SQL Query Cheat Sheet

SQL Code Order and Considerations

Query Part	Considerations
SELECT	columns, transformations
FROM	tables, JOINS, subqueries
WHERE	conditions (=, comparisons, NULL, IN(), LIKE, AND/OR, etc.)
GROUP BY	one value per group, group = each unique value/set, use with aggregations in SELECT
HAVING	conditions for groups
ORDER BY	sort
LIMIT	top only

Query Problem-solving Steps

1. Understand the data
    a. What does each table represent?
    b. What does each column measure?
2. Which columns/tables will you need?
    a. Start with the JOINs
        i. INNER JOIN (JOIN … ON or JOIN … USING()) for Foreign Keys
        ii. OUTER JOIN (LEFT JOIN or RIGHT JOIN) to include unmatched rows
3. Which rows do you need? (WHERE)
4. Do you need any aggregations (e.g., COUNT(*))?
    a. Do you need any grouping? (GROUP BY)
    b. Totals? (WITH ROLLUP)
5. Do you need a subquery to get data in a different form?
    a. Transform the data first to use as an input to your query
        i. Subqueries are good for creating a list of values (or a single value; e.g., the MAX(…)/MIN(…)) to match in a WHERE clause.
6. Any transformations?
    a. New variables from calculations?
7. Cleanup
    a. Sort (ORDER BY)
    b. Limit (LIMIT)
    c. Clean up column names (AS)