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Foundations of Database & SQL Programming
Assignment 06
GitHub: https://github.com/Vanessa-YChang/DBFoundations.git

Views, Functions, and Store Procedures

In Module 6, we learned when SQL Select statements become complex, we can save them in a text file for repeated use or save the Select statements within a database's file as SQL View, Function or Store Procedure. Also, we learned how to create and use Views, Functions and Store Procedure for selecting report data and how them work to protect table.

Here are I am going to explain when to use a SQL view and the difference and similarities between view, function and store procedure.

When you would use a SQL View.
   1. When the SQL select statements become a long and complex query, to save time on retyping and running the query, we can store the query in a view and simply run the SELECT statement on that view.
   2. Each table in database should have a Base / Basic view to show data from that table. When make a table, we create a base view and then restrict access to the table while allowing access to the View. Base views allow people to use data in the "Abstract".
   3. The access control to the data stored in the database, to protect the private data with permissions and allow people to only access the table data through the appropriate views.

Differences and similarities between a View, Function, and Stored Procedure.

Differences:
   1. Functions can use parameters to change the result of the query.
   2. Views can use Where clause to change the result of the query.
   3. When create function, need to use dbo prefix in MS SQL Server.
   4. Functions can return a single (scalar) value as an expression by creating UDFs.
   5. Store Procedures are not restricted to just Select statements.

Similarities:
   1. Views and Functions are returning a table of values.
   2. The way of creating views, functions and store procedure.
   3. Views, Functions and Store Procedures are a Named Set of SQL Statements.