

Name: James Cooper

Date: 5/16/2022

Class: ITFDN 130

<https://github.com/jinholiday/DBFundations>

Assignment 6 – SQL View

Introduction

As part of IT foundation, it is important to have a solid understanding on basic elements of SQL Views. Based on the lecture notes and Web knowledge, I will try to answer two questions below.

1. Explain when you would use a SQL View.

“Views can be used as security mechanisms by letting users access data through the view, without granting the users permissions to directly access the underlying base tables of the view. Views can be used to provide a backward compatible interface to emulate a table that used to exist but whose schema has changed. Views can also be used when you copy data to and from SQL Server to improve performance and to partition data.” (<https://docs.microsoft.com/en-us/sql/relational-databases/views/views?view=sql-server-ver16>) (Module05Notes)

2. Explain the differences and similarities between an View, Function and Stored Procedure.

View: “To focus, simplify, and customize the perception each user has of the database. As a security mechanism by allowing users to access data through the view, without granting the users permissions to directly access the underlying base tables. To provide a backward compatible interface to emulate a table whose schema has changed.” (<https://docs.microsoft.com/en-us/sql/t-sql/statements/create-view-transact-sql?view=sql-server-ver16>)

Function: “ Like views, 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. You can create User Defined Functions to return a single (scalar) value as an expression. ” (Module06Notes, page 11-13)

Stored Procedure: “Like Views or Functions, Stored Procedures (Sprocs or Procs) are a Named Set of SQL Statements. ” (Module06Notes, page 15)

Summary

Based on the answers of the three questions above, we can have some basic knowledge for how to use SQL view, function and stored procedure to processing data. In general, they all help to archive goal of reduce server, stronger security, easier maintenance and improving performance.

(<https://docs.microsoft.com/en-us/sql/relational-databases/stored-procedures/stored-procedures-database-engine?view=sql-server-ver16>)