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Assignment 6
https://github.com/CodeLangLearn/DBFoundations

Module 06 - SQL View, Function, and Stored Procedure

Introduction

I will explain SQL View and when it would be used. Additionally, I will go over the differences and similarities between View, Function, and Stored Procedure.

SQL View

The SQL View is a "virtual table based on the result-set of an SQL statement" (SQL View, W3 Schools, https://www.w3schools.com/sql/sql_view.asp, 8/17/2022 [External Site]). View is not saved on a disk and creates virtual table out of a saved query. View allows for various users to see the data in a certain way without affecting the base relation.

A user would use a SQL View to organize data in a way for users to easily utilize (SQL - Using Views, Tutorial's Point, https://www.tutorialspoint.com/sql/sql-using-views.htm, 8/17/2022 [External Site]). Once the View is created, the complex code does not have to be rewritten and can be selected. View can be used for an abstraction layer which is important for security. Providing a View for Public will deny individuals who aren't supposed to see sensitive data, while other authorized users can be granted access with Grant.

Differences and Similarities: View, Function, and Stored Procedure

Functions, also known as User Defined Functions (UDFs), allows users to create a custom function. The two types of functions are ones that return a table of values and the other that return a single value. These functions are similar to view because they can both return a table of values and the code is written very similarly. Function is different from view because functions can use parameters to filter the results of the query in the same line without having to add a Where clause. Another difference from View is that Function can be treated as a math expression and provide a scalar value.

Stored Procedure "is a prepared SQL code that you can save" (SQL Stored Procedures for SQL Server, W3 Schools, https://www.w3schools.com/sql/sql_stored_procedures.asp, 8/17/2022 [External Site]). Store Procedure is similar to View and Function because a user will Create the

procedure. Store Procedure is similar to Function because they both have () where a user can enter a variable. A difference from Function and View is that Execute must be used instead of Select. In contrast to Function, the Procedure just executes code and cannot evaluate a mathematical equation such as 2 + 4.

Summary

SQL View is a useful function that can be used for efficiency and security. Function is very similar to View, but can be used to return a scalar value as an expression which can be used to check constraints. Stored Procedures are also similar to View and Functions, but are prepared SQL code that can be executed whenever the user wants. Each of these have their own uses and provide ways to solve various problems.