W3 - JOINS, CASEs

```
SELECT CASE
WHEN DATEDIFF(d,OrderDate,ShippedDate) < 10 THEN 'On Time'
ELSE 'Overdue'
END AS "Status"
FROM Orders
```

CASE statements can be useful when you need varying results output based on differing data.

Pay close attention to WHEN THEN ELSE and END

Use single quotes for data and double quotes for column aliases.

SPARTA GLOBAL

ACTIVITY

- Use CASE to add a column to the previous activity solution called Retirement Status as follows:

1. Age greater than 65 = "Retired"
2. Age greater than 60 = "Retirement due"
3. Age less than 60 = "More than 5 years to go"

```
SELECT SupplierID,
SUM(UnitsOnOrder) AS "Total On Order",
      AVG(UnitsOnOrder) AS "Avg On Order"
FROM Products
GROUP BY SupplierID
```

HAVING is used instead of WHERE when filtering on subtotals/grouped data

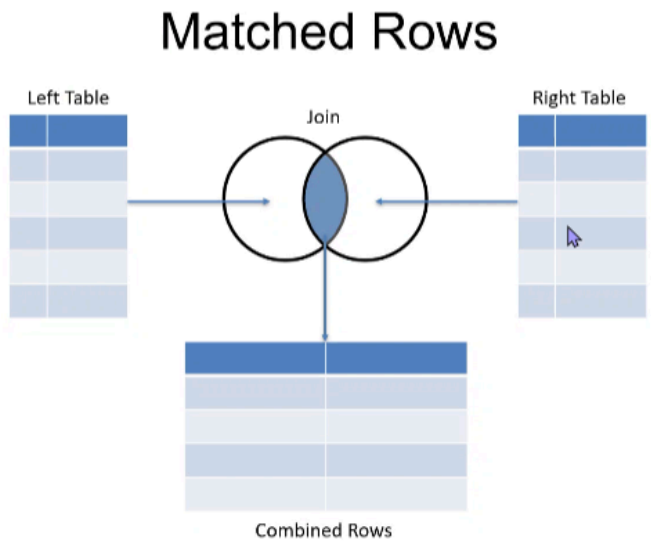
Column Aliases cannot be used in the HAVING clause

Aggregate functions are not available for use in the WHERE clause due to the SQL processing sequence

