**Gateway Technical College**

DATABASES

152-080

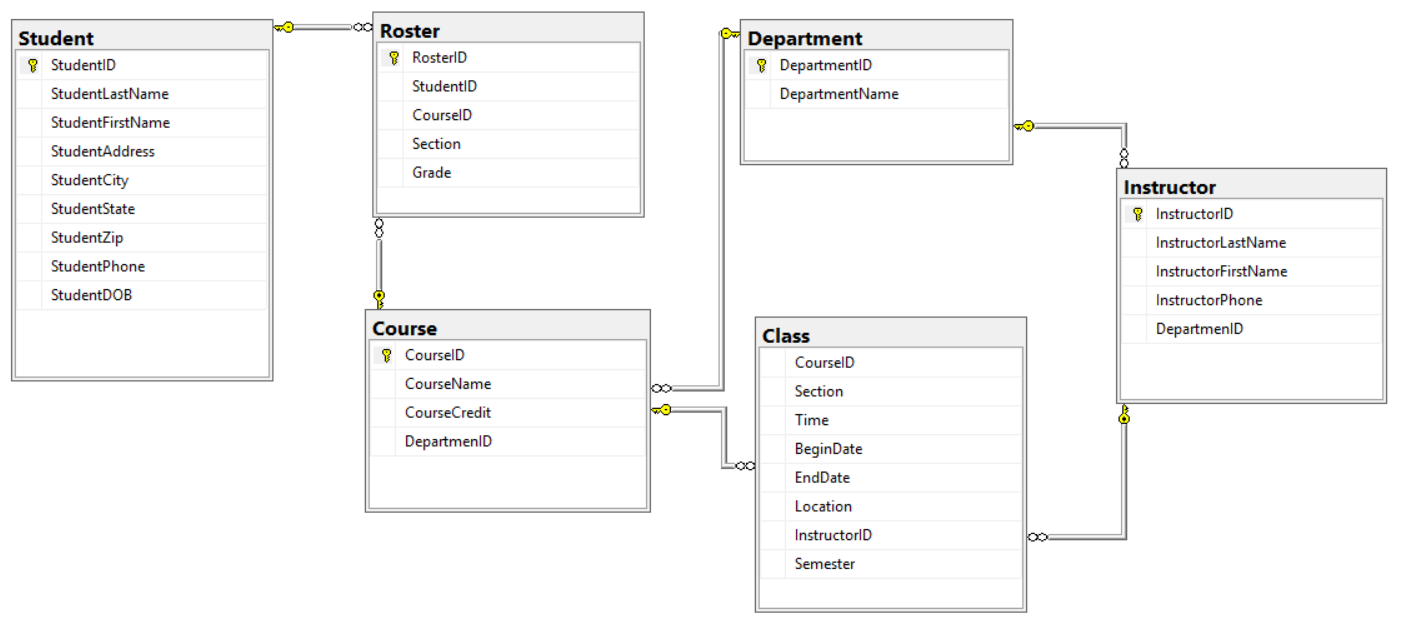
Unit 12 Assignment

# Introduction

In this lab you will create Stored Procedures. In order to do this assignment, you will need to run statements against the Education database you created in Unit 10.

If you don’t have the Education database, run the *Education.sql* script to create the database **Education** and all the tables and data to complete this assignment**.**

The ERD below shows all the tables and their relationships in the **Education** database.



MAKE SURE document your work and your commands work before you past them into the document.

Once completed, attach this completed word document to this assignment for grading.  Each question will be worth between 5-25 points.

Use the **Discussion Forum** if you have any questions regarding the how to approach this assignment. You can also email your instructor directly for assistance if you have any questions.

Save your submission as ***lastnameFirstname\_assign12.docx*** and submit it in the unit *Apply* section of the course.

# Instructions

You are to complete the following actions. In order to do this assignment, you will need to run statements against the Database you created named **Education** in Unit 9. For each question below – paste in print screens of your progress in each step.

1. Create the stored procedure named **sp\_InsertClass** below which will work with the **Education** database. Create the procedure below in SQL Server. (10 pts)

USE Education

GO

CREATE PROCEDURE sp\_InsertClass

@pcid VARCHAR(7),

@psection VARCHAR(3),

@ptime VARCHAR(10),

@pbegindate DATE,

@penddate DATE,

@plocation VARCHAR(4),

@piid INT,

@psemester VARCHAR(6) = "201302"

AS

INSERT INTO dbo.class (CourseID, Section, Time, BeginDate, EndDate, Location, InstructorID, Semester)

VALUES(@pcid, @psection, @ptime, @pbegindate, @penddate, @plocation, @piid, @psemester);

GO

**Your Print Screen:**

|  |
| --- |
|  |

2. Insert a row by executing the procedure (see code below). (5 pts)

USE Education

GO

EXEC sp\_InsertClass '107114', '001', '18000000', '20130905', '20131212', 'L208', 772

