

SQLServer Lab

1. Display all the data from the Employee table (HumanResources Schema)
As an XML document "Use XML Raw". "Use Adventure works DB"
 - A) Elements
 - B) Attributes
2. Display Each Department Name with its instructors. "Use ITI DB"
 - A) Use XML Auto
 - B) Use XML Path
3. Use the following variable to create a new table "customers" inside the company DB.
Use OpenXML

```
declare @docs xml = '<customers>

    <customer FirstName="Bob" Zipcode="91126">

        <order ID="12221">Laptop</order>

    </customer>

    <customer FirstName="Judy" Zipcode="23235">

        <order ID="12221">Workstation</order>

    </customer>

    <customer FirstName="Howard" Zipcode="20009">

        <order ID="3331122">Laptop</order>

    </customer>

    <customer FirstName="Mary" Zipcode="12345">

        <order ID="555555">Server</order>

    </customer>

</customers>'
```

4. Create a stored procedure to show the number of students per department.[use ITI DB]

5. Create a stored procedure that will check for the # of employees in the project p1 if they are more than 3 print message to the user “The number of employees in the project p1 is 3 or more” if they are less display a message to the user “The following employees work for the project p1” in addition to the first name and last name of each one. [Company DB]
6. Create a stored procedure that will be used in case there is an old employee has left the project and a new one become instead of him. 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. [Company DB]

7. 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)

Example:

If a user updated the budget column then the project number, user name 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

8. Create a trigger to prevent anyone from inserting a new record in the Department table [ITI DB]
“Print a message for user to tell him that he can’t insert a new record in that table”
9. Create a trigger that prevents the insertion Process for Employee table in March [Company DB].
10. Create a trigger that prevents users from altering any table in Company DB.

11. Create a trigger on student table after insert to add Row in Student Audit table (Server User Name , Date, Note) where note will be “[username] Insert New Row with Key=[Key Value] in table [table name]”

Server User Name	Date	Note

12. Create a trigger on student table instead of delete to add Row in Student Audit table (Server User Name, Date, Note) where note will be “ try to delete Row with Key=[Key Value]”

Bonus (5 Points):

1. Transform all functions in lab 8 to be stored procedures
2. Get All Student as an XML Document and display Student Id as attribute and the other columns as Elements
Use XML Explicit