject);  
 procedure Button2Click(Sender: TObject);  
 procedure Button3Click(Sender: TObject);

private

{ Private declarations }

public

{ Public declarations }

end;

var

frm\_dept: Tfrm\_dept;

implementation

uses Unit1, Unit12, Unit13, Unit26;

{\$R \*.dfm}

procedure Tfrm\_dept.FormClose(Sender: TObject; var Action: TCloseAction);  
begin  
 frm\_main.show;  
end;

procedure Tfrm\_dept.Button1Click(Sender: TObject);  
begin  
 frm\_adddept.show;  
 frm\_dept.Hide;  
end;

```
procedure Tfrm_dept.Button2Click(Sender: TObject);
begin
  frm_upddept.show;
  frm_dept.Hide;
end;
```

```
procedure Tfrm_dept.Button3Click(Sender: TObject);
begin
  frm_dept.Close;
  frm_main.show;
end;
end.
```

---

## unit Unit12;

interface

uses  
 Windows, Messages, SysUtils, Variants, Classes, Graphics, Controls, Forms,  
 Dialogs, StdCtrls, ExtCtrls, DBCtrls, Mask, ComCtrls, jpeg, Grids,  
 DBGrids, DB, ADODB;

type

```
Tfrm_adddept = class(TForm)
  Button1: TButton;
  Button2: TButton;
  Edit1: TEdit;
  Edit2: TEdit;
  Button3: TButton;
  Button4: TButton;
  Button5: TButton;
  Image1: TImage;
  Label3: TLabel;
  Label4: TLabel;
  Label1: TLabel;
  Image2: TImage;
  Label2: TLabel;
  DBGrid1: TDBGrid;
  Button6: TButton;
  procedure Button1Click(Sender: TObject);
  procedure FormClose(Sender: TObject; var Action: TCloseAction);
  procedure Button2Click(Sender: TObject);
  procedure FormShow(Sender: TObject);
  procedure Button5Click(Sender: TObject);
  procedure Button3Click(Sender: TObject);
  procedure Button4Click(Sender: TObject);
  private
    { Private declarations }
public
```

```
{ Public declarations }
end;

var
  frm_adddept: Tfrm_adddept;

implementation

uses Unit1, Unit11, unit26;

{$R *.dfm}

procedure clearing(Sender:Tobject);
begin
  frm_adddept.Edit1.Clear;
  frm_adddept.Edit2.Clear;
end;

procedure invisibility(Sender:Tobject);
begin
  frm_adddept.Edit2.Visible:=false;
  frm_adddept.button3.Visible:=true;
  frm_adddept.button4.Visible:=true;
end;

procedure visibility(Sender:Tobject);
begin
  frm_adddept.Edit2.Visible:=true;
  frm_adddept.button3.Visible:=true;
  frm_adddept.button4.Visible:=true;
end;

procedure enabling(Sender:Tobject);
begin
  frm_adddept.Edit2.Enabled:=true;
  frm_adddept.button3.Enabled:=true;
  frm_adddept.button4.Enabled:=true;
end;

procedure disabling(Sender:Tobject);
begin
  frm_adddept.Edit2.Enabled:=false;
  frm_adddept.button3.Enabled:=false;
  frm_adddept.button4.Enabled:=false;
end;

procedure Tfrm_adddept.Button1Click(Sender: TObject);
begin
  frm_adddept.hide;
  frm_main.show;

```

```
end;

procedure Tfrm_adddept.FormClose(Sender: TObject;
  var Action: TCloseAction);
begin
  frm_dept.show;
end;

procedure Tfrm_adddept.Button2Click(Sender: TObject);
begin
  frm_adddept.Close;
end;

procedure Tfrm_adddept.FormShow(Sender: TObject);
begin
  clearing(sender);
  disabling(sender);
  invisibility(sender);
  edit1.SetFocus;
end;

procedure Tfrm_adddept.Button5Click(Sender: TObject);
begin

  if edit1.text<>" then
  begin
    with frm_main.ADOquery1 do
    begin
      sql.clear;
      sql.Add('Select DepartmentId from Department where DepartmentId="'+edit1.text+''");
      open;
    end;
    if frm_main.DataSource7.DataSet.RecordCount=0 then
    begin
      visibility(sender);
      enabling(sender);
      edit2.SetFocus;
    end
    else
    begin
      messagedlg('This Department ID Is Already Recorded !',mtwarning,[mbok],0);
      edit1.SetFocus;
      edit1.Clear;
      //dbgrid1.Update;
    end;
  end
  else
  begin
    messagedlg('Please Enter Department Id For To New Department !',mtwarning,[mbok],0);
    edit1.Clear;
  end;
end;
```

```
edit1.SetFocus;

end;
end;

procedure Tfrm_adddept.Button3Click(Sender: TObject);
begin

if ((edit1.Text<>"")and(edit2.Text<>")) then
begin
with frm_main.DataSource5 do
begin
dataset.Edit;
dataset.Append;
if edit2.text<>"" then
dataset.FieldValues['DepartmentId]:=edit1.Text;
if edit2.text<>"" then
dataset.FieldValues['DepartmentName]:=edit2.Text;

dataset.FieldValues['ProcessUser]:=username;
dataset.FieldValues['ProcessDate]:=Date;

dataset.Post;
messagedlg('The Department recorded successfully !',mtwarning,[mbok],0);
clearing(sender);
disabling(sender);
invisibility(sender);
edit1.SetFocus;
end;

end
else
begin
messagedlg('Please Fill All Fields !',mtwarning,[mbok],0);
edit1.SetFocus;
end;

dbgrid1.Update;
end;

procedure Tfrm_adddept.Button4Click(Sender: TObject);
begin
clearing(sender);
disabling(sender);
invisibility(sender);
edit1.SetFocus;
end;

end.
```

```
unit Unit13;
```

```
interface
```

```
uses
```

```
  Windows, Messages, SysUtils, Variants, Classes, Graphics, Controls, Forms,  
  Dialogs, StdCtrls, ExtCtrls, DBCtrls, Mask, ComCtrls, jpeg, DB, ADODB,  
  Grids, DBGrids;
```

```
type
```

```
  Tfrm_upddept = class(TForm)  
    Button1: TButton;  
    Button2: TButton;  
    Edit1: TEdit;  
    StatusBar1: TStatusBar;  
    Button3: TButton;  
    Edit2: TEdit;  
    Edit3: TEdit;  
    Button4: TButton;  
    Button5: TButton;  
    Image1: TImage;  
    Label4: TLabel;  
    Label7: TLabel;  
    Label8: TLabel;  
    Image2: TImage;  
    Label1: TLabel;  
    Label2: TLabel;  
    DBGrid1: TDBGrid;  
    Button6: TButton;  
    procedure FormClose(Sender: TObject; var Action: TCloseAction);  
    procedure Button2Click(Sender: TObject);  
    procedure Button1Click(Sender: TObject);  
    procedure FormShow(Sender: TObject);  
    procedure Button3Click(Sender: TObject);  
    procedure Button4Click(Sender: TObject);  
    procedure Button5Click(Sender: TObject);
```

```
private
```

```
  { Private declarations }
```

```
public
```

```
  { Public declarations }
```

```
end;
```

```
var
```

```
  frm_upddept: Tfrm_upddept;
```

```
implementation
```

```
uses Unit11, Unit1, unit26;  
{$R *.dfm}  
  
procedure Tfrm_upddept.FormClose(Sender: TObject; var Action: TCloseAction);  
begin  
  frm_dept.show;  
end;  
  
procedure Tfrm_upddept.Button2Click(Sender: TObject);  
begin  
  frm_upddept.Close;  
  frm_dept.show;  
end;  
  
procedure Tfrm_upddept.Button1Click(Sender: TObject);  
begin  
  frm_upddept.Close;  
  frm_main.Show ;  
end;  
  
procedure Tfrm_upddept.FormShow(Sender: TObject);  
begin  
  
  edit1.Clear;  
  edit2.Clear;  
  edit3.Clear;  
  edit1.ReadOnly:=false;  
  edit1.SetFocus;  
  edit2.Visible:=false;  
  edit3.Visible:=false;  
  
end;  
  
procedure Tfrm_upddept.Button3Click(Sender: TObject);  
begin  
  
  dbgrid1.SelectedField;  
  if (edit1.Text<>"") then  
  begin  
    with frm_main.ADOquery1 do  
    begin  
      sql.clear;  
      sql.Add('Select * from Department where DepartmentId="'+edit1.text+'");  
      open;  
    end;  
  
    if frm_main.DataSource7.DataSet.RecordCount>0 then  
    begin  
      edit2.Visible:=true;  
    end;  
  end;  
end;
```

```

edit3.Visible:=true;
button4.Enabled:=true;
button5.Enabled:=true;

if frm_main.DataSource7.DataSet.FieldValues['DepartmentId']<>null then
  edit2.Text:=frm_main.DataSource7.DataSet.FieldValues['DepartmentId'];
  if frm_main.DataSource7.DataSet.FieldValues['DepartmentName']<>null then
    edit3.Text:=frm_main.DataSource7.DataSet.FieldValues['DepartmentName'];

edit1.ReadOnly:=true;

end
else
begin
  messagedlg('Department ID is not found !',mtinformation,[mbok],0);
  edit1.SetFocus;
end;

end
else
begin
  messagedlg('Please Enter Department ID !',mtinformation,[mbok],0);
  edit1.SetFocus;
  edit1.Clear;
end;

end;

procedure Tfirm_upddept.Button4Click(Sender: TObject);
begin

if edit1.Text<>edit2.Text then
begin
  with frm_main.ADOquery2 do
  begin
    sql.clear;
    sql.Add('Select departmentID from Department where DepartmentId="'+edit2.text+''");
    open;
  end;
  if frm_main.DataSource8.DataSet.RecordCount=0 then
  begin
    with frm_main.DataSource7 do
    begin
      edit1.ReadOnly:=false;
      dataset.Edit;
      //dataset.UpdateRecord;
      if edit2.Text<>" then
        dataset.FieldValues['DepartmentId]:=edit2.Text;
    end;
  end;
end;

```

```

dataset.FieldValues['UpdateUser']:=username;
dataset.FieldValues['Updatedate']:=date;
dbgrid1.Update;
if edit3.text<>" then
dataset.FieldValues['DepartmentName']:=Edit3.Text;
dataset.UpdateRecord;
dataset.post;
dbgrid1.Update;
{ with frm_main.ADOquery3 do
begin
sql.clear;
sql.Add('Select * from TEACHER where DepartmentId="'+edit1.text+''");
open;
end;
if frm_main.DataSource9.DataSet.RecordCount>0 then
begin
with frm_main.DataSource9 do
begin
dataset.edit;
dataset.First;
while not (dataset.Eof) do
begin
dataset.FieldValues['DepartmentId']:edit2.Text;
dataset.Next;
end;
dataset.Post;
END;

```

messagedlg('The Department Information in All Tables are Updated Successfully !',mtinformation,[mbok],0);

```

edit1.SetFocus;
edit1.Clear;
edit2.Clear;
edit3.Clear;
edit2.Visible:=false;
edit3.Visible:=false;
button4.Visible:=false;
button5.Visible:=false;
end; }

end;
dbgrid1.Update;
end

else
begin
messagedlg('Duplicate Department ID is not allowed !',mtinformation,[mbok],0);
edit2.SetFocus;
dbgrid1.Update;

```

```
end;
dbgrid1.Update;
end

else
begin
with frm_main.DataSource7 do
begin
dataset.edit;
dataset.FieldValues['UpdateUser]:=username;
dataset.FieldValues['Updatedate]:=date;
if edit3.text<>" then
dataset.FieldValues['DepartmentName]:=Edit3.Text;
dataset.post;
messagedlg('The Department Information Recorded Successfully
!',mtinformation,[mbok],0);
edit1.SetFocus;
edit1.ReadOnly:=false;
edit1.Clear;
edit2.Clear;
edit3.Clear;
edit2.Visible:=false;
edit3.Visible:=false;
button4.Enabled:=false;
button5.Enabled:=false;
dbgrid1.Update;

end;
dbgrid1.Update;
end;

dbgrid1.Update;
dbgrid1.Refresh;
end;
procedure Tfrm_upddept.Button5Click(Sender: TObject);
begin
edit1.SetFocus;
edit1.ReadOnly:=false;
edit1.Clear;
edit2.Clear;
edit3.Clear;
edit2.Visible:=false;
edit3.Visible:=false;
button4.Enabled:=false;
button5.Enabled:=false;
end;

end.
```

**unit Unit14;**

interface

uses

Windows, Messages, SysUtils, Variants, Classes, Graphics, Controls, Forms,  
Dialogs, ExtCtrls, StdCtrls, Mask, DBCtrls, Grids, DBGrids, jpeg;

type

```
Tfrm_trans = class(TForm)
  Image1: TImage;
  Label1: TLabel;
  Label2: TLabel;
  Label3: TLabel;
  Label4: TLabel;
  Label5: TLabel;
  Label6: TLabel;
  Label16: TLabel;
  Label17: TLabel;
  Label18: TLabel;
  Label19: TLabel;
  Label20: TLabel;
  Label21: TLabel;
  Label22: TLabel;
  Label23: TLabel;
  Label24: TLabel;
  Label25: TLabel;
  Label26: TLabel;
  Label27: TLabel;
  Label28: TLabel;
  Label29: TLabel;
  Label30: TLabel;
  Label31: TLabel;
  Label15: TLabel;
  Label32: TLabel;
  Label45: TLabel;
  Label46: TLabel;
  Edit1: TEdit;
  Button1: TButton;
  Panel3: TPanel;
  Label7: TLabel;
  Panel4: TPanel;
  Label8: TLabel;
  StringGrid2: TStringGrid;
  Panel5: TPanel;
  Label9: TLabel;
  StringGrid3: TStringGrid;
  Panel6: TPanel;
  Label10: TLabel;
  StringGrid4: TStringGrid;
```

```

Panel7: TPanel;
Label11: TLabel;
StringGrid5: TStringGrid;
Panel8: TPanel;
Label12: TLabel;
StringGrid6: TStringGrid;
Panel9: TPanel;
Label13: TLabel;
StringGrid7: TStringGrid;
Panel10: TPanel;
Label14: TLabel; .
StringGrid8: TStringGrid;
Button2: TButton;
Button3: TButton;
Edit2: TEdit;
Edit3: TEdit;
Edit4: TEdit;
Edit5: TEdit;
Edit6: TEdit;
StringGrid1: TStringGrid;
Button4: TButton;
Button5: TButton;
Label33: TLabel;
Label34: TLabel;
Image2: TImage;
procedure FormClose(Sender: TObject; var Action: TCloseAction);
procedure Button3Click(Sender: TObject);
procedure Button1Click(Sender: TObject);
procedure Edit1KeyPress(Sender: TObject; var Key: Char);
procedure Button2Click(Sender: TObject);
procedure Button5Click(Sender: TObject);
procedure Button4Click(Sender: TObject);
procedure FormShow(Sender: TObject);
private
  { Private declarations }
public
  { Public declarations }
end;

var
  frm_trans: Tfrm_trans;

implementation

uses Unit1, Unit16;

{$R *.dfm}

procedure clearing(Sender:Tobject);
var i:integer;

```

```
begin
with frm_trans do
begin
Edit1.Clear;
Edit2.Clear;
Edit3.Clear;
Edit4.Clear;
Edit5.Clear;
edit6.Clear;
label7.Caption:="";
label8.Caption:="";
label9.Caption:="";
label10.Caption:="";
label11.Caption:="";
label12.Caption:="";
label13.Caption:="";
label14.Caption:="";
label16.Caption:="";
label17.Caption:="";
label18.Caption:="";
label19.Caption:="";
label20.Caption:="";
label21.Caption:="";
label22.Caption:="";
label23.Caption:="";
label15.Caption:="";
i:=0;
for i:=0 to 6 do
begin
stringgrid1.Cells[0,i]:="";
stringgrid1.Cells[1,i]:="";
end;

i:=0;
for i:=0 to 6 do
begin
stringgrid2.Cells[0,i]:="";
stringgrid2.Cells[1,i]:="";
end;

i:=0;
```

```
for i:=0 to 6 do
begin
  stringgrid3.Cells[0,i]:="";
  stringgrid3.Cells[1,i]:="";
end;
```

```
i:=0;
for i:=0 to 6 do
begin
  stringgrid4.Cells[0,i]:="";
  stringgrid4.Cells[1,i]:="";
end;
```

```
i:=0;
for i:=0 to 6 do
begin
  stringgrid5.Cells[0,i]:="";
  stringgrid5.Cells[1,i]:="";
end;
```

```
i:=0;
for i:=0 to 6 do
begin
  stringgrid6.Cells[0,i]:="";
  stringgrid6.Cells[1,i]:="";
end;
```

```
i:=0;
for i:=0 to 6 do
begin
  stringgrid7.Cells[0,i]:="";
  stringgrid7.Cells[1,i]:="";
end;
```

```
i:=0;
for i:=0 to 6 do
begin
  stringgrid8.Cells[0,i]:="";
  stringgrid8.Cells[1,i]:="";
end;
```

```
i:=0;
for i:=0 to 6 do
begin
```

```
end;
```

```
i:=0;
for i:=0 to 6 do
begin
```

```
end;

i:=0;
for i:=0 to 6 do
begin
end;

i:=0;
for i:=0 to 6 do
begin
end;
edit1.SetFocus;
end;
end;

procedure Tfrm_trans.FormClose(Sender: TObject; var Action: TCloseAction);
begin
 frm_main.show;
end;

procedure Tfrm_trans.Button3Click(Sender: TObject);
begin
 frm_trans.Close;
end;

procedure Tfrm_trans.Button1Click(Sender: TObject);
var i,count,sumcredit,sumgencredit,varcorId:integer;
var sum,sumgrade,sumgengrade:real;
var realdate:Tdate;
var regyear,regmonth,mpart,ypart,season,t:string;

begin
 i:=0;
 frm_main.DataSource7.DataSet:=frm_main.ADOQuery1;

if (edit1.text<>null) then
begin
 with frm_main.ADOQuery1 do
begin
 SQL.Clear;
 sql.add('SELECT * FROM Student WHERE StudentID="'+edit1.text+''");
 open;
end;

if frm_main.DataSource7.DataSet.RecordCount=0 then
begin
 messagedlg('Student is not found !!',mtwarning,[mbok],0);
 clearing(sender);
end;
```

```

exit;
end
else
begin
edit2.Text:=frm_main.DataSource7.DataSet.FieldValues['StudentId'];
edit3.Text:=frm_main.DataSource7.DataSet.FieldValues['name'];
edit4.Text:=frm_main.DataSource7.DataSet.FieldValues['Surname'];
edit5.Text:=datetToStr(frm_main.DataSource7.DataSet.FieldValues['Birthdate']);
edit6.Text:=frm_main.DataSource7.DataSet.FieldValues['DepartmentId'];

// to write semester names

with frm_main.ADOQuery1 do
begin
SQL.Clear;
sql.add('SELECT t.courseregdate,t.grade,c.coursecode,c.credit FROM transcript as t
inner join course as c on t.courseId=c.courseId WHERE t.StudentID="'+edit1.text+'" and
t.dropdate is null and t.grade is not null order by t.transId');
open;
end;
.

frm_main.DataSource7.DataSet.First;
label45.Caption:=inttoStr(frm_main.DataSource7.DataSet.RecordCount);

realdate:=frm_main.DataSource7.DataSet.FieldValues['courseregdate'];
shortDateFormat:='yyyy';
regyear:=datetToStr(realdate);
yPart:=regyear;
shortDateFormat:='mm';
regmonth:=datetToStr(realdate);
mPart:=regmonth;
i:=0;
sumcredit:=0;
sumgrade:=0;

while not(((abs(strToInt(regmonth)-
strToInt(mPart))>2)or(regyear<>yPart)or(frm_main.DataSource7.DataSet.eof))do
begin

if
((regmonth='01')or(regmonth='12')or(regmonth='11')or(regmonth='10')or(regmonth='09')or(re
gmonth='08')) then
  season:='Fall'
else
  season:='Spring';

stringgrid1.Cells[0,i]:=frm_main.DataSource7.DataSet.FieldValues['Coursecode'];

