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Assignment 07

Understanding SQL User-Defined Functions (UDFs) and Their Types

Introduction

Once a database has been created, there are a myriad of ways to utilize and retrieve that data. One of those ways is the use of functions. Functions enable you to make your queries more efficient, reusable, and maintainable. A user defined function, or UDF, is a way to customize a function to query for the exact specific data you are looking for. Even so, there are various types of UDF's one can use.

Using A SQL UDF

A SQL UDF is particularly useful when you need to perform repetitive calculations or transformations that are not provided by built-in SQL functions. They allow you to customize the results you are looking to retrieve. (Root, 2017)] UDF's are often easy to update and maintain, and once it has been created, it can be reused by other users for future reliability.

Scalar, Inline, and Multi-Statement Functions

User Defined Functions can be further broken down into different types of functions. The most commonly used functions are Scalar, Inline, and Multi-Statement Functions. Scaler functions can return a single value based on the parameters that have been input. This works well for simple calculations returning single numbers or performing simple calculations. (Table-valued functions in SQL) An inline table function returns a tale using a select statement that has further parameters. A Multi-Statement Table are more complex than the others. They can contain multiple statements, which allows for more complex queries and data results.

Conclusion

User Defined Functions can be quite useful when you want to retrieve specific data, and make your code more reliable and reuseable. While Scalar functions are perfect for simple, single-value returns, Inline and Multi-Statement Functions offer complex ways to handle intricate data querying.

Works Cited

- Root, R. (2017, August 8). *Functions-02 user defined functions udfs*. YouTube.
<https://www.youtube.com/watch?v=XEiQ3M2LhU4&list=PLfycUyp06LG9wAGPKBZ7poKBcbDZrmXpi&index=2>
- Table-valued functions in SQL*. Wise Owl Training. (n.d.). <https://www.wiseowl.co.uk/sql/guides/table-value-functions/table-valued-functions/>