SPARTA GLOBAL

JOINS

INNER JOIN

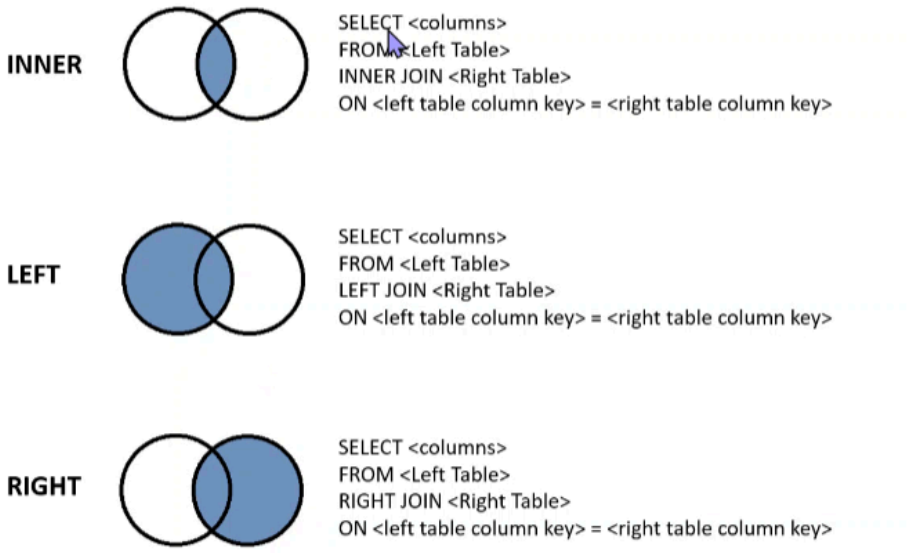


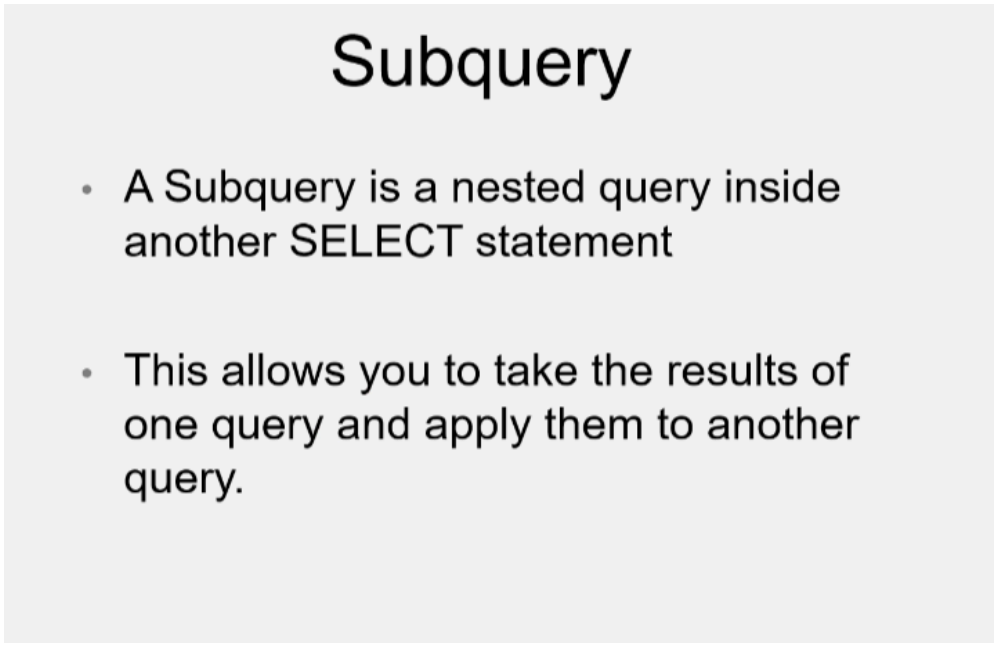
Join Types (Cont.)

- RIGHT JOIN or RIGHT OUTER JOIN
  - Return all rows from the right table, and the matched rows from the left table regardless of any matching entry in the left table
- FULL JOIN or FULL OUTER JOIN
  - Return all rows in both tables regardless of any match. Where no match exists, the missing side will contain NULL

ACTIVITY

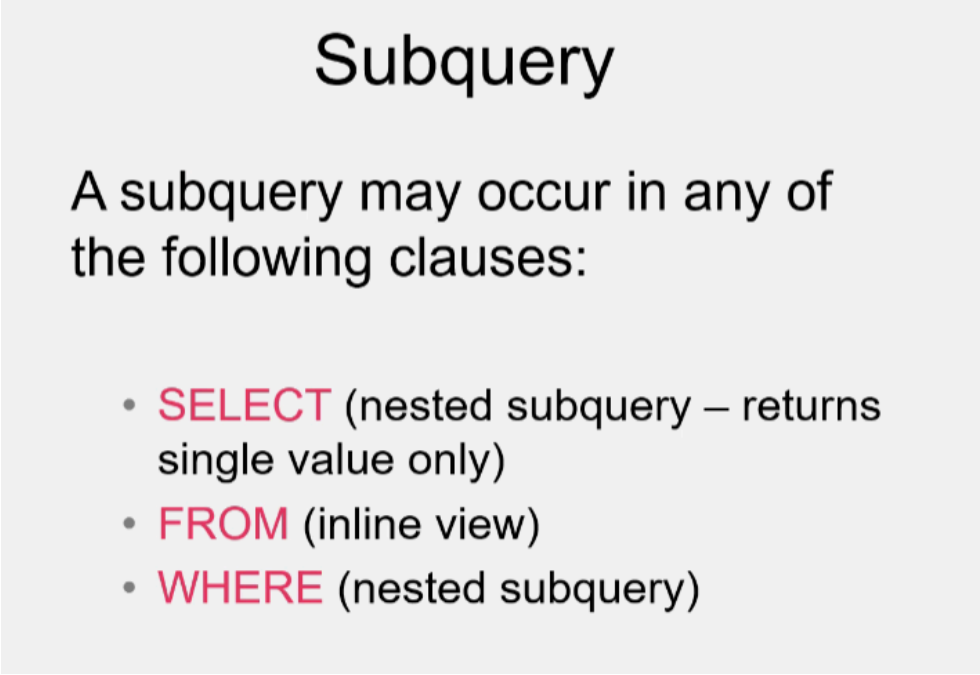
- Using rows from Products, Group By Supplier showing an average of Units On Order for each Supplier
- Include the Supplier Name (use CompanyName) in the result set using an INNER JOIN to the Suppliers table
- Also remember the GROUP BY clause will need to include the Supplier Name
- Note: In the SELECT statement, you will need to specify which table you are requesting or use Aliases on ALL columns that have the same name in multiple tables (e.g. wherever SupplierID appears in the SQL)





3 DIFFERENT SUBQUERIES:

- **SELECT**- NESTED SUBQUERY
- **FROM** - INLINE VIEW
- **WHERE** - NESTED SUBQUERY



STORED PROCEDURES