**Part 01**

1. Create a stored procedure to show the number of students per department.[use ITI DB]
2. Create a stored procedure that will check for the Number of employees in the project 100 if they are more than 3 print message to the user “'The number of employees in the project 100 is 3 or more'” if they are less display a message to the user “'The following employees work for the project 100'” in addition to the first name and last name of each one. [MyCompany DB]
3. Create a stored procedure that will be used in case an old employee has left the project and a new one becomes his replacement. The procedure should take 3 parameters (old Emp. number, new Emp. number and the project number) and it will be used to update works\_on table. [MyCompany DB]

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**Part 02**

1. Create a stored procedure that calculates the sum of a given range of numbers
2. Create a stored procedure that calculates the area of a circle given its radius
3. Create a stored procedure that calculates the age category based on a person's age ( Note: IF Age < 18 then Category is Child and if Age >= 18 AND Age < 60 then Category is Adult otherwise Category is Senior)
4. Create a stored procedure that determines the maximum, minimum, and average of a given set of numbers ( Note : set of numbers as Numbers = '5, 10, 15, 20, 25')

**Part 03**

**Use ITI DB**

* Create a trigger to prevent anyone from inserting a new record in the Department table ( Display a message for user to tell him that he can’t insert a new record in that table )
* Create a table named “StudentAudit”. Its Columns are (Server User Name , Date, Note)

|  |  |  |
| --- | --- | --- |
| Server User Name | Date | Note |
|  |  |  |

Create a trigger on student table after insert to add Row in StudentAudit table

* The Name of User Has Inserted the New Student
* Date
* Note that will be like ([username] Insert New Row with Key = [Student Id] in table [table name]

Create a trigger on student table instead of delete to add Row in StudentAudit table

* + The Name of User Has Inserted the New Student
  + Date
  + Note that will be like “try to delete Row with id = [Student Id]”

**Part 04**

**Use MyCompany DB:**

* Create a trigger that prevents the insertion Process for Employee table in March.

**Use IKEA\_Company:**

* Create an Audit table with the following structure

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ProjectNo | UserName | ModifiedDate | Budget\_Old | Budget\_New |
| p2 | Dbo | 2008-01-31 | 95000 | 200000 |

This table will be used to audit the update trials on the Budget column (Project table, Company DB)

If a user updated the budget column then the project number, username that made that update, the date of the modification and the value of the old and the new budget will be inserted into the Audit table

(Note: This process will take place only if the user updated the budget column)

**Part 05**

**Use ITI DB :**

* Create an index on column (Hiredate) that allows you to cluster the data in table Department. What will happen?
* Create an index that allows you to enter unique ages in the student table. What will happen?
* Try to Create Login Named(RouteStudent) who can access Only student and Course tables from ITI DB then allow him to select and insert data into tables and deny Delete and update