Assignment 07 - Functions

IT FDN 130A

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Introduction

In this assignment I worked with functions which can reduce repetition of common tasks.
Github Link

When to Use a SQL User-Defined Function

There are many use cases for user-defined functions because there are many, many operations someone may want to repeat that aren't and realistically couldn't be included in the database engine. A simple example is applying operations to multiple columns (such as a math equation with several steps) and outputting as another column. A more complex example would be emulating the functionality of check constraints across multiple tables instead of between rows in a single table.

Kinds of Functions

Three categories of functions are Scalar, Inline, and Multi-Statement functions. Scalar functions return a single result value.[1] Inline and multi-statement functions return that result in the form of a table which can be used like any other table.[2] Multi-statement functions can perform more complex operations, while inline functions must be composed of a single select statement.[3]

Summary

In summary, there are several types of functions which have varying levels of complexity for their various use-cases.

References

[1] GeeksforGeeks. *Scalar Function in SQL Server*. URL: https://www.geeksforgeeks.org/scalar-function-in-sql-server/. (accessed: 06.04.2025).

[2] GeeksforGeeks. *Inline Table Valued Function in SQL Server*. URL: https://www.geeksforgeeks.org/inline-table-valued-function-in-sql-server/. (accessed: 06.04.2025).

[3] GeeksforGeeks. *SQL Outer Join*. URL: https://www.geeksforgeeks.org/multi-statement-table-valued-function-in-sql-server/. (accessed: 06.04.2025).