```

```

stringgrid1.Cells[1,i]:=frm_main.DataSource7.DataSet.FieldValues['grade'];
i:=i+1;
shortdateformat:='yyyy';
label7.Caption:=REGYEAR+' - '+season+' Term';
shortdateformat:='dd/mm/yyyy');

sumcredit:=sumcredit+frm_main.DataSource7.dataset.FieldValues['credit'];

if frm_main.DataSource7.dataset.FieldValues['grade']='AA' then
  sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*4;
if frm_main.DataSource7.dataset.FieldValues['grade']='BA' then
  sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*3.5;
if frm_main.DataSource7.dataset.FieldValues['grade']='BB' then
  sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*3;
if frm_main.DataSource7.dataset.FieldValues['grade']='CB' then
  sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*2.5;
if frm_main.DataSource7.dataset.FieldValues['grade']='CC' then
  sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*2;
if frm_main.DataSource7.dataset.FieldValues['grade']='DC' then
  sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*1.5;
if frm_main.DataSource7.dataset.FieldValues['grade']='DD' then
  sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*1;
if frm_main.DataSource7.dataset.FieldValues['grade']='FD' then
  sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*0.5;
if frm_main.DataSource7.dataset.FieldValues['grade']='FF' then
  sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*0;

frm_main.DataSource7.DataSet.Next;
realdate:=frm_main.DataSource7.DataSet.FieldValues['courseregdate'];
shortdateformat:='yyyy';
regyear:=datetostr(realdate);
shortdateformat:='mm';
regmonth:=datetostr(realdate);

end;
if ((sumcredit>0)) then
begin
  str((sumgrade/sumcredit):3:2,t);
  label16.Caption:=t;
end;
// end of first stringgrid
// start of second stringgrid

realdate:=frm_main.DataSource7.DataSet.FieldValues['courseregdate'];
shortdateformat:='yyyy';
regyear:=datetostr(realdate);
ypart:=regyear;
shortdateformat:='mm';
regmonth:=datetostr(realdate);

```

```

mpart:=regmonth;
i:=0;
sumcredit:=0;
sumgrade:=0;

while not(((abs(strtoint(regmonth)-
strtoint(mpart)))>2)or(regyear<>ypart)or(frm_main.DataSource7.DataSet.eof))do
begin

    if
((regmonth='01')or(regmonth='12')or(regmonth='11')or(regmonth='10')or(regmonth='09')or(re
gmonth='08')) then
    season:='Fall'
else
    season:='Spring';

stringgrid2.Cells[0,i]:=frm_main.DataSource7.DataSet.FieldValues['Coursecode'];
stringgrid2.Cells[1,i]:=frm_main.DataSource7.DataSet.FieldValues['grade'];
i:=i+1;
shortdateformat:='yyyy';
label8.Caption:=REGYEAR+' - '+season+' Term';
shortdateformat:='dd/mm/yyyy');

sumcredit:=sumcredit+frm_main.DataSource7.dataset.FieldValues['credit'];

if frm_main.DataSource7.dataset.FieldValues['grade']='AA' then
    sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*4;
if frm_main.DataSource7.dataset.FieldValues['grade']='BA' then
    sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*3.5;
if frm_main.DataSource7.dataset.FieldValues['grade']='BB' then
    sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*3;
if frm_main.DataSource7.dataset.FieldValues['grade']='CB' then
    sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*2.5;
if frm_main.DataSource7.dataset.FieldValues['grade']='CC' then
    sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*2;
if frm_main.DataSource7.dataset.FieldValues['grade']='DC' then
    sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*1.5;
if frm_main.DataSource7.dataset.FieldValues['grade']='DD' then
    sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*1;
if frm_main.DataSource7.dataset.FieldValues['grade']='FD' then
    sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*0.5;
if frm_main.DataSource7.dataset.FieldValues['grade']='FF' then
    sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*0;

frm_main.DataSource7.DataSet.Next;
realdate:=frm_main.DataSource7.DataSet.FieldValues['courseregdate'];
shortdateformat:='yyyy';
regyear:=datetostr(realdate);

```

```

shortdateformat:='mm';
regmonth:=datetostr(realdate);

end;
if ((sumcredit>0)) then
begin
  str((sumgrade/sumcredit):3:2,t);
  label17.Caption:=t;
end;

// end of second stringgrid
// start of 3. stringgrid

realdate:=frm_main.DataSource7.DataSet.FieldValues['courseregdate'];
shortdateformat:='yyyy';
regyear:=datetostr(realdate);
yprt:=regyear;
shortdateformat:='mm';
regmonth:=datetostr(realdate);
mpart:=regmonth;
i:=0;
sumcredit:=0;
sumgrade:=0;

while not(((abs(strtoint(regmonth)-
strtoint(mpart)))>2)or(regyear<>yprt)or(frm_main.DataSource7.DataSet.eof))do
begin

  if
((regmonth='01')or(regmonth='12')or(regmonth='11')or(regmonth='10')or(regmonth='09')or(re
gmonth='08')) then
    season:='Fall'
  else
    season:='Spring';

  stringgrid3.Cells[0,i]:=frm_main.DataSource7.DataSet.FieldValues['Coursecode'];
  stringgrid3.Cells[1,i]:=frm_main.DataSource7.DataSet.FieldValues['grade'];
  i:=i+1;
  shortdateformat:='yyyy';
  label9.Caption:=REGYEAR+' - '+season+' Term';
  shortdateformat:='dd/mm/yyyy');

  sumcredit:=sumcredit+frm_main.DataSource7.dataset.FieldValues['credit'];

  if frm_main.DataSource7.dataset.FieldValues['grade']='AA' then
    sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*4;
  if frm_main.DataSource7.dataset.FieldValues['grade']='BA' then
    sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*3.5;
  if frm_main.DataSource7.dataset.FieldValues['grade']='BB' then

```

```

sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*3;
if frm_main.DataSource7.dataset.FieldValues['grade']=='CB' then
  sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*2.5;
if frm_main.DataSource7.dataset.FieldValues['grade']=='CC' then
  sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*2;
if frm_main.DataSource7.dataset.FieldValues['grade']=='DC' then
  sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*1.5;
if frm_main.DataSource7.dataset.FieldValues['grade']=='DD' then
  sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*1;
if frm_main.DataSource7.dataset.FieldValues['grade']=='FD' then
  sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*0.5;
if frm_main.DataSource7.dataset.FieldValues['grade']=='FF' then
  sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*0;

frm_main.DataSource7.DataSet.Next;
realdate:=frm_main.DataSource7.DataSet.FieldValues['courseregdate'];
shortdateformat:='(yyyy)';
regyear:=datetostr(realdate);
shortdateformat:='(mm)';
regmonth:=datetostr(realdate);

end;
if ((sumcredit>0)) then
begin
  str((sumgrade/sumcredit):3:2,t);
  label18.Caption:=t;
end;

// end of 3. stringgrid

// start of 4 stringgrid

realdate:=frm_main.DataSource7.DataSet.FieldValues['courseregdate'];
shortdateformat:='(yyyy)';
regyear:=datetostr(realdate);
yprt:=regyear;
shortdateformat:='(mm)';
regmonth:=datetostr(realdate);
mpart:=regmonth;
i:=0;
sumcredit:=0;
sumgrade:=0;

while not(((abs(strtoint(regmonth)-
strtoint(mpart)))>2)or(regyear<>yprt)or(frm_main.DataSource7.DataSet.eof))do
begin

```

```

if
((regmonth='01')or(regmonth='12')or(regmonth='11')or(regmonth='10')or(regmonth='09')or(re
gmonth='08')) then
    season:='Fall'
else
    season:='Spring';

stringgrid4.Cells[0,i]:=frm_main.DataSource7.DataSet.FieldValues['Coursecode'];
stringgrid4.Cells[1,i]:=frm_main.DataSource7.DataSet.FieldValues['grade'];
i:=i+1;
shortdateformat:='yyyy';
label10.Caption:=REGYEAR+' - '+season+' Term';
shortdateformat:='dd/mm/yyyy');

sumcredit:=sumcredit+frm_main.DataSource7.dataset.FieldValues['credit'];

while
if frm_main.DataSource7.dataset.FieldValues['grade']=='AA' then
    sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*4;
if frm_main.DataSource7.dataset.FieldValues['grade']=='BA' then
    sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*3.5;
if frm_main.DataSource7.dataset.FieldValues['grade']=='BB' then
    sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*3;
if frm_main.DataSource7.dataset.FieldValues['grade']=='CB' then
    sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*2.5;
if frm_main.DataSource7.dataset.FieldValues['grade']=='CC' then
    sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*2;
if frm_main.DataSource7.dataset.FieldValues['grade']=='DC' then
    sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*1.5;
if frm_main.DataSource7.dataset.FieldValues['grade']=='DD' then
    sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*1;
if frm_main.DataSource7.dataset.FieldValues['grade']=='FD' then
    sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*0.5;
if frm_main.DataSource7.dataset.FieldValues['grade']=='FF' then
    sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*0;

frm_main.DataSource7.DataSet.Next;
realdate:=frm_main.DataSource7.DataSet.FieldValues['courseregdate'];
shortdateformat:='yyyy';
regyear:=datetostr(realdate);
shortdateformat:='mm';
regmonth:=datetostr(realdate);

end;
if ((sumcredit>0)) then
begin
    str((sumgrade/sumcredit):3:2,t);
    label19.Caption:=t;
end;

```

```

// end of 4. stringgrid

// start of 5. stringgrid

realdate:=frm_main.DataSource7.DataSet.FieldValues['courseregdate'];
shortdateformat:='yyyy';
regyear:=datetotstr(realdate);
yprt:=regyear;
shortdateformat:='mm';
regmonth:=datetotstr(realdate);
mpart:=regmonth;
i:=0;
sumcredit:=0;
sumgrade:=0;

while not(((abs(strtoint(regmonth)-
strtoint(mpart)))>2)or(regyear<>yprt)or(frm_main.DataSource7.DataSet.eof))do
begin

  if
((regmonth='01')or(regmonth='12')or(regmonth='11')or(regmonth='10')or(regmonth='09')or(re
gmonth='08')) then
    season:='Fall'
  else
    season:='Spring';

stringgrid5.Cells[0,i]:=frm_main.DataSource7.DataSet.FieldValues['Coursecode'];
stringgrid5.Cells[1,i]:=frm_main.DataSource7.DataSet.FieldValues['grade'];
i:=i+1;
shortdateformat:='yyyy';
label11.Caption:=REGYEAR+' - '+season+' Term';
shortdateformat:='dd/mm/yyyy';

sumcredit:=sumcredit+frm_main.DataSource7.dataset.FieldValues['credit'];

if frm_main.DataSource7.dataset.FieldValues['grade']='AA' then
  sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*4;
if frm_main.DataSource7.dataset.FieldValues['grade']='BA' then
  sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*3.5;
if frm_main.DataSource7.dataset.FieldValues['grade']='BB' then
  sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*3;
if frm_main.DataSource7.dataset.FieldValues['grade']='CB' then
  sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*2.5;
if frm_main.DataSource7.dataset.FieldValues['grade']='CC' then
  sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*2;
if frm_main.DataSource7.dataset.FieldValues['grade']='DC' then
  sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*1.5;
if frm_main.DataSource7.dataset.FieldValues['grade']='DD' then
  sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*1;
if frm_main.DataSource7.dataset.FieldValues['grade']='FD' then

```

```

sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*0.5;
if frm_main.DataSource7.dataset.FieldValues['grade']=='FF' then
  sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*0;

frm_main.DataSource7.DataSet.Next;
realdate:=frm_main.DataSource7.DataSet.FieldValues['courseregdate'];
shortdateformat:='(yyyy)';
regyear:=datetostr(realdate);
shortdateformat:='(mm)';
regmonth:=datetostr(realdate);

end;
if ((sumcredit>0)) then
begin
  str((sumgrade/sumcredit):3:2,t);
  label20.Caption:=t;
end;

// end of 5. stringgrid

// start of 6. stringgrid

realdate:=frm_main.DataSource7.DataSet.FieldValues['courseregdate'];
shortdateformat:='(yyyy)';
regyear:=datetostr(realdate);
ypart:=regyear;
shortdateformat:='(mm)';
regmonth:=datetostr(realdate);
mpart:=regmonth;
i:=0;
sumcredit:=0;
sumgrade:=0;

while not(((abs(strtoint(regmonth)-
strtoint(mpart)))>2)or(regyear<>ypart)or(frm_main.DataSource7.DataSet.eof))do
begin

  if
  ((regmonth='01')or(regmonth='12')or(regmonth='11')or(regmonth='10')or(regmonth='09')or(re
  gmonth='08')) then
    season:='Fall'
  else
    season:='Spring';

  stringgrid6.Cells[0,i]:=frm_main.DataSource7.DataSet.FieldValues['Coursecode'];
  stringgrid6.Cells[1,i]:=frm_main.DataSource7.DataSet.FieldValues['grade'];
  i:=i+1;
  shortdateformat:='(yyyy)';
  label12.Caption:=REGYEAR+' - '+season+' Term';

```

```

shortdateformat:='dd/mm/yyyy');

sumcredit:=sumcredit+frm_main.DataSource7.dataset.FieldValues['credit'];

if frm_main.DataSource7.dataset.FieldValues['grade']='AA' then
  sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*4;
if frm_main.DataSource7.dataset.FieldValues['grade']='BA' then
  sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*3.5;
if frm_main.DataSource7.dataset.FieldValues['grade']='BB' then
  sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*3;
if frm_main.DataSource7.dataset.FieldValues['grade']='CB' then
  sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*2.5;
if frm_main.DataSource7.dataset.FieldValues['grade']='CC' then
  sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*2;
if frm_main.DataSource7.dataset.FieldValues['grade']='DC' then
  sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*1.5;
if frm_main.DataSource7.dataset.FieldValues['grade']='DD' then
  sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*1;
if frm_main.DataSource7.dataset.FieldValues['grade']='FD' then
  sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*0.5;
if frm_main.DataSource7.dataset.FieldValues['grade']='FF' then
  sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*0;

frm_main.DataSource7.DataSet.Next;
realdate:=frm_main.DataSource7.DataSet.FieldValues['courseregdate'];
shortdateformat:='yyyy';
regyear:=datetotstr(realdate);
shortdateformat:='mm';
regmonth:=datetotstr(realdate);

end;
if ((sumcredit>0)) then
begin
  str((sumgrade/sumcredit):3:2,t);
  label21.Caption:=t;
end;

// end of 6. stringgrid

// start of 7. stringgrid

realdate:=frm_main.DataSource7.DataSet.FieldValues['courseregdate'];
shortdateformat:='yyyy';
regyear:=datetotstr(realdate);
yprt:=regyear;
shortdateformat:='mm';
regmonth:=datetotstr(realdate);
imprt:=regmonth;
i:=0;

```

```

sumcredit:=0;
sumgrade:=0;

while not(((abs(strtoint(regmonth)-
strtoint(mpart)))>2)or(regyear<>ypart)or(frm_main.DataSource7.DataSet.eof))do
begin
if
((regmonth='01')or(regmonth='12')or(regmonth='11')or(regmonth='10')or(regmonth='09')or(re
gmonth='08')) then
  season:='Fall'
else
  season:='Spring';

stringgrid7.Cells[0,i]:=frm_main.DataSource7.DataSet.FieldValues['Coursecode'];
stringgrid7.Cells[1,i]:=frm_main.DataSource7.DataSet.FieldValues['grade'];
i:=i+1;
shortdateformat:='(yyyy)';
label13.Caption:=REGYEAR+' - '+season+' Term';
shortdateformat:='(dd/mm/yyyy)';

sumcredit:=sumcredit+frm_main.DataSource7.dataset.FieldValues['credit'];

if frm_main.DataSource7.dataset.FieldValues['grade']='AA' then
  sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*4;
if frm_main.DataSource7.dataset.FieldValues['grade']='BA' then
  sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*3.5;
if frm_main.DataSource7.dataset.FieldValues['grade']='BB' then
  sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*3;
if frm_main.DataSource7.dataset.FieldValues['grade']='CB' then
  sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*2.5;
if frm_main.DataSource7.dataset.FieldValues['grade']='CC' then
  sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*2;
if frm_main.DataSource7.dataset.FieldValues['grade']='DC' then
  sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*1.5;
if frm_main.DataSource7.dataset.FieldValues['grade']='DD' then
  sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*1;
if frm_main.DataSource7.dataset.FieldValues['grade']='FD' then
  sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*0.5;
if frm_main.DataSource7.dataset.FieldValues['grade']='FF' then
  sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*0;

frm_main.DataSource7.DataSet.Next;
realdate:=frm_main.DataSource7.DataSet.FieldValues['courseregdate'];
shortdateformat:='(yyyy)';
regyear:=datetotstr(realdate);
shortdateformat:='(mm)';
regmonth:=datetotstr(realdate);

end;

```

```

if ((sumcredit>0)) then
begin
str((sumgrade/sumcredit):3:2,t);
label22.Caption:=t;
end;

realdate:=frm_main.DataSource7.DataSet.FieldValues['courseregdate'];
shortdateformat:='(yyyy)';
regyear:=datetotstr(realdate);
yprt:=regyear;
shortdateformat:='(mm)';
regmonth:=datetotstr(realdate);
mpart:=regmonth;
i:=0;
sumcredit:=0;
sumgrade:=0;

while not(((abs(strtoint(regmonth)-
strtoint(mpart)))>2)or(regyear<>yprt)or(frm_main.DataSource7.DataSet.eof))do
begin

if
((regmonth='01')or(regmonth='12')or(regmonth='11')or(regmonth='10')or(regmonth='09')or(re
gmonth='08')) then
  season:='Fall'
else
  season:='Spring';

stringgrid8.Cells[0,i]:=frm_main.DataSource7.DataSet.FieldValues['Coursecode'];
stringgrid8.Cells[1,i]:=frm_main.DataSource7.DataSet.FieldValues['grade'];
i:=i+1;
shortdateformat:='(yyyy)';
label14.Caption:=REGYEAR+' - '+season+' Term';
shortdateformat:='(dd/mm/yyyy)';

sumcredit:=sumcredit+frm_main.DataSource7.dataset.FieldValues['credit'];

if frm_main.DataSource7.dataset.FieldValues['grade']='AA' then
  sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*4;
if frm_main.DataSource7.dataset.FieldValues['grade']='BA' then
  sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*3.5;
if frm_main.DataSource7.dataset.FieldValues['grade']='BB' then
  sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*3;
if frm_main.DataSource7.dataset.FieldValues['grade']='CB' then
  sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*2.5;
if frm_main.DataSource7.dataset.FieldValues['grade']='CC' then
  sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*2;
if frm_main.DataSource7.dataset.FieldValues['grade']='DC' then
  sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*1.5;
if frm_main.DataSource7.dataset.FieldValues['grade']='DD' then

```

```

sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*1;
if frm_main.DataSource7.dataset.FieldValues['grade']=='FD' then
  sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*0.5;
if frm_main.DataSource7.dataset.FieldValues['grade']=='FF' then
  sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*0;

frm_main.DataSource7.DataSet.Next;
realdate:=frm_main.DataSource7.DataSet.FieldValues['courseregdate'];
shortdateformat:='yyyy';
regyear:=datetofstr(realdate);
shortdateformat:='mm';
regmonth:=datetofstr(realdate);

end;
if ((sumcredit>0)) then
begin
  str((sumgrade/sumcredit):3:2,t);
  label23.Caption:=t;
end;

// end of 8. stringgrid

// start of 9. stringgrid

realdate:=frm_main.DataSource7.DataSet.FieldValues['courseregdate'];
shortdateformat:='yyyy';
regyear:=datetofstr(realdate);
ypart:=regyear;
shortdateformat:='mm';
regmonth:=datetofstr(realdate);
mpart:=regmonth;
i:=0;
sumcredit:=0;
sumgrade:=0;

while not(((abs(strtoint(regmonth)-
strtoint(mpart)))>2)or(regyear<>ypart)or(frm_main.DataSource7.DataSet.eof))do
begin

  if
((regmonth='01')or(regmonth='12')or(regmonth='11')or(regmonth='10')or(regmonth='09')or(re
gmonth='08')) then
    season:='Fall'
  else
    season:='Spring';

