Day 39 - 90 days of Analytics: SUB QUERIES

In today's video, we looked at subqueries in SQL

The following were mentioned

-A **Subquery** or **Inner query** or a **Nested query** is a query within another SQL query and embedded within the WHERE clause.

-A subquery is used to return data that will be used in the main query as a condition to further restrict the data to be retrieved.

-Subqueries can be used with the **SELECT** clause along with the operators like =, <, >, >=, <=, IN, BETWEEN, …

-Some rules we must follow when working with subqueries include

- Subqueries must be enclosed within brackets
- A subquery can have only one column in the SELECT clause, unless multiple columns are in the main query for the subquery to compare its selected columns.
- An **ORDER BY** command cannot be used in a subquery, although the main query can use an ORDER BY. The **GROUP BY** command can be used to perform the same function as the ORDER BY in a subquery.
- Subqueries that return more than one row can only be used with multiple value operators such as the **IN** operator.
- The **BETWEEN** operator cannot be used with a subquery. However, the BETWEEN operator can be used within the subquery

-Subqueries are most frequently used with the SELECT clause with syntax

```
SELECT column_name
FROM table_name
WHERE column_name operator
    (SELECT COLUMN_NAME from TABLE_NAME   WHERE ...);
```

-Examples with sub queries

```
SELECT *
FROM staff_db.staffdemographic
WHERE Age =
(SELECT MIN(Age) FROM staff_db.staffdemographic);

SELECT *
FROM staff_db.staffsalary
WHERE StaffID IN
(SELECT StaffID FROM staff_db.staffdemographic)
ORDER BY Salary DESC
LIMIT 5;
```

Link to the YouTube Recording: https://www.youtube.com/watch?v=S9FEu9pgmQg

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