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Module 6 Assignment

<https://github.com/Mellifluy/DBFoundations/tree/main>

SQL Views

**Introduction**

In Module 5, we learn about SQL View. This paper compares and contrasts between a View, Function, and Stored Procedure.

SQL View

As SQL Select statements become more complex, users may want to save them in a text file for future use. Users may also choose to save them within a database’s file as a SQL View, Function, or Stored Procedure. Views serve as an abstraction layer and can save users time when saving simple or complex Select statements.

Compare and Contrast

Views cannot dictate how data is sorted. However, using the TOP clause can manipulate the system into allowing the Order By clause. Views and Functions have similar syntax (Create View vs. Create Function), but Function syntax includes Returns Table. Unlike Views, functions can use parameters to change the results of a query. Views can do this by applying a Where clause. SQL Functions are more complex—when one can, use a View.

Like Views or Functions, Stored Procedures are a named set of SQL statements. While Views are used for reporting, Stored Procedures can be used to execute code. A Stored Procedure can alter data, where a View can only return it.

One feature of views, functions, and stored procedures is schema binding. It protects the view from being orphaned. One is binding the design of the view to the table. Any time someone tries to change the design, the user gets an error message. It prevents unauthorized or inadvertent changes.

**Conclusion**

There are various ways to store code that one wants to save within the database—Views, Functions, and Stored Procedures. The key benefits are more efficient reuse of code, provide abstraction over tables, less server traffic, and enhanced security controls.