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Assignment 06

Github URL: https://github.com/Sgavon/DBFoundations

SQL Views, Functions and Stored Procedures

**Introduction:**

Module 06 expands on Views, Functions and Stored procedures; functionalities that SQL users can utilize to save scripts or queries in the database instead of an external file. It also explains what their benefits are as abstraction layers to prevent database users from affecting the database itself.

**When to use a ‘View’:**

Views are used to create new ‘views’ of the information held in the database, without affecting the tables structure in the database or the data in it. Views are saved select statements in the database that will perform that select statement when called upon, they do not hold any information other than the code. For this reason, it is very useful to separate views from tables, this way you are not bogging down the database while at the same time you can maintain the flexibility to look at the data and view it from different angles/combinations.

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

Views, Functions, and Stored procedures are all functionalities that let the user store scripts or codes within a database, this makes it easy for database users to call upon them when needed in a query without adding much hassle to the user.

Views are the standard used to ‘view’ data from a table or multiple tables, it is customizable and can also hold complex code in it that can be called later in a query. It is comprised of a ‘select’ statement with its basic ‘from’ and ‘where’ clauses.

Functions can be a bit more complex and add functionalities to SQL. In addition to acting as a ‘view’ to look at information it can also process information, such as solving for mathematical expressions. In addition, a user can add parameters to a function that will be used in the function to return a specific value of data point.

Stored Procedures I believe have the most versatility in SQL, as it can hold multiple statements and does not have the ‘return’ constraint that functions do have to abide. A stored procedure can also call upon other stored procedures and functions, while a function cannot.

**Summary:**

We continue to delve into more ways to look at our data, while at the same time simplyfing our SQL databases with views, functions and SPs. While each of these have been use for similar purposes in the assignment and the LAB excercies, I am looking forward to see how exactly they are different in practice for future modules.