```

```

i:=i+1;
shortdateformat:='yyyy';
shortdateformat:='dd/mm/yyyy';

sumcredit:=sumcredit+frm_main.DataSource7.dataset.FieldValues['credit'];

if frm_main.DataSource7.dataset.FieldValues['grade']='AA' then
  sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*4;
if frm_main.DataSource7.dataset.FieldValues['grade']='BA' then
  sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*3.5;
if frm_main.DataSource7.dataset.FieldValues['grade']='BB' then
  sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*3;
if frm_main.DataSource7.dataset.FieldValues['grade']='CB' then
  sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*2.5;
if frm_main.DataSource7.dataset.FieldValues['grade']='CC' then
  sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*2;
if frm_main.DataSource7.dataset.FieldValues['grade']='DC' then
  sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*1.5;
if frm_main.DataSource7.dataset.FieldValues['grade']='DD' then
  sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*1;
if frm_main.DataSource7.dataset.FieldValues['grade']='FD' then
  sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*0.5;
if frm_main.DataSource7.dataset.FieldValues['grade']='FF' then
  sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*0;

frm_main.DataSource7.DataSet.Next;
realdate:=frm_main.DataSource7.DataSet.FieldValues['courseregdate'];
shortdateformat:='yyyy';
regyear:=datetotstr(realdate);
shortdateformat:='mm';
regmonth:=datetotstr(realdate);

end;
if ((sumcredit>0)) then
begin
  str((sumgrade/sumcredit):3:2,t);

end;

// end of 9. stringgrid

// start of 10. stringgrid

realdate:=frm_main.DataSource7.DataSet.FieldValues['courseregdate'];
shortdateformat:='yyyy';
regyear:=datetotstr(realdate);
yprt:=regyear;
shortdateformat:='mm';
regmonth:=datetotstr(realdate);

```

```

mpart:=regmonth;
i:=0;
sumcredit:=0;
sumgrade:=0;

while not(((abs(strtoint(regmonth)-
strtoint(mpart)))>2)or(regyear<>ypart)or(frm_main.DataSource7.DataSet.eof))do
begin

  if
((regmonth='01')or(regmonth='12')or(regmonth='11')or(regmonth='10')or(regmonth='09')or(re
gmonth='08')) then
    season:='Fall'
  else
    season:='Spring';

  i:=i+1;
  shortdateformat:=('yyyy');

  shortdateformat:=(dd/mm/yyyy);

  sumcredit:=sumcredit+frm_main.DataSource7.dataset.FieldValues['credit'];

  if frm_main.DataSource7.dataset.FieldValues['grade']='AA' then
    sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*4;
  if frm_main.DataSource7.dataset.FieldValues['grade']='BA' then
    sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*3.5;
  if frm_main.DataSource7.dataset.FieldValues['grade']='BB' then
    sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*3;
  if frm_main.DataSource7.dataset.FieldValues['grade']='CB' then
    sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*2.5;
  if frm_main.DataSource7.dataset.FieldValues['grade']='CC' then
    sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*2;
  if frm_main.DataSource7.dataset.FieldValues['grade']='DC' then
    sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*1.5;
  if frm_main.DataSource7.dataset.FieldValues['grade']='DD' then
    sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*1;
  if frm_main.DataSource7.dataset.FieldValues['grade']='FD' then
    sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*0.5;
  if frm_main.DataSource7.dataset.FieldValues['grade']='FF' then
    sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*0;

  frm_main.DataSource7.DataSet.Next;
  realdate:=frm_main.DataSource7.DataSet.FieldValues['courseregdate'];
  shortdateformat:=('yyyy');
  regyear:=datetotstr(realdate);
  shortdateformat:=('mm');


```

```

regmonth:=datetToStr(realdate);
end;
if ((sumcredit>0)) then
begin
str((sumgrade/sumcredit):3:2,t);
end;

// end of 10. stringgrid

// start of 11. stringgrid

realdate:=frm_main.DataSource7.DataSet.FieldValues['courseregdate'];
shortDateFormat:='(yyyy)';
regyear:=datetToStr(realdate);
yPart:=regyear;
shortDateFormat:='(mm)';
regmonth:=datetToStr(realdate);
mPart:=regmonth;
i:=0;
sumcredit:=0;
sumgrade:=0;

while not(((abs(strToInt(regmonth)-
strToInt(mPart)))>2)or(regyear<>yPart)or(frm_main.DataSource7.DataSet.eof))do
begin

if
((regmonth='01')or(regmonth='12')or(regmonth='11')or(regmonth='10')or(regmonth='09')or(re
gmonth='08')) then
  season:='Fall'
else
  season:='Spring';

i:=i+1;
shortDateFormat:='(yyyy)';

shortDateFormat:='(dd/mm/yyyy)';

sumcredit:=sumcredit+frm_main.DataSource7.dataset.FieldValues['credit'];

if frm_main.DataSource7.dataset.FieldValues['grade']='AA' then
  sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*4;
if frm_main.DataSource7.dataset.FieldValues['grade']='BA' then
  sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*3.5;
if frm_main.DataSource7.dataset.FieldValues['grade']='BB' then
  sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*3;

```

```

if frm_main.DataSource7.dataset.FieldValues['grade']=='CB' then
  sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*2.5;
if frm_main.DataSource7.dataset.FieldValues['grade']=='CC' then
  sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*2;
if frm_main.DataSource7.dataset.FieldValues['grade']=='DC' then
  sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*1.5;
if frm_main.DataSource7.dataset.FieldValues['grade']=='DD' then
  sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*1;
if frm_main.DataSource7.dataset.FieldValues['grade']=='FD' then
  sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*0.5;
if frm_main.DataSource7.dataset.FieldValues['grade']=='FF' then
  sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*0;

frm_main.DataSource7.DataSet.Next;
realdate:=frm_main.DataSource7.DataSet.FieldValues['courseregdate'];
shortdateformat:='(yyyy)';
regyear:=datetostr(realdate);
shortdateformat:='(mm)';
regmonth:=datetostr(realdate);

end;
if ((sumcredit>0)) then
begin
  str((sumgrade/sumcredit):3:2,t);
end;

// end of 11. stringgrid

// start of 12. stringgrid

realdate:=frm_main.DataSource7.DataSet.FieldValues['courseregdate'];
shortdateformat:='(yyyy)';
regyear:=datetostr(realdate);
yprt:=regyear;
shortdateformat:='(mm)';
regmonth:=datetostr(realdate);
mpart:=regmonth;
i:=0;
sumcredit:=0;
sumgrade:=0;

while not(((abs(strtoint(regmonth)-
strtoint(mpart)))>2)or(regyear<>yprt)or(frm_main.DataSource7.DataSet.eof))do
begin

```

```

if
((regmonth='01')or(regmonth='12')or(regmonth='11')or(regmonth='10')or(regmonth='09')or(re
gmonth='08')) then
  season:='Fall'
else
  season:='Spring';

i:=i+1;
shortdateformat:='yyyy';

shortdateformat:='dd/mm/yyyy';

sumcredit:=sumcredit+frm_main.DataSource7.dataset.FieldValues['credit'];

if frm_main.DataSource7.dataset.FieldValues['grade']='AA' then
  sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*4;
if frm_main.DataSource7.dataset.FieldValues['grade']='BA' then
  sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*3.5;
if frm_main.DataSource7.dataset.FieldValues['grade']='BB' then
  sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*3;
if frm_main.DataSource7.dataset.FieldValues['grade']='CB' then
  sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*2.5;
if frm_main.DataSource7.dataset.FieldValues['grade']='CC' then
  sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*2;
if frm_main.DataSource7.dataset.FieldValues['grade']='DC' then
  sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*1.5;
if frm_main.DataSource7.dataset.FieldValues['grade']='DD' then
  sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*1;
if frm_main.DataSource7.dataset.FieldValues['grade']='FD' then
  sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*0.5;
if frm_main.DataSource7.dataset.FieldValues['grade']='FF' then
  sumgrade:=sumgrade+frm_main.DataSource7.dataset.FieldValues['credit']*0;

frm_main.DataSource7.DataSet.Next;
realdate:=frm_main.DataSource7.DataSet.FieldValues['courseregdate'];
shortdateformat:='yyyy';
regyear:=datetotstr(realdate);
shortdateformat:='mm';
regmonth:=datetotstr(realdate);

end;
if ((sumcredit>0)) then
begin
  str((sumgrade/sumcredit):3:2,t);
end;

// end of 12. stringgrid

```

```

// start of cgpa
sumgencredit:=0;
sumgengrade:=0;

with frm_main.ADOQuery4 do
begin
sql.Clear;
sql.add('Select t.GradeDate,t.studentId,t.grade,t.courseId,c.credit from transcript as t
inner join course as c on t.courseId=c.courseId where t.studentId="'+edit1.Text+'" and t.grade
is not null');
open;
end;

frm_main.DataSource10.DataSet.First;

while not(frm_main.DataSource10.DataSet.Eof) do
begin
with frm_main.DataSource10 do
begin
varcorId:=dataset.fieldvalues['courseId'];
label46.caption:=inttostr(varcorId);
with frm_main.ADOQuery6 do
begin
sql.Clear;
sql.add('Select t.GradeDate,t.studentId,t.grade,t.courseID,c.credit from transcript as t
inner join course as c on t.courseID=c.courseID where t.studentId="'+edit1.Text+'" and
t.courseId='+label46.caption+' order by gradedate desc');
open;
end;

frm_main.DataSource12.DataSet.First;

if
dataset.FieldValues['gradedate']=frm_main.DataSource12.DataSet.FieldValues['gradedate']
then
begin
sumgencredit:=sumgencredit+dataset.FieldValues['credit'];

if dataset.FieldValues['grade']='AA' then
sumgengrade:=sumgengrade+dataset.FieldValues['credit']*4;
if dataset.FieldValues['grade']='BA' then
sumgengrade:=sumgengrade+dataset.FieldValues['credit']*3.5;
if dataset.FieldValues['grade']='BB' then
sumgengrade:=sumgengrade+dataset.FieldValues['credit']*3;
if dataset.FieldValues['grade']='CB' then
sumgengrade:=sumgengrade+dataset.FieldValues['credit']*2.5;
if dataset.FieldValues['grade']='CC' then
sumgengrade:=sumgengrade+dataset.FieldValues['credit']*2;

```

```

if dataset.FieldValues['grade']=='DC' then
  sumgengrade:=sumgengrade+dataset.FieldValues['credit']*1.5;
if dataset.FieldValues['grade']=='DD' then
  sumgengrade:=sumgengrade+dataset.FieldValues['credit']*1;
if dataset.FieldValues['grade']=='FD' then
  sumgengrade:=sumgengrade+dataset.FieldValues['credit']*0.5;
if dataset.FieldValues['grade']=='FF' then
  sumgengrade:=sumgengrade+dataset.FieldValues['credit']*0;
dataset.Next;
end
else
begin
  dataset.Next;
end; // end of if

end; //end of with

end; //end of while

if ((sumgencredit>0) and (sumgengrade>0)) then
begin
  str((sumgengrade/sumgencredit):3:2,t);
  label15.Caption:=t;
end;

shortdateformat:='dd/mm/yyyy';

// end of cgpa.....

end;
end
else
begin
  messagedlg('Please Enter student number',mtwarning,[mbok],0);
  clearing(sender);
  exit;
end;

{*****}
{ }

end;

procedure Tfrm_trans.Edit1KeyPress(Sender: TObject; var Key: Char);
begin
  if not((key in ['0'..'9'])) then
    key:=#0;

```

```
end;

procedure Tfrm_trans.Button2Click(Sender: TObject);
var i,j:integer;
begin
  frm_trans.Print;
  //clearing(sender);

end;

procedure Tfrm_trans.Button5Click(Sender: TObject);
begin
  frm_main.show;
  frm_trans.hide;
end;

procedure Tfrm_trans.Button4Click(Sender: TObject);
begin
  clearing(sender);
  edit1.SetFocus;
end;

procedure Tfrm_trans.FormShow(Sender: TObject);
begin
  clearing(sender);

end;

end.
```

## **unit Unit15;**

interface

uses

Windows, Messages, SysUtils, Variants, Classes, Graphics, Controls, Forms,  
Dialogs, StdCtrls, DBCtrls, Grids, DBGrids, DB, ADODB, jpeg, ExtCtrls;

type

```
Tfrm_semend = class(TForm)
  Image1: TImage;
  Label1: TLabel;
  Label2: TLabel;
  Label3: TLabel;
  Label4: TLabel;
  Label5: TLabel;
  Label6: TLabel;
  Label7: TLabel;
  Label8: TLabel;
  Label9: TLabel;
```

```
Label10: TLabel;
Label11: TLabel;
Label12: TLabel;
Label13: TLabel;
Label14: TLabel;
Label15: TLabel;
Label16: TLabel;
Label17: TLabel;
Label18: TLabel;
Label19: TLabel;
Edit1: TEdit;
Button1: TButton;
ComboBox1: TComboBox;
ComboBox2: TComboBox;
ComboBox3: TComboBox;
ComboBox4: TComboBox;
ComboBox5: TComboBox;
ComboBox6: TComboBox;
ComboBox7: TComboBox;
Button2: TButton;
Button3: TButton;
Button4: TButton;
Button5: TButton;
Edit2: TEdit;
Edit3: TEdit;
Edit4: TEdit;
ADOQuery1: TADOQuery;
Button6: TButton;
Label20: TLabel;
Label21: TLabel;
Image2: TImage;
procedure FormShow(Sender: TObject);
procedure Button1Click(Sender: TObject);
procedure FormClose(Sender: TObject; var Action: TCloseAction);
procedure Button4Click(Sender: TObject);
procedure Button5Click(Sender: TObject);
procedure Button3Click(Sender: TObject);
procedure Button2Click(Sender: TObject);
private
  { Private declarations }
public
  { Public declarations }
end;

var
  frm_semend: Tfrm_semend;

implementation

uses Unit1,unit26, Unit22, Unit28;
```

```
{$R *.dfm}

procedure Tfrm_semend.FormShow(Sender: TObject);
begin
  edit1.SetFocus;
  edit1.Clear;
  edit2.Clear;
  edit3.Clear;
  edit4.Clear;
  edit1.ReadOnly:=false;

  label12.Caption:="";

  label2.Visible:=false;
  label2.Caption:="";
  label3.Visible:=false;
  label3.Caption:="";
  label4.Visible:=false;
  label4.Caption:="";
  label5.Visible:=false;
  label5.Caption:="";
  label6.Visible:=false;
  label6.Caption:="";
  label7.Visible:=false;
  label7.Caption:="";
  label8.Visible:=false;
  label8.Caption:="";

  combobox1.Text:="";
  combobox1.Visible:=false;
  combobox2.Text:="";
  combobox2.Visible:=false;
  combobox3.Text:="";
  combobox3.Visible:=false;
  combobox4.Text:="";
  combobox4.Visible:=false;
  combobox5.Text:="";
  combobox5.Visible:=false;
  combobox6.Text:="";
  combobox6.Visible:=false;
  combobox7.Text:="";
  combobox7.Visible:=false;

end;

procedure Tfrm_semend.Button1Click(Sender: TObject);
var i:integer;
var ypart:integer;
var mpart:string;
```

```

var ShortMonthNames:string;
begin
if edit1.text<>" then
begin
ShortDateFormat := 'm/dd/yyyy';
if length(edit1.Text)=8 then
begin
with frm_main.ADOquery1 do
begin
sql.clear;
sql.Add("Select * from student where StudentId='"+edit1.text+"'");
open;
end;
if frm_main.DataSource7.DataSet.RecordCount<>0 then
begin
edit1.ReadOnly:=true;
edit2.Text:= frm_main.DataSource7.DataSet.FieldValues['name'];
edit3.Text:= frm_main.DataSource7.DataSet.FieldValues['surname'];
edit4.Text:= frm_main.DataSource7.DataSet.FieldValues['departmentID'];

// term caption
shortdateformat:='mm';
ShortMonthNames:=datetostr(date);
// label12.Caption:=ShortMonthNames;
if
((ShortMonthNames='01')or(ShortMonthNames='12')or(ShortMonthNames='11')or(ShortMo
nthNames='10')or(ShortMonthNames='09')or(ShortMonthNames='08')) then
mpart:='Fall'
else
mpart:='Spring';

shortdateformat:='yyyy';
// ypart:=date;
label12.Caption:=datetostr(date)+" - "+mpart+' Term registration ';

shortdateformat:='dd/mm/yyyy';

with frm_main.ADOQuery2 do      //Find if already registered
begin
sql.Clear;
sql.Add('SELECT c.coursecode,c.courseId,t.grade,t.gradedate,t.updateuser FROM
transcript as t inner join course as c on t.courseId=c.courseId where
t.StudentId="'+edit1.Text+'" and t.grade is null and t.dropdate is null');
open;
end;

if frm_main.DataSource8.DataSet.RecordCount=0 then
begin

```

```
messagedlg('This Student Has Not Been Registered Yet, Use Registration Menu To  
Make Course Registration ..!',mtwarning,[mbok],0);  
Edit1.Clear;  
Edit2.Clear;  
Edit3.Clear;  
Edit4.Clear;  
edit1.ReadOnly:=False;  
exit;  
end  
else  
begin  
with frm_main.DataSource8 do  
begin  
dataset.First;  
i:=1;  
if not(dataset.Eof) then  
begin  
label2.Visible:=true;  
combobox1.Visible:=true;  
label2.Caption:=dataset.FieldValues['Coursecode'];  
label13.Caption:=dataset.FieldValues['CourseId'];  
dataset.Next;  
end;  
if not(dataset.Eof) then  
begin  
label3.Visible:=true;  
combobox2.Visible:=true;  
label3.Caption:=dataset.FieldValues['Coursecode'];  
label14.Caption:=dataset.FieldValues['CourseId'];  
dataset.Next;  
end;  
  
if not(dataset.Eof) then  
begin  
label4.Visible:=true;  
combobox3.Visible:=true;  
label4.Caption:=dataset.FieldValues['Coursecode'];  
label15.Caption:=dataset.FieldValues['CourseId'];  
dataset.Next;  
end;  
  
if not(dataset.Eof) then  
begin  
label5.Visible:=true;  
combobox4.Visible:=true;  
label5.Caption:=dataset.FieldValues['Coursecode'];  
label16.Caption:=dataset.FieldValues['CourseId'];  
dataset.Next;  
end;
```

```
if not(dataset.Eof) then
begin
label6.Visible:=true;
combobox5.Visible:=true;
label6.Caption:=dataset.FieldValues['Coursecode'];
label17.Caption:=dataset.FieldValues['CourseId'];
dataset.Next;
end;

if not(dataset.Eof) then
begin
label7.Visible:=true;
combobox6.Visible:=true;
label7.Caption:=dataset.FieldValues['Coursecode'];
label18.Caption:=dataset.FieldValues['CourseId'];
dataset.Next;
end;

if not(dataset.Eof) then
begin
label8.Visible:=true;
combobox7.Visible:=true;
label8.Caption:=dataset.FieldValues['Coursecode'];
label19.Caption:=dataset.FieldValues['CourseId'];
end;
end;
end;

with frm_main.ADOquery1 do
begin
sql.clear;
sql.Add('Select * from student where StudentId="'+edit1.text+'"');
open;
end;
else
begin
messagedlg('Student Number Is Not Found !',mtwarning,[mbok],0);
edit1.SetFocus;
end;
end
else
begin
messagedlg('Student Number Must Be 8 Digits !',mtwarning,[mbok],0);
edit1.SetFocus;
end;
end
else
```

```

begin
messagedlg('Please Enter Number For Student To Update ! ',mtwarning,[mbok],0);
edit1.Clear;
edit1.SetFocus;
end;
end;

procedure Tfrm_semend.FormClose(Sender: TObject; var Action: TCloseAction);
begin
frm_beginsemester.show;
end;

procedure Tfrm_semend.Button4Click(Sender: TObject);
begin
frm_semend.Close;
end;

procedure Tfrm_semend.Button5Click(Sender: TObject);
begin
frm_main.Show;
end;

procedure Tfrm_semend.Button3Click(Sender: TObject);
begin
frm_semend.Show;
end;

procedure Tfrm_semend.Button2Click(Sender: TObject);
begin

{ with frm_main.ADOQuery2 do      //Find if already registered
begin
sql.Clear;
sql.Add('SELECT t.grade,t.studentId,t.gradedate,t.updateuser FROM transcript as t inner
join course as c on t.courseId=c.courseId where t.StudentId="'+edit1.Text+'" and
c.coursecode="'+label1.caption+'" and t.grade is null and t.dropdate is null');
open;
end;
}

with frm_main.ADOQuery2 do      //Find if already registered
begin
sql.Clear;
sql.Add('SELECT top 1 grade,studentId,gradedate,updateuser,courseId FROM transcript
where studentId="'+edit1.Text+'" and courseId=(SELECT courseId from course where
coursecode="'+label2.Caption+'") order by courseregdate desc');
open;
end;

