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Assignment 06

SQL Views

# Introduction

In this paper, I will discuss when to use a SQL View, as well as compare views, functions, and stored procedures.

# SQL Views

Select statements are often used to view certain data in a database, and SQL views are one way that you can store frequently used or complex select statements to ease the use. If you find that you are using specific select statement a lot, a SQL view would be a great way to store that select statement and easily access it without having to re-type the select statement. This is particularly handy when you need to write a complex select statement because it will save you time when you need to use the same one again.

# Views, Functions, and Stored Procedures

Views, functions, and stored procedures are similar in that they are all ways that you can store SQL statements to be able to use them quickly and frequently to display data. Functions can be used by creating user defined functions (UDFs), and this will pull data in a similar way to a view or to a stored procedure. Functions differ from views and procedures in that they can be further specified using parameters within the query, and they can also be used to return a single value as an expression. Stored procedures differ in that they are not recalled using a select statement, rather they are an executed procedure (see Figure 1).

Create **View** vProducts

AS

Select ProductID, ProductName,CurrentPrice = UnitPrice, CategoryID, Discontinued

From Northwind.dbo.Products;

go

**Select \* from vProducts;** -- 77rows

Go

-- Function

Create **Function dbo.**fProducts() # Using the dbo prefix is common in Microsoft SQL Server

Returns Table

AS

Return(

Select ProductID, ProductName, CategoryId, Discontinued

From Northwind.dbo.Products

);

go

**Select \* from dbo.fProducts();** -- 77rows

Go

-- Stored Procedure

Create **Procedure pProducts**()

AS

Select ProductID, ProductName, CategoryId, Discontinued

From Northwind.dbo.Products;

go

**Execute pProducts();** -- 77rows

Go

*Figure 1. An example of how views, functions, and stored procedures are similar in returning the same data.*

# Summary

In this paper I discussed when to use a SQL view, as well as the similarities and differences between views, functions, and stored procedures. A SQL view should be used when you have a complex or frequently used select statement that you would like to store for repeat use. Views, functions, and stored procedures are similar in that they can save SQL statements to be used repeatedly. These types of stored statements differ in how they can be further filtered, and functions differ in that they can be used as expressions to return a single result.