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DB Foundations Module 06 – VIEWS

In this essay we will be looking at some of the reasons to use Views when writing SQL code. We will also be comparing and contrasting Views, Functions and Stored Procedures.

One important use of SQL Views is to create an easier way to process complex code. By empowering users to write a simple Select statement that refers to the View rather than having to type out the whole statement themselves, your database can be useful to those with only rudimentary SQL knowledge. You can create complex Reporting Views that display a wealth of information from multiple tables with very minimal coding by the user.

Another use of SQL Views is to prevent unwanted editing of data in a Table. Creating a Base View, which is a full representation of the data in a Table as a View, allows users to reference the data in the Table without actually touching the Table itself. In this same vein of data integrity, you can apply Schema Binding to your View, which prevents any changes to the database that would break the View you have created.

You can also use SQL Views to create a stable format for users to interact with. Once you have created a Table and made it available to other users, they may come to rely on the specific formatting for a variety of reasons. By letting users interact with a View rather than the Table, you can make changes to the Table structure in the future and as long as you update the View accordingly, the end user will not be aware any changes have taken place.

In addition to Views, there are some similar elements of SQL that we can look at called Functions and Stored Procedures. They are all similar in that it is possible to use a View, Function, or Stored Procedure to return the same set of data in table format, but there are also several key differences.

There are some Functions that come baked-in to SQL Server Management Studio, but you can also create custom Functions which are also called User Defined Functions. Unlike Views, Functions allow you to use parameters to change the results of a query. In a View you would need to use a Where clause to accomplish this result.

Stored Procedures are another way to store SQL code to be used later. Like Functions, the results of Stored Procedures can be changed by using parameters. A Stored Procedure can return a table of data, but unlike a View that table can't be referenced in another query. Another difference between Stored Procedures and Views is that Stored Procedures can be used to modify data in a table, while Views can't.

In this essay, we have discussed several reasons why you would use Views in your SQL code. We have also looked at some similarities and differences between Views, Functions, and Stored Procedures.