To fix table align issue, look for .rendered\_html td { in html output.

Language Basics

Basic syntax

Obligatory Hello World

String functions If you work in analytics, you are going to be spending a lot of time manipulating strings. You are pretty much going to use ALL the string functions at some point.

Case statement

Creating, Altering, Dropping Tables

Table Aliases

Inserting Data

Code comments

For cleaner SQL code, get into the habit of using table aliases.

Let me explain this visually.

SELECT Commodity.CommodityName

FROM Commodity

Vs.

Select

c.CommodityName

FROM Commodity c

Variables

Sometimes you need to create a table with working data to perform intermediate transformations. Table variables have limitations and do not perform well with more than a handful of records. Instead, use temp tables.

**Advanced Topics**

Bulk Insert

SQL Merge

Recursive query

Over

Conditional case

Indexed Views

Error Processing

Common Table Expression (CTE)

Use CTEs in SQL queries to encapsulate complex business logic. Technically, derived tables are faster than a common table expression. However, the speed increase isn’t worth the cost of unmaintainable code. If you need to create a temporary dataset that requires complex joins, turn it into a CTE.

Derived Tables

Combining queries with Union

Subqueries

SQL Update With Join

Views

Functions

If you find yourself having to write the same line of code over and over, it’s time to turn that code into a user-defined function. A good example is a function that converts Unix dates to SQL Server date datatypes because SQL Server date functions don’t understand Unix dates.

Stored Procedures

Computed columns

Useful where clause functions If your SQL Query looks for records between two values, skip the greater than, less than, and equal to signs and use BETWEEN. Technically, greater than and less than signs perform better than between, but I consider it a tradeoff between performance and readable code. The performance hit is negligible compared to being able to quickly see what two values something is supposed to be between without having to take a close look at which way the alligator is facing.