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IT FDN 130 – Foundations of Databases & SQL Programming

Assignment 06

# **Assignment 06 – Views**

## Introduction

In this paper, I will discuss the use of Views in SQL.

## When to use a SQL View

Views are yet another key element of SQL database structure. Views can be used in two ways. One type of views is a basic view which are one-for-one replicas of your tables. By creating these simple basic views, you can control permissions, and provide a layer of abstraction to prevent users from unintended editing of the underlying data, and have the flexibility to manipulate the underlying data structure without totally sidelining your data users. The second grouping of views would be all of the other views that replicate a certain Select statement – these Select statements can be as simple or complex as the business need is, but it allows the database owners/admins to generate user-friendly data selections for your database users. In cases where the data is highly normalized, views can be used pre-populate your most common synthetizations of data without the users needing to know much about the data structure or SQL syntax. Views are essentially virtual tables, used to protect data, and to simplify ease of use.

## Views, Functions, and Stored Procedures

Similar to Views, Functions and Stored Procedures carry powerful capabilities with a SQL environment. All three of these can be used to execute a select statement of any level of complexity. Functions and stored procedures, however, have the ability to do more than just stitch data together into a table-like view.

* Functions can return both individual values (calculations, text strings, etc.) and tables, depending on exactly what we’re looking to accomplish with the function. Functions can pass arguments into the SQL script and have the parameter specifically manipulate the script.
* Stored procedures are called into the SQL instance differently. They are not ‘selected’ they are simply run, so while you can use views or functions like pseudo-tables, stored procedures can be used to run multiple sequential commands other than select statements like create, insert, update, and so on.

Views tend to be more simple, so they are often like a first line of defense, but functions and stored procedures can be very handy when they’re needed!

## Summary

In this paper, I have discussed a short overview of what a View is and how it compares to Functions and Stored Procedures.