

# SQL Views, Functions and Stored Procedures

## Introduction

In this write up, I will discuss SQL Views and when to use them, and compare the similarities and differences between SQL Views, Functions and Stored Procedures.

## When to Use a SQL View

A SQL View is a named SQL statement that is stored in the database. A View should be used when any of the following are desired:

- Save complex code in a way that makes it easier for the end user to use
- Restrict access to the data in such a way that an end user can see exactly what they need and no more
- Summarize data from various tables which can be used to run reports

## Views, Functions and Stored Procedures, Compared

SQL Views, Functions and Stored Procedures all allow named sets of SQL statements to be stored in the database for later execution.

Views and Functions are used to store SELECT statements, Stored Procedures contain a sequence of SQL commands, and are not limited to only the SELECT statement.

The syntax for creating a View, Function or Stored Procedure is all similar, as can be seen in the below examples (Figure 1).

```

--Create View
Create View vCategories
    As
        Select CategoryID, CategoryName
            From dbo.Categories;
GO
--Use View
Select * from vCategories;
GO

--Create Function
Create Function dbo.fCategories()
    Returns TABLE
    AS
        Return(
            Select CategoryID, CategoryName
                From dbo.Categories
            );
GO
--Use Function
Select * from dbo.fCategories();
GO

--Create Stored Procedure
Create Procedure pCategories
    AS
        Select CategoryID, CategoryName
            From dbo.Categories;
GO
--Use Stored Procedure
Execute pCategories;
GO

```

Figure 1: SQL Syntax Comparison for View, Function and Store Procedure

## Summary

In this write up, I have discussed SQL Views and when to use them, and compared and contrasted SQL Views, Functions and Stored Procedures.