

Ariella Aung

IT FDN 130 A

Professor Randell Root

Assignment 05

17 August 2024

<https://github.com/aaung2/DBFoundations>

Assignment 07: Function

Introduction

In this write-up, I will discuss my process for this seventh assignment and my understanding of functions and overall creating a mini database within a database. The bulk of the assignment tests the coder on their knowledge they have accumulated thus far as well as challenging their understanding of Functions. In this assignment, we prove that there are a vast number of ways that functions can be used to enhance the capabilities of a data set in SQL.

SQL UDF and Differing Functions

UDF or a User-Defined Function is a specific set of functions that help customize or design the functionality and coding of the data set or queries. They can be used across multiple data sets. There are different types of UDFs in SQL: Scalar, Incline, and Multi-Statement.

Scalar UDF refers to returning a single value by calculating within parameters. The results are typically a number or a set of values, but they can be used to calculate percentages or the sum of certain values in each parameter.

Incline UDF pulls the data set, but the result is usually in form of a table. This creates a more multifunctionality with this UDF as it can be used again throughout the query. In this instance, we could use an Incline UDF and receive all the products that Johnson&Johnson makes if we were looking at a data set for baby oil manufacturers.

Multi-Statement UDF is as it sounds: it is a UDF that has a multitude of commands or functions within it. Similar to the Incline UDF, the results come in form of a table but the key difference is that as users, we can control how it formats. It takes the calculating function aspect and creating table aspect together.

Conclusion

The Functions and their purposes are complex. Prior to what we have learned before, we're relying on these functions to truly to the calculating and even table producing. The UDFs teach how multiple instances or operations can happen in a few lines of code. However, there is a small margin of error with this as the coder truly needs to know what they are looking for. Though, while complex, they are intrinsically more capable of simplifying data and normalizing it to be usable and readable.