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**Repository:** <https://github.com/GatesO/DBFoundations-Module07>

## DB Foundation Assignment 7

### Introduction

In this document we will be exploring different types of SQL functions, as well as when to use User Defined Functions, or UDF's.

### When to use a UDF

UDF's are very handy. If SQL's built-in functions are not enough, a User Defined Function can be created to do the job. UDF's should be used when a repeatable process is needed multiple times. Create a UDF and then implement it to save time having to code the function everytime you need that process done. Instead just make a UDF and continue to reference it to complete each task. UDF's can be implemented to help with Check constraints since a UDF can look at single table values.

### Differences between Scalar, Inline and Multi-Statement Functions

All functions can take multiple parameters, however depending on what kind of function is being used, the returned subject will be different. Scalar functions are UDF's that return a single value as an expression. An Inline function returns a set of rows. A Multi-Statement function returns a table.

All three types of functions can be useful for reporting particular data constraints on a table.

### Summary

In summary, User Defined Functions are extremely useful when attempting to manipulate or display data in a way that is outside of SQL's basic built in functions. Creating your own functions can be handy for saving time coding a process over again. Having a library of UDF's expands the operating power of SQL to that of how the user works and not being restricted to the functions SQL provides at base.