```

```

with frm_main.DataSource8 do
begin
// dataset.First;
label19.caption:=inttostr(DataSet.RecordCount);
if not((DataSet.RecordCount=0)and((combobox1.text="")or(combobox1.Text=null))) then
begin
dataset.Edit;
DataSet.fieldvalues['grade]:=combobox1.Text;
DataSet.FieldValues['gradedate]:=date;
DataSet.FieldValues['updateuser]:=username;
DataSet.FieldValues['StudentId]:=edit1.Text;
DataSet.FieldValues['courseId]:=strtoint(label13.Caption);
DataSet.post;
end;
end;

with frm_main.ADOQuery2 do      //Find if already registered
begin
sql.Clear;
sql.Add('SELECT top 1 grade,studentId,gradedate,updateuser,courseId FROM transcript
where studentId="'+edit1.Text+'" and courseId=(SELECT courseId from course where
coursecode="'+label3.Caption+'") order by courseregdate desc');
open;
end;

with frm_main.DataSource8 do
begin
// dataset.First;
if not((DataSet.RecordCount=0)and((combobox2.text="")or(combobox2.Text=null))) then
begin
dataset.Edit;
DataSet.FieldValues['grade]:=combobox2.Text;
DataSet.FieldValues['gradedate]:=date;
DataSet.FieldValues['updateuser]:=username;
DataSet.FieldValues['StudentId]:=edit1.Text;
DataSet.FieldValues['courseId]:=strtoint(label14.Caption);
DataSet.post;
//dataset.Next;
end;
end;

with frm_main.ADOQuery2 do      //Find if already registered
begin
sql.Clear;
sql.Add('SELECT top 1 grade,studentId,gradedate,updateuser,courseId FROM transcript
where studentId="'+edit1.Text+'" and courseId=(SELECT courseId from course where
coursecode="'+label4.Caption+'") order by courseregdate desc');

```

```

open;
end;

with frm_main.DataSource8 do
begin
// dataset.First;

if not((DataSet.RecordCount=0)and((combobox3.text="")or(combobox3.Text=null))) then
begin
dataset.Edit;
DataSet.FieldValues['grade']:=(combobox4.Text);
DataSet.FieldValues['gradedate']:=(date);
DataSet.FieldValues['updateuser']:=(username);
DataSet.FieldValues['StudentId']:=(edit1.Text);
DataSet.FieldValues['courseId']:=(strtoint(label15.Caption));
DataSet.post;
// dataset.Next;
end;
end;

with frm_main.ADOQuery2 do      //Find if already registered
begin
sql.Clear;
sql.Add('SELECT top 1 grade,studentId,gradedate,updateuser,courseId FROM transcript
where studentId="'+edit1.Text+'" and courseId=(SELECT courseId from course where
coursecode="'+label5.Caption+'") order by courseregdate desc');
open;
end;

with frm_main.DataSource8 do
begin
// dataset.First;

if not((DataSet.RecordCount=0)and((combobox4.text="")or(combobox4.Text=null))) then
begin
dataset.Edit;
DataSet.FieldValues['grade']:=(combobox4.Text);
DataSet.FieldValues['gradedate']:=(date);
DataSet.FieldValues['updateuser']:=(username);
DataSet.FieldValues['StudentId']:=(edit1.Text);
DataSet.FieldValues['courseId']:=(strtoint(label16.Caption));
DataSet.post;
// dataset.Next;
end;
end;

with frm_main.ADOQuery2 do      //Find if already registered
begin
sql.Clear;

```

```

sql.Add('SELECT top 1 grade,studentId,gradedate,updateuser,courseId FROM transcript
where studentId="'+edit1.Text+'" and courseId=(SELECT courseId from course where
coursecode="'+label6.Caption+'") order by courseregdate desc');
open;
end;

// frm_main.ADOQuery2.DataSource.DataSet.FieldValues
with frm_main.DataSource8 do
begin
// dataset.First;

if not((DataSet.RecordCount=0)and((combobox5.text="")or(combobox5.Text=null))) then
begin
dataset.Edit;
DataSet.FieldValues['grade]:=combobox5.Text;
DataSet.FieldValues['gradedate]:=date;
DataSet.FieldValues['updateuser]:=username;
DataSet.FieldValues['StudentId]:=edit1.Text;
DataSet.FieldValues['courseId]:=strtoint(label17.Caption);
DataSet.post;
// dataset.Next;
end;
end;

with frm_main.ADOQuery2 do      //Find if already registered
begin
sql.Clear;
sql.Add('SELECT top 1 grade,studentId,gradedate,updateuser,courseId FROM transcript
where studentId="'+edit1.Text+'" and courseId=(SELECT courseId from course where
coursecode="'+label7.Caption+'") order by courseregdate desc');
open;
end;

with frm_main.DataSource8 do
begin
// dataset.First;
// label19.caption:=inttostr(DataSet.RecordCount);
if not((DataSet.RecordCount=0)and((combobox6.text="")or(combobox6.Text=null))) then
begin
dataset.Edit;
DataSet.fieldvalues['grade]:=combobox6.Text;
DataSet.FieldValues['gradedate]:=date;
DataSet.FieldValues['updateuser]:=username;
DataSet.FieldValues['StudentId]:=edit1.Text;
DataSet.FieldValues['courseId]:=strtoint(label18.Caption);
DataSet.post;

end;

```

```

end;

with frm_main.ADOQuery2 do      //Find if already registered
begin
  sql.Clear;
  sql.Add('SELECT top 1 grade,studentId,gradedate,updateuser,courseId FROM transcript
where studentId="'+edit1.Text+'" and courseId=(SELECT courseId from course where
coursecode="'+label8.Caption+'") order by courseregdate desc');
  open;
end;

with frm_main.DataSource8 do
begin
  // dataset.First;
  // label19.caption:=inttostr(DataSet.RecordCount);
  if not((DataSet.RecordCount=0)and((combobox7.text="")or(combobox7.Text=null))) then
  begin
    dataset.Edit;
    DataSet.fieldvalues['grade]:=combobox7.Text;
    DataSet.FieldValues['gradedate]:=date;
    DataSet.FieldValues['updateuser]:=username;
    DataSet.FieldValues['StudentId]:=edit1.Text;
    DataSet.FieldValues['courseId]:=strToInt(label19.Caption);
    DataSet.post;

    end;
  end;

{with frm_main.ADOQuery2 do      //Find if already registered
begin
  sql.Clear;
  sql.Add('UPDATE transcript ()');//SELECT top 1
grade,studentId,gradedate,updateuser,courseId FROM transcript where
studentId="'+edit1.Text+'" and courseId=(SELECT courseId from course where
coursecode="'+label6.Caption+'") order by courseregdate desc');
  open;
end;
{ with frm_main.ADOQuery2 do      //Find if already registered
begin
  sql.Clear;
  sql.Add('SELECT t.grade,t.gradatedate,t.updateuser,t.studentId FROM transcript as t inner
join course as c on t.courseId=c.courseId where t.StudentId="'+edit1.Text+'" and
c.coursecode="'+label1.caption+'" and t.grade is null and t.dropdate is null');
  open;
end;

{ with frm_main.DataSource8 do
begin
  dataset.Edit;

```

```
dataset.First;
if not((dataset.Eof)and(combobox6.text<>"")and(combobox6.Visible)) then
begin
  dataset.FieldValues['grade']:='combobox6.Text';
  dataset.FieldValues['gradedate']:='date';
  dataset.FieldValues['updateuser']:='username';
  dataset.FieldValues['StudentId']:='edit1.Text';
  dataset.post;
// dataset.Next;
end;
end;

with frm_main.ADOQuery2 do      //Find if already registered
begin
  sql.Clear;
  sql.Add('SELECT t.grade,t.gradedate,t.updateuser,t.StudentId FROM transcript as t inner
join course as c on t.courseId=c.courseId where t.StudentId="'+edit1.Text+'" and
c.coursecode="'+label1.caption+'" and t.grade is null and t.dropdate is null');
  open;
end;

with frm_main.DataSource8 do
begin
  dataset.Edit;
  dataset.First;
  if not((dataset.Eof)and(combobox7.text<>"")and(combobox7.Visible)) then
  begin
    dataset.FieldValues['grade']:='combobox7.Text';
    dataset.FieldValues['gradedate']:='date';
    dataset.FieldValues['updateuser']:='username';
    dataset.FieldValues['StudentId']:='edit1.Text';
    dataset.post;
// dataset.Next;
  end;
  end;
}

end.
```

## **unit Unit15;**

interface

uses

Windows, Messages, SysUtils, Variants, Classes, Graphics, Controls, Forms,  
Dialogs, StdCtrls, DBCtrls, Grids, DBGrids, DB, ADODB, jpeg, ExtCtrls;

type

```
Tfrm_semend = class(TForm)
  Image1: TImage;
  Label1: TLabel;
  Label2: TLabel;
  Label3: TLabel;
  Label4: TLabel;
  Label5: TLabel;
  Label6: TLabel;
  Label7: TLabel;
  Label8: TLabel;
  Label9: TLabel;
  Label10: TLabel;
  Label11: TLabel;
  Label12: TLabel;
  Label13: TLabel;
  Label14: TLabel;
  Label15: TLabel;
  Label16: TLabel;
  Label17: TLabel;
  Label18: TLabel;
  Label19: TLabel;
  Edit1: TEdit;
  Button1: TButton;
  ComboBox1: TComboBox;
  ComboBox2: TComboBox;
  ComboBox3: TComboBox;
  ComboBox4: TComboBox;
  ComboBox5: TComboBox;
  ComboBox6: TComboBox;
  ComboBox7: TComboBox;
  Button2: TButton;
  Button3: TButton;
  Button4: TButton;
  Button5: TButton;
  Edit2: TEdit;
  Edit3: TEdit;
  Edit4: TEdit;
  ADOQuery1: TADOQuery;
  Button6: TButton;
  Label20: TLabel;
  Label21: TLabel;
  Image2: TImage;
  procedure FormShow(Sender: TObject);
  procedure Button1Click(Sender: TObject);
  procedure FormClose(Sender: TObject; var Action: TCloseAction);
  procedure Button4Click(Sender: TObject);
  procedure Button5Click(Sender: TObject);
  procedure Button3Click(Sender: TObject);
  procedure Button2Click(Sender: TObject);
private
```

```
{ Private declarations }
public
{ Public declarations }
end;

var
frm_semend: Tfrm_semend;

implementation

uses Unit1,unit26, Unit22, Unit28;

{$R *.dfm}

procedure Tfrm_semend.FormShow(Sender: TObject);
begin
edit1.SetFocus;
edit1.Clear;
edit2.Clear;
edit3.Clear;
edit4.Clear;
edit1.ReadOnly:=false;

label12.Caption:="";
label2.Visible:=false;
label2.Caption:="";
label3.Visible:=false;
label3.Caption:="";
label4.Visible:=false;
label4.Caption:="";
label5.Visible:=false;
label5.Caption:="";
label6.Visible:=false;
label6.Caption:="";
label7.Visible:=false;
label7.Caption:="";
label8.Visible:=false;
label8.Caption:="";

combobox1.Text:="";
combobox1.Visible:=false;
combobox2.Text:="";
combobox2.Visible:=false;
combobox3.Text:="";
combobox3.Visible:=false;
combobox4.Text:="";
combobox4.Visible:=false;
combobox5.Text:="";
combobox5.Visible:=false;
```

```

combobox6.Text:="";
combobox6.Visible:=false;
combobox7.Text:="";
combobox7.Visible:=false;

end;

procedure Tfrm_semend.Button1Click(Sender: TObject);
var i:integer;
var ypart:integer;
var mpart:string;
var ShortMonthNames:string;
begin
if edit1.text<>" then
begin
  ShortDateFormat := 'm/dd/yyyy';
  if length(edit1.Text)=8 then
    begin
      with frm_main.ADOquery1 do
        begin
          sql.clear;
          sql.Add('Select * from student where StudentId="'+edit1.text+''");
          open;
        end;
    end;
  if frm_main.DataSource7.DataSet.RecordCount<>0 then
    begin
      edit1.ReadOnly:=true;
      edit2.Text:= frm_main.DataSource7.DataSet.FieldValues['name'];
      edit3.Text:= frm_main.DataSource7.DataSet.FieldValues['surname'];
      edit4.Text:= frm_main.DataSource7.DataSet.FieldValues['departmentID'];

      // term caption
      shortdateformat:='mm';
      ShortMonthNames:=datetostr(date);
      // label12.Caption:=ShortMonthNames;
      if
        ((ShortMonthNames='01')or(ShortMonthNames='12')or(ShortMonthNames='11')or(ShortMonthNames='10')or(ShortMonthNames='09')or(ShortMonthNames='08')) then
          mpart:='Fall'
        else
          mpart:='Spring';

      shortdateformat:='yyyy';
      // ypart:=date;
      label12.Caption:=datetostr(date)+ ' - '+mpart+' Term registration ';

      shortdateformat:='dd/mm/yyyy';

      with frm_main.ADOQuery2 do      //Find if already registered

```

```
begin
sql.Clear;
sql.Add('SELECT c.coursecode,c.courseId,t.grade,t.gradatedate,t.updateuser FROM
transcript as t inner join course as c on t.courseId=c.courseId where
t.StudentId="'+edit1.Text+'" and t.grade is null and t.dropdate is null');
open;
end;

if frm_main.DataSource8.DataSet.RecordCount=0 then
begin
messagedlg('This Student Has Not Been Registered Yet, Use Registration Menu To
Make Course Registration ..!',mtwarning,[mbok],0);
Edit1.Clear;
Edit2.Clear;
Edit3.Clear;
Edit4.Clear;
edit1.ReadOnly:=False;
exit;
end
else
begin
with frm_main.DataSource8 do
begin
dataset.First;
i:=1;
if not(dataset.Eof) then
begin
label2.Visible:=true;
combobox1.Visible:=true;
label2.Caption:=dataset.FieldValues['Coursecode'];
label13.Caption:=dataset.FieldValues['CourseId'];
dataset.Next;
end;
if not(dataset.Eof) then
begin
label3.Visible:=true;
combobox2.Visible:=true;
label3.Caption:=dataset.FieldValues['Coursecode'];
label14.Caption:=dataset.FieldValues['CourseId'];
dataset.Next;
end;

if not(dataset.Eof) then
begin
label4.Visible:=true;
combobox3.Visible:=true;
label4.Caption:=dataset.FieldValues['Coursecode'];
label15.Caption:=dataset.FieldValues['CourseId'];
dataset.Next;
end;
```

```
end;

if not(dataset.Eof) then
begin
label5.Visible:=true;
combobox4.Visible:=true;
label5.Caption:=dataset.FieldValues['Coursecode'];
label16.Caption:=dataset.FieldValues['CourseId'];
dataset.Next;
end;

if not(dataset.Eof) then
begin
label6.Visible:=true;
combobox5.Visible:=true;
label6.Caption:=dataset.FieldValues['Coursecode'];
label17.Caption:=dataset.FieldValues['CourseId'];
dataset.Next;
end;

if not(dataset.Eof) then
begin
label7.Visible:=true;
combobox6.Visible:=true;
label7.Caption:=dataset.FieldValues['Coursecode'];
label18.Caption:=dataset.FieldValues['CourseId'];
dataset.Next;
end;

if not(dataset.Eof) then
begin
label8.Visible:=true;
combobox7.Visible:=true;
label8.Caption:=dataset.FieldValues['Coursecode'];
label19.Caption:=dataset.FieldValues['CourseId'];
end;

end;
end;

with frm_main.ADOquery1 do
begin
sql.clear;
sql.Add('Select * from student where StudentId="'+edit1.text+''");
open;
end;
```

```

end
else
begin
  messagedlg('Student Number Is Not Found !',mtwarning,[mbok],0);
  edit1.SetFocus;
end;
end
else
begin
  messagedlg('Student Number Must Be 8 Digits !',mtwarning,[mbok],0);
  edit1.SetFocus;
end;
end
else
begin
  messagedlg('Please Enter Number For Student To Update !',mtwarning,[mbok],0);
  edit1.Clear;
  edit1.SetFocus;
end;
end;

procedure Tfrm_semend.FormClose(Sender: TObject; var Action: TCloseAction);
begin
  frm_beginsemester.show;
end;

procedure Tfrm_semend.Button4Click(Sender: TObject);
begin
  frm_semend.Close;
end;

procedure Tfrm_semend.Button5Click(Sender: TObject);
begin
  frm_main.Show;
end;

procedure Tfrm_semend.Button3Click(Sender: TObject);
begin
  frm_semend.Show;
end;

procedure Tfrm_semend.Button2Click(Sender: TObject);
begin
{ with frm_main.ADOQuery2 do      //Find if already registered
begin
  sql.Clear;
  sql.Add('SELECT t.grade,t.studentId,t.gradedate,t.updateuser FROM transcript as t inner
join course as c on t.courseId=c.courseId where t.StudentId="'+edit1.Text+'" and
c.coursecode="'+label1.caption+'" and t.grade is null and t.dropdate is null');
}

```

```

open;
end;
}

with frm_main.ADOQuery2 do      //Find if already registered
begin
sql.Clear;
sql.Add('SELECT top 1 grade,studentId,gradedate,updateuser,courseId FROM transcript
where studentId="'+edit1.Text+'" and courseId=(SELECT courseId from course where
coursecode="'+label2.Caption+'") order by courseregdate desc');
open;
end;

with frm_main.DataSource8 do
begin
// dataset.First;
label19.caption:=inttostr(DataSet.RecordCount);
if not((DataSet.RecordCount=0)and((combobox1.text="")or(combobox1.Text=null))) then
begin
dataset.Edit;
DataSet.fieldvalues['grade]:=combobox1.Text;
DataSet.FieldValues['gradedate]:=date;
DataSet.FieldValues['updateuser]:=username;
DataSet.FieldValues['StudentId]:=edit1.Text;
DataSet.FieldValues['courseId]:=strtoint(label13.Caption);
DataSet.post;

end;
end;

with frm_main.ADOQuery2 do      //Find if already registered
begin
sql.Clear;
sql.Add('SELECT top 1 grade,studentId,gradedate,updateuser,courseId FROM transcript
where studentId="'+edit1.Text+'" and courseId=(SELECT courseId from course where
coursecode="'+label3.Caption+'") order by courseregdate desc');
open;
end;

with frm_main.DataSource8 do
begin
// dataset.First;

if not((DataSet.RecordCount=0)and((combobox2.text="")or(combobox2.Text=null))) then
begin
dataset.Edit;
DataSet.FieldValues['grade]:=combobox2.Text;
DataSet.FieldValues['gradedate]:=date;

```

```

DataSet.FieldValues['updateuser']:=username;
DataSet.FieldValues['StudentId']:=edit1.Text;
DataSet.FieldValues['courseId']:=strtoint(label14.Caption);
DataSet.post;
//dataset.Next;
end;
end;

with frm_main.ADOQuery2 do      //Find if already registered
begin
sql.Clear;
sql.Add('SELECT top 1 grade,studentId,gradedate,updateuser,courseId FROM transcript
where studentId="'+edit1.Text+'" and courseId=(SELECT courseId from course where
coursecode="'+label4.Caption+'") order by courseregdate desc');
open;
end;

with frm_main.DataSource8 do
begin
// dataset.First;

if not((DataSet.RecordCount=0)and((combobox3.text="")or(combobox3.Text=null))) then
begin
dataset.Edit;
DataSet.FieldValues['grade']:=combobox4.Text;
DataSet.FieldValues['gradedate']:=date;
DataSet.FieldValues['updateuser']:=username;
DataSet.FieldValues['StudentId']:=edit1.Text;
DataSet.FieldValues['courseId']:=strtoint(label15.Caption);
DataSet.post;
// dataset.Next;
end;
end;

with frm_main.ADOQuery2 do      //Find if already registered
begin
sql.Clear;
sql.Add('SELECT top 1 grade,studentId,gradedate,updateuser,courseId FROM transcript
where studentId="'+edit1.Text+'" and courseId=(SELECT courseId from course where
coursecode="'+label5.Caption+'") order by courseregdate desc');
open;
end;

with frm_main.DataSource8 do
begin
// dataset.First;

if not((DataSet.RecordCount=0)and((combobox4.text="")or(combobox4.Text=null))) then

