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Date: February 22, 2022

Course:Foundations of Databases & SQL Programming

**Assignment 6 – Views, Functions and Stored Procedures**

**Introduction**

This week’s work built on prior work with joins and subqueries. By using the prior code, I worked to create several views which are discussed below.

When to use a SQL View

A view is essentially a select statement saved with a given name. Views can be used to store a select statement that can be reused. Views can be created to allow ease of access to database users through user roles, while at the same time, limiting access to other more vital elements of the database. Views do not store data that is pulled from the select statements within them, but can be executed on-demand to retrieve the most up to date data.

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

Views, functions and stored procedures are all very similar operations but do have different characteristics as well. Like views, functions can be saved and later reused to retrieve desired data. However, unlike views, functions can also use parameters in the select statement which can change the results of the query. Functions can also be used to return single values as an expression unlike views.

A stored procedure is like a view or function as it can be saved and reused. But unlike views and functions, stored procedures use the ‘Execute’ syntax to retrieve data rather than the ‘Select’ function. Also, stored procedures allow for multiple stored procedures making them a more flexible option over views or functions.

Summary

This week’s exercises into view, functions and stored procedures was very eye opening as it related to my own personal experience using databases. Before, simply clicking a link to a report in a database elicited little appreciation for the underpinning topology behind that request for information. I would just be happy to get the report! Now, after delving into views, functions and stored procedures, I have a much better sense of the coding and structure behind those reports in the database and what is happening when a database user retrieves a report. It’s very interesting. It’s also exiting to kind of tear away the facade of the pretty database that most of us are all use to seeing and really understand the code and structure beneath