Whitney Secor

Due: 17 August 2022

Foundations of Databases and SQL Programming

Assignment 6

Link: **TBD**

**Assignment 6: Views, Functions, and Stored Procedures**

***Introduction***

There are numerous ways for a SQL user to save data or reuse a SQL statement. Views, Functions, and Stored Procedures help a SQL user build off saved data in a database. In this assignment, I will explore the differences and similarities between a View, Function, and Stored Procedure, and how they help SQL users.

Explain when you would use a SQL View.

If a SQL user wanted to save their data, they could go a few different routes. A SQL user could save their data in a file, through GitHub, or a View. A View can save a SQL user’s data in the database – it stores the user’s code in the database. This is convenient for other users to access. If someone were to work for a company and created a complex set of code, the employee could create a View for other coworkers to use. The View also allows the creator of the code to lock down the original table and create permission sets for viewers. The creator could block certain SQL users from viewing specific pieces of information such as confidential material.

Explain are the differences and similarities between a View, Function, and Stored Procedure.

Views, Functions, and Stored Procedures save a SQL user time, and they foster code reusability. A SQL user could use a View to find an already created complex set of code – it would help the SQL user access the data they were looking for faster. Similar to a View, a custom Function or User Defined Function (UDF), saves data in the database. There are two basic functions, and these two functions allow a user to retrieve a table of values or a single value. Unlike a View, a SQL user can create a UDF to return a single value as an expression. A Stored Procedure is prepared SQL code that a user can save. Once the code is saved with a Stored Procedure, the SQL user can use the code over and over again.

***Summary***

Views, Functions, and Stored Procedures are a convenient way for a SQL user to save or access saved data. This helps a SQL user avoid having to repeatedly create complex code. Views, Functions and Stored Procedures also help protect information on a database.