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Assignment 7- Task 5

**Functions**

**Introduction**

In the realm of relational databases, SQL User-Defined Functions (UDFs) play a crucial role in enhancing query flexibility and functionality. These functions allow users to encapsulate complex logic into reusable code, which can then be invoked in SQL statements. This paper explores when to use SQL UDFs and elucidates the differences between Scalar, Inline, and Multi-Statement functions.

**When To Use A UDF**

SQL UDFs are used to streamline database operations. They are particularly useful for business logic & complex calculations. It’s also useful when transformation needs to be applied repeatedly across different queries, UDFs can apply the logic into a single function.

**Scalar, Inline, & Multi Statements**

There are three types of UDFs. Scalar, Inline, and Multi-Statement functions. They are all different from one another. A Scalar function returns a single value of a specific data type. Inline returns a table result set from a single SELECT statement. Multi-Statement returns table results built from multiple statements.

SQL User-Defined Functions are powerful tools in database management. By understanding the distinctions between Scalar, Inline, and Multi-Statement functions, users can select the appropriate type based on their specific needs.