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**Course:** Foundations of Databases & SQL Programming

DB Foundation Assignment 6

**Introduction**

In this document we will be exploring the use cases of Views, as well as the differences between Views, Functions and Stored Procedures.

**When you should use an SQL View**

SQL Views are very handy tools for condensing complicated queries into a single statement. This is useful for situations where multiple people are using SQL but one might be more skilled than the other, so they would write a view statement that the less skilled user can call and perform a complicated query without having to write or understand the logic behind it. Of course they should have some understanding when calling the view but the purpose of this example is to show people can work together to help out/assist people by making custom views that perform certain actions. Similar to how we don’t need to know how an engine works in order to drive a car.

**Differences between Views, Functions and Stored Procedures**

The difference between Views and Functions is that Functions can use parameters to change the output of the result. This might seem advantageous at first, however you can always use a where clause with a View to get a very similar output in the logical sense. Functions can also return a single scalar as an expression where Views can do no such thing.

The difference between Views and Stored Procedures is that a View will return a table every time. A Stored Procedure can manipulate data such as inserting and deleting data.

The difference between Functions and Stored Procedures is that Functions cannot change a data set, only call it. Functions also require at least one parameter where Stored Procedures do not.

**Summary**

In summary, Views can be very handy for assisting others with complicated SQL queries, as well as storing a View as an object to be called later in order to make future queries easier to complete.

While similar in logic and coding, there are some key differences between Views, Functions, and Stored Procedures. Those differences are mainly how each object interacts with data, and whether the object requires a parameter or not, or if said object is displaying data or can actually modify a table. Stored procedures seem the most versatile of the three although each seems to have their place in the SQL world.