**Assignment Documentation Writeup**

**Course: IT FDN 130 A**

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**SQL Views**

**Summary:**

In this essay I will be discussing the purpose of Views, Functions & Stored Procedures. Though similar at first glance, these three SQL concepts serve different purposes at different times in a database. At the end of this essay, as per usual, I will show a list of relevant terminology discovered in this lessons module notes and articles.

**Overview:**

1. Explain when you would use a SQL View.

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

**When to Use a View**

A view is a type of virtual table that allows a user to structure data for end-users ease of use, restrict database access in such a way that end-users can only modify it in pre-approved ways and summarize data from various sources to generate reports. This highly versatile SQL concept should be used when end users are in mind. The end user being common workers who do not necessarily understand the nuances of SQL or database management. Since a view can be used to update tables, toggling the permissions and or what can be seen in a view by the user is critical to long term success and usability.

**Views, Functions & Stored Procedures**

As explained above, a view is a way to structure data for end users such that they can utilize pertinent information and update data as necessary. Functions and Stored procedures are similar to Views in that they are saved SQL statements but they differ in a few ways. One way in which a function is different from a view is that it must perform some *calculation* or output a computed value. Functions cannot perform updates to a table, unlike views. A stored procedure is similar to views and functions in that it is also a saved SQL code that can be referenced or used over and over. The key difference between a Stored Procedure and views or function is that the Stored Procedure is used to perform a function on the database. This can be anything from updating a table to deleting records.

**Conclusions & Lessons Learned:**

The differences between views, functions and procedures are subtle but have obvious uses. In wandering my companies ERP system I was able to see many views, most of which I am not currently permitted to actual see their data but I could see what they were called. Talking with my mentor I was given a brief understanding of their uses and the end user modules that work to update and pull reports from them. I was also shown some use cases of custom stored procedures that we have developed and their associated views. One concept I will need to spend more time on is functions and their use cases.

**Terminology:**

Below is a list of vocabulary and terminology I have gathered from this module.



**Sources:**

Functions, <https://stackoverflow.com/questions/1179758/function-vs-stored-procedure-in-sql-server> (External Site)

View, <https://www.tutorialspoint.com/sql/sql-using-views.htm> (External Site)

Stored Procedure, <https://www.w3schools.com/sql/sql_stored_procedures.asp> (External Site)