Name: Christie Glancy
Date: 5/28/2024
Course: IT FDN 130 A Sp 24
Assignment 7
GitHub: https://github.com/ceharold/ITFDN130A-Mod7/tree/main

Assignment 7

1. ***Explain when you would use a SQL UDF.***
2. ***Explain are the differences between Scalar, Inline, and Multi-Statement Functions.***

Introduction

SQL functions are small sub-programs that serve many purposes in the analyzation and manipulation of data. SQL has built-in functions but also allows users to create their own functions (UDFs) for purposes not handled by system ones. There are different types of functions depending on the value(s) that can be input and returned.

Topic

1. Because SQL Server system functions can't be modified, User-Defined Functions (UDFs) can be created to make needed changes to existing functions. UDFs can also be used to create a customized function for later and/or repeated usage.
2. Scalar functions return a single value of a particular data type. They can be built-in system functions or user defined. They are executed for each row of result set. Inline functions allow multiple SQL statements to be grouped together. An inline table-valued function is a user-defined function that returns a table as the result. The result set can be used in a query just like a table. Unlike a scalar function, an inline function can have one or more input parameters. Like an Inline function, A multi-statement function is also a user-defined function that returns a table as the result. The difference is that with a multi-statement function, the user must define the structure of the table and include a begin and end block.

Summary

Functions perform multiple operations: conversions, mathematical, and many more to manipulate and return data. SQL offers built-in system functions that cannot be changed and thus, allow user to define their custom functions called UDFs. There are multiple types of functions that depend on the input and output of the function.