```

```

begin
dataset.Edit;
DataSet.FieldValues['grade]:=combobox4.Text;
DataSet.FieldValues['gradedate]:=date;
DataSet.FieldValues['updateuser]:=username;
DataSet.FieldValues['StudentId]:=edit1.Text;
DataSet.FieldValues['courseId]:=strtoint(label16.Caption);
DataSet.post;
// dataset.Next;
end;
end;

with frm_main.ADOQuery2 do      //Find if already registered
begin
sql.Clear;
sql.Add('SELECT top 1 grade,studentId,gradedate,updateuser,courseId FROM transcript
where studentId="'+edit1.Text+'" and courseId=(SELECT courseId from course where
coursecode="'+label6.Caption+'") order by courseregdate desc');
open;
end;

// frm_main.ADOQuery2.DataSource.DataSet.FieldValues
with frm_main.DataSource8 do
begin
// dataset.First;

if not((DataSet.RecordCount=0)and((combobox5.text=")or(combobox5.Text=null))) then
begin
dataset.Edit;
DataSet.FieldValues['grade]:=combobox5.Text;
DataSet.FieldValues['gradedate]:=date;
DataSet.FieldValues['updateuser]:=username;
DataSet.FieldValues['StudentId]:=edit1.Text;
DataSet.FieldValues['courseId]:=strtoint(label17.Caption);
DataSet.post;
// dataset.Next;
end;
end;

with frm_main.ADOQuery2 do      //Find if already registered
begin
sql.Clear;
sql.Add('SELECT top 1 grade,studentId,gradedate,updateuser,courseId FROM transcript
where studentId="'+edit1.Text+'" and courseId=(SELECT courseId from course where
coursecode="'+label7.Caption+'") order by courseregdate desc');
open;
end;

```

```

with frm_main.DataSource8 do
begin
// dataset.First;
// label19.caption:=inttostr(DataSet.RecordCount);
if not((DataSet.RecordCount=0)and((combobox6.text="")or(combobox6.Text=null))) then
begin
dataset.Edit;
DataSet.fieldvalues['grade]:=combobox6.Text;
DataSet.FieldValues['gradedate]:=date;
DataSet.FieldValues['updateuser]:=username;
DataSet.FieldValues['StudentId]:=edit1.Text;
DataSet.FieldValues['courseId]:=strtoint(label18.Caption);
DataSet.post;

end;
end;

with frm_main.ADOQuery2 do      //Find if already registered
begin
sql.Clear;
sql.Add('SELECT top 1 grade,studentId,gradedate,updateuser,courseId FROM transcript
where studentId="'+edit1.Text+'" and courseId=(SELECT courseId from course where
coursecode="'+label8.Caption+'") order by courseregdate desc');
open;
end;

with frm_main.DataSource8 do
begin
// dataset.First;
// label19.caption:=inttostr(DataSet.RecordCount);
if not((DataSet.RecordCount=0)and((combobox7.text="")or(combobox7.Text=null))) then
begin
dataset.Edit;
DataSet.fieldvalues['grade]:=combobox7.Text;
DataSet.FieldValues['gradedate]:=date;
DataSet.FieldValues['updateuser]:=username;
DataSet.FieldValues['StudentId]:=edit1.Text;
DataSet.FieldValues['courseId]:=strtoint(label19.Caption);
DataSet.post;

end;
end;
{with frm_main.ADOQuery2 do      //Find if already registered
begin
sql.Clear;
sql.Add('UPDATE transcript ()//SELECT top 1
grade,studentId,gradedate,updateuser,courseId FROM transcript where

```

```

studentId="" +edit1.Text+"" and courseId=(SELECT_courseId from course where
coursecode="" +label6.Caption+"") order by courseregdate desc');
open;
end;
{ with frm_main.ADOQuery2 do      //Find if already registered
begin
sql.Clear;
sql.Add('SELECT t.grade,t.gradedate,t.updateuser,t.studentId FROM transcript as t inner
join course as c on t.courseId=c.courseId where t.StudentId="" +edit1.Text+"" and
c.coursecode="" +label1.caption+" and t.grade is null and t.dropdate is null');
open;
end;

{ with frm_main.DataSource8 do
begin
dataset.Edit;
dataset.First;
if not((dataset.Eof)and(combobox6.text<>"")and(combobox6.Visible)) then
begin
dataset.FieldValues['grade']: =combobox6.Text;
dataset.FieldValues['gradedate']: =date;
dataset.FieldValues['updateuser']: =username;
dataset.FieldValues['StudentId']: =edit1.Text;
dataset.post;
// dataset.Next;
end;
end;

with frm_main.ADOQuery2 do      //Find if already registered
begin
sql.Clear;
sql.Add('SELECT t.grade,t.gradedate,t.updateuser,t.StudentId FROM transcript as t inner
join course as c on t.courseId=c.courseId where t.StudentId="" +edit1.Text+"" and
c.coursecode="" +label1.caption+" and t.grade is null and t.dropdate is null');
open;
end;

with frm_main.DataSource8 do
begin
dataset.Edit;
dataset.First;
if not((dataset.Eof)and(combobox7.text<>"")and(combobox7.Visible)) then
begin
dataset.FieldValues['grade']: =combobox7.Text;
dataset.FieldValues['gradedate']: =date;
dataset.FieldValues['updateuser']: =username;
dataset.FieldValues['StudentId']: =edit1.Text;
dataset.post;

```

```
// dataset.Next;  
end;  
end;  
}  
end;  
end.
```

---

```
unit Unit16;  
interface  
uses  
  Windows, Messages, SysUtils, Variants, Classes, Graphics, Controls, Forms,  
  Dialogs, StdCtrls, jpeg, ExtCtrls, Menus;  
type  
  TRep_main = class(TForm)  
    Image1: TImage;  
    Button1: TButton;  
    Button2: TButton;  
    Button3: TButton;  
    Button4: TButton;  
    Button5: TButton;  
    Button6: TButton;  
    Button7: TButton;  
    Button8: TButton;  
    Button9: TButton;  
    Button11: TButton;  
    Button12: TButton;  
    Button13: TButton;  
    Image2: TImage;  
    Label1: TLabel;  
    procedure Button1Click(Sender: TObject);  
    procedure Button2Click(Sender: TObject);  
    procedure Button3Click(Sender: TObject);  
    procedure Button4Click(Sender: TObject);  
    procedure Button5Click(Sender: TObject);  
    procedure Button6Click(Sender: TObject);  
    procedure Button7Click(Sender: TObject);  
    procedure Button8Click(Sender: TObject);  
    procedure Button9Click(Sender: TObject);  
    procedure FormClose(Sender: TObject; var Action: TCloseAction);  
    procedure Button10Click(Sender: TObject);  
    procedure Button11Click(Sender: TObject);  
    procedure Button12Click(Sender: TObject);  
    procedure Button13Click(Sender: TObject);  
    procedure Button14Click(Sender: TObject);  
  
  private  
    { Private declarations }  
  public  
    { Public declarations }  
  end;
```

```
var
  Rep_main: TRep_main;
implementation
uses Unit17, Unit18, Unit19, Unit20, Unit21, Unit23, Unit24, Unit25, Unit1,
  Unit14, Unit30, Unit31, Unit32, Unit33;

{$R *.dfm}

procedure TRep_main.Button1Click(Sender: TObject);
begin
  Rep_all_depts.show;
end;
procedure TRep_main.Button2Click(Sender: TObject);
begin
  rep_main.close;
end;

procedure TRep_main.Button3Click(Sender: TObject);
begin
  rep_all_teacs.show;
end;

procedure TRep_main.Button4Click(Sender: TObject);
begin
  Rep_teacs_dept.show;
end;

procedure TRep_main.Button5Click(Sender: TObject);
begin
  Rep_dept_teacs.show;
end;

procedure TRep_main.Button6Click(Sender: TObject);
begin
  Rep_all_courses.show;
end;

procedure TRep_main.Button7Click(Sender: TObject);
begin
  Rep_dept_cor.show;
end;

procedure TRep_main.Button8Click(Sender: TObject);
begin
  rep_all_stu.show;
end;
```

```
procedure TRep_main.Button9Click(Sender: TObject);
begin
  Rep_dept_stu.show;
end;

procedure TRep_main.FormClose(Sender: TObject; var Action: TCloseAction);
begin
  frm_main.show;
end;

procedure TRep_main.Button10Click(Sender: TObject);
begin
  frm_trans.show;
  rep_main.hide;
end;

procedure TRep_main.Button11Click(Sender: TObject);
begin
  Form30.show;
end;

procedure TRep_main.Button12Click(Sender: TObject);
begin
  Form31.show;
end;

procedure TRep_main.Button13Click(Sender: TObject);
begin
  Form32.Show;
end;

procedure TRep_main.Button14Click(Sender: TObject);
begin
  form33.show;
end;

end.
```

---

**unit Unit17;**

interface

uses

Windows, Messages, SysUtils, Variants, Classes, Graphics, Controls, Forms,  
 Dialogs, DB, ADODB, Grids, DBGrids, StdCtrls, jpeg, ExtCtrls;

type

TRep\_all\_depts = class(TForm)
 Image1: TImage;

```
Label1: TLabel;
DBGrid1: TDBGrid;
Button1: TButton;
Button2: TButton;
ADOQuery1: TADOQuery;
DataSource1: TDataSource;
procedure FormCreate(Sender: TObject);
procedure Button1Click(Sender: TObject);
procedure Button2Click(Sender: TObject);
procedure FormClose(Sender: TObject; var Action: TCloseAction);
private
  { Private declarations }
public
  { Public declarations }
end;

var
  Rep_all_depts: TRep_all_depts;

implementation

uses Unit16;

{$R *.dfm}

procedure TRep_all_depts.FormCreate(Sender: TObject);
begin
  with ADOQuery1 do
    begin
      SQL.Clear;
      sql.add('SELECT * FROM department');
      open;
    end;
end;

procedure TRep_all_depts.Button1Click(Sender: TObject);
begin
  Rep_all_depts.close;
end;

procedure TRep_all_depts.Button2Click(Sender: TObject);
begin
  Rep_all_depts.Print;
end;

procedure TRep_all_depts.FormClose(Sender: TObject;
  var Action: TCloseAction);
begin
  rep_main.show;
end;

```

**unit Unit18;**

interface

uses

Windows, Messages, SysUtils, Variants, Classes, Graphics, Controls, Forms,  
Dialogs, StdCtrls, Grids, DBGrids, DB, ADODB;

type

TRep\_all\_teacs = class(TForm)  
ADOQuery1: TADOQuery;  
DataSource1: TDataSource;  
Label1: TLabel;  
DBGrid1: TDBGrid;  
Button1: TButton;  
Button2: TButton;  
procedure Button2Click(Sender: TObject);  
procedure Button1Click(Sender: TObject);  
procedure FormCreate(Sender: TObject);  
procedure FormClose(Sender: TObject; var Action: TCloseAction);

private

{ Private declarations }

public

{ Public declarations }

end;

var

Rep\_all\_teacs: TRep\_all\_teacs;

implementation

uses Unit16;

{\$R \*.dfm}

procedure TRep\_all\_teacs.Button2Click(Sender: TObject);

begin

Rep\_all\_teacs.close;

end;

procedure TRep\_all\_teacs.Button1Click(Sender: TObject);

begin

Rep\_all\_teacs.Print;

end;

procedure TRep\_all\_teacs.FormCreate(Sender: TObject);

begin

with ADOQuery1 do

```
begin
  SQL.Clear;
  sql.add('SELECT * FROM teacher');
  open;
end;

end;
```

---

```
procedure TRep_all_teacs.FormClose(Sender: TObject;
  var Action: TCloseAction);
begin
  rep_main.show;
end;
```

---

```
end.
```

## **unit Unit19;**

interface

uses  
 Windows, Messages, SysUtils, Variants, Classes, Graphics, Controls, Forms,  
 Dialogs, StdCtrls, Grids, DBGrids, DB, ADODB;

type  
 TRep\_teacs\_dept = class(TForm)
 ADOQuery1: TADOQuery;
 DataSource1: TDataSource;
 DBGrid1: TDBGrid;
 Button1: TButton;
 Button2: TButton;
 Label1: TLabel;
 procedure FormCreate(Sender: TObject);
 procedure Button2Click(Sender: TObject);
 private
 { Private declarations }
 public
 { Public declarations }
 end;

var  
 Rep\_teacs\_dept: TRep\_teacs\_dept;

implementation

```
{$R *.dfm}
```

```
procedure TRep_teacs_dept.FormCreate(Sender: TObject);
begin
  with ADOQuery1 do
```

```
begin
SQL.Clear;
sql.add('SELECT tname,departmentId FROM teacher order by departmentId');
open;
end;

end;

procedure TRep_teacs_dept.Button2Click(Sender: TObject);
begin
Rep_teacs_dept.Free;
end;

end.
```

## **unit Unit20;**

interface

uses

Windows, Messages, SysUtils, Variants, Classes, Graphics, Controls, Forms,  
Dialogs, StdCtrls, DBCtrls, DB, ADODB, Grids, DBGrids;

type

```
TRep_dept_teacs = class(TForm)
  ADOQuery1: TADOQuery;
  DataSource1: TDataSource;
  Label1: TLabel;
  Button1: TButton;
  Button2: TButton;
  DBGrid1: TDBGrid;
  DataSource2: TDataSource;
  ADOQuery2: TADOQuery;
  ComboBox1: TComboBox;
  Label2: TLabel;
  procedure FormCreate(Sender: TObject);
  procedure Button1Click(Sender: TObject);
```

```
  procedure ComboBox1Click(Sender: TObject);
```

private

```
  { Private declarations }
```

public

```
  { Public declarations }
```

end;

var

```
  Rep_dept_teacs: TRep_dept_teacs;
```

implementation

```
uses unit26;
{$R *.dfm}

procedure TRep_dept_teacs.FormCreate(Sender: TObject);
begin

with ADOQuery1 do
begin
  SQL.Clear;
  sql.add('SELECT departmentId FROM department order by departmentId');
  open;
end;

DataSource1.DataSet.First;
while not (DataSource1.DataSet.Eof) do
begin
  combobox1.Items.add(DataSource1.DataSet.FieldValues['DepartmentID']);

  DataSource1.DataSet.Next;
end;
end;

procedure TRep_dept_teacs.Button1Click(Sender: TObject);
begin
  Rep_dept_teacs.Close;
end;

procedure TRep_dept_teacs.ComboBox1Click(Sender: TObject);
begin

with ADOQuery2 do
begin
  SQL.Clear;
  sql.add('SELECT Tname,Tsurname FROM teacher where
departmentID="'+combobox1.Text+'" order by tname,tsurname');
  open;
end;

end;
end.
```

## unit Unit21;

interface

uses

Windows, Messages, SysUtils, Variants, Classes, Graphics, Controls, Forms,  
Dialogs, StdCtrls, Grids, DBGrids, DB, ADODB;

```

type
TRep_all_courses = class(TForm)
  ADOQuery1: TADOQuery;
  DataSource1: TDataSource;
  DBGrid1: TDBGrid;
  Button1: TButton;
  Button2: TButton;
  Label1: TLabel;
  procedure Button2Click(Sender: TObject);
  procedure Button1Click(Sender: TObject);
  procedure FormCreate(Sender: TObject);
  procedure FormClose(Sender: TObject; var Action: TCloseAction);
private
  { Private declarations }
public
  { Public declarations }
end;

var
  Rep_all_courses: TRep_all_courses;

implementation

uses Unit16,unit26;

{$R *.dfm}

procedure TRep_all_courses.Button2Click(Sender: TObject);
begin
  Rep_all_courses.Close;
end;

procedure TRep_all_courses.Button1Click(Sender: TObject);
begin
  Rep_all_courses.Print;
end;

procedure TRep_all_courses.FormCreate(Sender: TObject);
begin
  with ADOQuery1 do
  begin
    SQL.Clear;
    sql.add('SELECT * FROM course order by coursename ');
    open;
  end;
end;

procedure TRep_all_courses.FormClose(Sender: TObject;

```

```
var Action: TCloseAction);
begin
  rep_main.show;
end;

end.
```

---

## unit Unit22;

interface

uses

Windows, Messages, SysUtils, Variants, Classes, Graphics, Controls, Forms,  
Dialogs, StdCtrls, ExtCtrls, strutils, ExtDlgs, jpeg;

type

Tfrm\_correg = class(TForm)

```
  Image1: TImage;
  Label1: TLabel;
  Label2: TLabel;
  Label3: TLabel;
  Label4: TLabel;
  Label7: TLabel;
  Label8: TLabel;
  Label9: TLabel;
  Label10: TLabel;
  Label11: TLabel;
  Label12: TLabel;
  Label13: TLabel;
  Label14: TLabel;
  Label15: TLabel;
  Label16: TLabel;
  Label17: TLabel;
  Label18: TLabel;
  Edit1: TEdit;
  Button1: TButton;
  Edit2: TEdit;
  Edit3: TEdit;
  Edit4: TEdit;
  Edit5: TEdit;
  Edit6: TEdit;
  Button4: TButton;
  Button5: TButton;
  Button6: TButton;
  Button7: TButton;
  Button8: TButton;
  Label19: TLabel;
  Label20: TLabel;
  Button2: TButton;
  ListBox1: TListBox;
```

```
ListBox2: TListBox;
Button3: TButton;
Image2: TImage;
procedure Button6Click(Sender: TObject);
procedure FormClose(Sender: TObject; var Action: TCloseAction);
procedure Button1Click(Sender: TObject);
procedure Button2Click(Sender: TObject);
procedure FormShow(Sender: TObject);
procedure Button3Click(Sender: TObject);
procedure Button4Click(Sender: TObject);
procedure Button7Click(Sender: TObject);
private
  { Private declarations }
public
  { Public declarations }
end;

var
  frm_correg: Tfrm_correg;

implementation

uses Unit1, ADODB, unit26, Unit28;

{$R *.dfm}

procedure Tfrm_correg.Button6Click(Sender: TObject);
begin
  frm_main.show;
  frm_correg.hide;
end;

procedure Tfrm_correg.FormClose(Sender: TObject; var Action: TCloseAction);
begin
  frm_main.Show;
end;

procedure Tfrm_correg.Button1Click(Sender: TObject);
var sumcredit:integer;
  var sumgrade,gpa:real;
  var sumgencredit:integer;
  var sumgengrade,cgpa:real;
  var cid:integer;

  var ypart:integer;
  var mpart,t:string;
  var ShortMonthNames:string;

begin
```

```

if (edit1.text<>null) then
begin
with frm_main.ADOQuery1 do
begin
sql.Clear;
sql.Add('SELECT * FROM student WHERE StudentId="'+edit1.Text+'"');
open;
end;
if not(frm_main.DataSource7.DataSet.eof) then
begin
edit2.Text:=frm_main.DataSource7.DataSet.FieldValues['name'];
edit3.Text:=frm_main.DataSource7.DataSet.FieldValues['surname'];
edit4.Text:=frm_main.DataSource7.DataSet.FieldValues['departmentID'];

edit1.ReadOnly:=true;

shortdateformat:='mm';
ShortMonthNames:=datetostr(date);
label12.Caption:=ShortMonthNames;
if
((ShortMonthNames='01')or(ShortMonthNames='12')or(ShortMonthNames='11')or(ShortMo
nthNames='10')or(ShortMonthNames='09')or(ShortMonthNames='08')) then
mpart:='Fall'
else
mpart:='Spring';

shortdateformat:='yyyy';
// ypart:=date;
label9.Caption:=datetostr(date)+' - '+mpart+' Term registration';

shortdateformat:='dd/mm/yyyy';

// To calculate gpa.....
sumcredit:=0;
sumgrade:=0;
gpa:=0;
sumgencredit:=0;
sumgengrade:=0;
cgpa:=0;

with frm_main.ADOQuery4 do
begin
sql.Clear;
sql.add('Select t.GradeDate,t.studentId,t.grade,t.courseID,c.credit from transcript as t
inner join course as c on t.courseID=c.courseID where t.studentId="'+edit1.Text+'" and
t.grade is not null');
open;
end;

