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Assignment 7 - Functions

Introduction

Assignment 7 is focused primarily on functions. This written portion double clicks on user defined functions or UDFs. A UDF, is a custom, user created function, which can return single or table values. UDFs are complex calculations often used to create parameters and KPIs.

Using SQL UDFs

You would use a UDF for the following three reasons.

1- They allow modular programming: You can create and store the function once, then leverage it at any time without re-creating the wheel. They are also independent of source code.

2- They allow faster execution: UDFs leverage caching for faster execution, reducing the cost of the query.

3- They can reduce network traffic: One can leverage a UDF to return a single scaler expression, then use that function in a WHERE clause to reduce the number of rows sent to the client.

Scalar, Inline, and Multi-Statement Functions

Scaler, inline, and multi-statement functions are all types of UDFs, but differ slightly.

-Scaler Functions: This returns a single value as a result of actions performed by function.

-Inline Functions: This returns a table variable as a result of actions performed by a function from a single SELECT statement.

-Multi-Statement Functions: Similar to inline, this also returns a table variable as a result of actions performed by function, however, can have more than one SQL statement.

Conclusion

User defined functions are complex calculations which can be beneficial to leverage in your SQL code. There are multiple types of UDFs which provide advantages like modular programming, faster execution, and reduced network traffic.