Name: Antonio Laureano

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Course: IT FDN 130 A Au 23: Foundations of Databases & SQL Programming

Assignment 6 – Views

Introduction

In this write-up we will delve into understanding Views and their purpose. In addition, how Views compare to Functions and Stored Procedures.

Topic

As we learned in previous modules, the SELECT statement can be used to view the data found in one or more tables. The presented data must be defined by the developer, that being defining the columns to be shown, adding a sub-query to filter rows to be shown and defining JOINs statements to show data from more than 1 table. All the contents of a SELECT statement can be stored in a developer defined VIEW. Hence developers/user can use pre-defined VIEWS to present/use a subset of data from one or more tables without writing a SELECT statement. Hence, this simplifies querying since it reduces the amount of SELECT statement being used. In addition, it helps with data security, since the develop can define if a table or View is visible to the public, a pre-defined list of users or to no one.

In past modules, we have studied other database objects, including stored procedures and functions. To compare both to Views, functions can return a single (scalar value) where Views can’t. Stored procedure can perform data manipulations (like INSERT, UPDATE, DELETE) where Views only presents data as it was defined by the developer who created said View. Although they have different functionalities, all three can be used to simplify the querying and control access to a specific data in the database.

Summary

In summary, Views can be created by a developer to quickly return a subset of values from a specified table/s. Although functions and stored procedure are primary focused to encapsulate and execute logic, they are like Views when discussing how they simplify querying and data security.