```

```

with frm_main.ADOQuery5 do
begin
sql.Clear;
sql.add('Select MAX(Gradedate) as maxdate from transcript WHERE
StudentId="'+edit1.text+''");
open;
end;

frm_main.DataSource10.DataSet.First;
if not(frm_main.DataSource11.DataSet.Eof) then
begin
while not(frm_main.DataSource10.DataSet.Eof) do
begin
with frm_main.DataSource10 do
begin
if
(dataset.FieldValues['GradeDate']>=frm_main.DataSource11.DataSet.FieldValues['maxdate'])
then
begin
sumcredit:=sumcredit+dataset.FieldValues['credit'];

if dataset.FieldValues['grade']='AA' then
sumgrade:=sumgrade+dataset.FieldValues['credit']*4;
if dataset.FieldValues['grade']='BA' then
sumgrade:=sumgrade+dataset.FieldValues['credit']*3.5;
if dataset.FieldValues['grade']='BB' then
sumgrade:=sumgrade+dataset.FieldValues['credit']*3;
if dataset.FieldValues['grade']='CB' then
sumgrade:=sumgrade+dataset.FieldValues['credit']*2.5;
if dataset.FieldValues['grade']='CC' then
sumgrade:=sumgrade+dataset.FieldValues['credit']*2;
if dataset.FieldValues['grade']='DC' then
sumgrade:=sumgrade+dataset.FieldValues['credit']*1.5;
if dataset.FieldValues['grade']='DD' then
sumgrade:=sumgrade+dataset.FieldValues['credit']*1;
if dataset.FieldValues['grade']='FD' then
sumgrade:=sumgrade+dataset.FieldValues['credit']*0.5;
if dataset.FieldValues['grade']='FF' then
sumgrade:=sumgrade+dataset.FieldValues['credit']*0;

dataset.Next;
end
else
begin
dataset.Next;
end;
end; // with

end; //while
if ((sumcredit>0) and (sumgrade>0)) then

```

```

begin
str((sumgrade/sumcredit):3:2,t);
edit5.Text:=t;
end;
// edit6.Text:=floattostr(sumgrade);
end
else
begin
messagedlg('This Student Never Registered Before...',mtinformation,[mbok],0);
gpa:=0;
end;

//end of gpa

// start of cgpa
sumgencredit:=0;
sumgengrade:=0;
cgpa:=0;

with frm_main.ADOQuery4 do
begin
sql.Clear;
sql.add('Select t.GradeDate,t.studentId,t.grade,t.courseID,c.credit from transcript as t
inner join course as c on t.courseID=c.courseID where t.studentId="'+edit1.Text+'" and
t.grade is not null');
open;
end;

frm_main.DataSource10.DataSet.First;

while not(frm_main.DataSource10.DataSet.Eof) do
begin
with frm_main.DataSource10 do
begin
label10.Caption:=frm_main.ADOQuery4.FieldValues['courseId'];
with frm_main.ADOQuery6 do
begin
sql.Clear;
sql.add('Select t.GradeDate,t.studentId,t.grade,t.courseID,c.credit from transcript as t
inner join course as c on t.courseID=c.courseID where t.studentId="'+edit1.Text+'" and
t.courseId='+label10.Caption+' order by gradedate desc');
open;
end;

frm_main.DataSource12.DataSet.First;

if
dataset.FieldValues['gradedate']=frm_main.DataSource12.DataSet.FieldValues['gradedate']
then
begin

```

```

sumgencredit:=sumgencredit+dataset.FieldValues['credit'];

if dataset.FieldValues['grade']=='AA' then
  sumgengrade:=sumgengrade+dataset.FieldValues['credit']*4;
if dataset.FieldValues['grade']=='BA' then
  sumgengrade:=sumgengrade+dataset.FieldValues['credit']*3.5;
if dataset.FieldValues['grade']=='BB' then
  sumgengrade:=sumgengrade+dataset.FieldValues['credit']*3;
if dataset.FieldValues['grade']=='CB' then
  sumgengrade:=sumgengrade+dataset.FieldValues['credit']*2.5;
if dataset.FieldValues['grade']=='CC' then
  sumgengrade:=sumgengrade+dataset.FieldValues['credit']*2;
if dataset.FieldValues['grade']=='DC' then
  sumgengrade:=sumgengrade+dataset.FieldValues['credit']*1.5;
if dataset.FieldValues['grade']=='DD' then
  sumgengrade:=sumgengrade+dataset.FieldValues['credit']*1;
if dataset.FieldValues['grade']=='FD' then
  sumgengrade:=sumgengrade+dataset.FieldValues['credit']*0.5;
if dataset.FieldValues['grade']=='FF' then
  sumgengrade:=sumgengrade+dataset.FieldValues['credit']*0;
dataset.Next;

end
else
begin
  dataset.Next;
end; // end of if

end; //end of with

end; //end of while

if ((sumgencredit>0) and (sumgengrade>0)) then
begin
  str((sumgengrade/sumgencredit):3:2,t);
  edit6.Text:=t;
end;

label10.Caption:=Inttostr(sumgencredit);
label11.Caption:=floattostr(sumgengrade);

// end of cgpa....
with frm_main.ADOQuery2 do      //Find if already registered
begin
  sql.Clear;
  sql.Add('SELECT grade FROM transcript where StudentId="'+edit1.Text+'" and grade
is null');

```

```

open;
end;

if frm_main.DataSource8.DataSet.RecordCount>0 then
begin
  messagedlg('This Student Has Already Been Registered, Use Add/Drop Menu To update
Course Registration ...!',mtwarning,[mbok],0);
  Edit1.Clear;
  Edit2.Clear;
  Edit3.Clear;
  Edit4.Clear;
  Edit5.Clear;
  Edit6.Clear;
  Listbox1.Items.Clear;
  listbox2.Items.Clear;
  edit1.ReadOnly:=false;
  edit1.SetFocus;
  exit;
end;
with frm_main.ADOQuery2 do      //Find failed courses
begin
  sql.Clear;
  sql.Add('SELECT c.coursecode,t.grade,t.courseId FROM course as c inner join
transcript as t');
  sql.add('on c.courseId=t.courseId WHERE StudentId="'+edit1.Text+'"'); // and ((t.grade
is null) or(t.grade="FF") or');
//  sql.Add('(t.grade="FD"))';
  open;
end;

frm_main.DataSource8.DataSet.first;
while not(frm_main.DataSource8.DataSet.eof) do
begin
  if ((frm_main.DataSource8.DataSet.FieldValues['grade']=='FF') or
(frm_main.DataSource8.DataSet.FieldValues['grade']=='FD')) then
    begin
      label15.Caption:=inttostr(frm_main.DataSource8.DataSet.FieldValues['courseId']);
      with frm_main.ADOQuery5 do      //Find if passed
      begin
        sql.Clear;
        sql.Add('SELECT grade FROM transcript WHERE StudentId="'+edit1.Text+'" and
courseId='+label15.caption+' order by gradedate desc');
        open;
      end;
      if
((frm_main.DataSource11.DataSet.FieldValues['grade']=='FF')OR(frm_main.DataSource11.Da
taSet.FieldValues['grade']=='FD')) THEN
        begin

```

```

listbox1.Font.Color:=clred;
listbox1.Items.Add(' '+frm_main.DataSource8.DataSet.FieldValues['coursecode']+'
'+frm_main.DataSource8.DataSet.FieldValues['grade']);
frm_main.DataSource8.DataSet.next;
end
else
begin
  frm_main.DataSource8.DataSet.next;

end;
end
else
begin
  frm_main.DataSource8.DataSet.Next;
end;

end;
with frm_main.ADOQuery2 do      //find unregistered courses
begin
  sql.Clear;
  sql.Add('SELECT coursecode FROM course ');
  sql.add('WHERE courseId not in (SELECT c.courseID FROM course as c inner join
transcript as t');
  sql.Add('on c.courseId=t.courseId WHERE StudentId="'+edit1.Text+'");// and ((t.grade
is null) or(t.grade="FF") or(t.grade="FD")));
  open;
end;

frm_main.DataSource8.DataSet.first;
while not(frm_main.DataSource8.DataSet.eof) do
begin
  listbox1.Font.Color:=clblack;
  listbox1.Items.Add(' '+frm_main.DataSource8.DataSet.FieldValues['coursecode']);
  frm_main.DataSource8.DataSet.next;
end ;
with frm_main.ADOQuery2 do      //Already passed courses
begin
  sql.Clear;
  sql.Add('SELECT c.coursecode,t.grade FROM course as c inner join transcript as t');
  sql.add('on c.courseId=t.courseId WHERE StudentId="'+edit1.Text+'");// and ((t.grade
is null) or(t.grade="FF") or');
//    sql.Add('or(t.grade="FD"));
  open;
end;

frm_main.DataSource8.DataSet.first;
while not(frm_main.DataSource8.DataSet.eof) do
begin
  if not((frm_main.DataSource8.DataSet.FieldValues['grade']=='FF') or
(frm_main.DataSource8.DataSet.FieldValues['grade']=='FD')) then

```

```

begin
  listbox1.Font.Color:=clred;
  listbox1.Items.Add(' '+frm_main.DataSource8.DataSet.FieldValues['coursecode']+'
'+frm_main.DataSource8.DataSet.FieldValues['grade']+'
->PASSED');
  frm_main.DataSource8.DataSet.next;
end
else
begin
  frm_main.DataSource8.DataSet.Next;
end;
end;

end
else
begin
  messagedlg('Student ID is not Found !!',mtinformation,[mbok],0);
  edit1.SetFocus;
end;
end;
end;
procedure Tfrm_correg.Button2Click(Sender: TObject);
var i:integer;
begin
if ((listbox2.Items.Count<7) and (listbox1.ItemIndex>=0)) then
begin
  i:=listbox1.ItemIndex;
  listbox2.Items.Add(' '+listbox1.Items.ValueFromIndex[listbox1.itemindex]);//
listbox1..SelCount.ValueFromIndex[listbox1.Items.] )
  listbox1.Items.Delete(listbox1.ItemIndex);

end
else
begin
  messagedlg('You can not register any more course !!!',mtwarning,[mbok],0);
  button5.setfocus;
end;
end;

procedure Tfrm_correg.FormShow(Sender: TObject);
begin
  Edit1.Clear;
  Edit2.Clear;
  Edit3.Clear;
  Edit4.Clear;
  Edit5.Clear;
  Edit6.Clear;
  Listbox1.Items.Clear;

```

```

listbox2.Items.Clear;
edit1.ReadOnly:=false;
edit1.SetFocus;

end;

procedure Tfrm_correg.Button3Click(Sender: TObject);
begin
  if listbox2.ItemIndex>=0 then
  begin
    listbox1.Items.Add(' '+listbox2.Items.ValueFromIndex[listbox2.itemindex]);//
    listbox1..SelCount.ValueFromIndex[listbox1.Items.] //listbox1.Items.
    listbox2.Items.Delete(listbox2.ItemIndex);
  end;
end;

procedure Tfrm_correg.Button4Click(Sender: TObject);
var i:integer;
begin
  i:=0;
  while (i<(listbox2.Count)) do
  begin
    with frm_main do
    begin
      Datasource2.Edit;
      datasource2.DataSet.Append;
      datasource2.DataSet.FieldValues['StudentId]:=edit1.Text;
//      adotable2.FieldValues['StudentId]:=edit1.Text;
//      adotable2.FieldValues['coursecode]:=listbox2.Items.ValueFromIndex[i];
      if pos(' ',listbox2.Items.ValueFromIndex[i])>0 then
        begin
          with frm_main.ADOQuery4 do      //find unregistered courses
          begin
            sql.Clear;
            sql.Add('SELECT courseId FROM course where
coursecode="'+(midstr(listbox2.items.ValueFromIndex[i],1,(pos(
',ansireplacestr(listbox2.items.ValueFromIndex[i],' ',''))))+'"');
            open;
          end;
        end;
      datasource2.DataSet.FieldValues['courseid]:=datasource10.DataSet.FieldValues['courseid'];
    end
  else
    begin
      with frm_main.ADOQuery4 do      //find unregistered courses
      begin

```

```
sql.Clear;
sql.Add('SELECT courseid FROM course where
coursecode="'+listbox2.Items.ValueFromIndex[i]+'");
open;
end;

datasource2.DataSet.FieldValues['courseid']:='datasource10.DataSet.FieldValues['courseid'];
end;
datasource2.DataSet.FieldValues['courseregdate']:='date';
datasource2.DataSet.FieldValues['processuser']:='username';
datasource2.DataSet.FieldValues['processdate']:='date';
datasource2.DataSet.Post;
end;
i:=i+1;
end;
if listbox2.Count>0 then
begin
messagedlg(' Course Registration completed successfully!!',mtinformation,[mbok],0);
Edit1.Clear;
Edit2.Clear;
Edit3.Clear;
Edit4.Clear;
Edit5.Clear;
Edit6.Clear;
Listbox1.Items.Clear;
listbox2.Items.Clear;
edit1.SetFocus;
edit1.ReadOnly:=false;
end
else
messagedlg('Please Select courses to register!!',mtwarning,[mbok],0);
end;
```

```
procedure Tfrm_correg.Button7Click(Sender: TObject);
begin
frm_correg.Hide;
frm_beginsemester.show;
end;
end.
```

## unit Unit23;

interface

uses

Windows, Messages, SysUtils, Variants, Classes, Graphics, Controls, Forms,  
Dialogs, StdCtrls, Grids, DBGrids, DB, ADODB;

type

TRep\_dept\_cor = class(TForm)

```

ADOQuery1: TADOQuery;
DataSource1: TDataSource;
ComboBox1: TComboBox;
Label1: TLabel;
Label2: TLabel;
DataSource2: TDataSource;
ADOQuery2: TADOQuery;
DBGrid1: TDBGrid;
Button1: TButton;
Button2: TButton;
procedure FormCreate(Sender: TObject);
procedure Button1Click(Sender: TObject);
procedure Button2Click(Sender: TObject);
procedure ComboBox1Click(Sender: TObject);
procedure FormClose(Sender: TObject; var Action: TCloseAction);
private
  { Private declarations }
public
  { Public declarations }
end;

var
  Rep_dept_cor: TRep_dept_cor;

implementation

uses Unit16,unit26;

{$R *.dfm}

procedure TRep_dept_cor.FormCreate(Sender: TObject);
begin
  with ADOQuery1 do
    begin
      SQL.Clear;
      sql.add('SELECT departmentId FROM department order by departmentId');
      open;
    end;

  DataSource1.DataSet.First;
  while not (DataSource1.DataSet.Eof) do
  begin
    combobox1.Items.add(DataSource1.DataSet.FieldValues['DepartmentID']);

    DataSource1.DataSet.Next;
  end;
end;

```

```

procedure TRep_dept_cor.Button1Click(Sender: TObject);
begin
  Rep_dept_cor.print;
end;

procedure TRep_dept_cor.Button2Click(Sender: TObject);
begin
  rep_dept_cor.Close;
end;

procedure TRep_dept_cor.ComboBox1Click(Sender: TObject);
begin
  with ADOQuery2 do
  begin
    SQL.Clear;
    sql.add('SELECT * FROM course where departmentID="'+combobox1.Text+'" order by
    coursename');
    open;
  end;
end;

procedure TRep_dept_cor.FormClose(Sender: TObject;
  var Action: TCloseAction);
begin
  rep_main.show;
end;
end.

```

---

## **unit Unit24;**

interface

uses

Windows, Messages, SysUtils, Variants, Classes, Graphics, Controls, Forms,  
Dialogs, StdCtrls, Grids, DBGrids, DB, ADODB;

type

```

TRep_all_stu = class(TForm)
  Label1: TLabel;
  ADOQuery1: TADOQuery;
  DataSource1: TDataSource;
  DBGrid1: TDBGrid;
  Button1: TButton;
  Button2: TButton;
  procedure Button2Click(Sender: TObject);
  procedure Button1Click(Sender: TObject);
  procedure FormCreate(Sender: TObject);
  procedure FormClose(Sender: TObject; var Action: TCloseAction);
private
  { Private declarations }
public

```

```
{ Public declarations }
end;

var
  Rep_all_stu: TRep_all_stu;
implementation
uses Unit16,unit26;
{$R *.dfm}
procedure TRep_all_stu.Button2Click(Sender: TObject);
begin
  Rep_all_stu.Close;
end;
procedure TRep_all_stu.Button1Click(Sender: TObject);
begin
  Rep_all_stu.Print;
end;
procedure TRep_all_stu.FormCreate(Sender: TObject);
begin
  with ADOQuery1 do
  begin
    SQL.Clear;
    sql.add('SELECT * FROM student');
    open;
  end;
end;
end;
procedure TRep_all_stu.FormClose(Sender: TObject;
  var Action: TCloseAction);
begin
  rep_main.show;
end;
end.
```

## unit Unit25;

interface

uses

Windows, Messages; SysUtils, Variants, Classes, Graphics, Controls, Forms,  
Dialogs, Grids, DBGrids, DB, ADODB, StdCtrls;

type

```
TRep_dept_stu = class(TForm)
  Button1: TButton;
  Button2: TButton;
  ComboBox1: TComboBox;
  Label1: TLabel;
  Label2: TLabel;
  ADOQuery1: TADOQuery;
  ADOQuery2: TADOQuery;
```

```
DataSource1: TDataSource;
DataSource2: TDataSource;
DBGrid1: TDBGrid;
procedure Button2Click(Sender: TObject);
procedure Button1Click(Sender: TObject);
procedure FormCreate(Sender: TObject);
procedure ComboBox1Click(Sender: TObject);
procedure FormClose(Sender: TObject; var Action: TCloseAction);
private
  { Private declarations }
public
  { Public declarations }
end;

var
  Rep_dept_stu: TRep_dept_stu;

implementation

uses Unit16,unit26;

{$R *.dfm}

procedure TRep_dept_stu.Button2Click(Sender: TObject);
begin
  Rep_dept_stu.Close;
end;

procedure TRep_dept_stu.Button1Click(Sender: TObject);
begin
  //Rep_dept_stu.Print;
end;

procedure TRep_dept_stu.FormCreate(Sender: TObject);
begin
  with ADOQuery1 do
  begin
    SQL.Clear;
    sql.add('SELECT departmentId FROM department order by departmentId');
    open;
  end;
end;

DataSource1.DataSet.First;
while not (DataSource1.DataSet.Eof) do
begin
  combobox1.Items.add(DataSource1.DataSet.FieldValues['DepartmentID']);

  DataSource1.DataSet.Next;
end;end;
```

```
procedure TRep_dept_stu.ComboBox1Click(Sender: TObject);
begin
  with ADOQuery2 do
    begin
      SQL.Clear;
      sql.add('SELECT * FROM student where departmentID="'+combobox1.Text+'" order by
name,surname');
      open;
    end;
end;

procedure TRep_dept_stu.FormClose(Sender: TObject;
  var Action: TCloseAction);
begin
  rep_main.show;
end;
end.
```

## unit Unit26;

interface

uses

Windows, Messages, SysUtils, Variants, Classes, Graphics, Controls, Forms,  
Dialogs, StdCtrls, DB, ADODB, jpeg, ExtCtrls, WinSkinData;

type

```
Tfrm_password = class(TForm)
  Button1: TButton;
  EXIT: TButton;
  ADOTable1: TADOTable;
  ADOQuery1: TADOQuery;
  DataSource2: TDataSource;
  SkinData1: TSkinData;
  Image2: TImage;
  Image1: TImage;
  Label1: TLabel;
  Label2: TLabel;
  Image4: TImage;
  Image5: TImage;
  Label3: TLabel;
  Label6: TLabel;
  Image3: TImage;
  Image6: TImage;
  Edit2: TEdit;
  Label4: TLabel;
  Label5: TLabel;
  Edit1: TEdit;
  DataSource1: TDataSource;
```

```

procedure FormClose(Sender: TObject; var Action: TCloseAction);
procedure EXITClick(Sender: TObject);
procedure FormCreate(Sender: TObject);
procedure Button1Click(Sender: TObject);
private
  { Private declarations }
public
  { Public declarations }
end;

var
  frm_password: Tfrm_password;
  level:string;
  username:string;
  trial:integer;
implementation

uses Unit1;

{$R *.dfm}

procedure Tfrm_password.FormClose(Sender: TObject;
  var Action: TCloseAction);
begin
  application.Terminate;
end;

procedure Tfrm_password.EXITClick(Sender: TObject);
begin
  frm_password.Close;
end;

procedure Tfrm_password.FormCreate(Sender: TObject);
begin
  trial:=0;
  //datasource1.DataSet.First;
  /*while not datasource1.DataSet.Eof do
  //begin
  //combobox1.Items.Add(datasource1.DataSet.FieldValues['LoginName']);
  //datasource1.DataSet.Next;
  //end;
end;

procedure Tfrm_password.Button1Click(Sender: TObject);
begin
  with adoquery1 do
  begin
    sql.Clear;
    sql.Add('Select * from login where LoginName="'+Edit1.Text+'"');
    open;

