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**GitHub:** <https://github.com/adinkelUW/DBFoundations>

## Assignment 06 – Views

### Introduction

This week was the sixth week of the course. In our lectures, notes, and assignment we mostly covered the use of Views in SQL, although Functions and Stored Procedures were also briefly touched upon.

#### 1. Explain when you would use a SQL View

A SQL View is used to interact with a dataset in the abstract. Basically, if you don't want the data to be directly interacted with – and thus possibly altered negatively – but still want to interact with the data in some manner, like using a select function, then an abstract form of the data should be created, which is what a SQL View is. This is useful, since SQL Views can also have permissions attached to them, so that way someone who doesn't have access to the actual dataset can still work on the abstract data.

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

This week's work was mostly on Reporting Views, which are basically saved SELECT statements that can have different permissions than working with the actual table or dataset. Functions, or UDFs/User Defined Functions, can be similar to Views/Reporting Views, in that you can create functions that return a table of values. These functions can act much in the same way as a View, in that it's essentially a saved SELECT statement, but there are other functions as well. There are also functions as well that perform some set process and return a single value – something that Views can't do. Lastly, a Stored Procedure is just a named set of SQL statements. It can contain a saved SELECT statement, just as the past two can. However, it also has a much wider scope to it, as it's merely a saved set of SQL statements, and can basically do anything that those can do.

### Summary

Basically, this week's assignment covered Views in SQL and a few things we can do with them, such as Schema Binding and setting permissions. Beyond the actual assignment, the lectures and notes also covered Functions and Stored Procedures, which are important, and can be used

in similar ways to Views, but also differ in a fair amount – as discussed above – and weren't the primary focus of this module.

## Bibliography

*DBFdn Mod06*. Randal Root, Updated 06 August 2021,  
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*SQL Views*. W3 Schools, Updated 2023, [https://www.w3schools.com/sql/sql\\_view.asp](https://www.w3schools.com/sql/sql_view.asp).  
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