1. Basic Subquery:

-- Find employees whose salary is above the average salary of all employees

SELECT first_name, last_name, salary

FROM Employees

WHERE salary > (SELECT AVG(salary) FROM Employees);

2. Subquery in WHERE Clause:

-- Find orders placed by customers in New York

SELECT order_id, order_date, customer_id

FROM Orders

WHERE customer_id IN (SELECT customer_id FROM Customers WHERE city = 'New York');

3. Subquery in SELECT Clause:

-- Find products and their average price

SELECT product_name, price, (SELECT AVG(price) FROM Products) AS avg_price

FROM Products;

4. Subquery with EXISTS:

-- Find customers who have placed orders

SELECT customer_id, first_name, last_name

FROM Customers

WHERE EXISTS (SELECT * FROM Orders WHERE customer_id = Customers.customer_id);

5. Subquery with Aggregates:

-- Find employees whose salary is above the average salary of their department

SELECT first_name, last_name, salary, department_id

FROM Employees e1

WHERE salary > (SELECT AVG(salary) FROM Employees e2 WHERE e1.department_id = e2.department_id);

6. Subquery with Multiple Conditions:

-- Find customers who have placed orders with a total amount greater than $1000

```
SELECT customer_id, first_name, last_name

FROM Customers

WHERE customer_id IN (SELECT customer_id FROM Orders GROUP BY customer_id HAVING SUM(order_amount) > 1000);
```