```

```
end;

begin
if edit2.text=datasource2.dataset.fieldvalues['password'] then
begin
 level:=datasource2.DataSet.FieldValues['AccessLevel'];
 username:=datasource2.DataSet.FieldValues['LoginName'];
 edit2.Text:="";
 edit1.Text:="";
 label4.Visible:=false;
 label5.Visible:=false;
 edit1.SetFocus;
 frm_password.Hide;
 frm_main.Show;
end
else
begin
 edit2.Text:="";
 trial:=trial+1;
 label4.Show;
 label5.Show;
 //MessageDlg('Wrong Password. Please Enter again. '+IntToStr(3-trial)+' Trials Left',
 mtInformation,[mbOk], 0);
 edit1.SetFocus;
end;
end;
if trial=3 then
begin
 MessageDlg('You Are Not An Accessible Person To This System', mtInformation,[mbOk],
 0);
 application.Terminate;
end;
end;
end.
```

## unit Unit27;

interface

uses

Windows, Messages, SysUtils, Variants, Classes, Graphics, Controls, Forms,  
Dialogs, Buttons, StdCtrls, ExtCtrls, ComCtrls, jpeg;

type

```
Tfrm_login = class(TForm)
 Image1: TImage;
 Label1: TLabel;
 Label2: TLabel;
 Label3: TLabel;
```

```
Edit1: TEdit;
Edit2: TEdit;
ComboBox1: TComboBox;
RadioGroup1: TRadioGroup;
Button1: TButton;
Button2: TButton;
Button3: TButton;
Button4: TButton;
Button5: TButton;
Button6: TButton;
ComboBox2: TComboBox;
Button7: TButton;
Label4: TLabel;
Label5: TLabel;
Image2: TImage;
procedure FormClose(Sender: TObject; var Action: TCloseAction);
procedure BitBtn1Click(Sender: TObject);
procedure Button6Click(Sender: TObject);
procedure FormShow(Sender: TObject);
procedure Button3Click(Sender: TObject);
procedure FormCreate(Sender: TObject);
procedure Button2Click(Sender: TObject);
procedure Button4Click(Sender: TObject);
procedure ComboBox2Select(Sender: TObject);
procedure ComboBox2KeyPress(Sender: TObject; var Key: Char);
procedure ComboBox1KeyPress(Sender: TObject; var Key: Char);
procedure Button7Click(Sender: TObject);
procedure Button1Click(Sender: TObject);
procedure Button5Click(Sender: TObject);
private
  { Private declarations }
public
  { Public declarations }
end;

var
  frm_login: Tfrm_login;
  process:string;
implementation

uses Unit1,unit26;

{$R *.dfm}

procedure Tfrm_login.FormClose(Sender: TObject; var Action: TCloseAction);
begin
  frm_main.show;
  combobox2.Visible:=false;
end;
```

```
procedure Tfrm_login.BitBtn1Click(Sender: TObject);
begin
  frm_login.Close;
end;

procedure Tfrm_login.Button6Click(Sender: TObject);
begin
  frm_login.Close;
end;

procedure Tfrm_login.FormShow(Sender: TObject);
begin
  edit1.Clear;
  edit1.Visible:=true;
  edit2.Clear;
  combobox1.Clear;
  combobox2.Clear;
  combobox2.Visible:=false;
  edit1.Enabled:=false;
  edit2.Enabled:=false;
  combobox1.Enabled:=false;
  radiogroup1.Enabled:=false;
  button3.Enabled:=false;
  button4.Enabled:=false;
  button5.Enabled:=false;
  if level='Admin' then
  begin
    button3.Enabled:=true;
    button4.Enabled:=true;
    button5.Enabled:=true;
  end;
end;

procedure Tfrm_login.Button3Click(Sender: TObject);
begin
  edit1.Enabled:=true;
  edit1.Visible:=true;
  combobox2.Visible:=false;
  edit1.Clear;
  edit2.Clear;
  combobox1.Clear;
  combobox2.Clear;
  combobox2.Enabled:=false;
  with frm_main.ADOquery1 do
  begin
    sql.clear;
    sql.Add('Select DepartmentId from Department');
    open;
  end;
  frm_main.datasource7.DataSet.First;
```

```

while not frm_main.datasource7.DataSet.Eof do
begin
  combobox1.Items.Add(frm_main.datasource7.DataSet.FieldValues['DepartmentId']);
  frm_main.DataSource7.DataSet.Next;
end;

edit1.Enabled:=true;
edit2.Enabled:=true;
combobox1.Enabled:=true;
combobox2.Enabled:=false;
edit1.SetFocus;
radiogroup1.Enabled:=true;
edit1.Clear;
edit2.Clear;
radiogroup1.ItemIndex:=2;
process:='add'; //to inform save button
end;

procedure Tfrm_login.FormCreate(Sender: TObject);
begin
  process:="";
end;

procedure Tfrm_login.Button2Click(Sender: TObject);
begin
  if (process='add') then
  begin
    if
((trim(edit1.text)<>"")and(trim(edit2.text)<>"")and(trim(combobox1.text)<>"")and(radiogroup1.
ItemIndex>=0)) then
    begin
      if process='add' then
        begin
          with frm_main.ADOQuery2 do
            begin
              sql.Clear;
              sql.Add('select loginname from login where loginname="'+edit1.Text+'"');
              open;
            end;
        end;
    //  frm_main.DataSource8.DataSet.First;
    if frm_main.DataSource8.DataSet.RecordCount>0 then
      begin
        messagedlg('Please select another user name!!',mtinformation,[mbok],0);
        edit1.Clear;
        edit2.Clear;
        exit;
      end
    else
      begin
        with frm_password.DataSource1 do

```

```

begin
dataset.Edit;
dataset.Append;
dataset.FieldValues['LoginName]:=edit1.Text;
dataset.FieldValues['Password]:=edit2.Text;
dataset.FieldValues['departmentId]:=combobox1.text;
case radiogroup1.ItemIndex of
0:dataset.FieldValues['AccessLevel']:='Admin';
1:dataset.FieldValues['AccessLevel']:='Advisor';
2:dataset.FieldValues['AccessLevel']:='User';
end;
dataset.post;
edit1.Clear;
edit2.Clear;
combobox1.Clear;
combobox2.Clear;
edit1.Enabled:=false;
edit2.Enabled:=false;
combobox1.Enabled:=false;
radiogroup1.Enabled:=false;
process:="";
end;
end;
end;
else
begin
messagedlg('Please Fill All Fields And Select Access Level',mtinformation,[mbok],0);
end;
end;

if process='delete' then
begin
if combobox1.text="" then
begin
edit1.Visible:=true;
combobox2.Visible:=false;
combobox2.Enabled:=false;
process:="";
end
else
begin
edit1.Enabled:=true;
edit2.Enabled:=true;
combobox1.Enabled:=true;
combobox2.Visible:=false;
combobox2.Enabled:=false;
end;
frm_password.DataSource2.DataSet.Delete;
messagedlg('The record successfully deleted',mtinformation,[mbok],0);

```

```

edit1.Clear;
edit2.Clear;
combobox1.Clear;
combobox2.Clear;
edit1.Visible:=true;
edit1.Enabled:=false;
edit2.Enabled:=false;
combobox1.Enabled:=false;
combobox2.Enabled:=false;
combobox2.Visible:=false;
// button3.Enabled:=false;
// button4.Enabled:=false;
// button5.Enabled:=false;
end;
end;
if process='changepassword' then
begin
if trim(edit2.text)<>" then
begin
frm_password.DataSource2.DataSet.edit;
frm_password.DataSource2.DataSet.FieldValues['password]:=edit2.Text;
frm_password.DataSource2.DataSet.Post;
edit1.clear;
edit2.Clear;
combobox1.Clear;
process:="";
end
else
messagedlg('Blank Password Is Not Allowed..!!',mtinformation,[mbok],0);
edit2.SetFocus;
end;

if process='changeaccess' then
begin
with frm_password.ADOQuery1 do
begin
sql.clear;
sql.Add('Select * from Login where Loginname="'+username+''");
open;
end;
frm_password.DataSource2.DataSet.edit;
case radiogroup1.ItemIndex of
  0:frm_password.DataSource2.dataset.FieldValues['AccessLevel']:='Admin';
  1:frm_password.DataSource2.dataset.FieldValues['AccessLevel']:='Advisor';
  2:frm_password.DataSource2.dataset.FieldValues['AccessLevel']:='User';
end;
frm_password.DataSource2.DataSet.Post;
edit1.clear;
edit2.Clear;

```

```

combobox1.Clear;
combobox2.Items.Clear;
combobox2.Clear;
combobox2.Visible:=false;
edit1.Visible:=true;
radiogroup1.Enabled:=false;
process:="";
end;

end;
procedure Tfrm_login.Button4Click(Sender: TObject);
begin
  edit1.Clear;
  edit2.Clear;
  combobox1.Clear;
  combobox2.Clear;
  edit1.Enabled:=false;
  combobox2.Enabled:=true;
  with frm_password.ADOquery1 do
  begin
    sql.clear;
    sql.Add('Select LoginName from Login');
    open;
  end;
  frm_password.datasource2.DataSet.First;
  while not frm_password.datasource2.DataSet.Eof do
  begin
    combobox2.Items.Add(frm_password.datasource2.DataSet.FieldValues['LoginName']);
    frm_password.DataSource2.DataSet.Next;
  end;
  // edit2.Enabled:=true;
  // combobox1.Enabled:=true;
  edit1.Visible:=false;
  combobox2.Visible:=true;
  edit2.enabled:=false;

  process:='delete'; //to inform save button

end;

procedure Tfrm_login.ComboBox2Select(Sender: TObject);
begin
  with frm_password.ADOquery1 do
  begin
    sql.clear;
    sql.Add('Select * from Login where loginname="'+combobox2.text+'"');
    open;
  end;
  combobox1.Text:=frm_password.DataSource2.DataSet.FieldValues['DepartmentId'];
  combobox1.Enabled:=false;

```

```

if frm_password.DataSource2.DataSet.FieldValues['AccessLevel']='Admin' then
  radiogroup1.ItemIndex:=0;
if frm_password.DataSource2.DataSet.FieldValues['AccessLevel']='Advisor' then
  radiogroup1.ItemIndex:=1;
if frm_password.DataSource2.DataSet.FieldValues['AccessLevel']='User' then
  radiogroup1.ItemIndex:=2;
if process<>'changeaccess' then
  radiogroup1.Enabled:=false;

end;

procedure Tfrm_login.ComboBox2KeyPress(Sender: TObject; var Key: Char);
begin
  KEY:=#0;
end;

procedure Tfrm_login.ComboBox1KeyPress(Sender: TObject; var Key: Char);
begin
  KEY:=#0;
end;

procedure Tfrm_login.Button7Click(Sender: TObject);
begin
  edit1.Clear;
  edit2.Clear;
  combobox1.Text:="";
  combobox2.Text:="";
  combobox1.Items.Clear;
  combobox2.Items.Clear;
  radiogroup1.Enabled:=false;
  process:="";
end;

procedure Tfrm_login.Button1Click(Sender: TObject);
begin
  process:='changepassword';
  combobox2.Visible:=false;
  edit1.Visible:=true;
  combobox2.Enabled:=false;
  edit1.Enabled:=false;
  edit2.Enabled:=true;
  edit2.Visible:=true;
  combobox1.Enabled:=false;
  combobox2.Text:=username;
  edit1.Text:=username;
  edit2.SetFocus;

with frm_password.ADOquery1 do
begin

```

```

sql.clear;
sql.Add('Select * from Login where Loginname="'+username+''");
open;
end;
combobox1.Text:=frm_password.DataSource2.DataSet.FieldValues['DepartmentId'];

// radiogroup1.ItemIndex:=frm_password.DataSource2.DataSet.FieldValues['AccessLevel'];
end;

procedure Tfrm_login.Button5Click(Sender: TObject);
begin
process:='changeaccess';
combobox2.Visible:=true;
combobox2.Enabled:=true;
edit1.Enabled:=false;
edit2.Enabled:=true;
edit2.Visible:=true;
combobox1.Enabled:=false;
combobox2.Text:=username;

with frm_password.ADOquery1 do
begin
sql.clear;
sql.Add('Select * from Login where Loginname="'+username+''");
open;
end;
radiogroup1.Enabled:=true;
if frm_password.DataSource2.DataSet.FieldValues['AccessLevel']='Admin' then
radiogroup1.ItemIndex:=0;
if frm_password.DataSource2.DataSet.FieldValues['AccessLevel']='Advisor' then
radiogroup1.ItemIndex:=1;
if frm_password.DataSource2.DataSet.FieldValues['AccessLevel']='User' then
radiogroup1.ItemIndex:=2;
combobox1.Text:=frm_password.DataSource2.DataSet.FieldValues['DepartmentId'];

with frm_password.ADOquery1 do
begin
sql.clear;
sql.Add('Select * from Login');
open;
end;
frm_password.datasource2.DataSet.First;
while not frm_password.datasource2.DataSet.Eof do
begin
combobox2.Items.Add(frm_password.datasource2.DataSet.FieldValues['LoginName']);
frm_password.DataSource2.DataSet.Next;
end;
end;
end.

```

```
unit Unit28;

interface

uses
  Windows, Messages, SysUtils, Variants, Classes, Graphics, Controls, Forms,
  Dialogs, Buttons, StdCtrls, jpeg, ExtCtrls;

type
  Tfrm_beginsemester = class(TForm)
    Image1: TImage;
    SpeedButton1: TSpeedButton;
    SpeedButton3: TSpeedButton;
    SpeedButton4: TSpeedButton;
    Label2: TLabel;
    Label1: TLabel;
    Image2: TImage;
    procedure SpeedButton3Click(Sender: TObject);
    procedure FormClose(Sender: TObject; var Action: TCloseAction);
    procedure SpeedButton1Click(Sender: TObject);
    procedure SpeedButton2Click(Sender: TObject);
    procedure SpeedButton4Click(Sender: TObject);

  private
    { Private declarations }
  public
    { Public declarations }
  end;

var
  frm_beginsemester: Tfrm_beginsemester;

implementation

uses Unit1, Unit22, Unit29, Unit15;

{$R *.dfm}

procedure Tfrm_beginsemester.SpeedButton3Click(Sender: TObject);
begin
  frm_beginsemester.Close;
end;

procedure Tfrm_beginsemester.FormClose(Sender: TObject;
  var Action: TCloseAction);
begin
  frm_main.show;
end;
```

```
procedure Tfrm_beginsemester.SpeedButton1Click(Sender: TObject);
begin
  frm_correg.show;
  frm_beginsemester.Hide;
end;

procedure Tfrm_beginsemester.SpeedButton2Click(Sender: TObject);
begin
  frm_adddrop.show;
  frm_beginsemester.Hide;
end;

procedure Tfrm_beginsemester.SpeedButton4Click(Sender: TObject);
begin
  frm_beginsemester.Hide;
  frm_semend.show;
end;
end.
```

---

**unit Unit29;**

interface

uses

Windows, Messages, SysUtils, Variants, Classes, Graphics, Controls, Forms,  
Dialogs, StdCtrls, ExtCtrls, strutils, jpeg;

type

```
Tfrm_adddrop = class(TForm)
  Image1: TImage;
  Label1: TLabel;
  Label2: TLabel;
  Label3: TLabel;
  Label4: TLabel;
  Label7: TLabel;
  Label8: TLabel;
  Label9: TLabel;
  Label10: TLabel;
  Label11: TLabel;
  Label12: TLabel;
  Label13: TLabel;
  Label14: TLabel;
  Label15: TLabel;
  Label16: TLabel;
  Label17: TLabel;
  Label18: TLabel;
  Edit1: TEdit;
  Button1: TButton;
  Edit2: TEdit;
  Edit3: TEdit;
```

```
Edit4: TEdit;
Edit5: TEdit;
Edit6: TEdit;
Button4: TButton;
Button5: TButton;
Button6: TButton;
Button7: TButton;
Button8: TButton;
Label19: TLabel;
Label20: TLabel;
Button2: TButton;
ListBox1: TListBox;
ListBox2: TListBox;
Button3: TButton;
Image2: TImage;
procedure FormClose(Sender: TObject; var Action: TCloseAction);
procedure Button6Click(Sender: TObject);
procedure Button7Click(Sender: TObject);
procedure Button1Click(Sender: TObject);
procedure Button2Click(Sender: TObject);
procedure Button3Click(Sender: TObject);
procedure Button5Click(Sender: TObject);
procedure FormShow(Sender: TObject);
procedure Button4Click(Sender: TObject);
private
  { Private declarations }
public
  { Public declarations }
end;
```

```
var
  frm_adddrop: Tfrm_adddrop;
```

implementation

```
uses Unit28, Unit1, unit26;
```

```
{$R *.dfm}
```

```
procedure Tfrm_adddrop.FormClose(Sender: TObject;
  var Action: TCloseAction);
begin
  frm_beginsemester.show;
end;
```

```
procedure Tfrm_adddrop.Button6Click(Sender: TObject);
begin
  frm_adddrop.Hide;
  frm_main.show;
end;
```

```

procedure Tfrm_adddrop.Button7Click(Sender: TObject);
begin
  frm_adddrop.Close;
end;

procedure Tfrm_adddrop.Button1Click(Sender: TObject);
var sumcredit:integer;
var sumgrade,gpa:real;
var sumgencredit:integer;
var sumgengrade,cgpa:real;
//var cid:integer;

//var ypart:integer;
var mpart:string;
var ShortMonthNames:string;

begin
  if edit1.text<>null then
    begin
      with frm_main.ADOQuery1 do
        begin
          sql.Clear;
          sql.Add('SELECT * FROM student WHERE StudentId="'+edit1.Text+'"');
          open;
        end;
    end;
  if not(frm_main.DataSource7.DataSet.eof) then
    begin
      edit2.Text:=frm_main.DataSource7.DataSet.FieldValues['name'];
      edit3.Text:=frm_main.DataSource7.DataSet.FieldValues['surname'];
      edit4.Text:=frm_main.DataSource7.DataSet.FieldValues['departmentID'];

      edit1.ReadOnly:=true;

      shortdateformat:='(mm)';
      ShortMonthNames:=datetostr(date);
      label12.Caption:=ShortMonthNames;
      if
        ((ShortMonthNames='01')or(ShortMonthNames='12')or(ShortMonthNames='11')or(ShortMo
nthNames='10')or(ShortMonthNames='09')or(ShortMonthNames='08')) then
        mpart:='Fall'
      else
        mpart:='Spring';

      shortdateformat:='(yyyy)';
//      ypart:=date;
      label9.Caption:=datetostr(date)+' - '+mpart+' Term registration ';

      shortdateformat:='(dd/mm/yyyy)';
    end;
end;

```

```

// To calculate gpa.....
sumcredit:=0;
sumgrade:=0;
gpa:=0;
sumgencredit:=0;
sumgengrade:=0;
cgpa:=0;

with frm_main.ADOQuery4 do
begin
  sql.Clear;
  sql.add('Select t.GradeDate,t.studentId,t.grade,t.courseID,c.credit from transcript as t
inner join course as c on t.courseID=c.courseID where t.studentId="'+edit1.Text+'" and
t.grade is not null');
  open;
end;

with frm_main.ADOQuery5 do
begin
  sql.Clear;
  sql.add('Select MAX(Gradedate) as maxdate from transcript');
  open;
end;

frm_main.DataSource10.DataSet.First;
if not(frm_main.DataSource11.DataSet.Eof) then
begin
  while not(frm_main.DataSource10.DataSet.Eof) do
  begin
    with frm_main.DataSource10 do
    begin
      if
(dataset.FieldValues['GradeDate']>=frm_main.DataSource11.DataSet.FieldValues['maxdate'])
then
begin
  sumcredit:=sumcredit+dataset.FieldValues['credit'];

  if dataset.FieldValues['grade']='AA' then
    sumgrade:=sumgrade+dataset.FieldValues['credit']*4;
  if dataset.FieldValues['grade']='BA' then
    sumgrade:=sumgrade+dataset.FieldValues['credit']*3.5;
  if dataset.FieldValues['grade']='BB' then
    sumgrade:=sumgrade+dataset.FieldValues['credit']*3;
  if dataset.FieldValues['grade']='CB' then
    sumgrade:=sumgrade+dataset.FieldValues['credit']*2.5;
  if dataset.FieldValues['grade']='CC' then
    sumgrade:=sumgrade+dataset.FieldValues['credit']*2;
  if dataset.FieldValues['grade']='DC' then
    sumgrade:=sumgrade+dataset.FieldValues['credit']*1.5;

