

## Assignment 6 – Views

### Introduction

Depending on the level of data manipulation required, select statements can become extremely complex. At some point it may be necessary to save these in a way that allows for their repeated use. Saving code in a script is one option, but there are a couple of additional methods that can be used, such as Views, Functions, and Stored Procedures. This module covers methods to make and use these methods.

### When to use a SQL View

Views are essentially a saved select statement and can be used to simplify the use of a complex code(*SQL - Using Views*, n.d.). Since they can be saved in a database and made easy for other people to access, they can also act as an abstraction layer. By only showing certain columns they can protect sensitive or unnecessary information from being available to different groups.

### Views, Functions, and Stored Procedures

Views, functions, and stored procedures are similar in that they are a saved script and don't actually store any data. However there are differences between them.

- **Views** are a select statement that has been saved in the database, and can be referenced and accessed by users similar to a table.
- **Functions** are similar to views but can return either a table of values or single scalar value, and can also accept parameters to change the results of a query.
- **Stored procedures** can hold many statements, and are not limited to just select statements like functions and views.

### Summary

Using Views, Functions, and Stored Procedures can simplify and make readily available data that would otherwise potentially require complex and repetitive code. In this way they can help to minimize errors, and increase the accessibility of information.

### Sources

*SQL - Using Views*. (n.d.). Retrieved May 21, 2024, from <https://www.tutorialspoint.com/sql/sql-using-views.htm>