Rachel Pounds

5/17/2021

IT FDN 130 A

Assignment 06

## Introduction

Views, Functions, and Stored Procedures are a great way to add an extra layer of security to data. They can also be an “insurance policy” for all tables, if those tables all have views made of them. This paper will discuss when to use a View and the similarities and differences between Views, Functions, and Stored Procedures.

## Explain when a SQL View would be used

A View can be used when you want to streamline the selection of certain data or restrict viewing data for certain users (for example there may be employee information that only HR should see in an organization). Data itself isn’t saved on the hard drive, only the select statement (or View) is. Views can also be made to prevent changes in a database by mistake. Having a base View for every table is an extra layer of insurance, so that a user doesn’t accidentally delete or update a table.

## Explain the differences and similarities between a View, Function, and Stored Procedure

Views, Functions and Stored Procedures all save code in a database. A View is basically a saved Select statement that might combine rows and columns from multiple tables and creates a virtual table. A View will be updated every time a user runs a query on it.

Function is also a named Select statement that can return a whole table like a View but is difference in that it can also just return a single value. Functions can use parameters. This could also just be done in a View using the Where clause if it’s simple.

Stored Procedures are a named set of SQL statement, like Views and Functions. However, they aren’t a Select statement, it’s just code you execute. This means that when running a Stored Procedure, you don’t Select from it like it’s a table. It can have many statements, including Create, Select, etc.

Both Functions and Views are treated like a Table, using Select statements. Whereas, Stored Procedures are actual code.

Summary

Views, Functions, and Stored Procedures are all ways to use a database more efficiently when you know how to use them. They also help protect your data and provide layers of security in which data users can view.