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8/6/2024

Foundations of Databases & SQL Programming

Assignment06

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Introduction

In this sixth week of class, we are learning about the uses of views within the databases. In this paper, I will explain when to use a SQL View and explain the differences and similarities between a View, Function and Stored Procedure.

When to use a SQL View

A SQL View in your database can be very helpful tool to save time. As your SQL select statements become more complex, you can save these scripts as a View for repeated use in future use. Any view that is used to extract data for reporting purposes is called a "Reporting View." These views can then run these complex codes. Views will also allow you to store specific data into a table, utilizing a where clause that might be specific to certain needs. Also, this can be done with columns. Views also allow for naming or aliasing columns something that might be more reporting or end user friendly. You can also protect private data with permissions and allow people to only access table data through appropriate views.

Differences and Similarities between a View, Function and Stored Procedure

SQL Views and Functions are select statements whose code is stored in a database. Stored Procedures are similar, but they are not restricted to just select statements. Functions are referred to as User Defined Functions or UDFs. There are two basic types of functions; functions that return a table of values and functions that return a single value. Unlike views, functions can use parameters to change the results of the query as it is executed. Also unlike views, you can create UDFs to return a single value as an expression. Like Views or Functions, Stored Procedures are a Named Set of SQL Statements.

Summary

In this paper, I have talked about the use of views within a database and when to use them. I described the differences and similarities between the Views, Functions and Stored Procedures.