

Name: Chiffon Clark

Date: 5/20/2024

Course: Foundations of SQL Database Programming

Assignment06DB\_ChiffonClark

<https://github.com/noffihc/DBFoundations>

Views:

In this assignment we learned about views, and the importance of having views for frontend users to access, and backend users to work with.

### **Topic 1 – When would an SQL VIEW be used:**

A view is best used for simplifying data presentation. Views can be customized for frontend users to easily analyze data that is pertinent to specific areas of their interests. A view could have permission for the frontend user to access the view without altering any of the data from the original table(s). Views allow users to see information without compromising the database, and the original table data can be updated continuously behind the scenes. A view is best used to allow easy presentation while protecting data from corruption.

### **Topic 2 – Definitions of SQL View, SQL Function, and SQL Stored Procedure:**

**A SQL View:** A view is a virtual table whose contents are defined by a query. Like a table, a view consists of a set of named columns and rows of data. Unless indexed, a view does not exist as a stored set of data values in a database

**A SQL Function:** SQL server functions are pre-built actions that perform calculations, manipulate data, and return results. At the most fundamental level, these functions simplify complex queries and automate repetitive tasks. Common SQL functions include string, numeric, date/time, conditional, and aggregate functions

**A SQL Stored Procedure:** A stored procedure is a prepared SQL code that you can save, so the code can be reused over and over again. So if you have an SQL query that you write over and over again, save it as a stored procedure, and then just call it to execute it

A view is a pre-built virtual table that allows for customized presentation of data, with security measures in place. Much like a view, a Function is pre-built and allows for customized data presentation for complex repetitive tasks. Both a View and a Function

are pre-built for user friendly viewing of data, but a Function allows for data changes while a View does not. Similar to a View and a Function, Stored Procedures are pre-built strings of code that execute queries that may or may not return data results. All three SQL commands are used to reduce work flow, simplify data viewing, and reduce tedious code writing.

#### In Conclusion:

A view is best used to create data masking to protect the original data from getting compromised while customizing viewing of the data between one or multiple tables in the database. A Function is similar to a view, but allows for the data to be changed within the database tables, it calculates complex functions and returns set results within parameters. A Stored Procedure on the other hand, may seem similar to both the SQL View and SQL Function, but it is useful in reducing the amount of time of recreating queries since it can be used over and over again. However, a stored procedure does not always return results for viewing like a View, or a Function. A stored procedure may even become outdated over time if not updated for changes within the database.