

## SQLServer Lab2

1. Create the following schema and transfer the following tables to it
  - a. Company Schema
    - i. Department table (Programmatically)
    - ii. Project table (visually)
  - b. Human Resource Schema
    - i. Employee table (Programmatically)

### **Part 1: Use ITI DB**

1. Create a view that displays student full name, course name if the student has a grade more than 50.
2. Create an Encrypted view that displays manager names and the topics they teach.
3. Create a view that will display Instructor Name, Department Name for the 'SD' or 'Java' Department "use Schema binding" and describe what is the meaning of Schema Binding
4. Create a view "V1" that displays student data for student who lives in Alex or Cairo.

Note: Prevent the users to run the following query Update V1 set st\_address='tanta' Where st\_address='alex'.

5. Create temporary table [Session based]
6. Create temporary table [Session based] on Company DB to save employee name and his today task.

### **Part 3: Use Company DB**

1. Fill the Create a view that will display the project name and the number of employees work on it
2. Create a view named "v\_count " that will display the project name and the number of hours for each one
3. Create a view named "v\_D30" that will display employee number, project number, hours of the projects in department 30. **updated**
4. Create a view named " v\_project\_500" that will display the emp no. for the project 500, use the previously created view "v\_D30"
5. Delete the views "v\_D30" and "v\_count"

6. Display the project name that contains the letter "c" Use the previous view created in Q#1
7. add new column Enter\_Date in Works\_for table and insert data in it then create view name "v\_2021\_check" that will display employee no., which must be from the first of January and the last of December 2021.  
this view will be used to insert data so make sure that the coming new data matches the condition
8. Create Rule for Salary that is less than 2000 using rule.
9. Create a new user defined data type named loc with the following Criteria:
  - nchar(2)
  - default: NY
  - create a rule for this Data type :values in (NY,DS,KW)) and associate it to the location column
7. Create New table Named newStudent, and use the new UDD (user defined data type) on it.
  - a. Make ID column and don't make it identity.
8. Create a new sequence for the ID values of the previous table.
  - a. Insert 3 records in the table using the sequence.
  - b. Delete the second row of the table.
  - c. Insert 2 other records using the sequence.
  - d. Can you insert another record without using the sequence? Try it! Can you do the same if it was an identity column?
  - e. Can you edit the value if the ID column in any of the inserted records? Try it!
  - f. Can you use the same sequence to insert in another table?
  - g. If yes, do you think that the sequence will start from its initial value in the new table and insert the same IDs that were inserted in the old table?
  - h. How to skip some values from the sequence not to be inserted in the table? Try it.
  - i. Can you do the same with the Identity column?
  - j. What're the differences between Identity column and Sequence?