```

```

if dataset.FieldValues['grade']=='DD' then
  sumgrade:=sumgrade+dataset.FieldValues['credit']*1;
if dataset.FieldValues['grade']=='FD' then
  sumgrade:=sumgrade+dataset.FieldValues['credit']*0.5;
if dataset.FieldValues['grade']=='FF' then
  sumgrade:=sumgrade+dataset.FieldValues['credit']*0;

dataset.Next;
end
else
begin
  dataset.Next;
end;
end; // with

end; //while
if ((sumcredit>0) and (sumgrade>0)) then
  edit5.Text:=floattostr(sumgrade/sumcredit);
//  edit6.Text:=floattostr(sumgrade);
end
else
begin
  messagedlg('This Student Never Registered Before...',mtinformation,[mbok],0);
  gpa:=0;
end;

//end of gpa

// start of cgpa
sumgencredit:=0;
sumengrade:=0;
cgpa:=0;

with frm_main.ADOQuery4 do
begin
  sql.Clear;
  sql.add('Select t.GradeDate,t.studentId,t.grade,t.courseID,c.credit from transcript as t
inner join course as c on t.courseID=c.courseID where t.studentId="'+edit1.Text+'" and
t.grade is not null');
  open;
end;

frm_main.DataSource10.DataSet.First;

while not(frm_main.DataSource10.DataSet.Eof) do
begin
  with frm_main.DataSource10 do
  begin
    label10.Caption:=frm_main.ADOQuery4.FieldValues['courseId'];
    with frm_main.ADOQuery6 do

```

```

begin
sql.Clear;
sql.add('Select t.GradeDate,t.studentId,t.grade,t.courseID,c.credit from transcript as t
inner join course as c on t.courseID=c.courseID where t.studentId="'+edit1.Text+'" and
t.courseID='+label10.Caption+' order by gradedate desc');

open;
end;

frm_main.DataSource12.DataSet.First;

if
dataset.FieldValues['gradedate']=frm_main.DataSource12.DataSet.FieldValues['gradedate']
then
begin
sumgencredit:=sumgencredit+dataset.FieldValues['credit'];

if dataset.FieldValues['grade']='AA' then
sumgengrade:=sumgengrade+dataset.FieldValues['credit']*4;
if dataset.FieldValues['grade']='BA' then
sumgengrade:=sumgengrade+dataset.FieldValues['credit']*3.5;
if dataset.FieldValues['grade']='BB' then
sumgengrade:=sumgengrade+dataset.FieldValues['credit']*3;
if dataset.FieldValues['grade']='CB' then
sumgengrade:=sumgengrade+dataset.FieldValues['credit']*2.5;
if dataset.FieldValues['grade']='CC' then
sumgengrade:=sumgengrade+dataset.FieldValues['credit']*2;
if dataset.FieldValues['grade']='DC' then
sumgengrade:=sumgengrade+dataset.FieldValues['credit']*1.5;
if dataset.FieldValues['grade']='DD' then
sumgengrade:=sumgengrade+dataset.FieldValues['credit']*1;
if dataset.FieldValues['grade']='FD' then
sumgengrade:=sumgengrade+dataset.FieldValues['credit']*0.5;
if dataset.FieldValues['grade']='FF' then
sumgengrade:=sumgengrade+dataset.FieldValues['credit']*0;
dataset.Next;

end
else
begin
dataset.Next;
end; // end of if
end; //end of with
end; //end of while
if ((sumgencredit>0) and (sumgengrade>0)) then
edit6.Text:=floattostr(sumgengrade/sumgencredit);
label10.Caption:=Inttostr(sumgencredit);
label11.Caption:=floattostr(sumgengrade);
// end of cgpa.....

```

with frm\_main.ADOQuery2 do //Find if already registered

```

begin
sql.Clear;
sql.Add('SELECT c.coursecode FROM transcript as t inner join course as c on
t.courseId=c.courseId where t.StudentId="'+edit1.Text+'" and t.grade is null');
open;
end;

if frm_main.DataSource8.DataSet.RecordCount=0 then
begin
messagedlg('This Student Has Not Been Registered Yet, Use Registration Menu To
Make Course Registration ..!',mtwarning,[mbok],0);
Edit1.Clear;
Edit2.Clear;
Edit3.Clear;
Edit4.Clear;
Edit5.Clear;
Edit6.Clear;
Listbox1.Items.Clear;
listbox2.Items.Clear;
edit1.ReadOnly:=false;
edit1.SetFocus;
exit;
end
else
begin
with frm_main.DataSource8 do
begin
dataset.First;
while not(dataset.Eof) do
begin
listbox2.Items.Add(' '+dataset.FieldValues['Coursecode']);
dataset.Next;
end;
end;
end;
end;

with frm_main.ADOQuery2 do      //Find failed courses
begin
sql.Clear;
sql.Add('SELECT c.coursecode,t.grade,t.courseId FROM course as c inner join
transcript as t');
sql.add('on c.courseId=t.courseId WHERE StudentId="'+edit1.Text+'"'')// and ((t.grade
is null) or(t.grade="FF") or');
//   sql.Add('t.grade="FD"'));
open;
end;

frm_main.DataSource8.DataSet.first;
while not(frm_main.DataSource8.DataSet.eof) do
begin

```

```

if ((frm_main.DataSource8.DataSet.FieldValues['grade']=='FF') or
(frm_main.DataSource8.DataSet.FieldValues['grade']=='FD')) then
begin
  label15.Caption:=inttostr(frm_main.DataSource8.DataSet.FieldValues['courseId']);
  with frm_main.ADOQuery5 do      //Find if passed
  begin
    sql.Clear;
    sql.Add('SELECT grade FROM transcript WHERE StudentId="'+edit1.Text+'" and
courseId='+label15.caption+' order by gradedate desc');
    open;
  end;

  if
((frm_main.DataSource11.DataSet.FieldValues['grade']=='FF')OR(frm_main.DataSource11.Da
taSet.FieldValues['grade']=='FD')) THEN
begin
  listbox1.Font.Color:=clred;
  listbox1.Items.Add(' '+frm_main.DataSource8.DataSet.FieldValues['coursecode']+'
--- >'+frm_main.DataSource8.DataSet.FieldValues['grade']);
  frm_main.DataSource8.DataSet.next;
end
else
begin
  frm_main.DataSource8.DataSet.next;
end;
end
else
begin
  frm_main.DataSource8.DataSet.Next;
end;

end;
with frm_main.ADOQuery2 do      //find unregistered courses
begin
  sql.Clear;
  sql.Add('SELECT coursecode FROM course ');
  sql.add('WHERE courseId not in (SELECT c.courseID FROM course as c inner join
transcript as t)');
  sql.Add('on c.courseId=t.courseId WHERE StudentId="'+edit1.Text+'");// and ((t.grade
is null) or(t.grade=="FF") or(t.grade=="FD")));
  open;
end;

frm_main.DataSource8.DataSet.first;
while not(frm_main.DataSource8.DataSet.eof) do
begin
  listbox1.Font.Color:=clblack;
  listbox1.Items.Add(' '+frm_main.DataSource8.DataSet.FieldValues['coursecode']);
  frm_main.DataSource8.DataSet.next;

```

```

end ;
with frm_main.ADOQuery2 do      //Already passed courses
begin
sql.Clear;
sql.Add('SELECT c.coursecode,t.grade FROM course as c inner join transcript as t');
sql.add('on c.courseId=t.courseId WHERE StudentId="'+edit1.Text+'"');// and ((t.grade
is null) or(t.grade="FF") or');
//   sql.Add('(t.grade="FD"))';
open;
end;

frm_main.DataSource8.DataSet.first;
while not(frm_main.DataSource8.DataSet.eof) do
begin
if
not((frm_main.DataSource8.DataSet.FieldValues['grade']=null)or(frm_main.DataSource8.Dat
aSet.FieldValues['grade']=='FF') or
(frm_main.DataSource8.DataSet.FieldValues['grade']=='FD')) then
begin
listbox1.Font.Color:=clred;
listbox1.Items.Add(' '+frm_main.DataSource8.DataSet.FieldValues['coursecode']+'
->'+frm_main.DataSource8.DataSet.FieldValues['grade']+'
--- PASSED');
frm_main.DataSource8.DataSet.next;
end
else
begin

frm_main.DataSource8.DataSet.Next;
end;
begin
end
else
begin
messagedlg('Student ID is not Found !!',mtinformation,[mbok],0);
edit1.SetFocus;
end;
end;
end;
end;

procedure Tfrm_adddrop.Button2Click(Sender: TObject);
begin
if listbox2.Items.Count<7 then
begin

listbox2.Items.Add(' '+listbox1.Items.ValueFromIndex[listbox1.itemindex]);//
listbox1..SelCount.ValueFromIndex[listbox1.Items.]
```

```
listbox1.Items.Delete(listbox1.ItemIndex);
end
else
begin
  messagedlg('You can not register any more course !!!',mtwarning,[mbok],0);
  button5.setfocus;
end;
end;

procedure Tfrm_adddrop.Button3Click(Sender: TObject);
begin
  if listbox2.ItemIndex>=0 then
  begin
    listbox1.Items.Add(' '+listbox2.Items.ValueFromIndex[listbox2.itemindex]);//
    listbox1..SelCount.ValueFromIndex[listbox1.Items.]
    listbox2.Items.Delete(listbox2.ItemIndex);
  end;
end;

procedure Tfrm_adddrop.Button5Click(Sender: TObject);
begin
  Edit1.Clear;
  Edit2.Clear;
  Edit3.Clear;
  Edit4.Clear;
  Edit5.Clear;
  Edit6.Clear;
  Listbox1.Items.Clear;
  listbox2.Items.Clear;
  edit1.ReadOnly:=false;
  edit1.SetFocus;
end;

procedure Tfrm_adddrop.FormShow(Sender: TObject);
begin
  Edit1.Clear;
  Edit2.Clear;
  Edit3.Clear;
  Edit4.Clear;
  Edit5.Clear;
  Edit6.Clear;
  Listbox1.Items.Clear;
  listbox2.Items.Clear;
  edit1.ReadOnly:=false;
  edit1.SetFocus;
end;

procedure Tfrm_adddrop.Button4Click(Sender: TObject);
var i,t:integer;
var a:string;
```

```

begin
with frm_main.ADOQuery2 do      //Find if already registered
begin
sql.Clear;
sql.Add('SELECT c.coursecode FROM transcript as t inner join course as c on
t.courseId=c.courseId where t.StudentId="'+edit1.Text+'" and t.grade is null and t.dropdate is
null order by t.courseregdate desc');
open;
end;
a:=' ';

frm_main.DataSource8.DataSet.First;
while not (frm_main.DataSource8.DataSet.Eof) do
begin
i:=0;
t:=0;
while (i<=(listbox2.Count-1)) do
begin
if
(frm_main.DataSource8.DataSet.FieldValues['coursecode']=leftstr(listbox2.Items.ValueFromI
ndex[i],ansiindexstr(listbox2.Items.ValueFromIndex[i],a))) then
begin
frm_main.DataSource8.DataSet.Edit;
frm_main.DataSource8.DataSet.FieldValues['ProcessDate]:=date;
frm_main.DataSource8.DataSet.FieldValues['ProcessUser]:=username;
frm_main.DataSource8.DataSet.Post;
t:=1;
i:=i+1;           //unchanged course
end
else
begin
i:=i+1;
end;
end; //end of 2nd while

if t=0 then    //dropped course
begin
frm_main.DataSource8.DataSet.Edit;
frm_main.DataSource8.DataSet.FieldValues['ProcessDate]:=date;
frm_main.DataSource8.DataSet.FieldValues['ProcessUser]:=username;
frm_main.DataSource8.DataSet.FieldValues['dropdate]:=date;
frm_main.DataSource8.DataSet.Post;

end;
frm_main.DataSource8.DataSet.Next;

end; // end of while

//////////////////7
i:=0;

```

```

frm_main.DataSource8.DataSet.First;
while (i<=(listbox2.Count-1)) do
begin
t:=0;
frm_main.DataSource8.DataSet.First;
while not (frm_main.DataSource8.DataSet.Eof) do
begin
if
(frm_main.DataSource8.DataSet.FieldValues['coursecode']=leftstr(listbox2.Items.ValueFromIndex[i],ansiindexstr(listbox2.Items.ValueFromIndex[i],a))) then
begin
frm_main.DataSource8.DataSet.Next;
t:=1; //unchanged course
end
else
begin
frm_main.DataSource8.DataSet.Next;
end;
end; //end of 2nd while

if t=0 then //add course
begin
frm_main.DataSource2.DataSet.Edit;
frm_main.DataSource2.DataSet.Append;
frm_main.DataSource8.DataSet.FieldValues['StudentId]:=edit1.Text;
frm_main.DataSource8.DataSet.FieldValues['courseregdate]:=date;
frm_main.DataSource8.DataSet.FieldValues['adddate]:=date;
frm_main.DataSource8.DataSet.FieldValues['ProcessUser]:=username;
frm_main.DataSource8.DataSet.FieldValues['processdate]:=date;

with frm_main.ADOQuery4 do //Find courseID
begin
sql.Clear;
sql.Add('SELECT courseId FROM course where
coursecode="'+leftstr(listbox2.Items.ValueFromIndex[i],ansiindexstr(listbox2.Items.ValueFromIndex[i],a))+"'');
open;
end;

frm_main.DataSource8.DataSet.FieldValues['courseId]:=frm_main.DataSource10.DataSet.FieldValues['courseId'];
frm_main.DataSource8.DataSet.post;
end;
frm_main.DataSource8.DataSet.Next;
end; // end of while
end;

```

end.

---

**unit Unit30;**

interface

uses

Windows, Messages, SysUtils, Variants, Classes, Graphics, Controls, Forms,  
Dialogs, StdCtrls, Grids, DBGrids, DB, ADODB;

type

```
TForm30 = class(TForm)
  Label1: TLabel;
  ADOTable1: TADOTable;
  DataSource1: TDataSource;
  DBGrid1: TDBGrid;
  Button1: TButton;
  Button2: TButton;
  procedure Button1Click(Sender: TObject);
  procedure Button2Click(Sender: TObject);
```

private

```
  { Private declarations }
```

public

```
  { Public declarations }
```

end;

var

```
  Form30: TForm30;
```

implementation

```
  uses Unit16,unit26;
```

```
{$R *.dfm}
```

```
procedure TForm30.Button1Click(Sender: TObject);
```

begin

```
  Form30.Print;
```

end;

```
procedure TForm30.Button2Click(Sender: TObject);
```

begin

```
  Form30.Close;
```

end;

end.

---

**unit Unit31;**

interface

uses

Windows, Messages, SysUtils, Variants, Classes, Graphics, Controls, Forms,

```
Dialogs, StdCtrls, Grids, DBGrids, DB, ADODB;

type
  TForm31 = class(TForm)
    Label1: TLabel;
    ADOTable1: TADOTable;
    DataSource1: TDataSource;
    DBGrid1: TDBGrid;
    Button1: TButton;
    Button2: TButton;
    procedure Button1Click(Sender: TObject);
    procedure Button2Click(Sender: TObject);
  private
    { Private declarations }
  public
    { Public declarations }
  end;

var
  Form31: TForm31;

implementation
uses Unit16,unit26;
{$R *.dfm}

procedure TForm31.Button1Click(Sender: TObject);
begin
  form31.Print;
end;

procedure TForm31.Button2Click(Sender: TObject);
begin
  form31.Close;
end;
```

---

```
unit Unit32;
interface
uses
  Windows, Messages, SysUtils, Variants, Classes, Graphics, Controls, Forms,
  Dialogs, StdCtrls, Grids, DBGrids, DB, ADODB;
type
  TForm32 = class(TForm)
    Label1: TLabel;
    ADOTable1: TADOTable;
    DataSource1: TDataSource;
    DBGrid1: TDBGrid;
    Button1: TButton;
    Button2: TButton;
    procedure Button1Click(Sender: TObject);
```

```
procedure Button2Click(Sender: TObject);
private
  { Private declarations }
public
  { Public declarations }
end;
var
  Form32: TForm32;
implementation
  uses Unit16,unit26;
{$R *.dfm}
procedure TForm32.Button1Click(Sender: TObject);
begin
  form32.Print;
end;
procedure TForm32.Button2Click(Sender: TObject);
begin
  form32.Close;
end;
end.
```

```
unit Unit33;
interface
uses
  Windows, Messages, SysUtils, Variants, Classes, Graphics, Controls, Forms,
  Dialogs, StdCtrls, Grids, DBGrids, DB, ADODB;

type
  TForm33 = class(TForm)
    ComboBox1: TComboBox;
    ADOQuery1: TADOQuery;
    ADOQuery2: TADOQuery;
    DataSource1: TDataSource;
    DataSource2: TDataSource;
    DBGrid1: TDBGrid;
    Label1: TLabel;
    Label2: TLabel;
    Button1: TButton;
    Button2: TButton;
    procedure FormCreate(Sender: TObject);
    procedure Button1Click(Sender: TObject);
    procedure Button2Click(Sender: TObject);
    procedure ComboBox1Click(Sender: TObject);
    procedure FormClose(Sender: TObject; var Action: TCloseAction);
  private
    { Private declarations }
  public
    { Public declarations }
  end;
```

```
var
  Form33: TForm33;

implementation

uses Unit23, Unit16;

{$R *.dfm}

procedure TForm33.FormCreate(Sender: TObject);
begin
  with ADOQuery1 do
  begin
    SQL.Clear;
    sql.add('SELECT StudentId FROM Transcript order by StudentId');
    open;
  end;

  DataSource1.DataSet.First;
  while not (DataSource1.DataSet.Eof) do
  begin
    combobox1.Items.add(DataSource1.DataSet.FieldValues['StudentId']);

    DataSource1.DataSet.Next;
  end;
end;

procedure TForm33.Button1Click(Sender: TObject);
begin
  Form33.print;
end;

procedure TForm33.Button2Click(Sender: TObject);
begin
  Form33.Close;
end;

procedure TForm33.ComboBox1Click(Sender: TObject);
begin
  with ADOQuery2 do
  begin
    SQL.Clear;
    sql.add('SELECT t.* ,c.* FROM transcript as t inner join course as c on t.CourseId =');
    c.CourseId where t.studentID="'+combobox1.Text+'" order by t.studentId');
    open;
  end;
end;

end;
```

```
procedure TForm33.FormClose(Sender: TObject;
  var Action: TCloseAction);
begin
  rep_main.show;
end;
end.
```

---

**unit Unit40;**

**interface**

**uses**

Windows, Messages, SysUtils, Variants, Classes, Graphics, Controls, Forms,  
Dialogs, ExtCtrls, StdCtrls, Buttons;

**type**

```
Tfrm_about = class(TForm)
  Image1: TImage;
  Panel1: TPanel;
  SpeedButton1: TSpeedButton;
  procedure SpeedButton1Click(Sender: TObject);
  procedure FormClose(Sender: TObject; var Action: TCloseAction);
private
  { Private declarations }
public
  { Public declarations }
end;
```

**var**

frm\_about: Tfrm\_about;

**implementation**

**uses** Unit1,unit26;

**{\$R \*.dfm}**

```
procedure Tfrm_about.SpeedButton1Click(Sender: TObject);
begin
  frm_about.Close;
end;
```

```
procedure Tfrm_about.FormClose(Sender: TObject; var Action: TCloseAction);
begin
  frm_main.Show;
end;
```

**end.**