

Sub Query:

Subqueries also known as inner queries or nested queries, are queries embedded within other SQL queries.

Subqueries can be used in various parts of an SQL statement, including the 'SELECT', 'INSERT', 'UPDATE', and 'DELETE' clauses, as well as in conditions with the 'WHERE', 'HAVING' and 'FROM' clauses.

① Single row subqueries:

- Return a single row with one or more columns.

Example:

```
SELECT Name
FROM employees
WHERE ID = (SELECT ManagerID
            FROM departments
            WHERE name = 'sales');
```

Main query

Sub query

② Multiple-row Subqueries:

- Return multiple rows, often used with 'IN', 'ANY' or 'ALL' operations.

Example:

```
SELECT Name
FROM employees
WHERE department_id IN (SELECT id
                        FROM departments
                        WHERE location = 'New York');
```

③

Example:

```
SELECT Name
FROM employees
WHERE ID = (SELECT ManagerID
            FROM departments
            WHERE name = 'Sales');
```