

# The SQL Server Trail: by Tomer Itzhakov-Nevo

Hello to everyone!

This project sums up 30 topics in SQL Server Language and allows you to practice all of them in a single file. The topics organized from a beginner Level into an Advanced Level. Inside of each topic there is between 4 and 12 questions that starts form a simple question into a harder one. These are the topics:

- |                                   |                                   |
|-----------------------------------|-----------------------------------|
| 1. Simple select questions        | 16. User Defined Functions        |
| 2. Group by questions             | 17. Temporary Tables              |
| 3. Join questions                 | 18. If Statements                 |
| 4. Replacing Null value questions | 19. Derived Tables                |
| 5. Union and Union all questions  | 20. Row Number and Partition by   |
| 6. Mathematical Functions         | 21. Dense Rank and Partition by   |
| 7. Date-Time Functions            | 22. CTE - Common table expression |
| 8. String Functions               | 23. Duplicate values              |
| 9. Finding Character              | 24. Ntile function                |
| 10. Patindex function             | 25. Lag and Lead function         |
| 11. Counting Letters              | 26. Sliding Window                |
| 12. CAST and CONVERT functions    | 27. Basic Pivot                   |
| 13. Stored Procedure              | 28. Basic Unpivot                 |
| 14. Index                         | 29. Multiple CTEs                 |
| 15. Views                         | 30. Recursive CTEs                |

## The project made up of three files:

1. Number 1 - Create Database Tables file.
2. Number 2 - The SQL Server Trail – Solo practice file.
3. Number 3 - Questions and Answers file.

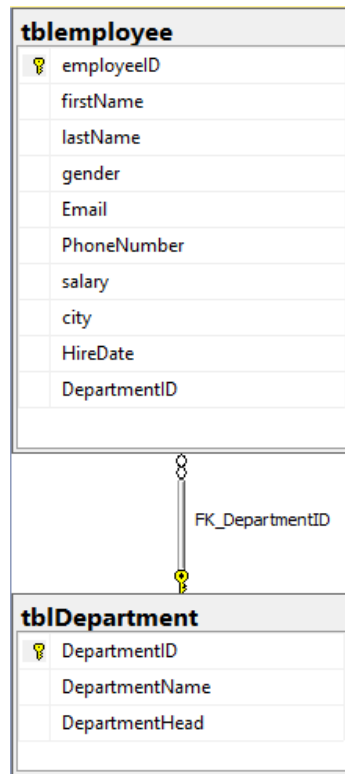
## How to use the SQL Server Trail Project?

1. Open file number 1 and press Execute. This will create automatically the Database name and all the Project Tables.
2. Open file number 2 and start walking on the trail. In the beginning of each topic you will see the topics name, the tables names and the questions. If the file doesn't recognize the tables - go to Edit – Intellisense – Refresh local Cache.
3. If you don't success to answer on a question, you can do two things:
  - A. Explorer the topic and his syntax in the internet.
  - B. Open file number 3, Select and Execute the Answer.

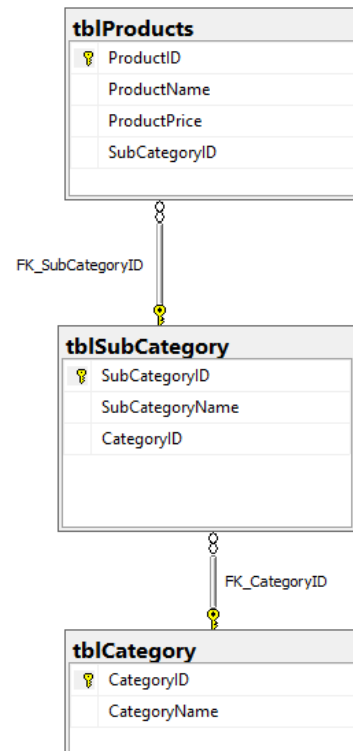
## Database Tables Names and connections

In total there is 17 Tables in the database. Among them there is three groups of tables with connection. All the others are single tables.

### Group Number 1:



### Group Number 2:



### Group Number 3:

tblIsraelCustomers	
CustomerID	
CustomerName	
CustomerPhone	

tblSpainCustomers	
CustomerID	
CustomerName	
CustomerPhone	


tblUSCustomers	
CustomerID	
CustomerName	
CustomerPhone	


Single Tables:

tblCharacter	
	ID
	NAME
	Email

tblPassword	
	ID
	Password

tblCountingLetters	
	String

tblGenderMeasurements	
	 NumerID
	Name
	Gender
	Age
	Height
	Weight

tblStringTest	
	 ID
	FirstName
	MiddleName
	LastName
	Email

tblSalary	
	EmployeeID
	EmployeeName
	Salary
	[Date - Salary Payment]

tblKingOfAnimals	
	 AnimalID
	AnimalName
	AnimalDominant

tblPhoneComparison	
	ProductName
	[Weight in g]
	QualityScore
	Price

tblDuplicates	
	NumberID
	FirstName
	LastName
	Age
	Email
	Hobby