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Assignment 06

<https://github.com/johnwilkinson85/DBFoundations>

Views, Stored Procedures and Functions

Introduction

One of the most important tasks of creating and running a database is the integrity of the data. Using tools such as views, function, and stored procedures can help any analyst in accomplishing this goal. This is arguably done by calling data not from the original tables that hold the data, but instead calling from these other avenues to call data from. Making it so other people can view and interact with data but not alter or corrupt the base data from the tables they come from, thus affecting the ability to work with the data for other report writers.

Views

A view should be called to view a specific portion of data from a table of multiple tables. It will usually be based on a table that holds the base data but creates a barrier so you and others can see this specific data without accidentally altering the larger data table. It can also be used when you want to use less memory on a server or machine. Instead of querying a whole table that could be thousands to millions of lines with unnecessary columns added. You can reduce the memory usage by creating a query that looks specifically at a smaller section of the data and saves you time from having to write a specific query each time you want to look at data from a table.

Differences between Views, Stored Procedures, and Functions

Touched on above a view is used to query a section of data and store that snapshot of data in a section of your database. It is like a function and stored procedure, in the way that it can save time to query specific data, instead of query a larger table in the database. All three cases also create a barrier so other analysts don't affect the base tables that hold the original data but can still work with and interact a section of the data. A function on the other hand, can use parameters that query the data based on the input put into said function. An example of this would be inputting a 1 into a function that looks up an ID, this input would then minimize the query to just look at that specific parameter given. Lastly, a stored procedure is like a function, in that it can use a parameter.

Summary

Temporary data created by views, functions, and stored procedures can be very useful in displaying specific information for the viewer. It can help with data integrity, reduce memory usage, and in many ways make the data more user friendly when parameters are inputted through functions or stored procedures. These tools have various benefits and should be used in any arsenal of an analyst.