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Course: Foundations Of Databases and SQL Programming

https://github.com/tnyen102/DBFoundations-Module07

# DB Foundation Assignment 07

# Introduction

This week, I learned how to use SQL functions to retrieve information from a database. There are many types of functions that we learned including the aggregate functions, selecting data using common functions, partitioned or windowed functions, and lastly user-defined functions. UDFs is useful to check for constraints because you cannot reference a column in another table.

1. Explain when you would use a SQL UDF.

UDF stands for User Defined Functions that have two basic types of functions. The first function will return a table of values and the second will return a single value. There are many use cases of using a UDF. The first is that you can create a function once, stored it in the database and call it any time you want to in your program. The second use case is that it have a faster execution. Lastly UDF helps reduce the network traffic.

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

Scalar functions will return a single value as an expression and it is mainly used for calculations or retrieving a single piece of information. Inline Table-Value Functions will return a table data type and consist of a single Select statement. Lastly the Multi-Statement Functions also returns a table but the function body can contain multiple Transact-SQL statements within BEGIN and END blocks. Inline function have a better performance then Multi-Statement Functions.

# Summary

This module and assignment taught me how to use the SQL functions, to retrieve information from a database. I also get to expand and practice more on SQL scripts and functions such as joining multiple tables and using a subquery to retrieve the results and organize it based on my criteria. There are so many different types of functions and the scripts can become very complex. I had a hard time with this week’s assignments and had to review the answers to improve on my code.