**Chapter - 06**

## What is Subquery?

Ans.

* A subquery is a SELECT statement that is embedded in a clause of another SELECT statement
* The subquery (inner query) executes once before the main query (outer query).
* The result of the subquery is used by the main query
* To avoid a Cartesian product, always include a valid join condition.

## Types of Subqueries

**Ans: There are two type of subqueries available in SQL:**

**Single-row subqueries:** Queries that return only one row from the inner SELECT statement.

**Multiple-row subqueries:** Queries that return more than one row from the inner SELECT statement.

## What are the Guidelines for Using Subqueries?

**Ans:**

* Enclose subqueries in parentheses.
* Place subqueries on the right side of the comparison condition.
* The ORDER BY clause in the subquery is not needed unless you are performing Top-N analysis.
* Use single-row operators with single-row subqueries and use multiple-row operators with multiple-row subqueries.

## Single-row subqueries

**Ans:**

**Single-row subqueries:** Queries that return only one row from the inner SELECT statement

## What are the Single row operator?

**Ans:**

=Equal to

>Greater than

>=Greater than or equal to

<Less than

<=Less than or equal to

<>Not equal to

## Multiple row subqueries?

**Ans:** Sub queries that return more than one row are called multiple-row sub queries. We use a multiple-row operator, instead of a single-row operator, with a multiple-row sub query.

## Multiple row operators?

**Ans:**

* Return more than one row
* Use multiple-row comparison operators

## IN

* **ANY** :

• <ANY means less than the maximum.

* + >ANY means more than the minimum.

• =ANY is equivalent to IN

* **ALL**.

1. **Problems with Subqueries**

**Ans:** A common problem with subqueries occurs when no rows are returned by the inner query. In the SQL statement in the slide, the subquery contains a WHERE clause. Presumably, the intention is to find the employee whose name is Haas. The statement is correct but selects no rows when executed.