Grouping Data & Working with Subqueries

Grouping Data

- Used to group data and then do aggregate calculations such as SUM, COUNT, etc. on each group
- Use the GROUP BY clause
- Can contain many columns, even nested groups
- Must be a valid column, *not* an aggregate function
- Cannot use with aliases
- When used in a query, GROUP BY must include every column except the aggregates
- NULL values are grouped together
- Order: SFWGHO (GROUP BY comes after WHERE)

  HAVING vs WHERE
- WHERE filters rows, HAVING filters groups

- Good practice: use ORDER BY as well when using GROUP BY. ORDER BY ensures data is sorted by user's specifications.

Grouping Data & Working with Subqueries

- Subquery -a query within a query
- Can use subquery to retrieve info or do calculation (ex.count of orders from orders table (subquery) to be displayed with customer info from customers table in the main query, p.103, 104)
- Whenever it's ambiguous which table a column is to be taken from, it should be stated explicitly. (ex.where orders.cust_id = customers.cust_id, p.103, 104). Or, to avoid this ambiguousness altogether, use the fully qualified columns *whenever* the query includes >1 table.