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Notes Assignment 07

GitHub Link

SQL UDF

Intro

In this paper, I will briefly overview when to use a SQL UDF and explain the differences between Scalar, Inline, and Multi-Statement Functions.

SQL UDF

User Defined Functions (UDFs) are functions stored in the database that you can call any number of times and can be modified independently of the program source code.

Some of the benefits of using UDFs are modular programming, faster execution, reduced network traffic, simplified queries, app performance, maintainability, readability, currency conversion, repetitive formatting tasks, and constraint checking.

UDFs generally have four elements:

1. A name that invokes the function.
2. Arguments or inputs that the function takes in.
3. An output or statement that is returned.
4. The function body itself

Differences Between Scalar, Inline, Multi-Statement

Scalar - A scalar function is a UDF that returns a single value each time it is invoked. You can think of this as returning one value per row vs. aggregate functions which return one value per group of rows.

Inline – Inline function is a UDF that returns a table as a result. Differing from a scalar function which returns a single value, inline functions return a result set that can be used in a query just like a table.

Multi-Statement – Multi-Statement functions combine scalar and inline functions by giving the ability to contain complex code as well as the ability to return a result set.

Summary

In summary, user-defined functions are functions stored in the database that can be run multiple times, scalar functions return a single value each time invoked, inline functions return a table as a result and multi-statement functions are a combination of scalar and inline functions.