

# Module 6 – SQL Views

## Using SQL Views

In SQL you would use views for multiple scenarios. For example, if you have a complex query with many joins and aggregations this can be built with a view, and it would make it easier without having to duplicate the logic. Another example is to create views for reporting especially on large transactional database tables. This would enable end users to obtain the data without hitting tables that may be updating due to transactions. In addition, you can also create many aggregations in a view and provide summary data in a view that would enable specific calculations to be developed and not leave it to end users to develop those.

## SQL Views, Functions and Stored Procedures – Differences & Similarities

Views, Functions and Stored Procedures support different purposes and have different features.

### View

A view is a table that gets created on the fly so to speak. When a user creates a select statement to pull data from a view it provides the user the data needed but there is no table that is storing that information but is pulling from existing tables. Normally views are read only, and views can be used in multiple queries. Views are primarily used for presenting data vs a function which is used to return values.

### Functions

Functions perform a specific calculation or process and can return a value, normally a single value or a table of data. Functions return a value and can be used in select statements or where clauses. Functions can also accept parameters. These can also be called from queries, views or stored procedures. A function can return values or tables vs a view which is used to pull specific data.

### Stored Procedures

A stored procedure is a set of SQL statements that performs a specific action or a series of actions. For example, for my work, I have a stored procedure that is pulling data from a database and loading that base set of data into a table in a separate database. By doing this, it allowed me to then create another script that has many calculations that the business needed for their dataset. In this case, it allowed me to use complex business logic along with variables to make changes and not have to change the code each month as business logic changed. Stored procedures are used for complex SQL statements and can include complex logic.

