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<https://github.com/jinholiday/DBFundations>

Assignment 7 – SQL Transact

Introduction

As part of IT foundation, it is important to have a solid understanding on basic elements of SQL User Defined Function. Based on the lecture notes and Web knowledge, I will try to answer two questions below.

1. Explain when you would use a SQL UDF.

“User-defined functions (UDF) are routines that accept parameters, perform an action, such as a complex calculation, and return the result of that action as a value. The return value can either be a single scalar value or a result set. (<https://docs.microsoft.com/en-us/sql/relational-databases/user-defined-functions/user-defined-functions?view=sql-server-ver16> )

2. Explain the differences and similarities between Scalar, Inline, and Multi-Statement Functions.

Scalar functions return a single data value (not a table) with RETURNS clause. Scalar functions can use all scalar data types, with exception of timestamp and user-defined data types. Inline table-valued functions return the result set of a single SELECT statement. Multi-statement table-valued functions return a table. (<https://en.wikipedia.org/wiki/User-defined_function>)

Summary

Based on the answers of the two questions above, we can have some basic knowledge for how to use Scalar, Inline, and Multi-Statement Functions to processing data. In general, they all help to archive goal easier maintenance and improving performance.