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Assignment 06

Views, Functions, and Stored Procedures

Introduction

In this assignment, I will explain views, functions, and stored procedures. I'll also indicate when views would be useful.

Views, Functions, and Stored Procedures

Views, functions, and stored procedures are ways to store queries within a database file for later execution and helps to simplify complex codes. They are all made in a database by having a "Create" syntax when they are being built out.

A view saves SELECT statements and acts like a table in a database in that one can query against a view. A view can be created with the entire information of one table, joined information from 2 or more tables, and/or only show some of the rows/columns of the tables.

A function is also a tool that saves SELECT statements in a database. Like a view or a stored procedure, a function can return a table of values. But different from a view or a stored procedure, it can return a single value as well. When creating a function, the command includes "Returns Table as Return." It also requires the SELECT statement to be put within a parenthesis.

Another tool that saves SELECT statements is a stored procedure. A stored procedure and a view are much more similar when being created in that they use the "Create" and "As" syntax. But with a stored procedure, one executes the procedure instead of selecting from a table like one would do for a view or a function. So instead of indicating "Select" in the statement, one would indicate "Execute." A stored procedure is also different in that it can run other statements aside from SELECT statements such as inserts, updates and/or deletes.

When a view is useful

A view is useful when you want to store a SQL statement in the database. It simplifies the use of a complex code because someone can use the view instead of having to write out the entire SQL statement that is stored as a view. It allows access to the data in a customized way. It also provides an abstraction layer for the data within the database since it enables you to hide parts of the database from certain users and it doesn't allow the data to be modified.

Summary

In this assignment, I explained views, functions, and stored procedures. And I also explained when a view would be useful to use.