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Course: IT FDN 130 A Su 22: Foundations Of Databases & SQL Programming

Assignment 6 – Creating Views in a Database

Introduction

In the following paragraphs I will attempt to answer both the questions in the assignment.

1: Explain when you would use a SQL View.

2: Explain are the differences and similarities between a View, Function, and Stored Procedure.

SQL View Use

Using an SQL View protects the original table from developers, and others that need the data from that table. It's a copy that's created within the database and saved with the database. Once created the original table can be further protected using the Deny keyword to keep the public from access, and the Grant keyword to allow access to individual users, or departments within a business. I would use a view to do any and all work on database tables.

View, Function, Stored Procedure Similarities and Differences.

A *view* is a virtual table whose contents are defined by a query. Like a table, a view consists of a set of named columns and rows of data. Unless indexed, a view does not exist as a stored set of data values in a database. The rows and columns of data come from tables referenced in the query defining the view and are produced dynamically when the view is referenced. (DAssaf@MicrosoftSQLDocs), we can act on a view as if it were the actual table it emulates, protecting the original data from possible mistakes.

Functions are either user defined (UDF) or calls to embedded routines that are part of MSSQL. Functions can be used to call a select statement and get a return of a table, or a single value. Most of these can be better resolved with the Where Clause. Scalar functions are commonly used for Check constraints because there is not other way to reference a column in another table.

A *stored procedure* called with the EXECUTE (EXEC) clause is a query that is saved within the database.

Summary

Views in this module were well taught, I think functions and stored procedures will be covered more in depth in later modules. I don't have a clear understanding of functions as they seem to lend themselves to mathematical based queries that return table data, and stored procedures can be used to find out if the query is true or false.

Citations:

DAssaf, W. D. (n.d.). *Views - SQL Server*. SQL Server | Microsoft Docs. Retrieved August 17, 2022, from <https://docs.microsoft.com/en-us/sql/relational-databases/views/views?view=sql-server-ver16>