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**Course:** Foundations of Database and SQL

## **Assignment 7**

Introduction:

This document will explain when to use SQL User Defined Functions (UDF) and explain the differences between Scalar, Inline, and Multi-Statement Functions.

Topic:

A SQL User Defined Function (UDF) is a user created code that will execute an action in a databased. The action will result in returning either a table of values or a single value. UDF can be grouped into Scalar, Inline, and Multi-Statement.

Topic:

Scalar functions are used to return a singular result. A simple example of a scalar function would be to sum inventory items resulting in a singular number.

Topic:

Inline functions are used to return tabled results. This function consist of a single Select statement.

Topic:

Multi-Statement Functions return tabled results like the Inline function. The main difference being this function allows for the insertion of additional statements. This allows more complexity than the inline function.

Summary:

SQL User Defined Functions are grouped into three main functions. The Scalar function results in a single value and is best used in calculations and simple logic. Inline function results in a table and contains only one Select statement. Multi-Statement Functions result in a table and allow for the insertion of additional statements, these are best used for complex calculations and logic.