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Once we've created our database, there are a variety of ways that we can retrieve that data, such as through the use of functions. But since most SQL functions are predefined to perform certain tasks or computations, they might not always meet our exact needs to give us what we're looking for. In such cases, we can use SQL UDFs, or User-Defined Functions, where we can custom tailor the logic to fit our needs or apply certain customizations to the output of our data. Often times as well, setting up these UDFs can be easier to use as these functions only need to be defined once and can be reused across multiple queries, and can be used to transform or cleanup data easier than choosing to add, delete, or alter rows and columns of pre-existing data.

A few of the most commonly used functions for these purposes are Scalar functions, Inline functions, and Multi-Statement functions. Scalar functions return a single value based on the input parameters. Inline functions, also known as Tabular functions, return a result set as a table and can be treated as a regular table when used with the SELECT * FROM statement. Multi-statement functions are also table-valued functions, but often use temporary tables or table variables. While Scalar functions are simpler and more versatile, Inline and Multi-Statement functions are more complex and specialized in regards to returning results sets with multiple data points.

Understanding the differences between Scalar, Inline, and Multi-Statement functions allows us to choose the appropriate type of functions to include in our UDFs, whether it is simplifying the data down to single results, or providing detailed tables of information. The effectiveness of UDFs allows for our database and for database queries to be more precise and specific.