GO

**Your Print Screen:**

|  |
| --- |
|  |

3. Now let’s modify the stored procedure to add error catching. (10 pts)

USE Education

GO

ALTER PROCEDURE sp\_InsertClass

@pcid VARCHAR(7),

@psection VARCHAR(3),

@ptime VARCHAR(10),

@pbegindate DATE,

@penddate DATE,

@plocation VARCHAR(4),

@piid INT,

@psemester VARCHAR(6) = "201302"

AS

BEGIN

DECLARE @Error INT;

INSERT INTO dbo.Class (CourseID, Section, Time, BeginDate, EndDate, Location, InstructorID, Semester)

VALUES(@pcid, @psection, @ptime, @pbegindate, @penddate, @plocation, @piid, @psemester);

SET @Error = @@ERROR;

IF @Error = 0

PRINT 'New Class Section Added';

ELSE

BEGIN

IF @Error = 547 -- FK violation

PRINT 'Sorry you violated a FK integrity check on either Course ID or Instructor ID'

ELSE -- something unknown happened

PRINT 'Unknown error occurred.';

END

END

GO

**Your Print Screen:**

|  |
| --- |
|  |

4. Now let’s try to insert a row - run the statement below. (5 pts)

USE Education

GO

EXEC sp\_InsertClass '107114', '001', '18000000', '20130905', '20131212', 'L208', 772

GO

**Did it work? Why or why not?**

|  |
| --- |
| Ye it worked since it notified that a new class section was added |

5. Now let’s try to insert another row – run the statement below. Did it work and why? (5 pts)

USE Education

GO

EXEC sp\_InsertClass '107114', '001', '18000000', '20130905', '20131212', 'L208', 779

**YOUR ANSWER**:

|  |
| --- |
| **No as there is a conflicting with a Foreign Key as there is already a instance of it** |

6. Insert one more row. (5 pts)

USE Education

GO

EXEC sp\_InsertClass '001', '18:0000:00', 20130905, '20131212', 'L208', 772

**Did it work? Why or why not? If there’s any error, find it, fix it, and have it run.**

|  |
| --- |
| It didn’t work as its missing the CourseID and the BeginDate insert is missing apostrophe’s |

7. Create a stored procedure to insert a new row into the Instructor table. Make sure to use parameters for the values so it will be very reusable and paste your stored procedure below – make sure to include error checking. (25 pts)

**YOUR COMMAND WAS**:

|  |
| --- |
| USE Education  Go  Create Procedure sp\_InsertRowInstructor  @ID Int,  @LastName VarChar(15),  @FirstName VarChar(15),  @PhoneNum VarChar(12),  @Department Int  As  Begin  Declare @Error Int;  Insert Into Instructor (InstructorID, InstructorLastName, InstructorFirstName, InstructorPhone, DepartmenID)  Values (@ID, @LastName, @FirstName, @PhoneNum, @Department);  Set @Error = @@ERROR  If @Error = 0  Print 'New Row Added Succesfully';  Else  Begin    If @Error = 547 -- Foreign Key Vio  Print 'There is a Foreign Key Violation, please check the integrity of CourseID or InstructorID';  Else  Print 'Unknown Error Has Occured';  End  End  Go |

8. Execute the stored procedure to insert in the following record – paste a print screen of the result of the insert and also of a SELECT \* FROM Instructor; (5 pts)

Instructor ID=723

Instructor Last Name = Hur

Instructor First Name =Christian

Instructor Phone = 262-619-6388

Instructor Department = 3

**YOUR ANSWER**:

|  |
| --- |
|  |

9. Create a stored procedure to update the phone number of an existing row in the Instructor table. Use parameters for the Instructor ID and the Phone number which need to be changed so as to make it very reusable. Paste your stored procedure below – make sure to include error checking. (25 pts)

**YOUR COMMAND WAS**:

|  |
| --- |
| USE Education  Go  Create Procedure sp\_UpdateInstructorPhoneNum  @ID Int,  @NewNumber Varchar(12)  As  Begin  Declare @Error Int;  Update Instructor  Set InstructorPhone = @NewNumber  Where InstructorID = @ID  Set @Error = @@ERROR  If @Error = 0  Print 'Phone Number Succesfully Updated';  Else  Begin  Print 'Unknown Error Has Occured';  End  End  Go |

10. Execute the stored procedure to UPDATE the following record – paste a print screen of the result of the update and also of a SELECT \* FROM Instructor; (5 pts)

Instructor ID=723

Instructor Last Name = Hur

Instructor First Name =Christian

Instructor Phone = 262-619-6280

Instructor Department = 3

**YOUR ANSWER**:

|  |
| --- |
|  |