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Github: https://github.com/jricciardi/DBFoundations

When you would use a SQL View

Use a SQL View whenever you would like to create a SELECT statement for future consumption — especially when you would like to protect the underlying data objects.

A view could be useful as a redundant SELECT statement of an existing table, or it could be handy to save a view with set of joins or a view that cleans up and prepares messy data to be analyzed by business users.

It's important to note a reality of views: When a view is accessed, the stored SELECT statement runs. We are not creating and storing a net new table that contains the results of the view. This can have performance implications — and even if a view selects a small subset of data, that view could be sluggish if it references other tables or views that have complex queries. To improve performance, we might consider a **materialized view**, which does store the results of the view.

The differences between a View, Function, and Stored Procedure

A **VIEW** stores a SELECT statement.

A **FUNCTION** is a sub-procedure that can be referenced. Many functions already exist built-in to SQL, like SUM, COUNT, LEN, and CEIL. You can also create and store a function in your database, creating a small set of instructions that can be easily used within other statements.

> *As an example, you might have address data from a survey where state names are sometimes fully spelled out and sometimes abbreviated. You might create a function to make sure state names are properly abbreviated and abbreviations are capitalized.*

A **STORED PROCEDURE** stores a group of statements that can be executed. In addition to the SELECT statement, stored procedures can execute statements like INSERT, DELETE, ALTER, and CREATE.

> *As an example, you might take that state name abbreviator function from the example above and use a stored procedure to ALTER tables as new survey data is submitted, updating and cleaning the data for analysis.*