Kegan Sanchez

November 23, 2020

Foundations of Databases

Assignment 06

Views

# Introduction

This week, I learned about the different types of SQL Views, including how to create, order, apply schemabinding, and grant or deny permissions on them. I now have a better understanding of the following concepts:

## When to Use a SQL View

SQL Views are useful when Select statements become more complex. Instead of just being saved in a text file, Select statements can be saved within a database’s file as a SQL View, Function, or Stored Procedure. These “Named” Select statements that are stored in the database can be used to extract data for reporting purposes, called a “Reporting View,” allow groups of people to use data in the “Abstract,” called a “Basic View,” and protect this data with permissions. Abstraction layer objects such as views make table design changes easier, provide protections for some table changes, and help maintain the way applications access data.

## Similarities and Differences Between a View, Function, and Stored Procedure

SQL Views and Functions are "Named" Select statements whose code is stored in a database. Stored Procedures are similar, but they are not restricted to just Select statements. Like Views or Functions, Stored Procedures (Sprocs or Procs) are a Named Set of SQL Statements. Unlike views, custom function, often called User Defined Functions or just UDFs, can use parameters to change the results of the query as it’s executed. Unlike views, you can create UDFs to return a single (scalar) value as an expression. Custom Scalar functions are sometimes used for Check constraints because you cannot otherwise reference a column in another table.

# Summary

I now have a better understanding of Views and their uses. I can take this knowledge and build upon it to become more comfortable with using Views and determining when they would best be useful.