



CTE vs Subquery vs View

A reference guide to these three techniques

Subquery

When To Use

```
SELECT *
FROM customers
WHERE id IN (
  SELECT customer_id
  FROM orders
  GROUP BY customer_id
  HAVING SUM(order_total) > 1000
);
```

For one-off, simple logic

View

```
CREATE VIEW top_customers AS
SELECT customers.id,
       customers.first_name,
       customers.last_name,
       SUM(order_total) AS total_spent
FROM orders
INNER JOIN customers ON
orders.customer_id = customers.id
GROUP BY customers.id,
         customers.first_name,
         customers.last_name
HAVING SUM(order_total) > 1000;
```

For reusing logic across multiple queries

```
SELECT *
FROM top_customers;
```

CTE (Common Table Expression)

```
WITH order_totals AS (
  SELECT customer_id, SUM(order_total) AS total_spent
  FROM orders
  GROUP BY customer_id
)
SELECT c.id, c.first_name, c.last_name, o.total_spent
FROM customers c
JOIN order_totals o ON c.id = o.customer_id
WHERE o.total_spent > 1000;
```

For breaking your query into steps, reusing within a query