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Date: March 12, 2025
Course: Foundations Of Databases & SQL Programming
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Assignment 7 – Functions

Introduction

The SQL language has many built-in functions to help you manipulate your data. These functions are pre-written commands that can be called on using parameters specific to your dataset. SQL also allows you to create your own functions, know as User Defined Functions (UDF). In this document I will look at when you might use a UDF, and differences between a few types of functions.

Explain when you would use a SQL UDF.

If the built in SQL functions don't manipulate the data in the way you need, you may want to create your own user defined function, or UDF. UDFs can return either a single value or a table of values. For example, you might create a UDF that returns a table of data formatted for a report you are creating. That report function could then be reused for other reports without having to re-write the code. Another use of UDFs is for check constraints on another data table.

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

A scalar function returns a single value, while inline and multi-statement functions return a table of values. Inline and multi-statement functions are very similar, but multi-statement functions require that you define the table of results, and must include the begin and end commands. This makes multi-statement functions more complex, but also allows you to specify more clearly how your output should appear.

Summary

User Defined Functions can be a helpful tool to manipulate your data beyond the basic built-in functions that SQL provides. Functions can either return a single value, or a table of values.