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Date: 05/31/2023
Course: IT FDN 130 A Sp 23:
Foundations Of Databases & SQL Programming

Assignment 07 – Functions

Introduction

Module 07 continues with the subject of functions. Course is full of new information, such as aggregate functions: Max, Min, Avg, Sum, and Count; Group by and Having; Isnull and GetDate.

We learn how to select and operate functions, using Cast, Convert, String, Convert, Concat, IIF and Case, to name a few.

In the later parts of the module we learn how to use new functions to create reports - part which I found very useful and practical and about user defined functions, or UDFs. Additionally we learned more about the use of Github.

Explain when you would use a SQL UDF

UDFs are user created functions, custom to our needs and allow us to achieve unique commands. If functions existing in the system are not sufficient to perform desired action, we can define a custom function. They are similar to previously explored views and are named commands. I find them useful when nested in a larger, more complex, select statement.

Explain are the differences between Scalar, Inline, and Multi-Statement Functions

Scalar functions return a single value as an expression. Inline, or simple table-valued functions return a table - single set of rows. Multi-Statement functions, in contrast, also returns a table, but after some processing: can have user defined structure and contain multiple statements. These types of functions have slightly different syntax (begin, end, return).

Summary

Module 07 is the most condensed so far and, although functions were introduced before, introduces a lot of new material. Knowing and mastering those concepts allows for creation of much more advanced queries than before.

Github link:

<https://github.com/KrzysztofCzj/ITFDN130ASp23-Assignment07>