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# IT FDN 130 A

# Assignment06 Views

<https://github.com/KHarrisonSqLFoundations/DBFoundations>

# SQL views, functions, and stored procedures

## In this paper I will explain when one would use a view and the similarities and differences between views, functions, and stored procedures

## Use of Views in SQL

There are multiple uses for views in SQL. Reporting views can be used to store complex code and then display the report later in the programming. A base view creates an abstraction layer to allow changes to data without breaking the code and allows schema binding to prevent changes to the underlying tables that would break the view. Views also allow either horizontal or vertical data partitioning.

## Similarities in views, functions and stored procedures

Views, functions, and stored procedures are all ways to store complex code for later or repeated use. All three will return data from database tables. Views and functions both allow for parameters.

## Differences between views, functions and stored procedures

Views allow the programmer to protect underlying data using base views, permissions, and schema binding while functions and stored procedures do not.

Functions allow the programmer to return a single value as a scaler function. A scaler function can also be used as a check constraint. Scaler functions can also be used to perform calculations on other data in the table. Unlike views or stored procedures, functions allow statement to be evaluated into another value.

Stored procedures cannot be evaluated into anything the code can only be executed. A stored procedure can create a procedure with many statements to insert, alter or create tables and call those actions in a single execute command in another part of the program.

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In summary views, functions and stored procedures are all ways to store complex code in a named set of SQL statements. While all will return a table view, views can create protected abstraction layers, functions can be evaluated into a single value, and stored procedures allow for the execution of multiple statements in a single statement.