

## DAY 20: SUBQUERIES

A query nested inside another is a subquery. Subqueries are used when an expression must access or calculate multiple layers of data, such as having to search a second table to provide data for the first table. It can be added to a SELECT, INSERT, UPDATE, or DELETE statement to allow it to use the query results returned by the subquery.

```
/*Find the names of customers who have placed more than five orders in total.*/
SELECT contact_name, job_title
FROM customers
WHERE customer_id IN
  (SELECT customer_id
   FROM orders
   GROUP BY customer_id
   HAVING COUNT(*) > 5);

/*Retrieve the names of employees and the number of orders they handled*/
SELECT employee_name, ORD.max_orders
FROM employees AS EM
JOIN (SELECT employee_id, MAX(order_count) AS max_orders
      FROM (SELECT employee_id, COUNT(DISTINCT order_id) AS order_count
            FROM orders
            GROUP BY employee_id) AS num_orders
      GROUP BY employee_id) AS ORD
ON EM.employee_id = ORD.employee_id
ORDER BY max_orders DESC;

/*List the names of customers who have placed orders in the last 30 days.*/
SELECT contact_name
FROM customers
WHERE customer_id IN
  (SELECT customer_id
   FROM orders
   WHERE order_date >= DATE '2013-07-04' - INTERVAL '30 days');
```