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GitHubLink: https://github.com/RFoote42/DBFoundations-Module07

Assignment 7 – User Defined Functions

Introduction

In SQL, functions evaluate an expression. While SQL Server has many built-in functions, User Defined Functions (UDFs) allow users to customize the expression being evaluated. There are three types of UDFs: Scalar, Inline, and Multi-Statement Functions.

SQL User Defined Functions

User Defined Functions (UDFs) are ways users to create and save a query. This is particularly useful for reporting as this query can include a parameter. This means that while the basic value or table being returned can reference the same information, the criteria being used to select the data within the table can be easily changed to meet different reporting needs.

Scalar, Inline, and Multi-Statement Functions

There are three type of UDFs: Scalar, Inline, and Multi-Statement.

Scalar

Scalar functions return a single value. They can use multiple variables or parameters in determining that value.

Inline

Inline functions can use multiple parameters and can return a table, but only one select statement is used.

Multi-Statement

Multi-Statement functions are similar to Inline functions in that the return a table. However, these functions allow the user to include multiple queries in a single function and can aggregate them to return a table.

Summary

User Defined Functions can assist with regular or complex reporting by saving a query that can include parameters. Scaler functions will return a single value while Inline and Multi-Statement functions will return rows of data in a table.