Veneza Tena

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IT FDN 130A

Assignment06

[GitHubURL](https://github.com/vtena97/DBFoundations)

**Views, Functions, and Stored Procedures**

**Intro**

This week we went into a more detail on Views, Functions, Stored Procedures, as well as an opportunity to work with GitHub. Views, Functions, and Stored Procedures share some similarities and specific qualities that differentiates one from the other. Overall, these are techniques that SQL programmers use to access data for reports. The specific report query will dictate the best technique used in addition to trying to keep it as simple as possible.

**When to use a SQL View**

The primary use of a SQL View is simply accessing data for query or reports by various users. The users could include various knowledge levels of SQL programming. A view adds a layer of protection to prevent changes or mistakes from happening to the original database. What’s neat is that a programmer can grant and restrict access to the original database and the view as another layer of protection for the database to ensure data integrity. The SQL programmer can make changes to the database behind the scenes without impacting user access to the data in the view. A takeaway that I learned from Prof. Root is that it’s best practice to create views for each table within a database.

**Differences and Similarities between a View, Function, and Stored Procedure**

In the introduction, I mentioned that there are some similarities between Views, Functions, and Stored Procedures. Those include the code for each are saved in the SQL database. Specifically, for Views and Functions they are saved Select statements with little variations in the SQL code. They are also both affected by funkiness Order By clause complications.

Let’s get into the differences between each technique. The query report from a View is not stored in the database. To create and update a function, you need to use the database owner prefix or DBO and when you update the function when the SQL code for a View a DBO is not needed. On the same topic as the differences between a Function and a View, with a function a programmer must add data to receive or return a value. The difference with a Stored Procedure includes that it’s a bit more flexible where you can have a varied number of statements that include Select, Inserts, Create, and much more. Another difference with Stored Procedure is that it “Executes” code and it’s a good tool for more complicated reports.

**Conclusion**

Overall, I was on a time crunch this week due to starting a new state job last so finding the time to accomplish all the tasks for Assignment06 was very challenging this week. I would say that some of the concepts are sticking with me. As I went through this week’s materials, I found myself working on the coding assignment simultaneously which is helping me grasp the concepts this week but got stuck on overthinking the last question of the coding portion of Assignment06.